CHAPTER 5.0
SAFETY ELEMENT: COASTAL AND OTHER HAZARDS (SE)

5.1 INTRODUCTION

General Plan Law Requirements [GP]

The Safety Element is one of seven general plan elements mandated by state law. The scope of the Safety Element is specified in Section 65302 (g) of the California Government Code as follows:

> The general plan shall include a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peak-load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

Safety Element Policies
SE 1: Safety in General
SE 2: Bluff Erosion and Retreat
SE 3: Beach Erosion and Shoreline Hazards
SE 4: Seismic and Seismically Induced Hazards
SE 5: Soil and Slope Stability Hazards
SE 6: Flood Hazards
SE 7: Urban and Wildland Fire Hazards
SE 8: Oil and Gas Industry Hazards
SE 9: Airport-Related Hazards.
SE 10: Hazardous Materials and Facilities
SE 11: Emergency Preparedness

Coastal hazards such as bluff retreat and shoreline erosion are also addressed in this element, as are hazards associated with oil and gas production, processing, and transport.

California Coastal Act Requirements [CP]

The California Coastal Act (Coastal Act) requires new development to be sited and designed to minimize risks, ensure stability and structural integrity, and neither create nor contribute significantly to erosion or require the construction of new shoreline protective devices that would substantially alter natural landforms along coastal bluffs and cliffs. Section 30235 of the Public Resources Code allows the construction of shoreline protective devices where existing development is threatened by erosion and when designed to eliminate or mitigate impacts on shoreline sand supply. The Coastal Act provides that development damaged or destroyed by natural disaster can be rebuilt in the same location and is exempt from the requirements for a coastal development permit under certain circumstances. It also provides standards for oil and gas development in the Coastal Zone. Appropriate oil spill prevention and response measures are required, and a number of policies require adverse environmental impacts to be minimized.

Coastal, Geological, and Other Hazards: 2005 [GP/CP]

Coastal, geological, industrial, and other hazards known to occur within Goleta include the following:

- Coastal hazards such as bluff erosion and retreat, beach erosion, and exposure of pier remnants and other shoreline hazards.

- Seismically induced hazards such as ground shaking, surface rupture, liquefaction, and tsunamis.
- Soil- and slope-related hazards such as expansive soils, compressible and collapsible soils, landslides, and rock-falls.
- Flood hazards.
- Urban and wildland fire hazards.
- Oil and gas production, processing, and transportation hazards, including remnants from previous operations.
- Hazards associated with aircraft operations at the Santa Barbara Municipal Airport.
- Storage, handling, and transportation of hazardous materials.
- Public safety concerns such as crime prevention/reduction.
- Emergency preparedness.

Coastal Hazards

Bluff Erosion and Retreat: Much of Goleta's coastline is characterized by sea cliffs and coastal bluffs, with typical heights of 50 to 70 feet. Sea cliffs are susceptible to periodic failure and erosion when wave action undermines the toe of the cliff. This sea cliff retreat occurs episodically, with a lateral loss of several feet or tens of feet resulting from a single collapse, followed by years of relative stability. Average cliff retreat rates are primarily dependent on oceanographic exposure and cliff composition, with certain types of rocks and sediments more resistant to weathering and erosion than others. Surface drainage and saturated soils also contribute to bluff failure. Shoreline change studies have documented average, long-term rates of sea cliff retreat of 0.45 to 0.62 foot per year for the Ellwood Mesa area (Hoover & Associates 1998), and rates of 0.3 to 1.3 feet per year for the cliffs along Isla Vista to the east of Goleta's coastline (Sylvester 2005). Areas subject to cliff retreat are among the areas depicted as having a high landslide potential on Figure 5-1.

Coastal Bluff at Ellwood Mesa

Beach Erosion and Other Shoreline Hazards: Beaches and shoreline areas are dynamic features that continually adjust to changing oceanography and climatic conditions. Beaches will erode—laterally in the form of shoreline retreat, and vertically by deflation or scour—during high-wave events such as storms and also in response to seasonal changes in wave characteristics. Heavy surf seasons associated with the El Niño storms in 1982 to 1983 and 1997 to 1998 resulted in considerable beach erosion and the complete loss of bluff-fronting dunes, although much of Goleta's coastline has recovered since that time. In general, beaches in southern Santa Barbara County tend to be wider and have higher elevations during the summer, and narrower and lower during the winter.

Beach scour, or vertical beach erosion, can expose previously buried hazards, such as remnants of piers and oil and gas wells. While attempts to remove these structures were made at the time of their demolition or abandonment, removal often consisted of mechanically cutting

pilings and caissons at some level (1 to 3 feet, typically) below the sand level. Removal down to bedrock was rarely achieved, and subsequent beach erosion and scour periodically has exposed these remnants. As these remnants are usually iron or concrete and can be partially or fully submerged, they pose a hazard to beach users, swimmers, and surfers.

Seismic and Seismically Induced Hazards

Ground Shaking: Goleta, like much of California, is in an area prone to earthquakes. In general, the closer an earthquake's epicenter and the larger the magnitude of the event, the higher the likelihood of strong ground shaking. California Building Code requirements set forth the minimum design and construction standards for structures to resist seismic forces. Nevertheless, strong ground shaking can crack the foundation and walls of buildings, damage roads, power lines, pipelines, and other infrastructure, and cause injuries and deaths. Un-reinforced brick masonry structures are particularly susceptible to damage or collapse.

Surface Rupture: A *fault surface rupture* is the displacement or splitting of the ground along the trace of a fault in association with an earthquake. Such a surface rupture could damage buildings, streets, pipelines, or other structures. Surface rupture or displacement along city streets and highways can interfere with traffic flow and present constraints on emergency access. Faults near or within Goleta include the More Ranch Fault, the Glen Annie Fault, and the Carneros Fault (see Figure 5-1). None of these faults are classified as active by the State Division of Mines and Geology or subject to an Alquist-Priolo Special Studies Zone. However, according to the Santa Barbara County Seismic Safety and Safety Element (SSSE), the More Ranch Fault is considered active based on the existence of a geologically recent fault scarp (County of Santa Barbara 1991).

The **Alquist-Priolo Earthquake Fault Zoning Act** was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults.

Liquefaction and Seismic Settlement: *Liquefaction* is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from ground shaking during an earthquake. Seismic settlement is the reduction of volume within a saturated or unsaturated soil mass due to ground shaking during a seismic event. Seismic settlement may occur simultaneously or independent of liquefaction. Either of these events can result in the severe damage to building foundations and in slope failure. The areas most vulnerable to liquefaction and seismic settlement are underlain by younger alluvium where groundwater and granular sediments are both present. These areas include low-lying lands adjacent to rivers, creeks, beaches, and estuaries. The current California Building Code requires that the potential for liquefaction be assessed for the design of all structures.

Tsunami: Tsunamis impinging upon land can reach heights of 50 to 100 feet in some areas of the world, although a wave of this size would not be expected to occur in the Goleta area. Tsunami run-up and the extent of inland flooding depend on the individual triggering event, the orientation of the coast, offshore bathymetry, and onshore topography. In general, low-lying shoreline areas, and areas adjacent to sloughs and coastal streams, are most susceptible to tsunami hazards. Areas subject to potential tsunami run-up are depicted schematically on Figure 5-2. Santa Barbara County's SSSE considers a 10-foot high sea wave as being more probable in the area and recommends that a contour elevation of 40 feet be used in planning as the tsunami risk limit (Goleta Community Plan Final EIR, August 1992).

Soil Stability Hazards

Expansive Soils: Expansive soils have a high shrink/swell potential. Clay minerals in these soils expand when moisture content increases and shrink when moisture content decreases. These volume changes are significant enough to move structures built upon such soils. Shrink/swell potential is site-specific to a degree that a given construction site or building pad may be subject to differential heave and settlement. Hazards related to building on sites characterized by expansive soils are primarily associated with damage to foundations, walls, and buried utilities. Soils deriving from the Rincon and Monterey Formations are associated with high shrink/swell potentials (County of Santa Barbara 1991).

Compressible and Collapsible Soils: Compressible and collapsible soils are those soils subject to settlement and subsidence because of either low soil strength or high and unstable porosity. Subsidence can also occur from excessive extraction of groundwater. Neither compressible soils nor collapsible soils are capable of supporting heavy loads, and damage to structures is possible without the implementation of standard geotechnical practices.

Landslides: Slope-failure hazards such as landslides and rockfalls are generally confined to areas with steep (greater than 25-percent) slopes and unstable soils. Areas within Goleta that may be susceptible to slope failure include coastal bluffs, steep stream banks, railroad and road cuts, and areas north of Cathedral Oaks Road with steep ground slopes (see Figure 5-1). The Rincon geologic formation is susceptible to landslides, but outcrops of this formation are limited to portions of northwestern and northeastern Goleta.

Radon Hazards

Certain geologic formations may contain minerals that produce radon gas. Radon-222 is a naturally occurring, colorless, and odorless gas that is radioactive. Because of its radioactivity, radon levels in excess of 4.0 picocuries per liter are considered hazardous by the U.S. Environmental Protection Agency and require radon reduction measures. Radon gas is associated with the Rincon formation, and areas subject to moderate and high potential for radon gas levels exceeding 4.0 picocuries per liter occur where the Rincon Formation is at or close to the ground surface. These areas are generally located in the portions of the City along and north of Cathedral Oaks Road.

Flood Hazards

Definitions:
A **100-year Flood** is a flood that has a 1-percent chance of being equaled or exceeded in any given year. The 100-year flood is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance.

The **Floodway** is the channel or watercourse, and that portion of the adjacent flood plain required for the passage of the 100-year frequency discharge. The floodway is required to be maintained free of obstructions to allow floodwaters to move downstream.

There are 640 acres (about 1 square mile) within Federal Emergency Management Agency (FEMA)-designated 100-year floodplains within Goleta (see Figure 5-2). This comprises about 12 percent of the entire area of the city. About 168 of these acres, or one quarter of the total, are in the Old Town area east of Fairview Avenue. Flooding is generally confined to the winter months of December to March. Stream flooding is exacerbated by inadequately sized culverts under U.S. Highway 101 (US-101), Hollister Avenue, and the Union Pacific Railroad. A notable area subject to flooding is the floodplain associated with San Jose Creek and San Pedro/Las Vegas Creeks. This area is notable in that

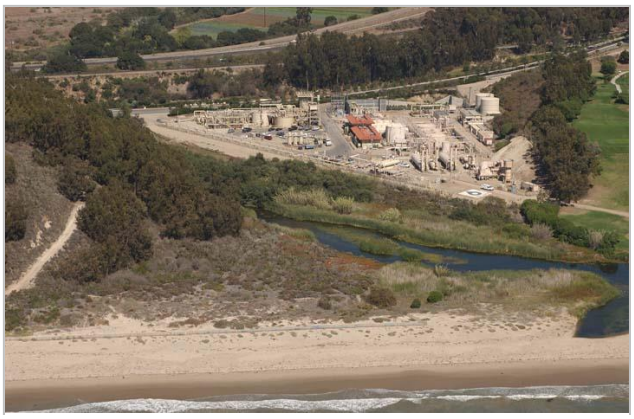
it includes two of the city's three major commercial areas: the Calle Real Center and the Goleta Old Town area.

Urban and Wildland Fire Hazards

Urban fires pose a potential risk to structures in any city. In addition, certain areas within Goleta have been designated as high wildland fire hazard areas, including areas north of Cathedral Oaks Road, portions of the Winchester Commons subdivision, and the Bacara Resort property. Areas susceptible to high-fire hazards generally include lands with steep slopes and ample vegetation, or fuel load. The Santa Barbara County Fire Department provides Goleta with fire suppression and fire prevention services and has established standards for building and development review to minimize fire hazards and provide for adequate fire suppression. Standards for peak-load water supply require that adequate water flow be available for effective fire suppression. The minimum required firewater flow depends on the type of building construction, the proximity of adjacent structures, and presence or absence of fire walls and other fire protection devices. Minimum required firewater flow standards are specified in the Uniform Fire Code, and the Santa Barbara County Fire Department reviews development to ensure compliance.

Oil and Gas Production, Processing, and Transport Hazards

Processing Facilities: One major oil and gas production and processing facility, the Venoco Ellwood Onshore Oil and Gas Processing Facility (EOF), is located within the city's boundaries (Figure 5-3). Owned by Venoco, Inc., the EOF is located on a 4.46-acre parcel near the western end of Goleta. The plant treats crude oil and gas produced from Platform Holly, which is located approximately 2.5 miles offshore. Processes at the EOF include the separation of oil and water, treatment of oil to reduce hydrogen sulfide (H_2S) content, separation and storage of lighter-end hydrocarbons such as liquefied petroleum gas (LPG) and natural gas liquids (NGL), treatment and discharge of produced water, and the conversion of raw, sour (H_2S-rich) gas to sweet (low-H_2S) sales-grade natural gas. Elemental sulfur, a product of the H_2S removal processes, is also produced at the EOF and sold primarily for use in fertilizers.



Venoco Ellwood Onshore Oil and Gas Processing Facility

The potential hazardous effects to land uses located near the EOF would be from toxicity of a catastrophic H_2S release from a major plant upset, fires from different hydrocarbon streams released under different scenarios, and explosions from vapor clouds or boiling liquid expanding vapor. H_2S is a toxic material with the potential to cause human fatalities given sufficient exposure duration and concentration. Less severe hazards include the risk of a trucking accident and subsequent release of hazardous materials from one of the trucks transporting NGL, LPG, or sulfur cake. As a result of a quantitative risk analysis in 2000, Venoco was required to implement—and has completed—a number of risk-reduction measures. Notably among these safety improvements were improved fire suppression measures in the LPG and NGL tank areas and the installation of a H_2S siren that would sound in the event of a

catastrophic release of H_2S. The implementation of these measures has substantially reduced the hazard posed by this facility, but a plant upset is still possible.

Oil and Gas Pipelines: Natural gas pipelines operating outside of industrial facilities and public works facilities are located in most city rights-of-way. Oil pipelines are less common but are also typically located within city rights-of-way. These pipelines are regulated by the U.S. Department of Transportation and the California Public Utilities Commission. In part because of regulatory oversight, oil and gas pipelines within the city are not subject to frequent leaks. However, Third-party damage to pipelines remains a major cause of pipeline leaks, and third-party-caused gas leaks can result in an explosion. Local governments, unless preempted by state or federal law, can establish standards and policies related to development in proximity to gas pipelines.

Airport-Related Hazards

Santa Barbara Municipal Airport
The Santa Barbara Municipal Airport is the busiest commercial service airport on the California coast between San Jose and Los Angeles. It served approximately 853,000 passengers in 2005.

The Santa Barbara Airport (Airport), while part of the City of Santa Barbara, is located near the geographical center of Goleta (see Figure 5-3). Almost the entire City of Goleta is located within the Airport Influence Area (AIA). For Goleta, the hazards associated with Airport operations consist primarily of the risk of aircraft accidents in areas outside of the immediate Airport. The risk of accidents is highest during takeoffs and landings, including approaches and ascents. The Airport Land Use Commission (ALUC), a body within the Santa Barbara County Association of Governments, participates in the regulation of land use within the Airport's AIA. The ALUC's policies and standards for development are contained in the adopted Santa Barbara Airport Land Use Compatibility Plan (2023). Noise issues associated with the Airport are addressed in the Noise Element. *(Amended by Reso. 23-60, 11/07/23)*

Transport and Storage of Hazardous Materials

As defined by the State of California, a *hazardous material* is a substance that is toxic, ignitable or flammable, or reactive and/or corrosive. Hazardous materials may be used in certain manufacturing or industrial operations, in construction, and in other land uses such as gas stations. As a result of the history of industrial and commercial development, several sites within the city have the potential to have been impacted by previous or current releases of contaminated materials. The primary concern associated with the release of a hazardous material is the short- and long-term effects that exposure to a hazardous substance may have on the public.

Hazardous Materials Business Plans
A Hazardous Materials Business Plan (HMBP) is a program that requires a business that handles or stores certain amounts of hazardous materials to prepare a plan, which includes an inventory of hazardous materials stored onsite, an emergency response plan, and an employee-training program.

Hazardous materials are governed by regulations that require proper storage, handling, employee and public noticing, spill contingency planning, business/environmental management plans, and other emergency response measures necessary to ensure public safety and to minimize the risk of accidental releases or environmental impacts. In Goleta, the administering agencies are the Santa Barbara County Fire Prevention Division and the Santa Barbara County Office of Emergency Services.

In addition to the risks associated with land uses, major transportation corridors are also a potential source of accidental releases or environmental incidents that could affect various areas of the city. Transport of hazardous materials in Goleta is most likely to occur along US-101, State Route 217 (SR-217), Hollister Avenue, and the Union Pacific Railroad tracks (see Figure 5-3). The California Highway Patrol and the California Department of Transportation enforce federal and state regulations and respond to incidents associated with transport of hazardous materials.

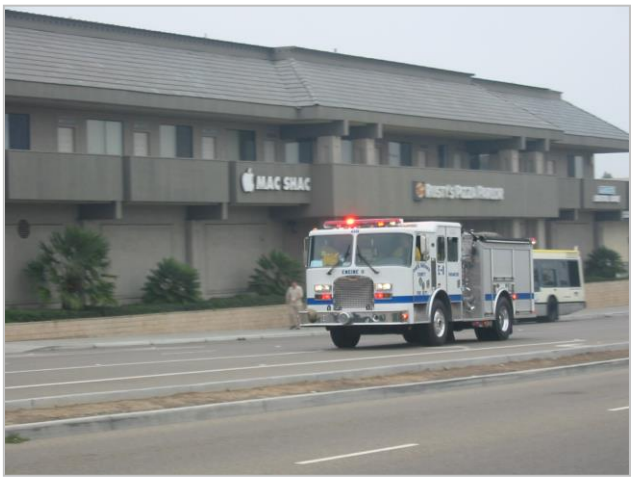
Public Safety Concerns

Goleta is a suburban community where the primary policing challenges are theft-related crimes and traffic enforcement. As of 2005, the City of Goleta Police Department had a staff of 34 deputies, including a full-time patrol contingent that responds to calls for service and engages in active enforcement and crime prevention. Four deputies were assigned to dedicated traffic unit that provides in-depth traffic enforcement and accident investigation. A school resource deputy and gang enforcement deputy provide additional education and enforcement services to the community. (Refer to the Public Facilities Element for additional information.)

Safe and secure streets are essential to the community's well being. The proper design and effective use of the built environment can lead to a reduction in safety fears and a lessening of crime. Appropriate decisions on the layout of development and components such as street orientation, the placement of buildings, and clearly defined and visible public spaces can create a safer environment.

Emergency Preparedness

Effective emergency preparedness is necessary to avoid or minimize the loss of life and property as a result of natural and other disasters, to reduce the social, cultural, environmental, and economic costs of disasters, and to assist the rapid recovery from disasters. The effectiveness of a community's emergency preparedness and response can affect the severity of consequences of any given disaster event. The City—in cooperation with FEMA, the County, and State Offices of Emergency Services—is responsible for emergency preparedness and response. Components of emergency preparedness and response include identification of evacuation routes and secondary emergency accesses, as well as provision of information to the community regarding appropriate individual actions in the event of various types of emergencies.



Fire Department Responding to an Emergency

5.2 GUIDING PRINCIPLES AND GOALS [GP/CP]

The quality of life in Goleta is directly affected by a sense of security and safety for its residents and businesses. In order to promote the creation of a safe environment, the General Plan addresses hazards to public safety that may be found in the city's natural and built environment.

The following principles or goals, which are not in order of priority, provide the foundation for the detailed policies in subsequent sections of this element; all policies have been established to be in conformity with the guiding principles and goals. Future actions of the City following adoption of the plan are required to be consistent.

1. Ensure that new development is sized, sited, and designed to avoid or minimize exposure to known physical or other hazards and that appropriate mitigations are included to reduce or avoid risks to people and property.
2. Ensure that new critical facilities (hospitals, schools, communication centers, fire and police facilities, power plants, etc.) are located and designed to continue functioning after potential earthquakes or other disasters.
3. Minimize exposure to hazardous materials for all residential development through consideration of appropriate locations for new residential development as well as potential impacts of new or expanded industrial uses.
4. Increase awareness of residents and workers of coastal, geological, industrial, and other hazards, as well as appropriate hazard avoidance measures and emergency preparedness.
5. Give priority to hazard avoidance over hazard mitigation, particularly with respect to coastal safety hazards, in order to minimize disturbance to environmentally sensitive habitat areas.
6. Maintain a natural Pacific shoreline, allow coastal armoring only in very limited circumstances, and maintain natural mechanisms for distribution of shoreline sand supply.
7. Strictly enforce California Building Code compliance to protect building owners and occupants and minimize risk of structural damage and economic disruption.
8. Minimize risks posed by oil and gas production, processing, and storage by supporting cessation or relocation of hazardous components of this industry and by careful monitoring of safety measures and practices.
9. Work cooperatively with federal, state, and county agencies to maintain a high level of emergency preparedness and provide effective and efficient emergency response and prevention measures.

5.3 COASTAL ACT POLICIES [CP]

The Coastal Act policies set forth below are adopted as policies of this plan for those areas of Goleta within the California Coastal Zone. The numbers refer to sections of the California Public Resources Code. The Safety Element maps show the location of the California Coastal Zone boundary.

30232 Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

30233 (d) Erosion control and flood control facilities constructed on watercourses can impede of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the removed from these facilities may be placed at appropriate points on the shoreline in accordance applicable provisions of this division, where feasible mitigation measures have been provided adverse

environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity placement area.

30235 Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

30236 Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

30250 (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

30253 New development shall: (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

30262 (a) Oil and gas development shall be permitted in accordance with Section 30260, if the following conditions are met:

(1) The development is performed safely and consistent with the geologic conditions of the well site.

(2) New or expanded facilities related to that development are consolidated, to the maximum extent feasible and legally permissible, unless consolidation will have adverse environmental consequences and will not significantly reduce the number of producing wells, support facilities, or sites required to produce the reservoir economically and with minimal environmental impacts.

(3) Environmentally safe and feasible subsea completions are used when drilling platforms or islands would substantially degrade coastal visual qualities unless use of those structures will result in substantially less environmental risks.

(4) Platforms or islands will not be sited where a substantial hazard to vessel traffic might result from the facility or related operations, determined in consultation with the United States Coast Guard and the Army Corps of Engineers.

(5) The development will not cause or contribute to subsidence hazards unless it is determined that adequate measures will be undertaken to prevent damage from such subsidence.

(6) With respect to new facilities, all oilfield brines are reinjected into oil-producing zones unless the Division of Oil and Gas of the Department of Conservation determines to do so would adversely affect production of the reservoirs and unless injection into other subsurface zones will reduce environmental risks. Exceptions to reinjections will be granted consistent with the Ocean Waters Discharge Plan of the State Water Resources Control Board and where adequate provision is made for the elimination of petroleum odors and water quality problems.

(7) (A) All oil produced offshore California shall be transported onshore by pipeline only. The pipelines used to transport this oil shall utilize the best achievable technology to ensure maximum protection of public health and safety and of the integrity and productivity of terrestrial and marine ecosystems.

(B) Once oil produced offshore California is onshore, it shall be transported to processing and refining facilities by pipeline.

(C) The following guidelines shall be used when applying subparagraphs (A) and (B):

(i) "Best achievable technology," means the technology that provides the greatest degree of protection taking into consideration both of the following:

(I) Processes that are being developed, or could feasibly be developed, anywhere in the world, given overall reasonable expenditures on research and development.

(II) Processes that are currently in use anywhere in the world. This clause is not intended to create any conflicting or duplicative regulation of pipelines, including those governing the transportation of oil produced from onshore reserves.

(ii) "Oil" refers to crude oil before it is refined into products, including gasoline, bunker fuel, lubricants, and asphalt. Crude oil that is upgraded in quality through residue reduction or other means shall be transported as provided in subparagraphs (A) and (B).

(iii) Subparagraphs (A) and (B) shall apply only to new or expanded oil extraction operations. "New extraction operations" means production of offshore oil from leases that did not exist or had never produced oil, as of January 1, 2003, or from platforms, drilling island, subsea completions, or onshore drilling sites, that did not exist as of January 1, 2003. "Expanded oil extraction" means an increase in the geographic extent of existing leases or units, including lease boundary adjustments, or an increase in the number of well heads, on or after January 1, 2003.

(iv) For new or expanded oil extraction operations subject to clause (iii), if the crude oil is so highly viscous that pipelining is determined to be an infeasible mode of transportation, or where there is no feasible access

to a pipeline, shipment of crude oil may be permitted over land by other modes of transportation, including trains or trucks, which meet all applicable rules and regulations, excluding any waterborne mode of transport.

(8) If a state of emergency is declared by the Governor for an emergency that disrupts the transportation of oil by pipeline, oil may be transported by a waterborne vessel, if authorized by permit, in the same manner as required by emergency permits that are issued pursuant to Section 30624.

(9) In addition to all other measures that will maximize the protection of marine habitat and environmental quality, when an offshore well is abandoned, the best achievable technology shall be used.

b) Where appropriate, monitoring programs to record land surface and near-shore ocean floor movements shall be initiated in locations of new large-scale fluid extraction on land or near shore before operations begin and shall continue until surface conditions have stabilized. Costs of monitoring and mitigation programs shall be borne by liquid and gas extraction operators.

c) Nothing in this section shall affect the activities of any state agency that is responsible for regulating the extraction, production, or transport of oil and gas.

30263 (a) New or expanded refineries or petrochemical facilities not otherwise consistent with the provisions of this division shall be permitted if (1) alternative locations are not feasible or are more environmentally damaging; (2) adverse environmental effects are mitigated to the maximum extent feasible; (3) it is found that not permitting such development would adversely affect the public welfare; (4) the facility is not located in a highly scenic or seismically hazardous area, on any of the Channel Islands, or within or contiguous to environmentally sensitive areas; and (5) the facility is sited so as to provide a sufficient buffer area to minimize adverse impacts on surrounding property.

(b) New or expanded refineries or petrochemical facilities shall minimize the need for once-through cooling by using air cooling to the maximum extent feasible and by using treated waste waters from inplant processes where feasible.

30265 The Legislature finds and declares all of the following:

(a) Offshore oil production will increase dramatically in the next 10 years from the current 80,000 barrels per day to over 400,000 barrels per day.

(b) Transportation studies have concluded that pipeline transport of oil is generally both economically feasible and environmentally preferable to other forms of crude oil transport.

(c) Oil companies have proposed to build a pipeline to transport offshore crude oil from central California to southern California refineries, and to transport offshore oil to out-of-state refiners.

(d) California refineries would ` need to be retrofitted if California offshore crude oil were to be used directly as a major feedstock. Refinery modifications may delay achievement of air quality goals in the southern California air basin and other regions of the state.

(e) The County of Santa Barbara has issued an Oil Transportation Plan which assesses the environmental and economic differences among various methods for transporting crude oil from offshore California to refineries.

(f) The Governor should help coordinate decisions concerning the transport and refining of offshore oil in a manner which considers state and local studies undertaken to date, which fully addresses the concerns of all affected regions, and which promotes the greatest benefits to the people of the state.

5.4 CITY POLICIES

Policy SE 1: Safety in General [GP/CP]

Objective: *To avoid siting of development or land use activities in hazardous areas, and where this is infeasible, require appropriate mitigation to lessen or minimize exposure to hazards.*

SE 1.1 **Maintenance of Maps and Resources on Hazards. [GP/CP]** The City shall maintain and make available to the public maps and resources provided by other agencies that depict or describe areas of known safety hazards, including seismic and seismically induced hazards, coastal hazards, soil- and slope-related hazards, radon hazards, flooding hazards, industrial hazards, and fire hazards. The City shall periodically update such maps and resources, as new or refined information becomes available.

SE 1.2 **Guidelines for Siting Highly Sensitive Uses and Critical Facilities. [GP/CP]** In accord with the Land Use Element, the City shall discourage essential services buildings and other highly sensitive uses in areas subject to safety hazards. Highly sensitive uses are defined as those that meet one more of the following criteria:

a. Land uses whose onsite population cannot be readily evacuated or otherwise adequately protected from serious harm through methods such as sheltering in-place. This includes, but is not limited to, schools, hospitals, clinics, nursing homes, multiple-family housing exclusively for the elderly or disabled, high-density residential, stadiums, arenas, and other uses with large public-assembly facilities.

b. Land uses that serve critical “lifeline” functions such as water supplies, fire response, and police response if exposed to a significant risk that will curtail their lifeline functions for a critical period of time.

SE 1.3 **Site-Specific Hazards Studies. [GP/CP]** Applications for new development shall consider exposure of the new development to coastal and other hazards. Where appropriate, an application for new development shall include a geologic/soils/geotechnical study and any other studies that identify geologic hazards affecting the proposed project site and any necessary mitigation measures. The study report shall contain a statement certifying that the project site is suitable for the proposed development and that the development will be safe from geologic hazards. The report shall be prepared and signed by a licensed certified engineering geologist or geotechnical engineer and shall be subject to review and acceptance by the City.

SE 1.4 **Deed Restriction in Hazardous Areas. [GP/CP]** As a condition of development on property subject to the hazards addressed in this Safety Element, the property owner shall be required to execute and record a deed restriction that acknowledges and

assumes responsibility for the risks; waives any future claims of damage or liability against the City; and agrees to indemnify and hold harmless the City against any and all liability, claims, damages, and/or expenses arising from any injury to any person or damage to property due to such hazards.

SE 1.5 **Subdivision of New Lots in Hazard Areas. [GP/CP]** Land divisions, including lot line adjustments, shall be prohibited in areas subject to geologic, seismic, flooding, and other hazards unless it is demonstrated by the subdivider that all lots in the new subdivision will have sufficient buildable land area that is situated outside the hazardous portions of the property.

SE 1.6 **Enforcement of Building Codes. [GP]** The City shall ensure through effective enforcement measures that all new construction in the city is built according to the adopted building and fire codes.

SE 1.7 **Abatement of Public Safety Hazards. [GP]** Where feasible, the City shall aggressively abate public safety hazards that may be discovered in the city.

SE 1.8 **Reduction of Non-Conforming or Substandard Structural Conditions. [GP]** The City shall implement programs to identify existing structures not conforming to earthquake or fire standards, and encourage conformance with acceptable levels of risk through programs such as structural rehabilitation, occupancy reduction, and demolition and reconstruction.

SE 1.9 **Reduction of Radon Hazards. [GP]** The City shall require the consideration of radon hazards for all new construction and require testing of radon levels for construction of homes and buildings located in areas subject to moderate or high potential for radon gas levels exceeding 4.0 picocuries as shown on maps produced by the California Division of Mines and Geology. The City shall require new homes to use radon-resistant construction where needed based on U.S. Environmental Protection Agency guidelines.

Policy SE 2: Bluff Erosion and Retreat [GP/CP]

Objective: *To ensure safe siting of bluff-top buildings and other development and to avoid the need for shoreline erosion-control structures.*

SE 2.1 **Coastal Bluff Setbacks for Buildings. [GP/CP]** All new permanent buildings shall be set back at least 130 feet from the top of the bluff. The 130-foot setback consists of the sum of a) 100 times a conservative average rate of bluff retreat of 1.0 feet per year, and b) a 30-foot additional safety buffer. A lesser setback may be considered provided that a site-specific geological or geotechnical engineering study demonstrates that the average annual bluff

Bacara Resort Bluff Setback

retreat rate is less than 1.0 feet per year and that the proposed setback meets the 100-year bluff-retreat rate, plus 30 feet, standard. Repair and maintenance of existing bluff structures that encroach into the required setback are allowed. Minor additions (less than 10 percent of the existing building's floor area) to existing bluff-top structures within the bluff setback may be allowed, provided that the addition does not encroach further into the setback than the existing structure. *(Amended by Reso. 08-30, 6/17/08)*

SE 2.2 Coastal Bluff Setbacks for Other Structures. [GP/CP] Structures other than buildings may be permitted within the 130-foot bluff setback area, but in no case shall any new structure be located less than 30 feet from the top of the coastal bluff. All such structures should be moveable or replaceable such that coastal armoring or coastal bluff retaining walls are not permitted should these structures be threatened by bluff retreat. This setback prohibition does not apply to minor structures associated with passive recreational uses such as signs and benches. *(Amended by Reso. 08-30, 6/17/08)*

SE 2.3 Prohibition of Shoreline Armoring for Bluff-Top Development. [GP/CP] The installation of coastal armoring to protect bluff-top development constructed after the effective date of Public Resources Code Section 30235 shall be prohibited. Such prohibited armoring includes but is not limited to seawalls, revetments, and riprap. Should existing bluff-top buildings be threatened by coastal bluff retreat, threatened structures shall be relocated or removed.

SE 2.4 Building Setbacks along Non-Bluff Coastlines. [GP/CP] Appropriate setbacks shall be required for shoreline segments that lack coastal bluffs. For all structures proposed within 500 feet of the mean high tide line in areas that lack coastal bluffs, a site-specific shoreline erosion rate and shoreline hazards study shall be required. Such a study must demonstrate that the proposed structure would not be expected to be subject to shoreline erosion or other hazards for the structure's lifetime or for 50 years, whichever is greater.

SE 2.5 Prohibition on Armoring for Non-Bluff Coastlines. [GP/CP] The installation of coastal armoring along nonbluff segments of the coastline to protect shoreline development constructed after the effective date of Public Resources Code Section 30235 shall be prohibited. Such prohibited armoring includes but is not limited to seawalls, revetments, and riprap. Should shoreline structures constructed after adoption of these policies be threatened by coastal bluff retreat, threatened structures shall be relocated or removed.

SE 2.6 Prohibition of Structures on Bluff Faces. [GP/CP] No permanent structures shall be permitted on a bluff face, except for engineered public beach accessways. Such structures shall be designed and constructed to prevent any further erosion of the bluff face and to be visually compatible with the surrounding area.

SE 2.7 Deed Restriction Regarding Coastal Hazards. [GP/CP] As a condition of approval of development on a beach or shoreline that is subject to wave action, erosion, flooding, landslides, or other hazards, the property owner shall be required to execute and record a deed restriction that acknowledges and assumes responsibility associated with such risks; waives any future claims of damage or liability against the City or other permitting agency; and agrees to indemnify and hold harmless the City

against any and all liability, claims, damages, or expenses arising from any injury or damage due to such hazards.

Policy SE 3: Beach Erosion and Shoreline Hazards [GP/CP]

Objective: *To minimize or eliminate the need for shoreline protection structures while siting development safely, maintaining shoreline sand supply, and providing safe lateral and vertical shoreline access.*

SE 3.1 **Permanent Structures. [GP/CP]** New permanent structures shall be prohibited seaward of the top of the coastal bluff. The exceptions to this prohibition include: 1) wooden stairs and other lightly constructed structures that provide public beach access, and 2) improvements necessary to provide access to the beach for emergency responders, if such access is appropriate and no other methods of access are feasible.

SE 3.2 **Coastal Engineering Report. [GP/CP]** Where appropriate, applications for new development on a beach, dune, or bluff-top property shall include a wave uprush and impact report and analysis prepared by a licensed civil engineer with expertise in coastal engineering that addresses and demonstrates the effects of the proposed development in relation to the following:

a. The profile of the beach.

b. Surveyed locations of mean high tide lines acceptable to the State Lands Commission.

c. The availability of public access to and along the beach.

d. The area of the site subject to wave uprush.

e. Foundation design requirements.

f. The potential need for a shoreline protection structure over the life of the project.

g. The long-term effects of the proposed development on shoreline sand supply.

h. Future projections of rise in sea levels.

i. Project alternatives designed to avoid or lessen impacts and/or exposure to shoreline hazards.

SE 3.3 **Temporary Structures. [GP/CP]** Temporary structures seaward of the top of the coastal bluff shall be allowed subject to approval of an appropriate discretionary permit. The findings for approval of such a permit shall include the requirement that the temporary structure not substantially interfere with lateral or vertical beach access or adversely impact coastal processes. *Temporary structures* are defined as structures that will be retained no longer than 3 years. Standards for review of temporary structures and the appropriate permit process shall be included in the City's new zoning code.

SE 3.4 **Installation of New Coastal Armoring. [GP/CP]** Pursuant to Public Resources Code Section 30235, revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall only be permitted when required to serve coastal-dependent uses or

to protect structures existing as of the effective date of Public Resources Code Section 30235 or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. In particular, the goals of mitigation shall include, but not be limited to, maintaining beach widths fronting and adjacent to coastal armoring structures and maintaining safe lateral beach access.

SE 3.5 Permitted Coastal Armoring for Publicly Owned Beaches and Vertical Beach Accesses. [GP/CP] Coastal armoring may be allowed to protect and maintain safe public vertical beach accessways. Coastal armoring may also be allowed as a component of a beach restoration project for a publicly owned beach. Coastal armoring designed to provide for safe vertical beach access should be limited in size and scope to the minimum amount necessary and be placed as far landward as possible to minimize impacts to beach processes and maximize the provision of safe lateral beach access. Similar standards for limiting armoring to the least amount necessary apply to armoring associated with public-beach restoration projects.

SE 3.6 Repair and Maintenance of Coastal Armoring. [GP/CP] Repair and maintenance of existing or legally permitted coastal armoring may be permitted only if the repair and maintenance activities do not result in an enlargement or extension of armoring, and where an engineering or geological study demonstrates that in the absence of such repair and maintenance, the structure protected by the armoring would be subject to damage from identified coastal hazards. “Existing” as used in this policy shall mean existing as of the effective date of Public Resources Code Section 30235. Repair and maintenance activities shall not result in a seaward encroachment of the coastal armoring.

SE 3.7 Standards for Coastal Armoring and Requirements for Applications. [GP/CP] Any proposal for installation or repair and maintenance of coastal armoring submitted pursuant to Subpolicies SE 3.4, SE 3.5, or SE 3.6 shall include an engineering or geological study that demonstrates that in the absence of the proposed project, the structure to be protected by the armoring would be subject to damage by identified coastal hazards. Such a proposal shall also include an analysis of all feasible alternatives to coastal armoring. The alternatives analysis shall include but not be limited to the relocation of the threatened structure or development as well as the removal of portions of the threatened structure or development. The alternatives analysis should demonstrate that the proposed armoring is the least environmentally damaging alternative and that the armoring has been designed to eliminate or mitigate adverse impacts on local shoreline sand supply. All armoring structures shall be designed to be visually compatible with the adjacent shoreline segment.

Remnants of Seawall at the Base of the Ellwood Mesa Bluffs

SE 3.8 Removal of Derelict Coastal Armoring Structures. [GP/CP] The City shall support the removal of derelict coastal armoring structures. *Derelict coastal armoring* is defined as armoring

that was constructed to protect any structure that has been demolished or removed or armoring that has fallen into disrepair, or presents a nuisance or safety hazard. Portions of the steel-reinforced wooden seawall along the eastern frontage of the Sandpiper Golf Course (east of the shoreline oil piers of State Lease 421) should be removed as such portions are exposed seaward of the toe of the bluff. The placement of additional backfill to shore up this structure shall be prohibited, and natural shoreline processes shall be allowed to resume. This requirement does not apply to the rock revetment that protects the access road to the State Lease 421 piers, unless and until these wells are properly abandoned and the pier structures are removed.

SE 3.9 **Removal of Beach Hazards. [GP/CP]** The City supports existing and new efforts to identify and properly remove remnant piers, bulkheads, derelict oil well materials, and other beach hazards. The City encourages implementation of the State Lands Commission's Beach Hazards Removal Project, which was approved by the State Lands Commission in May 2002, but not implemented due to state budget limitations.

SE 3.10 **Complete and Prompt Abandonment of Shoreline Structures. [GP/CP]** Upon decommissioning of the two shoreline oil wells (State Lease 421 wells), the complete demolition and removal of all associated structures shall be required. The timeframe for complete demolition shall be within 3 years of the ceasing of production operations in accordance with LU 10.4. Associated structures include but are not limited to the caisson walls, the piers, the revetment, and any inactive pipelines within 100 feet of the top of the revetment. Abandonment in place for inactive pipelines associated with State Lease 421 production shall not be permitted, as subsequent coastal erosion could expose these structures. Pier supports and pilings shall be cut below the surface as far as possible, and ideally down to bedrock to prevent subsequent exposure by winter beach scour.

Piers Associated with Oil Production along the Shoreline Adjacent to the Sandpiper Golf Course

Policy SE 4: Seismic and Seismically Induced Hazards [GP/CP]

Objective: *To minimize the potential for loss of life and property and economic and social disruption resulting from seismic events and seismically induced hazards.*

SE 4.1 **Information on Faults and Geologic Hazards. [GP/CP]** The City will maintain up-to-date information on faults and geologic hazards in and offshore of Goleta as provided in source documents from the California Division of Mines and Geology, the U.S. Geological Survey, and other agencies. As new information from geologic

studies becomes available, the City shall incorporate this information into its maps and resources pertaining to seismic hazards.

SE 4.2 Potentially Active Faults. [GP/CP] Potentially active faults shall be subject to the same requirements as active faults unless and until geological or geotechnical studies demonstrate that a given potentially active fault is not active.

SE 4.3 Geotechnical and Geologic Studies Required. [GP/CP] Where appropriate, the City shall require applications for planning entitlements for new or expanded development to address potential geologic and seismic hazards through the preparation of geotechnical and geologic reports for City review and acceptance.

SE 4.4 Setback from Faults. [GP/CP] New development shall not be located closer than 50 feet to any active or potentially active fault line to reduce potential damage from surface rupture. Nonstructural development may be allowed in such areas, depending on how such nonstructural development would withstand or respond to fault rupture or other seismic damage.

SE 4.5 Adoption of Updated California Building Code Requirements. [GP] The City shall review, amend, and adopt new California Building Code requirements, when necessary, to promote the use of updated construction standards. The City shall consider and may adopt new optional state revisions for Seismic Hazards.

SE 4.6 Identification of Un-reinforced Buildings. [GP] The City will identify un-reinforced brick and masonry buildings and require reinforcement through applicable building design standards. The City shall maintain and periodically update the list of un-reinforced masonry buildings.

SE 4.7 Seismic Retrofit Program. [GP] The City shall work with state and federal agencies to seek funding for and implement a seismic retrofit program for un-reinforced brick and masonry buildings.

SE 4.8 Seismic Standards for Critical Facilities. [GP] New critical facilities (hospitals, schools, communication centers, fire and police facilities, power plants, etc.) shall be designed and built in conformance with all California Building Code Requirements. Existing critical facilities within Goleta should be evaluated by a qualified structural engineer to assess the facilities' earthquake resistance. If any such facility is found to be deficient, appropriate structural retrofits or other mitigation measures should be identified and required.

SE 4.9 Safety Measures for Utilities. [GP] For certain utilities, such as gas, oil, sewer, and water pipelines, that are not or cannot be routed to avoid crossing faults, appropriate safety measures (valve shutoffs, leak detection, etc.) shall be required to minimize earthquake-related impacts and promote rapid post-event repair and cleanup.

SE 4.10 Avoidance of Liquefaction Hazard Areas for Critical Facilities. [GP/CP] The City shall discourage the construction of critical facilities in areas of potential liquefaction. In cases where construction of such facilities cannot avoid liquefaction-hazard areas, the City shall require implementation of appropriate mitigation as recommended in site-specific geotechnical and soils studies.

SE 4.11 Geotechnical Report Required. [GP/CP] The City shall require geotechnical and/or geologic reports as part of the application for construction of habitable structures and essential services buildings (as defined by the building code) sited in areas having a medium-to-high potential for liquefaction and seismic settlement. The geotechnical study shall evaluate the potential for liquefaction and/or seismic-related settlement to impact the development, and identify appropriate structural-design parameters to mitigate potential hazards.

SE 4.12 Safety Measures for Tsunami Hazard Areas. [GP/CP] The following shall apply in tsunami hazard areas:

a. New developments shall include design features or other measures that provide for safe harbor on site.

b. Existing critical facilities within the tsunami hazard area should be reviewed by the City Building Official, or designee, in conjunction with the appropriate state agency, to ensure that adequate areas for safe harbor are available on site and/or that other measures or features exist to minimize risk of injuries and deaths in the event of a tsunami.

c. The City, in cooperation with the County and/or State Offices of Emergency Services, encourages development of an emergency notification and evacuation plan in response to a tsunami warning. The City shall cooperate with these agencies to develop educational materials informing people of the causes of tsunamis, tsunami characteristics and warning signs (such as a locally felt earthquake or unusually recession of near-shore waters), and appropriate tsunami-response measures. These educational materials shall be made available to residents of and visitors to Goleta.

Policy SE 5: Soil and Slope Stability Hazards [GP/CP]

Objectives: *To promote safely sized, sited, and designed development in erosion-prone hazard areas. To reduce the potential loss of both public and private property in areas subject to steep slopes and erosion hazards.*

SE 5.1 Evaluation of Slope-Related Hazards. [GP/CP] The City shall require geotechnical/geological, soil, and structural engineering studies for all development proposed in areas of known high and moderate landslide potential or on slopes equaling or exceeding 25 percent. The studies shall evaluate the potential for landslides, rockfalls, creep, and other mass movement processes that could impact the development; they shall also identify mitigation to reduce these potential impacts, if needed. The studies shall be included as part of an application for development.

SE 5.2 Evaluation of Soil-Related Hazards. [GP/CP] The City shall require structural evaluation reports with appropriate mitigation measures to be provided for all new subdivisions, and for discretionary projects proposing new nonresidential buildings or substantial additions. Depending on the conclusions of the structural evaluation report, soil and geological reports may also be required. Such studies shall evaluate the potential for soil expansion, compression, and collapse to impact the development; they shall also identify mitigation to reduce these potential impacts, if needed.

SE 5.3 Avoidance of Landslide Hazards for Critical Facilities. [GP/CP] The City shall prohibit the construction of critical facilities (hospitals, schools, communication centers, fire and police facilities, power plants, etc.) in areas of high landslide potential. The City shall discourage the construction of critical facilities in areas of moderate landslide potential. In cases where construction of such facilities cannot avoid moderate landslide hazard areas, the City shall require implementation of appropriate mitigation as recommended in site-specific geotechnical and soils studies.

SE 5.4 Avoidance of Soil-Related Hazards. [GP/CP] For the proposed development of any critical facilities in areas subject to soil-related hazards, as well as for noncritical facilities in areas subject to soil-related hazards, the City shall require site-specific geotechnical, soil, and/or structural engineering studies to assess the degree of hazard on the proposed site and recommend any appropriate site design modifications or considerations as well as any other mitigation measures. The City shall not approve development in areas subject to soil-related hazards, unless mitigation measures are identified and committed to that would reduce hazards to an acceptable level.

SE 5.5 Minimization of Grading in Hazardous Areas. [GP/CP] All construction proposed for areas with steep (equal to or greater than 25 percent) slopes or subject to soil- and slope-related hazards shall minimize the area to be graded and shall also minimize the area of vegetation removal or disturbance.

SE 5.6 Streambed Stabilization Projects. [GP/CP] In stream areas susceptible to slope failure, the City shall pursue and implement streambed stabilization projects. For these projects, stabilization by restoration with native plantings and natural-looking, "soft" stabilization methods shall be preferred over concrete channelization, gabions, riprap, and other "hard" stabilization methods.

Policy SE 6: Flood Hazards [GP/CP]

Objective: *To minimize damage to structures and the danger to life caused by stream flooding, dam failure inundation, and other flooding hazards.*

SE 6.1 Map of Flood Hazard Areas. [GP/CP] The City shall use the most recent edition of the federal Flood Insurance Rate Maps (FIRM maps) in evaluating applications for new or expanded development on properties subject to flood hazards. All applications for new or expanded development shall be required to show, where applicable, the floodway, 100-year floodplain, and the 500-year floodplain on the site plan showing the proposed development. The map in Figure 5-2 is a facsimile rather than the official flood hazard map and is intended only to be illustrative of possible flood hazard areas.

SE 6.2 Areas Subject to Local Urban Flooding. [GP] In addition to flood hazard areas shown on the FIRM maps, the City may require applications for new or expanded development in areas with known persistent local urban flooding to include measures that lessen the urban flooding hazard and/or that mitigate its effects on the proposed development. This requirement shall apply to flooding on any street or roadway that provides access to the proposed development.

SE 6.3 Floodplain Management Ordinance. [GP] The City shall maintain and strictly enforce the policies, regulations, and standards within a Floodplain Management Ordinance.

SE 6.4 Avoidance of Flood Hazard Areas. [GP/CP] The City shall discourage any new intensive development in any flood hazard area. Similarly, the City shall require appropriate flood mitigation for intensification of existing development in any flood-prone area. The City shall not approve development within areas designated as the 100-year floodplain that would obstruct flood flow (such as construction in the designated floodway), displace floodwaters onto other property, or be subject to flood damage. The City shall not allow development that will create or worsen drainage problems.

SE 6.5 Siting of Critical Facilities. [GP] The City shall discourage the construction of critical facilities within the 100-year floodplain. In cases where construction of such facilities cannot avoid flood hazard areas, the City shall require implementation of appropriate mitigation as recommended in site-specific hydrology/hydraulic and/or engineering studies.

SE 6.6 Enforcement of Watercourse Setback Ordinance. [GP/CP] A minimum 50-foot setback shall be required from streambanks and flood control channels for all new development (see related CE 2.2). For projects that would be rendered infeasible by the application of such minimum setbacks, the project applicant shall provide a site-specific engineering study with recommended mitigation measures to allow for a reduced setback that would not expose development to unacceptable risk. Furthermore, in these cases, the City shall consult with the Santa Barbara County Flood Control District to determine whether the proposed lesser setback would be appropriate, in that it would allow access for flood control maintenance and enable proper operation of the channels. The City shall maintain and enforce the policies and standards within a Water Course Setback Ordinance.

Riparian Corridor along Glen Annie Creek

SE 6.7 Evaluation of Potential Inundation Hazard. [GP/CP] When reviewing proposals for development of water reservoirs, large retention basins, or drainage channels, the City shall require an evaluation of potential inundation areas and require design to withstand potential seismic activity.

SE 6.8 Flood Control Projects. [GP/CP] The City shall seek funding for and implement capital improvement projects to mitigate hazards for low-lying flood-prone areas. The City shall require restoration of natural processes in drainage ways where appropriate and feasible. For these flood control projects, methods that employ native plantings and natural-looking, “soft” stabilization shall be preferred over

methods that rely solely on concrete channelization and other "hard" stabilization methods.

SE 6.9 Restoration of Armored or Channelized Stream Beds. [GP/CP] The City shall pursue opportunities to eliminate or soften existing concrete channels and/or rock- or concrete-stabilized banks from streams. (See CE 2.5.)

Policy SE 7: Urban and Wildland Fire Hazards [GP/CP]

Objective: *To reduce the threat to life, structures, and the environment caused by urban and wildland fires.*

SE 7.1 Fire Prevention and Response Measures for New Development. [GP/CP] New development and redevelopment projects shall be designed and constructed in accordance with National Fire Protection Association standards to minimize fire hazards, with special attention given to fuel management and improved access in areas with higher fire risk, with access or water supply deficiencies, or beyond a 5-minute response time.

SE 7.2 Review of New Development. [GP/CP] Applications for new or expanded development shall be reviewed by appropriate Santa Barbara County Fire Department personnel to ensure they are designed in a manner that reduces the risk of loss due to fire. Such review shall include consideration of the adequacy of "defensible space" around structures at risk; access for fire suppression equipment, water supplies, construction standards; and vegetation clearance. Secondary access may be required and shall be considered on a case-by-case basis. The City shall encourage built-in fire suppression systems such as sprinklers, particularly in high-risk or high-value areas.

Fire Department Engine Responding to a Wildfire

Source: Santa Barbara County Fire Department 2003

SE 7.3 Identification of Fire Hazard Areas. [GP/CP] The Santa Barbara County Fire Department should identify high-value and high-risk areas, including urban/wildlife interface areas, and develop mitigation efforts to reduce the threat of fire.

SE 7.4 Fuel Modification Plans. [GP/CP] Applications for new development that require fuel modification shall include a Fuel Modification Plan for the project. This plan shall be prepared by a landscape architect or resource specialist and shall include measures to minimize removal of native vegetation, minimize disturbance to environmentally sensitive habitat areas (ESHAs), and incorporate fire-retardant vegetation in new plantings. Such plans shall be reviewed and approved by the Santa Barbara County Fire Department.

SE 7.5 Automatic Fire Sprinkler Systems. [GP] The City shall require the installation of automatic fire sprinklers for: a) all new buildings that have a total floor area of 5,000

square feet or more and b) any existing building proposed for remodeling or an addition, which, upon completion of the remodel or addition, will have a total floor area of 5,000 square feet or more. The 5,000-square-foot threshold cited in criteria a) and b), above, shall be reduced to 1,000 square feet for any building zoned or used for commercial or industrial purposes if such building is within 100 feet of any residentially zoned parcel.

SE 7.6 Standards for Rebuilding in High Fire Hazard Areas. [GP] Any rebuilding in high fire hazard areas shall incorporate development standards and precautions that reduce the chance of structure losses from fire.

Policy SE 8: Oil and Gas Industry Hazards [GP/CP]

Objective: *To minimize the risk of potential short- and long-term hazards associated with the operation of the Venoco Ellwood facilities and other oil and gas extraction, processing, and transportation facilities.*

SE 8.1 Nonconforming Status of EOF. [GP/CP] In accord with the legal nonconforming status of the EOF in western Goleta, the City may allow safety improvements that incidentally could prolong the life of the plant. (See related LU 10.1.)

SE 8.2 Consideration of Offshore Gas Processing. [GP/CP] The City supports minimizing the risk of a H2S release within the City's boundaries. The environmental document prepared in connection with any project proposal requiring discretionary permit approval by the City of Goleta for a substantial increase in EOF throughput should include among the reasonable range of project alternatives the cessation of gas sweetening (H2S removal) at the EOF and relocation of such gas treatment facilities and processes to Platform Holly. The intent is to provide an analysis of the feasibility of this method of reducing the risk of an H2S release within the City's boundaries.

SE 8.3 Annual Safety Audits Required. [GP/CP] Annual safety audits of all new and existing oil and gas production, processing, and storage facilities shall be required. The City, or its agent, shall participate in these safety audits. All deficiencies noted in each audit shall be addressed promptly, in timeframes as recommended by the audit's conclusions.

SE 8.4 Enhanced Preparedness for Hydrogen Sulfide Release. [GP] The City shall work with the County's Office of Emergency Services to increase awareness of and emergency preparedness for the H_2S hazard associated with the EOF, such that nearby residents, businesses, their clients, and other potentially affected persons understand what to do in the event of a catastrophic release. For most affected persons, sheltering in place is preferable to evacuation, as certain evacuation routes would expose people to a greater hazard.

SE 8.5 Inventory of Oil and Gas Pipelines. [GP/CP] The City should develop and maintain an inventory of gas and oil pipelines, including public utility transmission pipelines, and shall require operators of petroleum pipelines to provide information deemed essential for such inventory.

SE 8.6 **Quantitative Risk Assessment. [GP/CP]** The City shall require a Quantitative Risk Assessment to be a component of any application for a new oil and gas production and processing facility or for any proposed substantial alterations of existing oil and gas production and processing facilities. The scope of the assessment should include any pipelines associated with or serving the facility. The Quantitative Risk Assessment should identify and quantify any new or substantially changed risks and show any substantial changes to hazard footprints, such that any potential impacts to surrounding development and uses can be assessed and mitigated. The Quantitative Risk Assessment should also recommend any appropriate mitigation measures to limit exposure of new or expanded hazards to surrounding development and uses.

SE 8.7 **Routing of Gas Pipelines. [GP/CP]** When reviewing proposals for new or relocated gas pipeline routes, the City shall consult with the federal Office of Pipeline Safety or the California Public Utilities Commission as appropriate. New gas pipelines, or relocations of existing gas pipelines, shall be routed to avoid significant risk to populated areas where feasible. This policy applies to gathering and transmission pipelines but not to distribution pipelines. The determination of populated areas shall consider both present and reasonably anticipated future development according to applicable land-use plans, zoning, and urban spheres of influence. New or relocated pipelines shall also be routed to prevent significant risk to highly sensitive land uses as defined in this element, unless the risk can be rendered insignificant by incorporation of feasible mitigation measures.

SE 8.8 **Development near Gas Pipelines. [GP/CP]** The City shall limit or prohibit development of highly sensitive land uses near gas gathering and transmission pipelines, if the existing pipeline would expose the new use to significant risk. For other types of proposed development near existing gas pipelines, the City may require mitigation if they are located within a presumptive hazard zone of the pipeline. Applicants proposing development within a presumptive hazardous zone may rebut the presumed boundaries of this zone through site-specific analysis that complies with City thresholds.

Processing Equipment at the Venoco Ellwood Onshore Oil and Gas Processing Facility

SE 8.9 **Safety Requirements for New Petroleum Pipelines. [GP/CP]** In a manner consistent with applicable law, the City shall condition discretionary land use approvals of new petroleum pipelines to require safe design, including technology to prevent failure and reduce the consequences of failure. Examples include proven controls for preventing internal and external corrosion and fractures, proven leak detection, safe venting systems, appropriate capabilities for shutting the pipeline down and isolating potential pipeline leaks, and effective public-warning systems.

Requirements shall be commensurate with the level and anticipated duration of the risk.

SE 8.10 Safety, Inspection, and Maintenance of Oil and Gas Pipelines. [GP/CP] The City shall condition discretionary land use approvals of new or substantially upgraded gas and oil pipelines to require a Safety Inspection, Maintenance, and Quality Assurance Program or similar mechanism to ensure adequate ongoing inspection, maintenance, and other operating procedures. Any such mechanism shall be subject to City approval prior to commencement of pipeline operations and provide for systematic updates as appropriate. Requirements shall be commensurate with the level and anticipated duration of the risk.

SE 8.11 Safety Measures for Pipelines Transporting Produced Gas. [GP/CP] Consistent with applicable law, the City shall require feasible operating methods for reducing the hazard along natural gas pipeline corridors that are commensurate with the level of risk. Potential considerations include, but are not limited to, one or more of the following methods: sweetening of gas offshore, removal of condensate at the production site to achieve a single-phased flow in the gas pipeline, reduction of maximum allowable operating pressure, thicker-walled pipelines, and systematic surveillance of the right-of-way. Measures required shall be commensurate with the level of significant risk posed by the pipeline, and may be adjusted as that level of significance changes over time.

SE 8.12 Consultation with Pipeline Operators. [GP/CP] The City shall consult with applicable pipeline operators, including public utilities, during the preparation of land use plans and during the early stages of reviewing discretionary permit applications on all properties that contain, or are adjacent to, oil or gas pipelines, including public-utility high-pressure gas pipelines.

SE 8.13 Setbacks from Gas Pipelines. [GP/CP] The City shall generally require a minimum setback of 25 feet from the centerline of gas gathering and transmission pipelines, including public-utility high-pressure pipelines, for all buildings and structures to prevent damage to the pipeline by external mechanical forces and to permit operators timely and unhindered access for repair, maintenance, survey, and emergency response. Exceptions to this requirement shall include:

a. Corridor-type locations such as roads and highways, and corridor-type uses such as other pipelines, bicycle and pedestrian paths, utilities, and appurtenances of corridors located in public rights-of-way.

b. Pipeline endpoints and interconnecting pipelines.

c. Replacement of a public-utility pipeline with a functionally equivalent pipeline.

d. Instances where this requirement is preempted by state or federal law.

e. Instances where the City finds the 25-foot setback poses an undue hardship to proposed development, provided that any reduced setback shall not be less than 15 feet and shall substantially accomplish the purpose.

SE 8.14 Pipeline Burial Depths. [GP/CP] New oil and gas pipelines, or relocation of existing oil and gas pipelines, excluding gas distribution pipelines, shall be buried at an appropriate depth, one that safely accommodates potential of scouring, slope failure, and other forms of natural or human-caused erosion and earth movement. The

calculation of initial burial depth should take into account depth reduction via erosion and other forms of earth movement (including grading and construction) unless other means of maintaining a safe minimum burial depth can be incorporated throughout the operating life of a pipeline. Pipeline operators should assess burial depths every five years, or at a more frequent interval when geologic characteristics, flooding, and other circumstances indicate a prudent need for special monitoring. These requirements shall apply to new and existing pipelines where burial depths are specified. It shall also apply to existing, buried pipelines where depths are not prescribed but maintenance of a minimum depth is warranted. A minimum burial depth shall be maintained for the entire operating life of the pipelines.

SE 8.15 Pipeline Marking and Warning. [GP/CP] New oil and gas pipelines, or relocation of existing pipelines, shall include measures to clearly warn outside parties about the presence of the pipeline, including proper marking of the right-of-way with signage and use of brightly colored warning tape approximately 1 foot above buried pipelines where feasible.

Policy SE 9: Airport-Related Hazards [GP]

Objective: *To minimize the risk of potential hazards associated with aircraft operations at the Santa Barbara Airport.*

SE 9.1 Safety Zone Regulations. [GP] The City will maintain and enforce through appropriate zoning measures the airport Safety Zone regulations, including use limitations, pursuant to the Santa Barbara Airport Land Use Compatibility Plan (ALUCP). The City of Goleta shall consult with the ALUC when required by the ALUCP. The City shall also require, as a condition of approval of development applications, dedication of avigation easements where required by the ALUCP. *(Amended by Reso. 23-60, 11/07/23)*

SE 9.2 Height Restrictions. [GP] The City shall ensure that the heights of proposed buildings, other structures, and landscaping conform to airport operational requirements to minimize the risk of aircraft accidents and promote airspace protection. The City shall establish and maintain standards in its zoning ordinance for building and structure height restrictions for development in proximity to the Santa Barbara Airport. *(Amended by Reso. 08-30, 6/17/08) (Amended by Reso. 23-60, 11/07/23)*

SE 9.3 Limitations on Development and Uses. [GP] The City shall establish and maintain standards in its zoning ordinance for use restrictions for development near the Santa Barbara Airport consistent with the ALUCP. *(Amended by Reso. 08-30, 6/17/08) (Amended by Reso. 23-60, 11/07/23)*

SE 9.4 Maintenance of an Airport Safety Corridor for Runway 7-25. [GP] A minimum 300-foot-wide safety corridor limited to open space, landscaping, roadways, and parking shall be maintained within Safety Zone 1 on the Cabrillo Business Park properties. This airport safety corridor shall be set approximately along an extension of the Runway 7-25 centerline and shall be 300 feet wide as depicted in Figure 5-3. The airport safety corridor shall be shown on all development plans submitted to the City. *(Amended by Reso. 08-30, 6/17/08) (Amended by Reso. 23-60, 11/07/23)*

SE 9.5 Limitations on Intensity of Uses. [GP] The City shall apply use intensity limits (people per acre), including intensities with risk reductions, for Safety Zones 1–5 depicted in Figure 5-3, as detailed in the ALUCP. *(Amended by Reso. 23-60, 11/07/23)*

SE 9.6 Limitations on Residential Development. [GP] The City shall not allow new residential development within Safety Zone 1 as depicted in Figure 5-3. The City shall limit residential development beyond Safety Zone 1 consistent with the ALUCP. *(Amended by Reso. 23-60, 11/07/23)*

SE 9.7 Real Estate Disclosure. [GP] Except where an avigation easement is required, an overflight notification consistent with the requirements of the ALUCP must be recorded as part of any real estate transaction for any residential development within the AIA, as depicted in Figure 5-3. *(Amended by Reso. 23-60, 11/07/23)*

SE 9.8 Limitations on Hazardous Facilities. [GP] Development that includes new hazardous installations or materials such as, but not limited to, oil or gas storage and explosive or highly flammable materials shall conform to the use limitations included in the ALUCP. *(Amended by Reso. 08-30, 6/17/08) (Amended by Reso. 23-60, 11/07/23)*

Policy SE 10: Hazardous Materials and Facilities [GP]

Objective: *To minimize injuries, illnesses, loss of life and property, and economic and social disruption due to potential upsets associated with the storage, use, handling, and transport of hazardous materials, and to ensure proper oversight of hazardous waste sites within the city.*

SE 10.1 Identification of Hazardous Materials Facilities. [GP] The City shall work with Santa Barbara County Fire Department's Hazardous Materials Unit to maintain up-to-date lists and maps of facilities in Goleta that involve the storage, use, and/or transport of hazardous materials.

SE 10.2 Compliance with Law. [GP] The storage, handling, and disposal of any hazardous material shall be done only in strict compliance with applicable City, state, and federal law.

SE 10.3 Hazard Assessment Required for Hazardous Materials Facilities. [GP] For all new hazardous facilities, and for any proposed substantial increase in intensity of use for existing hazardous facilities, the City shall require a hazard assessment to be submitted as part of the development application. The hazard assessment shall identify the risks posed by the new or expanded facility and the geographical extent of significant risk.

SE 10.4 Prohibition on New Facilities Posing Unacceptable Risks. [GP] The City shall not allow new hazardous facilities or expanded hazardous facilities that would expose existing residential or commercial development to unacceptable risk. New or expanded hazardous facilities in proximity to existing residential and commercial development shall incorporate appropriate mitigation measures to minimize potential risks and exposure.

SE 10.5 Restriction on Residential Development near Hazardous Facilities. [GP] The City shall consider the exposure of new development to risk of hazardous materials accidents and exposure as a part of its project and environmental review processes

and require any appropriate mitigation measures. The City shall not allow any new residential development near hazardous facilities if these residences would be exposed to unacceptable and unmitigable risk.

SE 10.6 Responsibility for Cleanup by Responsible Party. [GP] No new development or substantial redevelopment shall be permitted on land determined to contain actionable contamination until the party responsible for such contamination has been identified and has accepted financial responsibility for any required remediation. The posting of a bond or other appropriate surety in an amount and form acceptable to the City shall be required as a condition of development approval. In appropriate circumstances, the City may assist in attempting to obtain outside grants or other resources to address contamination issues and help fund remediation.

SE 10.7 Identification, Transport, and Disposition of Potentially Contaminated Soil. [GP] The City shall require a Soil Management Plan and a project-specific Health and Safety Plan for all new development and redevelopment within areas containing potentially contaminated soil. The Soil Management Plan and Health and Safety Plan should establish standards and guidelines for the following:

- Identification of contaminated soil.
- Identification of appropriate personal protective equipment to minimize potential worker exposure to contaminated soil.
- Characterization of contaminated soil.
- Soil excavation.
- Interim and final soil storage.
- Verification sampling.
- Soil transportation and disposal.

The Soil Management Plan and Health and Safety Plan should also address naturally occurring hazardous materials that may be present in the soil, such as methane and Radon-222, and include contingencies (e.g., characterization, management, and disposal) if they are present.

Policy SE 11: Emergency Preparedness [GP]

Objective: *To attain a high level of emergency preparedness to limit damage and risks to public safety from natural and industrial hazards and to have effective and efficient emergency recovery procedures in place to minimize social, environmental, and economic disruption during the aftermath of an emergency.*

SE 11.1 Education and Awareness Programs. [GP] The City shall work to improve preparedness programs that educate and organize people to respond appropriately to disasters. Such programs include education and awareness programs for individuals, families, institutions, businesses, government agencies, and other organizations.

SE 11.2 Improved Information Transfer during Emergencies. [GP] The City shall continue to improve information transfer to the media during emergencies. Official emergency

response liaisons should meet with media representatives on a regular basis to improve coordination.

SE 11.3 Periodic Update of Multi-Hazard Emergency Response Plan. [GP] The City shall prepare and maintain a Multi-Hazard Emergency Response Plan. It should periodically review studies assessing the impacts of earthquakes, floods, and other emergencies and revise emergency response measures and procedures as appropriate.

SE 11.4 Incorporation of Emergency Response Plans into GIS. [GP] The City should work with the County and other emergency response agencies to develop and maintain a Geographic Information System (GIS) that includes the data layers on emergency risks and plans.

SE 11.5 Monitoring of Trends and Improvements in Emergency Preparedness. [GP] The City shall stay current on the latest emergency response measures and information. The City should seek from other government, academic, and private organizations new data that can be used for emergency preparedness and response.

5.5 IMPLEMENTATION ACTIONS [GP]

SE-IA-1 New Zoning Code. The City's new zoning code shall include regulations for a hazards overlay zone to address seismic and other geologic hazards, coastal hazards, flooding, and wildland fire hazards. In addition, the new zoning code should include regulations for an airport approach overlay zone.

Time period: 2006 to 2007

Responsible party: Planning and Environmental Services Department

SE-IA-2 San Jose Creek Flood Control Project. The City shall implement the San Jose Creek Flood Control Project, including construction of appropriate flood control facilities, to reduce the extent and frequency of flooding in the Old Town area.

Time period: Undetermined; may be implemented in phases

Responsible party: Community Services Department, Redevelopment Agency, County of Santa Barbara Flood Control District

SE-IA-3 Annual Safety Audits of Oil and Gas Facilities. Annual safety audits shall be prepared for all oil and gas production, processing, and storage facilities.

Time period: Annually

Responsible party: Oil and gas operators, City contractors, Planning and Environmental Services Department

SE-IA-4 Multihazard Emergency Response Plan. The City shall prepare and maintain a multihazard emergency response plan. The plan shall be coordinated as appropriate with the County of Santa Barbara's Emergency Response Plan.

Time Period: 2007 to 2008

Responsible party: City Manager, Redevelopment and Neighborhood Services Department, City of Goleta Police Department and Santa

Barbara County Fire Department, County of Santa Barbara Office of Emergency Services

SE-IA-5 International Fire Code Council Urban Interface Code. Consideration of adoption of the International Fire Code Council Urban Interface Code, which would include certain additional standards for new construction.

Time Period: 2008

Responsible Party: City of Goleta and Santa Barbara County Fire Department