

APPENDIX A

Comments on NOP and Index to Location
Where Each Individual NOP Comment
Is Addressed in EIR
(Updated: January 2022)

APPENDIX A

INDEX TO NOP COMMENTS

1 Appendix A includes a copy of the Notice of Preparation (NOP) for the PRC 421
2 Decommissioning Project, transcripts from the Public Scoping Hearings conducted on
3 the NOP, copies of all comment letters received on the NOP during the public comment
4 period, and an indication (Section or sub-Section) where each individual comment is
5 addressed in the Environmental Impact Report (EIR). Table A-1 lists all comments and
6 shows the comment set identification number for each letter or commenter. Table A-2
7 identifies the location where each individual comment is addressed in the EIR.

Table A-1
NOP Commenters and Comment Set Numbers

Agency/Affiliation	Name of Commenter	Date of Comment	NOP Comment Set
California Department of Fish and Wildlife – South Coast Region	Erinn Wilson-Olgin	July 14, 2021	1
City of Goleta	Peter Imhof	July 9, 2021	2
Santa Barbara Air Pollution Control District	Carly Barham	June 29, 2021	3
Native American Heritage Commission	Andrew Green	June 9, 2021	4
Transcript from NOP Public Scoping Meeting on June 24, 2021 (2:00 p.m. and 6:00 p.m.)	Jacqueline Rosa Sean Anderson Andrew Miller	June 24, 2021	5
Surfrider Foundation – Santa Barbara Chapter	Andrew Miller (Shute, Mihaly & Weinberger LLP)	July 9, 2021	6
Sandpiper Golf Course	Beth Collins (Brownstein Hyatt Farber Schreck)	July 9, 2021	7

Table A-2
Responses to the NOP Comments

Table A-2 (Comment 1): California Department of Fish and Wildlife

Comment Number	Responses
1-1	Section 4.3.1.2 (Vegetation of the Project Site) provides a description of plant communities in the vicinity of Project components. Vegetation maps are provided in Figures 4.3-1 through 4.3-3. Coastal bluff scrub (primarily composed of quail bush) is considered as an Environmentally Sensitive Habitat Area (ESHA) by the City of Goleta, and Project-related impacts are considered significant.
1-2	Botanical and wildlife surveys were conducted in support of this EIR. Vegetation was surveyed, classified and mapped as described in the response to Comment 1-1 above.
1-3	EIR mitigation measures MM BIO-5a and MM BIO-6a have been proposed to address potential impacts to sensitive natural communities that would result from implementation of Component 2. The measures include development of a coastal wetlands mitigation and coastal bluff scrub replacement plan. These measures include replacement ratios of 3:1 and 2:1, respectively. A larger replacement ratio was not proposed due to the disturbed and fragmented nature of this plant community along the existing access roadway.
1-4	The coastal bluff scrub replacement plan specified in MM BIO-6a will include success criteria, irrigation limitations and monitoring requirements. Topsoil salvage is not proposed.
1-5	See Table 4.3-5. Based on biological surveys conducted for the Project, suitable habitat for Crotch bumble bee does not occur in the proximity to the Project site.
1-6	See response to Comment 1-5.
1-7	See response to Comment 1-5.
1-8	Potential impacts to globose dune beetle are discussed under Impact BIO-5 and mitigation measures MM BIO-3c, BIO-3d, BIO-3e and BIO-6b are provided to avoid impacts to this species.
1-9	EIR mitigation measures MM BIO-3c through MM BIO-3e and MM BIO-6b would be implemented to reduce potential impacts to globose dune beetle.
1-10	Globose dune beetle is discussed in Table 4.3-5 and Section 4.3.4 of the EIR. This species is assumed to be present, such that a focused survey was not conducted. It should be noted that the last record of globose dune beetle in the Project area is from 1987.

Comment Number	Responses
1-11	The Project site is composed of existing PRC 421 facilities and not “undisturbed land”. Botanical and wildlife surveys were conducted in support of this EIR to facilitate impact assessment. The CNDDDB was also reviewed as part of EIR preparation.
1-12	A regional setting and a discussion of plant communities in proximity to Project components is provided in Section 4.3.1 of the EIR.
1-13	The botanical surveys and vegetation mapping was floristic in nature and consistent with the CDFW Protocol.
1-14	Vegetation mapping and impact assessment is included in Section 4.3.4 of the EIR. The Manual of California Vegetation was reviewed, but not used to classify vegetation due to the disturbed and fragmented nature of vegetation at the Project site.
1-15	See Section 4.3.1 of the EIR for an assessment of on-site biological resources. The CNDDDB was reviewed as part of this baseline setting discussion.
1-16	Biological surveys were conducted as part of EIR preparation, including a focused bat survey. No rare, threatened or endangered species have been reported from the immediate area or found during biological surveys.
1-17	Botanical and wildlife surveys were conducted in July and August 2021 and meet the stated requirements for recent surveys.
1-18	The potential for bird species listed in this Comment to occur at the Project site is discussed in Table 4.3-5 of the EIR. Project impacts to these species are discussed in Section 4.3.4 of the EIR.
1-19	Project activities cannot be limited to the specified timing (1 March – 30 September) in order to complete the proposed pier and caisson removal included in Component 1 (which requires negative tides); however mitigation measures have been included to prevent potential impacts to birds, including MM BIO-1 (Avoidance of cliff swallow nests), MM BIO-3c (Environmental Awareness Training), MM BIO-3d (Biological Pre-activity Surveys and Monitoring), and MM BIO-3e (Delineation of Work Limits).
1-20	EIR mitigation measure MM AES-1c would be implemented to minimize the potential effects of night lighting (when required). Mufflers would be in place for all engine-driven equipment.
1-21	No pile driving has been proposed.
1-22	Proposed staging areas are within the EOF, access roadway, and Bacara Fire Road access – which are all previously disturbed and unvegetated areas and along designated access routes. No off-road vehicle use has been proposed. Listed species habitat would not be affected.

Comment Number	Responses
1-23	Temporary disturbed areas would be limited to staging areas which are located in developed areas. No increase in weeds is anticipated.
1-24	See the response to Comment 1-18. Mitigation measures have been included to prevent potential impacts to birds, including MM BIO-1 (Avoidance of Active Cliff Swallow Nests), MM BIO-3c (Environmental Awareness Training), MM BIO-3d (Biological Pre-activity Surveys and Monitoring), and MM BIO-3e (Delineation of Work Limits).
1-25	See the response to Comment 1-18. A map would not be helpful as these birds could forage anywhere along the coast in the region.
1-26	See Section 1.3 (Project Purpose and Need) and 1.4 (Project Objectives)
1-27	See Section 1.3 (Project Purpose and Need) and 1.4 (Project Objectives). A map of all Project components (including staging areas) is included in Figure 2-1. A map specific to Project staging areas is included in Figure 2-21.
1-28	Section 5.0 includes the Project Alternatives Analysis.
1-29	Regulated waters and wetlands are discussed in Section 4.3.1.11. Coastal wetland maps are included in Figures 4.3-4 and 4.3-5. A wetland delineation report is included in Appendix F.
1-30	EIR mitigation measure BIO-5a provides for 3:1 replacement of coastal wetlands. MM BIO-5b requires preservation of adjacent wetlands. Following implementation of mitigation, no net loss of wetlands would occur.
1-31	EIR mitigation measures proposed to protect marine water quality include MM HAZ-1a through MM HAZ-1c, MM HAZ-2 and MM HWQ-1.
1-32	No take of CESA species would occur.
1-33	Cumulative biological impacts are discussed in Section 4.3.5.
1-34	Potential water quality impacts are discussed in Section 4.9. Water quality measures intended to avoid direct or indirect impacts to biological species are outlined in response 1-31 above. Potential impacts of Project implementation associated with decommissioning activities are addressed in Section 4.3.4.
1-35	The Project would not impact open space, riparian ecosystems, reserve lands or wildlife corridors.
1-36	No change in land use designations or zoning is proposed.
1-37	Cumulative impacts are outlined in Section 3.0 and discussed within each impact section. Cumulative biological impacts are discussed in Section 4.3.5.

Comment Number	Responses
1-38	EIR mitigation measures MM BIO-1 through MM BIO-6b have been proposed to mitigate for potential impacts to biological resources. No other compensatory mitigation is required or proposed.
1-39	Long-term management of mitigation areas would be addressed during mitigation plan development (see MM BIO-5a).
1-40	Mitigation measures have been included to prevent potential impacts to nesting birds, including MM BIO-1 (Avoidance of Active Cliff Swallow Nests), MM BIO-3c (Environmental Awareness Training), MM BIO-3d (Biological Pre-activity Surveys and Monitoring), and MM BIO-3e (Delineation of Work Limits).
1-41	Comment noted. No translocation/salvage has been proposed.
1-42	EIR mitigation measure MM BIO-3d requires biological monitoring and relocating wildlife out of harm's way during Project activities.
1-43	Mitigation plan development required under MM BIO-5a and MM BIO-6a will address these issues.
1-44	Propagules used for mitigation will be obtained from the nearest available source.
1-45	The stated special habitat elements are not consistent with the beach environment, but will be considered if applicable.

Table A-2 (Comment 2): City of Goleta

Comment Number	Responses
2-1	The access road and revetment are listed within the Executive Summary (Pg ES-2) and Project Summary (Pg 2-1) as items within Component 2. Component 2 removal is carried through the entire EIR and impact analysis.
2-2	The specified paragraph has been removed from Section 1.0
2-3	California Coastal Act policies have been reviewed as part of the EIR analysis. See the regulatory setting of all environmental impact sections as well as Appendix B for policies considered.

Table A-2 (Comment 3): Santa Barbara County Air Pollution Control District (APCD)

Comment Number	Responses
3-1	See Section 4.2 for the Air Quality analysis and Section 4.7 for GHG analysis. MM AQ-1a (Fugitive Dust Control Measures) and MM AQ-1b (Equipment Exhaust Emissions Reduction Measures) are proposed to reduce potential impacts. Section 7.0 includes the mitigation monitoring program that will be enforced during decommissioning activities.
3-2	See Section 4.2.4 for the air quality impact analysis, including a discussion of the recommended topics.
3-3	Comment noted. MM HAZ-1b includes notification requirements when encountering hydrocarbon contaminated soils.
3-4	Comment noted. PERP requirements are outlined in Section 4.2.2.2 (Applicable Regulatory Requirements).
3-5	Section 4.8.1 (Hazards and Hazardous Materials) contains a discussion of the potential for asbestos-containing materials (ACM). No ACM was determined to be present onsite.
3-6	Comment noted. Implementation of the Project will require development of a Remedial Action Plan (RAP) with associated regulators. The RAP has been initiated and will be implemented as outlined in MM HAZ-1a to address appropriate handling of contaminated soils onsite during Project activities.
3-7	Comment noted. The Project contractor and workplan has not been selected or developed but Comment 3-7 will be considered during development of the workplan related to purging of the pipelines.
3-8	See Section 4.2 for the Air Quality analysis including a discussion regarding fugitive dust.
3-9	MM AQ-1a includes fugitive dust control measures.
3-10	MM AQ-1b includes equipment exhaust emissions reduction measures.
3-11	Comment noted. MM AQ-1b describes equipment exhaust emissions reduction measures including specifications regarding limiting of engine idling time.

Table A-2 (Comment 4): Native American Heritage Commission

Comment Number	Responses
4-1	A record search was requested from the CCIC on 1/26/21. Results were received on 2/10/21 and reviewed as part of the cultural resources analysis.
4-2	See Appendix H for Archaeological Report.
4-3	NAHC Tribal consultation on 9/23/19. No records identified in the Sacred Lands File record search for the Project site. Additionally, CEQA notice of the Project sent to all tribes on NAHC list 8/20/21.
4-4	See proposed mitigation measures included in Sections 4.4 and 4.5 (MM CUL/TCR-1, MM CUL-2/TCR-2, MM CUL-3/TCR-3, and MM CUL-4/TCR-4)

Table A-2 (Comment 5): Transcript from NOP Public Scoping Meeting on June 24, 2021

Comment Number	Responses
5-1	Comment noted. However, the Project timing has been proposed in order to provide conditions necessary to enable decommissioning to occur. Several measures have been included with respect to protection of biological resources, and specifically birds; including: MM BIO-1 (Avoidance of Active Cliff Swallow Nests), MM BIO-3c (Environmental Awareness Training), MM BIO-3d (Biological Pre-activity Surveys and Monitoring), and MM BIO-3e (Delineation of Work Limits).
5-2	Comment noted. See discussion in Section 4.6.4 (Geologic Impacts) regarding the potential for shoreline retreat and bluff erosion.
5-3	The Project will be conducted in two primary “phases” including Components 1 and 2. As discussed in Section 4.6.4 (Geologic Impact Analysis), weathering and erosion/bluff retreat may occur following each of the Project components; however, removal of these structures would complete the return of the Project area along this stretch of coastline back to its natural condition. Erosion of the bluffs is already occurring in unarmored sections adjacent to the east and west of the Project area and is a natural process. This increased erosion may also contribute to sand replenishment in the Project area and downcoast. Therefore, geologic impacts are less than significant.
5-4	See Section 7.0 for a summary of proposed mitigation and implementation measures during the Project.
5-5	See Section 4.5 for a discussion on Tribal Cultural Resources.
5-6	Public access on PRC 421 access roads (through the EOF) cannot be established at this time since the EOF will remain in operation to support abandonment of Platform Holly. Additionally, decommissioning of the access roadway is required to accomplish the Component 2 Project objectives.
5-7	As described in Section 2.3.2.3, the two pipelines would be flushed and isolated during Component 1 Project activities and would no longer contain contaminated materials. Potential bluff erosion and the relation to sea level rise is discussed in Section 4.6.4 (Geology impact analysis).

Table A-2 (Comment 6): Surfrider Foundation

Comment Number	Responses
6-1	Comment noted. See discussion regarding existing public access in Section 4.13 (Recreation).
6-2	Correct. The existing access road exists within private easements from the EOF to the 421 piers, as further described in Section 2.2.2.
6-3	Please note, the City is part of the Joint Review Panel (JRP) for the Project and will have discretionary approval over the Project in terms of staging and use of the area(s) above the mean high tide line. However, California Coastal Commission is responsible for issuance of a coastal development permit required on behalf of the Project for all components (since all are within the coastal zone). As noted in response to Comment 5-6 above, public access on PRC 421 access roads (through the EOF) cannot be established at this time since the EOF will remain in operation to support abandonment of Platform Holly. Additionally, decommissioning of the access roadway is required to accomplish the Component 2 Project objectives.
6-4	Comment noted. The proposed Project does not constitute “new development”. Additionally, as discussed in Section 4.13.4, existing public access will not be precluded during Project activities.
6-5	The only Project component proposed to be abandoned in place includes the pipeline segments from the 12 th tee back to the EOF. Prior to abandonment, each pipeline will be flushed and isolated. Regardless, a discussion regarding sea level rise is included within Sections 4.6.4 (Geologic Impact Analysis) and 8.1 (Climate Change and Sea Level Rise).
6-6	See response to Comment 5-6 and Comment 6-3 above.

Table A-2 (Comment 7): Sandpiper Golf Course

Comment Number	Responses
7-1	Please see Section 2.2.2.1 for information regarding the access roadway soil investigation completed on behalf of the Project. Sampling results are included in Appendix J. Potential impacts of flushing and isolating the pipelines are included in Section 4.8 (Hazards and Hazardous Materials). A geophysical survey is not proposed.
7-2	The only Project component proposed to be abandoned in place includes the pipeline segments from the 12 th tee back to the EOF. Removal of pipelines within the Golf Course would not meet the project objectives or reduce impacts. Prior to abandonment, each pipeline will be flushed and isolated. Regardless, a discussion regarding sea level rise and bluff stability is provided in Sections 4.6.4 (Geologic Impact Analysis) and 8.1 (Climate Change and Sea Level Rise).
7-3	See response to Comment 7-2. Additionally, potential impacts to the wetland are included within Section 4.3.4 (Biological Resources).
7-4	Potential impacts to adjacent land uses have been considered in the EIR.

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July 14, 2021

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Subject: Comments on the Initial Study/Notice of Preparation of a Draft Environmental Impact Report for PRC 421 Decommissioning Project, SCH #2021060145, Santa Barbara County

Dear Mr. Gillies:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Initial Study/Notice of Preparation (IS/NOP) of a Draft Environmental Impact Report (DEIR) for PRC 421 Decommissioning Project (Project). The California State Lands Commission (CSLS) is the lead agency preparing a DEIR pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et. seq.) with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" (see Fish & G. Code, § 2050) of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, §

2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Project Location: The project site encompasses State tidal lands and submerged lands as well as the upland access road and revetment below the bluffs marking the southern limit of the Sandpiper Golf Course in the city of Goleta, California.

Project Description/Objectives: This Project is part of a decommissioning process for two wells that have been idle since 1994 and have been plugged and abandoned. The decommissioning process involves removing two piers (Pier 421-1 and Pier 421-2) and caissons and other infrastructure which includes two pipelines, the access road, and supporting rock revetment below the bluffs.

Specifically, the Project involves:

Fully remove the piers, caissons, and remaining portions of the wells (the riser pipe from the top of the cement plug and wellheads) above the bedrock located approximately 19 feet below the surface grade

Decommission and remove the two pipelines beneath the access road

Remove the access road and supporting rock revetment

Plug and abandon in place the remaining pipelines beneath the golf course back to the tie-in points just outside of the EOF

Restoration of the beach area to conditions similar to the surrounding area and appropriate for safe public access and use

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the CSLS in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

Specific Comments

- Comment 1-1 1) **Sensitive Vegetation Communities.** CDFW is concerned about the cumulative impacts to sensitive vegetation communities in the Goleta area.

The Project has the potential to affect what CDFW considers locally significant and sensitive vegetation communities. CDFW has reviewed five Projects in the last 3 months that impact coastal bluff vegetation ranked S1-S5. CDFW considers coastal bluff habitat sensitive in the Goleta area, even if ranked S4 and S5, due to the cumulative losses of habitat on the Goleta Coast.

Examples of sensitive vegetation communities include but are not limited to: *Sarcocornia pacifica* (*Salicornia depressa*) Alliance (*Pickleweed mats*), ranked S3, *Artemisia Californica*

Alliance, *Atriplex lentiformis* Shrubland (Quailbush Scrub) Alliance, and *Quercus agrifolia* Alliance are ranked S4. Given the loss of these vegetation community in the coastal Goleta area, CDFW considers these S4 species as a locally sensitive vegetation community. *Baccharis pilularis* (Coyote brush scrub) Alliance is ranked S5 by CDFW but given the local losses of this vegetation community in the coastal Goleta area, CDFW considers this a locally sensitive vegetation community.

In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish and Game Code Section 1940). This standard complies with the National Vegetation Classification System which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at <http://vegetation.cnps.org/>. Through this MCV vegetation classification system, CDFW tracks Sensitive Natural Communities and their respective rankings using the MCV alliance and association names for vegetation communities.

In order to analyze if a project may have a significant effect on the environment, the location, acreage, species composition, and success criteria of proposed mitigation information is necessary to allow CDFW to comment on alternatives to avoid impacts, as well assess the adequacy of the mitigation proposed.

Recommended Potentially Feasible Mitigation Measure(s)

Comment 1-2

Mitigation Measure #1: CDFW recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the Project site and neighboring vicinity. The IS/MND should use the vegetation data collected for the PEIR and Specific Plan to crosswalk these species into current alliances for the purposes of establishing baseline for the IS/MND. The IS/MND document should identify, map, and discuss the specific vegetation alliances within the Project Area following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (Survey Protocols) see: (<https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>).

Comment 1-3

Mitigation Measure #2: CDFW recommends avoiding any sensitive natural communities found on the Project. If avoidance is not feasible, the Project proponent should mitigate at a ratio sufficient to achieve a no-net loss for impacts to special status plant species and their associated habitat. CDFW recommends following the Coastal Commission's Environmentally Sensitive Habitat Area ratio of 4:1 for impacts to the sensitive vegetation communities found onsite due to cumulative loss of these vegetation communities along the Goleta coast.

All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and a funding mechanism for long-term management. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (AB 1094; Government Code, §§ 65965-65968).

Comment 1-4

Mitigation Measure #3: Success criteria should be based on the specific composition of the vegetation communities being impacted. Success should not be determined until the site has been irrigation-free for at least 5 years and the metrics for success have remained stable (no negative trend for richness/diversity/abundance/cover and no positive trend for invasive/non-native cover for each vegetation layer) for at least 5 years. In the revegetation plan, the success criteria should be compared against an appropriate reference site, with the same vegetation alliance, with as good or better-quality habitat. The success criteria shall include percent cover (both basal and vegetative), species diversity, density, abundance, and any other measures of success deemed appropriate by CDFW. Success criteria shall be separated into vegetative layers (tree, shrub, grass, and forb) for each alliance being mitigated, and each layer shall be compared to the success criteria of the reference site, as well as the alliance criteria in MCV2, ensuring one species or layer does not disproportionately dominate a site but conditions mimic the reference site and meets the alliance membership requirements.

CDFW does not recommend topsoil salvage or transplantation as viable mitigation options. Several studies have documented topsoil salvage had no effect on the recolonization of the target plant species (Hinshaw, 1998, Dixon, 2018). Based on the scientific literature available, relying on topsoil salvage alone to mitigate impacts to CEQA-rare plant species does not appear to provide any value to mitigate impacts to the plant.

Comment 1-5 2) **Bumble Bee.** A review of CNDDDB indicate Crotch bumble bee (*Bombus crotchii*) within 0.5 miles of the Project. Project ground disturbing activities may result in crushing or filling of active bee colonies, causing the death or injury of adults, eggs, and larvae. The Project may remove bee habitat by eliminating vegetation that may support essential foraging habitat. Impacts to Crotch's bumble bee could result from ground disturbing activities. Project disturbance activities could result in mortality or injury to hibernating bees, as well as temporary or long-term loss of suitable foraging habitats. Construction during the breeding season of bees could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

Recommended Potentially Feasible Mitigation Measure(s)

Comment 1-6

Mitigation Measure #1: CDFW recommends that measures be taken, primarily, to avoid Project impacts to Crotch bumble bee.

Comment 1-7

Mitigation Measure #2: CDFW recommends, a qualified entomologist familiar with the species behavior and life history should conduct surveys to determine the presence/absence of Crotch's bumble bee and disclose presence or absence in the DEIR. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983). Survey results including negative findings should be submitted to CDFW prior to initiation of Project activities.

Comment 1-8 3)

Globose Dune Beetle. A review of CNDDDB indicate globose dune beetle (*Coelus globosus*) within 1000-feet of the Project vicinity. Project ground disturbing activities may result in crushing, causing the death or injury of adults, eggs, and larvae. CDFW has ranked this beetle is listed as S1, and it is also listed as Vulnerable on the International Union for Conservation of Nature's Red List of Threatened Species.

The globose dune beetle occupies leaf litter around coastal scrub plants, where larvae and adults can be found in December and January. In summer months, adults aggregate in the leaf litter beneath coastal scrub plants. Larvae and adults feed on dead organic matter that accumulates in the sand under plants (USFWS, 1981).

Comment 1-9 **Mitigation Measure #1:** CDFW recommends that measures be taken, primarily, to avoid Project impacts to globose dune beetle.

Comment 1-10 **Mitigation Measure #2:** CDFW recommends, a qualified entomologist familiar with the species behavior and life history should conduct surveys to determine the presence/absence of globose dune beetle and disclose presence or absence in the DEIR. Surveys should be conducted during the appropriate season when the species is most likely to be detected. Survey results including negative findings should be submitted to CDFW prior to initiation of Project activities

Comment 1-11⁴⁾ **Biological Baseline Assessment.** A CNDDDB review indicates the occurrence of several special status reptile, mammal, and plant species including tidewater goby (*Eucyclogobius newberryi*), Red-legged frog (*Rana draytonii*), Santa Barbara honeysuckle (*Lonicera subspicata var. subspicata*), southern tarplant (*Centromadia parryi ssp. australis*), and monarch - California overwintering population (*Danaus plexippus* pop. 1), black flowered figwort (*Scrophularia atrata*) within the Project vicinity. Most of the Project site is open space. Undisturbed land may provide suitable habitat for special status or regionally and locally unique species. CDFW recommends providing a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project area, with emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. Impact analysis will aid in determining any alternative trail designs that could reduce impacts to any special status species detected, as well as assess direct, indirect, and cumulative biological impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to the Project. CDFW also considers impacts to Species of Special Concern a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. The DEIR should include the following information:

Comment 1-12 a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. The DEIR should include measures to fully avoid and otherwise protect Sensitive Natural Communities from Project-related impacts. Project implementation may result in impacts to rare or endangered plants or plant communities that have been recorded adjacent to the Project vicinity. CDFW considers these communities as threatened habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting [https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities](https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities;);

Comment 1-13 b) A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>);

- Comment 1-14 c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at the Project site and within the neighboring vicinity. *The Manual of California Vegetation* should also be used to inform this mapping and assessment). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions;
- Comment 1-15 d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by the Project. CDFW's CNDDB in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp;
- Comment 1-16 e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern and California Fully Protected Species (Fish & Game Code, §§ 3511, 4700, 5050 and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the USFWS; and,
- Comment 1-17 f) A recent, wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame, or in phases.
- Comment 1-18 5) **Impacts to Shorebirds.** CDFW is concerned that the Project could potentially impact California Endangered Species Act (CESA)-listed Belding's savannah sparrow (*Passerculus sandwichensis alaudinus*), California least tern (*Sternula antillarum browni*), Fully Protected California brown pelican (*Pelecanus occidentalis californicus*), and Species of Special Concern western snowy plover (*Charadrius nivosus*), and White-tailed Kite (*Elanus leucurus*), through vegetation clearing, crushing, and construction disturbance in and adjacent to areas occupied by the above species.
- Grading, vegetation removal, and other ground disturbances could crush and bury listed or sensitive plants and animals, resulting in direct mortality. The Project may also affect adjacent habitat by loud noises, lighting, increased human presence and activity, fugitive dust, and spreading invasive weeds, resulting in stress, displacement, and mortality of these species.
- Site construction and operations may result in a substantial amount of noise through road use, equipment, and other project-related activities. Increase visual disturbance, from the current low-use baseline, is also a potential impact to listed species.

Anthropogenic noise can disrupt the communication of many wildlife species including birds (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011). Without assessing noise disruptions or providing appropriate minimization or mitigation measures, the Project may result in substantial impacts to sensitive wildlife species.

Recommended potentially feasible mitigation measure(s)

Comment 1-19 **Mitigation Measure #1:** CDFW recommends Project construction be limited to outside of the breeding season (1 March – 30 September) to minimize effects on breeding.

Comment 1-20 **Mitigation Measure #2:** CDFW recommends the Project restrict use of equipment and lighting to hours least likely to disrupt wildlife (e.g., not at night or in early morning before 9am). Generators should not be used except for temporary use in emergencies. CDFW recommends use of noise suppression devices such as mufflers or enclosure for generators. Sounds generated from any means should be below the 55-60 dB range within 50 feet from the source.

Comment 1-21 **Mitigation Measure #3:** CDFW recommends pile driving not be used during construction of the Project. Alternative methods to construct Project features, that produce less noise and vibration, should be utilized if technically possible.

Comment 1-22 **Mitigation Measure 4:** Parking, driving, lay-down, stockpiling, and vehicle and equipment storage should be limited to previously compacted and developed areas. No off-road vehicle use should be permitted beyond the Project site and designated access routes. Disturbances to the adjacent native vegetation should be minimized. CDFW recommends a minimum 250-meter buffer between Project operations and listed species habitat.

Comment 1-23 **Mitigation Measure #5:** Non-native plants, including noxious weeds (as listed by the California Invasive Plant Council), should be prevented from establishing in temporarily disturbed areas, either by hand-weeding or selective application of herbicide. A weed monitoring program with regular inspection, mapping, and removal should be implemented.

Comment 1-24 **Recommendation #1:** Focused surveys should be conducted for the above referenced shorebird species with potential to be nesting or foraging in the Project area or within 500 feet of the Project footprint. Results of these surveys should be disclosed in the DEIR and be clearly marked on a map included in the DEIR so CDFW can comment on avoidance and minimization measures of any species present.

Comment 1-25 **Recommendation #2:** The DEIR should include a map of all known adjacent nesting and foraging sites for the sensitive shorebirds mentioned above to help with indirect affect analysis.

General Comments

Comment 1-26 4) **Project Description and Alternatives.** To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR:

Comment 1-27 a) A complete discussion of the purpose and need for, and description of, the proposed Project, including all staging areas and access routes to the construction and staging areas; and,

Comment 1-28 b) A range of feasible alternatives to Project component location and design features to ensure that alternatives to the proposed Project are fully considered and evaluated. The alternatives should avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas.

Comment 1-29 5) **Wetlands Resources.** CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's policies. The Wetlands Resources policy (<http://www.fgc.ca.gov/policy/>) of the Fish and Game Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."

Comment 1-30 a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, the Project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in the DEIR and these measures should compensate for the loss of function and value.

Comment 1-31 b) The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this state that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this state; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and

enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & Game Code, § 5650).

Comment 1-32⁶ **CESA.** CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or State-listed rare plant species that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

Comment 1-33⁷ **Biological Direct, Indirect, and Cumulative Impacts.** To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR:

Comment 1-34 a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address Project-related changes on drainage patterns and downstream of the project site; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the project site. The discussion should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;

Comment 1-35 b) A discussion regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & Game Code, § 2800 et. seq.). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;

Comment 1-36 c) An analysis of impacts from land use designations and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,

- Comment 1-37 d) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.
- Comment 1-38 8) **Compensatory Mitigation.** The DEIR should include mitigation measures for adverse Project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code section 65967, the lead agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.
- Comment 1-39 9) **Long-term Management of Mitigation Lands.** For proposed preservation and/or restoration, the DEIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.
- Comment 1-40 10) **Nesting Birds.** CDFW recommends that measures be taken to avoid Project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Proposed Project activities including (but not limited to) staging and disturbances to native and nonnative vegetation, structures, and substrates should occur outside of the avian breeding season which generally runs from February 1 through September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, CDFW recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300-feet of the disturbance area (within 500-feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.
- Comment 1-41 11) **Translocation/Salvage of Plants and Animal Species.** Translocation and transplantation is the process of moving an individual from the Project site and permanently moving it to a new location. CDFW generally does not support the use of translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or

endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals and their habitats.

Comment 1-42 12) **Moving out of Harm's Way.** The proposed Project is anticipated to result in clearing of natural habitats that support many species of indigenous wildlife. To avoid direct mortality, we recommend that a qualified biological monitor approved by CDFW be on-site prior to and during ground and habitat disturbing activities to move out of harm's way special status species or other wildlife of low mobility that would be injured or killed by grubbing or Project-related construction activities. It should be noted that the temporary relocation of on-site wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss. If the project requires species to be removed, disturbed, or otherwise handled, we recommend that the DEIR clearly identify that the designated entity shall obtain all appropriate state and federal permits.

Comment 1-43 13) **Revegetation/Restoration Plan.** Plans for restoration and re-vegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

- Comment 1-44**
- a) CDFW recommends that local on-site propagules from the Project area and nearby vicinity be collected and used for restoration purposes. On-site seed collection should be initiated in the near future to accumulate sufficient propagule material for subsequent use in future years. On-site vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.
 - b) Restoration objectives should include providing special habitat elements where feasible to benefit key wildlife species. These physical and biological features can include (for example) retention of woody material, logs, snags, rocks, and brush piles.
- Comment 1-45**

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the CSLS in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Kelly Schmoker, Senior Environmental Scientist (Specialist), at (626) 335-9092, or by email at Kelly.Schmoker@wildlife.ca.gov.

Eric Gillies
California State Lands Commission
July 14, 2021
Page 12 of 13

Sincerely,

DocuSigned by:

Erinn Wilson-Olgin

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Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

ec: CDFW

Steve Gibson, Los Alamitos – Steve.Gibson@wildlife.ca.gov

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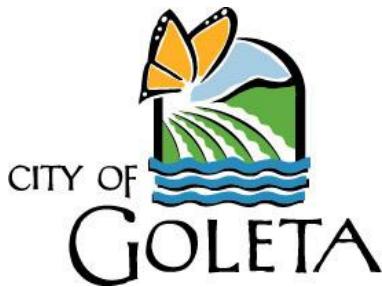
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July 9, 2021

SENT VIA EMAIL
CEQA.comments@slc.ca.gov

CITY COUNCIL

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Eric Gillies, Environmental Program Manager I
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

**RE: PRC 421 Decommissioning Project – Notice of Preparation
City of Goleta Comments**

Dear Mr. Gilles:

Thank you for the opportunity to provide comments on the Notice of Preparation (NOP) for the PRC 421 Decommissioning Project (Project) for the removal of the two piers and caissons and other infrastructure, including two pipelines and the access road and supporting rock revetment on Haskell's Beach.

Since the bankruptcy of Venoco, Inc., the City of Goleta (City) has been working with the California State Lands Commission (CSLC) during the State's efforts to safely plug and abandon the relic PRC 421 wells. The City and CSLC and other regulatory agencies determined and agreed, pursuant to a Memorandum of Understanding (MOU) for a Joint Review and Preparation (JRP) agreement, that the CSLC is acting as the Lead Agency for the Project pursuant to the California Environmental Quality Act (CEQA) and the City is a Responsible Agency for the purpose of the Environmental Impact Report (EIR). The EIR is intended to satisfy the environmental analysis required for the Project under CEQA. Additionally, the final adopted EIR would also serve as the foundational study for the approval of future required permits to commence work on the Project.

Based on our review of the NOP, dated June 8, 2021, the City provides the following comments to be included and/or addressed in the Draft EIR:

1) Section 1.0 Project Background and Location (Pg. 3 of 16)

Comment 2-1

- a. Please clarify and consistently discuss throughout the Draft EIR that the access road and revetment are a part of the project and project analysis. See example of omission (and suggested additional language) below:

~~"These deteriorating structures now represent a physical coastal obstruction, a potential public safety hazard, and a potential environmental hazard represented by the known presence of hydrocarbon-impacted soil and fill contained within the pier caissons as well as within the access road and revetment."~~

Comment 2-2

- b. The final paragraph of Section 1.0 should be removed in its entirety. The City and the CSLC have an existing MOU (Agreement No. 2018-091) that authorizes the CSLC to undertake decommissioning and removal of all associated infrastructure related to the PRC 421 piers. It is vital that the EIR evaluate the entire decommissioning and pier infrastructure removal project in both the tidal and upland areas.

~~"By statute, CSLC has jurisdiction, in the Project area, over tidelands and submerged lands, waterward of the mean high tide line. Although the CSLC is the CEQA lead agency and will analyze the environmental effects of the entire Project, CSLC will undertake that portion of the Project within its jurisdiction. Certain Responsible Agencies (see Section 3.0 below) will have discretionary authority over the Project as a whole as well as authority to undertake components of the Project that lay landward of the mean high tide line."~~

2) Section 4.2. Currently Identified Potential Environmental Impacts (Pg. 14 of 16)

Comment 2-3

- a. **Environmental Topic - Land Use and Planning:** Currently, the NOP indicates that "The analysis will examine the City's General Plan and applicable policies and standards as it relates to the decommissioning." However, it should be noted that the analysis will also need to ensure an adequate review of all applicable California Coastal Act policies.

Thank you for this opportunity to comment on the NOP. We appreciate CSLC efforts to pursue this Project. The removal of the PRC 421 infrastructure is of great importance and significance to our community. We look forward to participating in the review of this Project as it moves through the CEQA process.

Sincerely,

Peter Imhof, Director
Planning and Environmental Review

City of Goleta Comment Letter
July 9, 2021

cc: Anne Wells, Advance Planning Manager
J. Ritterbeck, Senior Planner



air pollution control district
SANTA BARBARA COUNTY

June 29, 2021

Eric Gillies
Environmental Program Manager I
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Via email to: CEQA.comments@slc.ca.gov

Re: Air Pollution Control District Response to Notice of Preparation of an Environmental Impact Report for the PRC 421 Decommissioning Project, SCH # 2021060145

Dear Mr. Gillies:

The Santa Barbara County Air Pollution Control District (District) appreciates the opportunity to provide comments on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the PRC 421 Decommissioning Project. California State Lands Commission proposes to remove the two piers and caissons supporting two wells formerly producing oil and gas from the offshore Lease PRC 421. The two wells have been idle since 1994 and were plugged and abandoned in May and September 2019. Other supporting infrastructure, including two pipelines and the access road and supporting rock revetment, will also be removed. As part of the project, the 2-inch and 6-inch pipelines beneath the golf course pipeline corridor to the Ellwood Onshore Facility (EOF) will be flushed, grouted, and abandoned in place. The project is located at the southern limit of the Sandpiper Golf Course in the City of Goleta on State tidelands and submerged lands as well as the upland access road and revetment below the coastal bluffs. Decommissioning activity is estimated to extend over approximately 6 months.

District staff reviewed the NOP of a Draft EIR and concurs that air quality impacts should be addressed in the EIR. The proposed project may include equipment and/or operations that may be subject to District permit requirements and prohibitory rules. Therefore, **the District may be a responsible agency under the California Environmental Quality Act (CEQA) and will rely on the EIR when evaluating any District permits for proposed equipment.** To avoid additional CEQA documentation related to District permit issuance, the EIR should include the air pollutant emissions for all proposed operations and equipment in the project's air quality impact analysis and include mitigation as appropriate to reduce the impacts. The District's guidance document, entitled *Scope and Content of Air Quality Sections in Environmental Documents* (updated June 2017), is available online at www.ourair.org/land-use. This document should be referenced for general guidance in assessing air quality impacts in the Draft EIR. Please contact the District for project-specific guidance as needed.

The EIR should evaluate the following potential impacts related to the PRC 421 Decommissioning Project:

Comment 3-1

- Construction Impacts.** The project will involve the use of heavy-duty construction equipment as well as truck trips for materials removal. The EIR should include a description and quantification of potential air quality and greenhouse gas impacts associated with construction activities for the proposed project. The District's recommended control measures for fugitive dust and equipment exhaust emissions associated with construction projects can be found as

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attachments to this letter. However, project-specific measures should be developed that are pertinent to the specific project and that avoid, reduce, or mitigate impacts to the maximum extent feasible. Construction mitigation measures should be enforced as conditions of approval for the project. The EIR should include a Mitigation Monitoring and Reporting Plan that explicitly states the required mitigation and establishes a mechanism for enforcement.

Comment 3-2

2. **Land Use Conflicts Related to Air Pollutant Emissions.** The EIR should examine whether any of the operations associated with the proposed project will result in air quality impacts to sensitive land uses such as residential, childcare facilities, schools, or senior living communities. Examples of this type of impact include odors, dust, or toxic air contaminants. Specifically, we note that pipeline flushing operations and exposed organic material (e.g. affixed marine vegetation or sea life) during pier removal could generate unpleasant odors. The applicant should have a process in place to prevent potential odors from causing a violation of District Rule 303, *Nuisance*.

In addition, District staff suggests adopting the following measures to minimize air quality impacts and ensure compliance with state and local air quality regulations:

Comment 3-3

1. **Contaminated Soils:** If contaminated soils are found at the project site, the District must be contacted to determine if Authority to Construct and/or Permit to Operate permits will be required. District permits are required for all soil vapor extraction activities. District permits are also required for the excavation ("dig-and-haul") of more than 1,000 cubic yards of contaminated soil. A written exemption from permit is required for the excavation of less than 1,000 cubic yards. See www.ourair.org/csc-projects for more information.

Comment 3-4

2. **Diesel Engines:** All portable diesel-fired construction engines rated at 50 brake horsepower or greater must have either statewide Portable Equipment Registration Program (PERP) certificates or District permits. Construction engines with PERP certificates are exempt from the District permit, provided they will be on-site for less than 12 months.

Comment 3-5

3. **Asbestos:** The applicant is required to complete and submit an *Asbestos Demolition/Renovation Notification* or an *EXEMPTION from Notification for Renovation and Demolition* (District Form ENF-28 or District Form ENF-28e), which can be downloaded at www.ourair.org/compliance-forms for each regulated structure to be demolished or renovated. Demolition notifications are required regardless of whether asbestos is present or not. The completed exemption or notification should be presented, mailed, or emailed to the District with a minimum of 10 working days advance notice prior to disturbing asbestos in a renovation or starting work on a demolition. The applicant should visit www.ourair.org/asbestos to determine whether the project triggers asbestos notification requirements or whether the project qualifies for an exemption.

Comment 3-6

4. **Onsite storage:** If there is any planned or potential storage of Reactive Organic Compound (ROC) containing liquids or solids (e.g. ROC-impacted soils), the applicant must obtain a District permit or written exemption from permit.

Comment 3-7

5. **Pipeline Purging:** There is the potential for odor generation during pipeline purging operations. The applicant should consider using a degassing unit to control odors. Some companies already have permits with the District for such equipment. The applicant could consider utilizing an

already permitted unit through a company, or could contact the District to obtain a permit or permit exemption for the use of a degassing unit.

Comment 3-8

6. **Fugitive Dust:** Construction/demolition activities are subject to District Rule 345, *Control of Fugitive Dust from Construction and Demolition Activities*. This rule establishes limits on the generation of visible fugitive dust emissions at demolition and construction sites, includes measures for minimizing fugitive dust from on-site activities, and from trucks moving on- and off-site. Please see www.ourair.org/wp-content/uploads/rule345.pdf. Activities subject to Rule 345 are also subject to Rule 302 (*Visible Emissions*) and Rule 303 (*Nuisance*).

Comment 3-9

7. **Fugitive Dust:** To reduce the potential for violations of District Rule 345 (*Control of Fugitive Dust from Construction and Demolition Activities*), Rule 302 (*Visible Emissions*), and Rule 303 (*Nuisance*), standard dust mitigations (**Attachment A**) are recommended for all construction and/or grading activities. The name and telephone number of an on-site contact person must be provided to the District prior to start of construction.

Comment 3-10

8. **Equipment Exhaust:** The State of California considers particulate matter emitted by diesel engines carcinogenic. Therefore, during project grading, construction, and hauling, construction contracts must specify that contractors shall adhere to the requirements listed in **Attachment B** to reduce emissions of particulate matter (as well as of ozone precursors) from diesel equipment. Recommended measures should be implemented to the maximum extent feasible.

Comment 3-11

9. **Idling:** At all times, idling of heavy-duty diesel trucks should be minimized; auxiliary power units should be used whenever possible. State law requires that:
 - Drivers of diesel-fueled commercial vehicles shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location.
 - Drivers of diesel-fueled commercial vehicles shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle. Trucks with 2007 or newer model year engines must meet additional requirements (verified clean APS label required).
 - See www.arb.ca.gov/noidle for more information.

We hope you find our comments useful. We look forward to reviewing the Draft EIR. Please contact me at (805) 961-8890 or by e-mail at barhamc@sbcapcd.org if you have questions.

Sincerely,



Carly Barham
Planning Division

Attachments: Fugitive Dust Control Measures
Diesel Particulate and NO_x Emission Measures

cc: David Harris, Manager, District Engineering Division
Planning Chron File



ATTACHMENT A
FUGITIVE DUST CONTROL MEASURES

These measures are required for all projects involving earthmoving activities regardless of the project size or duration. Projects are expected to manage fugitive dust emissions such that emissions do not exceed APCD's visible emissions limit (APCD Rule 302), create a public nuisance (APCD Rule 303), and are in compliance with the APCD's requirements and standards for visible dust (APCD Rule 345).

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.
- Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
- Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.
- Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.
- The contractor or builder shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to grading/building permit issuance and/or map clearance.

PLAN REQUIREMENTS: All requirements shall be shown on grading and building plans and/or as a separate information sheet listing the conditions of approval to be recorded with the map. **Timing:** Requirements shall be shown on plans prior to grading/building permit issuance and/or recorded with the map during map recordation. Conditions shall be adhered to throughout all grading and construction periods.

MONITORING: The Lead Agency shall ensure measures are on project plans and/or recorded with maps. The Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.



ATTACHMENT B
DIESEL PARTICULATE AND NO_x EMISSION REDUCTION MEASURES

Particulate emissions from diesel exhaust are classified as carcinogenic by the state of California. The following is a list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible.

The following measures are required by state law:

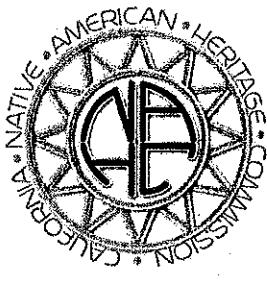
- All portable diesel-powered construction equipment greater than 50 brake horsepower (bhp) shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the California Air Resource Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce oxides of nitrogen (NOx), diesel particulate matter (DPM), and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. For more information, see www.arb.ca.gov/msprog/ordiesel/ordiesel.htm.
- Fleet owners of diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (Title 13, CCR, §2025), the purpose of which is to reduce DPM, NOx and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. For more information, see www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.
- All commercial off-road and on-road diesel vehicles are subject, respectively, to Title 13, CCR, §2449(d)(3) and §2485, limiting engine idling time. Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area.

The following measures are recommended:

- Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible.
- On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible.
- Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, should be used on-site where feasible.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.
- Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible.
- Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors.
- Construction staging areas should be located away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows.

PLAN REQUIREMENTS AND TIMING: Prior to grading/building permit issuance and/or map recordation, all requirements shall be shown as conditions of approval on grading/building plans, and/or on a separate sheet to be recorded with the map. Conditions shall be adhered to throughout all grading and construction periods. The contractor shall retain the Certificate of Compliance for CARB's In-Use Regulation for Off-Road Diesel Vehicles onsite and have it available for inspection.

MONITORING: The Lead Agency shall ensure measures are on project plans and/or recorded with maps. The Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.



STATE OF CALIFORNIA

Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

June 9, 2021

Eric Gillies
California State Lands Commission
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Sacramento, CA 95825

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Re: 2021060145, PRC 421 Decommissioning Project, Santa Barbara County

Dear Mr. Gillies:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
- c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

Comment 4-1 1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:

- a. If part or all of the APE has been previously surveyed for cultural resources.
- b. If any known cultural resources have already been recorded on or adjacent to the APE.
- c. If the probability is low, moderate, or high that cultural resources are located in the APE.
- d. If a survey is required to determine whether previously unrecorded cultural resources are present.

Comment 4-2 2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Comment 4-33. Contact the NAHC for:

- a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
- b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

Comment 4-4 4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Andrew.Green@nahc.ca.gov.

Sincerely,



Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

VIDEOCONFERENCE MEETING
STATE OF CALIFORNIA
LANDS COMMISSION
(PUBLIC COMMENTS ONLY)

In the Matter of:)
)
Public Scoping Meeting for)
for PRC 421)
Decommissioning Project)

ZOOM PLATFORM

THURSDAY, JUNE 24, 2021
2:00 P.M. AND 6:00 P.M.

JAMES F. PETERS, CSR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 10063

APPEARANCES

STAFF:

Joe Fabel, Senior Attorney

Eric Gillies, Environmental Program Manager

Katie Robinson-Filipp, Environmental Scientist

ALSO PRESENT:

Sean Anderson

Andrew Miller

Jacqueline Rosa

PROCEEDINGS

1
2 MR. ANDERSON: Hey, you guys. Can you hear me
3 okay?

4 ENVIRONMENTAL SCIENTIST ROBINSON-FILIPP: Hi,
5 Sean. Yes, we can hear you. Thank you.

6 MR. ANDERSON: Yeah. So thanks so much. This
7 look great. I guess my first comment would just be about
Comment 5-1 8 timing. And I'm sure you guys have already thought about
9 this, but with the six month duration, that raises some
10 issues with shorebird migration and stuff of that nature.

11 And so, one, I guess I'm curious as to why the
12 spring/summer as opposed to a fall/winter? I understand
13 the logistics is probably easier, less winter storms and
14 such, but there might be some ability to reduce the
15 potential impact by shifting the time.

Comment 5-2 16 And then the other comment is I think -- I'm not
17 entirely sure if this Draft EIR is the right venue, but as
18 much as we can see if we could maximize the ability of
19 this removal as a type of case study. So currently,
20 manager treatise is obviously a hot topic in some
21 communities.

22 Oftentimes we're sort of very pressed because of
23 a crisis situation. This is less so of a crisis
24 situation. We have a bit more of a sort of flexible time.
25 So I'm just curious if we could give some thought to maybe

Comment 5-3

1 some ways to test some of the approaches to manager treat
2 into dealing with this process. And so maybe that's a
3 kind of thing where the construction is designed in phases
4 as opposed to like one six month. Maybe there's a way to
5 break it up into two- or three-month segments or something
6 of that nature and to use this as a test bed to evaluate
7 other approaches to manager treat for other areas that are
8 more controversial or problematic.

Comment 5-4

9
10 mitigation measures that you guys are thinking about? Are
11 you thinking about living shorelines, things of that
12 nature, dune type of approaches or rather just simply
13 returning sediment to the same elevation as if those
14 caissons weren't there.

15 So real quickly those are my suggestions or
16 comments and thank you for this presentation.

17 ENVIRONMENTAL PROGRAM MANAGER GILLIES: Thank
18 you, Sean.

19 ENVIRONMENTAL SCIENTIST ROBINSON-FILIPP: Do we
20 have any other members who would like to provide comment?
21 If so, please raise your hand.

22 And we do have one chat that was submitted, so I
23 will read this into the record. The chat is from
24 Jacqueline Rosa. And it says one of the potential impacts
25 mentioned were those to tribal cultural resources. How do

1 you plan to connect with local tribal nations to
2 communicate and mitigate potential impacts culturally
3 important to their communities?

4 And so again, if you would like to provide verbal
5 comment, you may do so by raising your hand with the raise
6 hand Zoom feature at the bottom of your screen.
7 Additionally, you can also press star nine if you are
8 calling in to raise your hand and we will call on you to
9 speak and then you may also submit your comments through
10 the chat function.

11 ENVIRONMENTAL PROGRAM MANAGER GILLIES: So we
12 don't have anymore speakers, Katie?

13 ENVIRONMENTAL SCIENTIST ROBINSON-FILIPP: Yeah.
14 So at this time, we have no other hands raised an no other
15 chats in the chat box.

16 ENVIRONMENTAL PROGRAM MANAGER GILLIES: Okay.
17 All right. Well, we'll go ahead and proceed then, if
18 there's no more comments.

19 ENVIRONMENTAL SCIENTIST ROBINSON-FILIPP: Oh,
20 there was one chat submitted just now by Sean Anderson.
21 And he would like to identify himself as Sean Anderson
22 with ESRM Program of CSU Channel Islands.

23 ENVIRONMENTAL PROGRAM MANAGER GILLIES: Okay.
24 Thank you. Okay. Let's go a proceed with the next slide,
25 please.

(6 : 0 0 p . m .)

MR. MILLER: Good evening. My name is Andrew Miller and I'm speaking to you tonight on behalf of the Santa Barbara Chapter of the Surfrider Foundation. Surfrider appreciates the care the Commission has taking in the decommissioning of former oil and gas lease PRC 421 and we're excited to have this facility removed from the landscape and see the beach restored to its natural state.

However, Surfrider is concerned that, at least as proposed, the decommissioning project misses a unique opportunity to provide much needed public beach access to Haskell's Beach. We urge you to consider a project alternative that would repurpose the upland assets of PRC 421, including the existing access road for public beach access and parking.

As you may be aware, the City of Goleta presently has two established vertical access points that the public can use to enjoy the city's coastal resources. The first trail is located to the west of the project site of at Bacara Resort. While the Bacara trail provides much needed coastal access, the parking area is severely under capacity and fills up early on good beach days.

The second and only other location where visitors can park close to the beach is Goleta Beach Park, about

1 seven miles down the road to the east. There's a pressing
2 need in Goleta for additional safe convenient beach
3 access, so that the public can fully enjoy the coastal
4 resources that community has to offer.

5 And at least since 2006, the City has expressly
6 considered using the access road at PRC 421 for public
7 beach access. The land use element of the City's general
8 plan, policies LU 9.2 and LU 9.3 state that the Ellwood
9 oil facility and surrounding area quote shall be used for
10 coastal-dependent and coastal-related recreational uses
11 upon decommissioning. LU 9.3 further considers using the
12 access road, which it identifies as the SL 421 access road
13 as a connector to a bluff top trail to increase vertical
14 beach access.

15 The city has even gone as far as to identify the
16 terminus of the access road as a proposed beach access
17 point in general plan figure 3.1, the coastal access map.
18 And while the general plan discusses the decommissioning
19 and proper abandonment of PRC 421 facilities. It notably
20 does not indicate any desire to remove the access road.

21 There's a clear opportunity here to take as
22 derelict oil and gas infrastructure that has for decades
23 contributed, at least indirectly, to sea level rise and
24 climate change, and to convert it into something positive
25 for the benefit of the public. We believe that's too good

1 of an opportunity to pass by. And for that reason, we
2 urge the Commission to consider a project alternative that
3 repurposes the access road for vertical beach access an
4 additional bargain.

Comment 5-7
5 And one last point, to the extent the Commission
6 intends to abandon any pipelines or other infrastructure
7 in place, Surfrider would urge the Commission to carefully
8 consider how the impacts of climate change and sea level
9 rise might increase the risk of future environmental harm
10 from this legacy infrastructure.

11 Thank you.

12 ENVIRONMENTAL PROGRAM MANAGER GILLIES: Thank
13 you, Andrew.

14 ENVIRONMENTAL SCIENTIST ROBINSON-FILIPP: Thank
15 you, Andrew.

16 Do we have anyone else who would like to raise
17 their hand and provide comment?

18 And again, you may also submit comments in the
19 chat function.

20 ENVIRONMENTAL PROGRAM MANAGER GILLIES: Okay. It
21 doesn't look like we have any other raised hands and
22 nothing in the chat.

23 (Thereupon the California State Lands
24 Commission public scoping meeting adjourned.)
25

1 CERTIFICATE OF REPORTER

2 I, JAMES F. PETERS, a Certified Shorthand
3 Reporter of the State of California, do hereby certify:

4 That I am a disinterested person herein; that the
5 foregoing California State Lands Commission public scoping
6 meeting comments portion was reported in shorthand by me,
7 James F. Peters, a Certified Shorthand Reporter of the
8 State of California;

9 That the said proceedings was taken before me, in
10 shorthand writing, and was thereafter transcribed to the
11 best of my ability, under my direction, by
12 computer-assisted transcription.

13 I further certify that I am not of counsel or
14 attorney for any of the parties to said meeting nor in any
15 way interested in the outcome of said meeting.

16 IN WITNESS WHEREOF, I have hereunto set my hand
17 this 7th day of July, 2021.

18
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25



JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063

**SHUTE MIHALY
& WEINBERGER LLP**

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July 9, 2021

Via Electronic Mail Only

Eric Gillies
Environmental Program Manager I
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202
E: CEQA.comments@slc.ca.gov
P: (916) 574-1897

Re: PRC 421 Decommissioning Project NOP Comments

Dear Mr. Gillies and State Lands Commission Staff:

Shute, Mihaly & Weinberger submits this comment letter on behalf of the Santa Barbara Chapter of the Surfrider Foundation (“Surfrider”) regarding the State Lands Commission’s Notice of Preparation of an Environmental Impact Report for the PRC 421 Decommissioning Project (“Project”). Surfrider’s mission is the protection and enjoyment of ocean, waves, and beaches for all people through a powerful activist network. It has worked for decades to protect public resources in the City of Goleta (“City”), including access the sandy beach, Goleta Beach Park, and recreational amenities.

Surfrider appreciates the care that the Commission is taking in the decommissioning of former oil and gas lease PRC 421. We are excited to see this facility removed from the landscape and the beach restored to its natural state. However, Surfrider is concerned that, as proposed, the Project misses a unique opportunity to provide much-needed public access to Haskell’s Beach, including the shoreline which is a public trust resource. The Environmental Impact Report (“EIR”) should consider a Project alternative that would repurpose the upland assets of PRC 421—including the existing access road—for public beach access and parking.

Eric Gillies
July 9, 2021
Page 2

I. There is an immediate need for safe and convenient public beach access in Goleta.

Comment 6-1

The City's General Plan identifies only two locations where the public can access the beach from a public roadway. General Plan at 3-9, OS 2.3.¹ "These include access to Haskell's Beach within the Bacara Resort property and access at the City-owned Santa Barbara Shores Park and Sperling Preserve properties." *Id.*; *see also* General Plan Fig. 3.1. While the Bacara trail provides much-needed coastal access, the parking area is severely under capacity and fills up early on good beach days. Likewise, there are only 45 parking spots at the Santa Barbara Shores Park, of which only three are reserved for handicapped parking. *See* Google Maps, accessed June 28, 2021.² The actual beach access is over three quarters of a mile from the parking lot. The next closest access with dedicated parking is at Goleta Beach Park, roughly seven miles to the east of the Project site.

In order that the public may fully enjoy the coastal resources that the City has to offer, the City desperately requires new vertical beach access with associated parking.³

II. The PRC 421 Access Road

Comment 6-2

As described in the Attachment to the NOP, PRC 421 includes an upland access road that runs approximately from the Ellwood Onshore Facility to and along the sandy beach. The road is located within easements over property owned by the Sandpiper Golf Course (NOP Attachment at 4, § 2.2), which the City has designated "Open Space / Active Recreation" (General Plan Fig. 2.2). The portion of the access road that provides vertical access from the bluffs to the beach is approximately 600 feet long. NOP Attachment at 4, § 2.2. The Commission has "maintained and enhanced" the access road since 2017, when the prior owner declared bankruptcy. *Id.*; *see also* NOP Attachment at 2, § 1.0.

¹ For convenience, the most relevant portions of the City's General Plan are attached hereto as Attachments A through D. The full General Plan is available at: <https://www.cityofgoleta.org/i-want-to/view/general-plan>.

² <https://www.google.com/maps/@34.4291005,-119.8969975,66m/data=!3m1!1e3!5m1!1e4>.

³ "'Vertical' accessways are defined as the right of public access and use of areas generally perpendicular to the beach and shoreline that provide access to beach and shoreline areas from public street rights-of-way or parking areas and that have been secured for public use by the granting and recordation of access easements or by offers to dedicate such access." General Plan Policy OS 2.1.

III. The City's General Plan expressly contemplates use of the access road for public beach access.

Comment 6-3 The Attachment to the NOP recognizes that certain Responsible Agencies, including the City, “will have discretionary authority over the Project as a whole as well as authority to undertake components of the Project that lay landward of the mean high tide line.” NOP Attachment at 3, § 1.0 [noting the Commission will undertake only that portion of the Project within its jurisdiction over tidelands and submerged lands]; *see also* NOP Attachment at 11, § 3.0 and Table 1. Where a city considers discretionary land use approvals, the State Planning and Zoning Law, Gov. Code § 65000 et seq., requires that those approvals be consistent with the city’s general plan. *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806; *Families Unafraid to Uphold Rural El Dorado County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1336. It is an abuse of discretion to approve a project that “frustrate[s] the General Plan’s goals and policies.” *Napa Citizens for Honest Gov’t v. Napa County* (2001) 91 Cal.App.4th 342, 379. And, importantly, a project need not present an “outright conflict” with a general plan provision to be considered inconsistent; the determinative question is instead whether the project “is compatible with and will not frustrate the General Plan’s goals and policies.” *Napa Citizens*, 91 Cal.App.4th at 379.

Since at least 2006, the City’s General Plan has anticipated repurposing the Project site—including the access road—for public beach access. Open Space Element Policy OS 2 provides that “[v]ertical beach access **shall be** a permitted use in the Visitor-serving Commercial, Recreation, and Open-Space land use categories” (General Plan Policy OS 2.2, emphasis added) and establishes a mandate to “provide for **expanded and enhanced public vertical access** to Goleta’s shoreline by . . . **establishing new vertical access** opportunities at key locations” (General Plan Policy OS 2, emphasis added). To that end, General Plan Figure 3.1 identifies the terminus of the PRC 421 access road as a “planned vertical accessway[] to the beach and bluff-top.” General Plan Policy OS 2.2; General Plan Fig. 3.1; *see also* General Plan Fig. 2.2 (identifying the Sandpiper Golf Course for reference). That same figure identifies two proposed parking facilities and a proposed drop-off location within the vicinity of the access road. General Plan Fig. 3.1.

The Land Use Element likewise identifies the access road—which it refers to as the “SL 421 access road” (*see* General Plan Policy LU 9.3(e))—as a critical tool to increase public recreational opportunities. General Plan Policy LU 9 identifies “Key Pacific Shoreline Sites” to support “uses that are dependent upon coastal locations,” including beach recreation. Two locations near the Project site—the Ellwood Onshore Facility and the Sandpiper Golf Course—are identified as Key Pacific Shoreline Sites.

With respect to the Ellwood Onshore Facility, the General Plan states the City's "intent . . . that the long-term use of the property for oil and gas processing shall be terminated." General Plan Policy LU 9.2(b). "Upon termination of the oil and gas processing use, the priority use for the site shall be coastal-dependent and coastal-related recreational uses." General Plan Policy LU 9.2(d).

Likewise, the Sandpiper site is to be used for golf course and other "outdoor recreation purposes." General Plan Policy LU 9.3(a). "Any new development or alteration of the existing facilities shall be required to maintain or *expand the extent* of existing coastal access facilities, *including parking and vertical access to the beach.*" General Plan Policy LU 9.3(e) (emphasis added). Additionally, the City has expressed an intent to consider lateral bluff-top access that "connect[s] with the bluff-top trail on Santa Barbara Shores Park, with a transition down the bluff *to the SL 421 access road.*" *Id.* (emphasis added); *accord* General Plan Policy OS 1.7 ("Some segments of the trail, such as part of the alignment on the Sandpiper Golf Course property, may be located below the bluff but above the beach on an access road to State Lease 421.").

Finally, while the General Plan outlines the City's goals for the "[d]ecommissioning and proper abandonment of S.L. 421 facilities, including the piers and riprap seawall," the City has not expressed any desire to remove or abandon the access road. *See generally* General Plan Policy LU 10.4 (identifying the wells, piers, and seawall for removal, but not discussing the access road).

Taken together, these policies make clear the City's intent to use the PRC 421 access road for public beach access—not to destroy it. Removing the access road would frustrate the City's long-documented plan to open public vertical access at the Project site and would impede the City's land use planning efforts. To ensure the City has the opportunity use all resources presently available to it, the EIR should include a project alternative that repurposes the access road for public beach access consistent with the City's General Plan.

IV. The Coastal Act requires the State to maximize public access to coastal resources.

Comment 6-4 In addition to the City's General Plan, the Coastal Act also supports a public access alternative. State law closely guards the public's right of access to coastal resources, mandating that "[p]ublic access from the nearest public roadway to the shoreline and along the coast *shall be provided* in new development projects," except in limited circumstances not relevant here. Pub. Resources Code § 30212(a). "Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be

distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.” Pub. Resources Code § 30212.5. And, critically, “[u]pland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.” Pub. Resources Code § 30223.

As discussed above, the City suffers from a dearth of public beach access. The few access points that do exist are overburdened and inadequate to meet the needs of the City’s residents and visitors. Repurposing the PRC 421 infrastructure for new public coastal access would serve an identified need and most fully satisfy the requirements of the Coastal Act.

V. The EIR should carefully consider how climate change and sea-level rise might increase the risk of future environmental harm from any assets that are abandoned in place.

Comment 6-5 To the extent the Commission intends to abandon in place any infrastructure related to PRC 421, the EIR must carefully consider how sea level rise could increase the risk of future environmental harm or contamination from that infrastructure. In its 2015 coastal hazards vulnerability assessment (“Draft Report”), the City identifies PRC 421 as an “existing” vulnerability in light of coastal erosion and sea level rise. Draft Report at ES-4.⁴ PRC 421 and related facilities contributed to at least two oil spills in 1969 and 2015 that “coated City beaches in oil.” Draft Report at Appendix A, Part D. That vulnerability will only increase with time, as sea level rise hastens coastal erosion and threatens to expose or subsume buried infrastructure. The Commission has an obligation to analyze impacts to biological, cultural, and other resources in light of this foreseeable risk.

VI. Conclusion

Comment 6-6 The Project presents a valuable opportunity to take derelict oil and gas infrastructure—infrastructure that has for decades contributed at least indirectly to sea level rise and climate change—and to convert it into something positive for the benefit of the public. The Commission cannot let this opportunity pass by. For that reason and for those set forth above, we urge the Commission to consider a project alternative that repurposes the PRC 421 access road for vertical beach access and additional parking.

⁴ A copy of the Draft Report is attached hereto as Attachment E.

Eric Gillies
July 9, 2021
Page 6

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Ellison Folk



Andrew Miller

Attachments: A: City of Goleta General Plan Land Use Element
B: City of Goleta General Plan Fig. 2.2
C: City of Goleta General Plan Open Space Element
D: City of Goleta General Plan Fig. 3.1
E: City Council Resolution No. 15-55, approving the City of Goleta Coastal Hazards Vulnerability and Fiscal Impact Draft Report

cc: **Via E-Mail**

Bob Keats, Surfrider Foundation
Mark Morey, Surfrider Foundation
Mandy Sackett, Surfrider Foundation
Jennifer Savage, Surfrider Foundation
Angela Howe, Surfrider Foundation
Anne Wells, Planning Manager, Advance Planning Division, City of Goleta
Steve Hudson, California Coastal Commission
California Coastal Commission South Central Coast District

1388381.3

ATTACHMENT A

CHAPTER 2.0 LAND USE ELEMENT (LU)

2.1 INTRODUCTION

General Plan Law Requirements [GP]

The Land Use Element is one of seven elements mandated by state planning law, at Section 65302 of the California Government Code. The Land Use Element is required to consist of a statement of policies and a land use plan map showing the spatial distribution, location, and extent of lands designated for housing, business, industry, open space, agriculture, and other categories of public and private uses of land. It must state standards for population density and building intensity for each of the land use categories. This element defines Goleta's planned long-range development pattern and physical character, as well as the extent and distribution of future growth in the city. Other elements of the plan further address the relationships between future development and environmental quality, safety hazards, and social and economic concerns.

Land Use Element Policies

- LU 1: Land Use Plan Map and General Policies
- LU 2: Residential Land Uses
- LU 3: Commercial Land Uses
- LU 4: Office and Industrial Uses
- LU 5: Public and Quasi-Public Land Uses
- LU 6: Park and Open Space Uses
- LU 7: Agriculture
- LU 8: Central Hollister Residential Development Area
- LU 9: Coastal-Dependent and -Related Uses (Key Pacific Shoreline Sites)
- LU 10: Energy-Related On- and Off-Shore Uses
- LU 11: Nonresidential Growth Management
- LU 12: Land Use In Goleta's Environs

Coastal Act Requirements [CP]

The California Coastal Act (Coastal Act), at Section 30250 of the Public Resources Code, provides that new development shall be located within or contiguous to existing developed areas in order to create a compact development pattern that avoids "leapfrogging" and achieves efficient use of existing public facilities such as streets and utilities. An exception is provided for hazardous industrial uses, which shall be located away from existing developed areas. Coastal-dependent and visitor-serving uses, including open space and recreation, are given priority over other types of uses at or near the Pacific shoreline. All development is required to accommodate the public's right of access to the sea and shoreline. All land uses and development must be protective of coastal resources, including marine and land habitats, scenic and visual resources, agricultural lands, and archaeological resources.

Existing Land Use Pattern: 2005 [GP/CP]

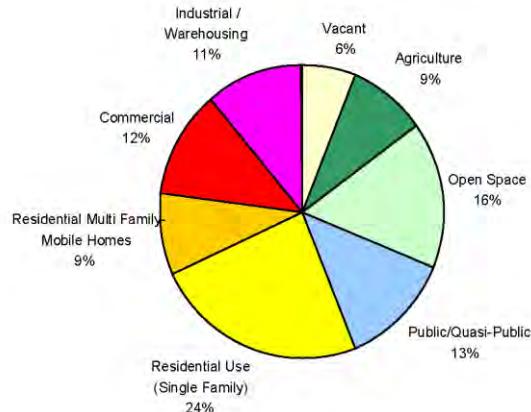
Goleta is a highly desirable place to live, work, or own a business because of the natural beauty of its location along the Pacific coast, the sunny Mediterranean climate, the scenic backdrop of the Santa Ynez Mountains, and the separation from but proximity to southern California's metropolitan areas. The city provides the many advantages of suburban living while enjoying the benefits provided by the more urban parts of the south coast and the adjacent University of California, Santa Barbara (UCSB). Land use decisions in Goleta are shaped by the community's desire to preserve and protect its natural resources, its livable neighborhoods, existing land use patterns, and quality of life. The nature and character of existing development and the desire for

a continued strong local economy, as well as concerns regarding infrastructure capacity, all influence planning for future land use.

The land use and development pattern observed in Goleta today is the result of transformation over the past 75 years of a rural landscape of ranches and agricultural lands into a prosperous suburban community. The community continues to derive an essential and valued character from the remaining agricultural and rural lands that are intermixed with its various neighborhoods. The city's neighborhoods are spread over the relatively flat coastal terrace between the foothills of the Santa Ynez Mountains to the north and the Pacific shoreline to the south on both sides of U.S. Highway 101 (US-101), the major traffic artery connecting Goleta with the nearby city of Santa Barbara to the east and westward through the Gaviota Coast to northern Santa Barbara County. For the most part, individual neighborhoods were developed as relatively large subdivision tracts of modest single-story ranch-style homes starting in the 1950s and continuing until the present day, with interruptions in development due to water supply limitations. Many of the original homes have been upgraded or expanded over time as housing values and prices have increased in the south coast area. Multifamily housing is concentrated in several areas near the Hollister Avenue corridor, from Goleta Old Town in the east to the Ellwood Beach-Matilda area in the west and adjacent to the Calle Real commercial district north of US-101.

Office and light industrial construction accelerated during the 1970s and 1980s, focused generally between Hollister Avenue and US-101 in a corridor extending from Fairview Avenue to Storke Road. This corridor includes most of the Goleta Valley's largest employers, with the notable exception of UCSB, which is located in an adjacent unincorporated area south of the city. Retail and commercial services are focused in three distinct areas of the city: the Goleta Valley's original commercial center, referred to as Goleta Old Town (Old Town); the Calle Real/Fairview Avenue shopping area; and the recently developed regional commercial center at Camino Real Marketplace in western Goleta. The city's only coastal resort, Bacara, was developed in the late 1990s at the city's western boundary. The last remnants in the city of the oil and gas industry, which was a prominent part of the early industrial history of the Goleta Valley, exist at the Venoco Ellwood Onshore Oil and Gas Processing Facility (EOF) and the nearby shoreline piers at State Lease 421 (S.L. 421) adjacent to the Sandpiper Golf Course. At the geographical center of Goleta lies a noncontiguous portion of the territory of the City of Santa Barbara. These lands are owned by the City of Santa Barbara and encompass the regional airport, with a passenger terminal for air

Distribution of Existing (2003) Land Uses



Source: Santa Barbara County Assessors Data, 2003



Goleta Old Town

carrier service, general aviation facilities, and vacant and developed lands north of Hollister Avenue for nonairport uses.

2.2 GUIDING PRINCIPLES AND GOALS [GP/CP]

The policies of this element are designed to balance the various concerns and needs of the city and its residents and will guide future change to fit the desired character of Goleta. The following guiding principles and goals, which are not in order of priority, provide the foundation for the land use plan. They incorporate many comments, ideas, and suggestions offered by participants at numerous public workshop meetings. All policies set forth in subsequent sections of this element have been established to be in conformity with the guiding principles and goals, and future actions of the City following adoption of the plan are required to be consistent.

1. Ensure that the amounts, locations, and characteristics of new development are determined in a manner that will preserve sensitive habitats and other natural resources.
2. Preserve open space within the city that is accessible to residential neighborhoods as well as a greenbelt around the city's northern, western, and southern boundaries.
3. Preserve agricultural lands to allow future potential for agricultural production, including a locally grown food supply, specialty agriculture, and floriculture.
4. Maintain economic prosperity with a sustainable economy that is not based on growth.
5. Manage the types, amounts, and timing of future growth based on maintenance of service levels and quality of life.
6. Maintain a balanced community, with an appropriate mix of residences, workplaces, and services.
7. Maintain an appropriate balance between job-generating development and housing supply.
8. Maintain a balance of housing types, densities, and sizes and ensure creation and maintenance of quality, livable residential environments.
9. Ensure that the locations, amounts, and timing of new development are consistent with resource and service constraints, including, but not limited to, transportation infrastructure, parks, water supply, sewer system capacity, and energy availability.
10. Ensure that all new development and changes to existing development are compatible with the character, scale, and design of the neighborhood.
11. Influence future land use changes in nearby areas outside Goleta to avoid, lessen, and/or mitigate impacts within the city.

2.3 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 Public Resources Code. The plan maps show the location of the California Coastal Zone boundary.

- 30220** Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

- 30221** Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.
- 30222** The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.
- 30223** Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.
- 30250**
- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
 - (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.
 - (c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated development or at selected points of attraction for visitors.
- 30255** Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

2.4 CITY POLICIES

Policy LU 1: Land Use Plan Map and General Policies [GP/CP]

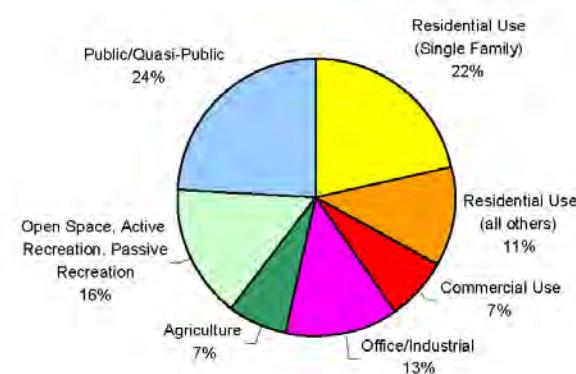
Objective: To maintain a land use pattern that provides continuity with the past and present use and development of the city and locates the various uses in a manner that is consistent with the fundamental goals and principles of the plan.

- LU 1.1** **Land Use Plan Map. [GP/CP]** The Land Use Plan map in Figure 2-1 is hereby adopted. The Land Use Plan map establishes the future distribution, extent, and geographic locations of the various land uses within Goleta. The standards applicable to each of the various use categories and sites are set forth in Policies LU 2 through LU 9.

LU 1.2 Residential Character. [GP/CP] The Land Use Plan map shall ensure that Goleta's land use pattern remains predominately residential and open, with the majority of nonresidential development concentrated along the primary transportation corridor—east and west along Hollister Avenue and US-101. The intent of the Land Use Plan is to protect and preserve residential neighborhoods by preventing intrusion of nonresidential uses that would be detrimental to the preservation of the existing character of the neighborhoods.

LU 1.3 Goleta Old Town. [GP] The City and the City of Goleta Redevelopment Agency shall continue to develop and implement programs to revitalize the Old Town area. When considering development proposals, lots designated for commercial or multifamily residential use that are less than 6,000 square feet shall be encouraged to be combined with any adjacent small lots to provide adequate parking and circulation, minimize driveway cuts on Hollister Avenue and other busy streets, and maximize design potential.

Distribution of Planned Land Use by Use Category



Source: City of Goleta 2006

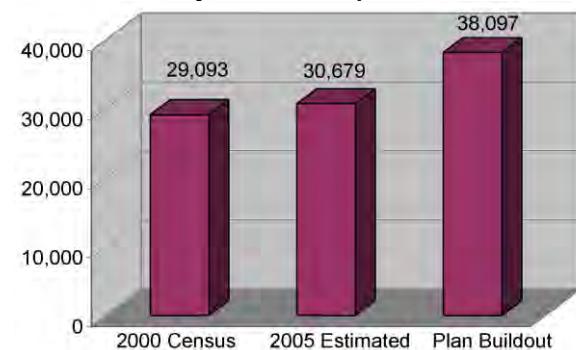
LU 1.4 Employment Centers. [GP] Existing developed office and industrial areas shall be preserved and protected to continue their role of providing employment opportunities for the community. A mix of industries and economic activities is encouraged in order to provide a wide range of employment opportunities and wage levels and to avoid over reliance on any one economic sector.

LU 1.5 Compatibility of Existing and New Industrial Areas with Adjacent Residential

Development. [GP/CP] The Zoning Code shall include performance standards that will mitigate the effects of industrial uses and development on nearby residential areas. These standards shall include, but are not limited to, the following subjects:

- Air pollution, both direct and indirect;
- Dust;
- Noise;
- Drainage and stormwater runoff;

City of Goleta Population



Sources: Population estimates for year 2000 are based on a combination of 2000 census data and estimates by the City. Population estimates for year 2005 are from the California Department of Finance. Plan buildout estimates are based on City projections.

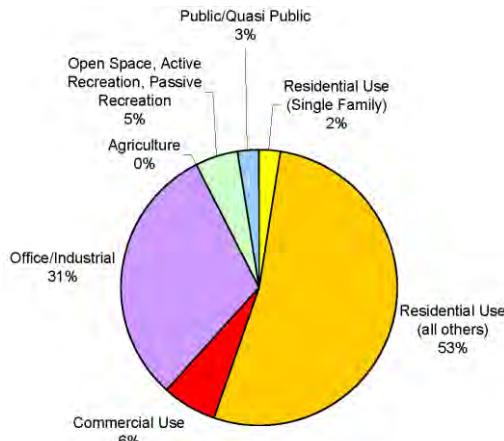
- e. Water pollution;
- f. Light pollution;
- g. Visual impacts; and
- h. Truck traffic.

Standards may include requirements for industrial uses and development to provide an adequate physical buffer or separation as well as fencing and screening to help lessen the effects on adjacent residential development. Performance standards shall be applicable to discretionary approvals pertaining to alteration or expansion of existing industrial uses and development as well as to new industrial uses and development.

- LU 1.6 Retail and Other Commercial Centers. [GP/CP]** The priority for commercial uses, including large regional commercial centers, shall be for the types that will meet local needs and those that provide goods and services not now available in the city. Goleta's retail areas shall be designed to serve as community focal points and shall include appropriate outdoor gathering places. Retail and other commercial centers shall provide high levels of maintenance and upkeep to assure their quality appearance. *(Amended by Reso. 08-30, 6/17/08)*
- LU 1.7 New Development and Protection of Environmental Resources. [GP/CP]** Approvals of all new development shall require adherence to high environmental standards and the preservation and protection of environmental resources, such as environmentally sensitive habitats, consistent with the standards set forth in the Conservation Element and the City's Zoning Code.
- LU 1.8 New Development and Neighborhood Compatibility. [GP/CP]** Approvals of all new development shall require compatibility with the character of existing development in the immediate area, including size, bulk, scale, and height. New development shall not substantially impair or block important viewsheds and scenic vistas, as set forth in the Visual and Historical Resources Element.
- LU 1.9 Quality Design in the Built Environment. [GP/CP]** The City shall encourage quality site, architectural, and landscape design in all new development proposals. Development proposals shall include coordinated site planning, circulation, and design. Public and/or common open spaces with quality visual environments shall be included to create attractive community gathering areas with a sense of place and scale. *(Amended by Reso. 08-30, 6/17/08)*
- LU 1.10 Multifamily Residential Development. [GP/CP]** The Medium- and High-Density Multifamily designations shall provide appropriate locations for multifamily dwellings as well as allow development standards that enable creativity and diversity in design while protecting health and safety. The use categories differ in terms of maximum permitted densities allowed, but each designation shall permit a range of housing types, including detached units, attached townhouses, and garden apartments. All multifamily developments shall be required to provide or ensure:

- a. Adequate open space and recreational facilities, such as parks, open spaces, or bike paths as an integral part of the development; community garden areas are encouraged.
- b. Appropriate amounts of outdoor space for the exclusive use of individual residential units.
- c. Appropriate pedestrian and bicyclist access to commercial or other activity centers and appropriate facilities to encourage use of public transit.
- d. Adequate services and facilities (such as sewer, water, and roadway capacity) concurrent with development.
- e. Adequate off-street parking.
- f. Appropriate access by emergency vehicles. *(Amended by Reso. 08-30, 6/17/08)*

Distribution of Vacant Land by Land Use Plan Category



Source: City of Goleta 2006

LU 1.11 Multiple-Use Development.

[GP/CP] New larger developments, including multifamily, commercial, retail, office, and industrial uses, shall be designed to incorporate features that enable a choice of various alternative modes of travel, such as transit, biking, and walking. Mixed-use development, where certain commercial and residential uses are provided in a single integrated development project, shall be allowed in appropriate areas, including, but not limited to, the Hollister corridor in Old Town.

LU 1.12 General. [GP/CP] The following general policies shall apply throughout the city:

- a. It shall be a permitted use for any hotel subject to the City's Transient Occupancy Tax to operate as hotel condominiums, time-shares, or under a fractional ownership model. Such hotels shall be regulated through measures including but not limited to owner-

Estimated Maximum General Plan Housing Buildout

Residential Units	Existing (2005) (Units)	Maximum Buildout (Units)	Change (Units)
Single Family	5,483	5,963	+ 480
Multi-Family	6,132	9,532	+ 3,400
Total	11,615	15,495	+ 3,880

Estimated Maximum General Plan Commercial and Industrial Buildout

Commercial/Industrial	Existing (2005) (Square Feet)	Maximum Buildout (Square Feet)	Change (Square Feet)
Commercial	2,575,000	3,279,000	+ 704,000
Industrial	9,544,000	10,921,000	+ 1,377,000
Total	12,119,000	14,200,000	+ 2,081,000

Source: City of Goleta 2006

Note: Housing unit totals are maximum buildout estimates allowed under the Land Use Plan to approximately 2030. These are not the same as housing unit totals in the Housing Element, which does not include all potential units for all mixed-use and redevelopment sites. Housing units on mixed-use and redevelopment sites in the Housing Element are related to the 2001–2009 RHNA period.

occupancy limitations, to ensure that these accommodations are available to the general public and to protect the City's transient occupancy tax base.

- b. Streets and other uses customarily found in public rights-of-way are permitted in each land use designation subject to appropriate review and mitigation of the potential environmental impacts of such facilities.
- c. Events or uses that tend toward privatization of public lands and rights-of-way are discouraged. *(Amended by Reso. 08-30, 6/17/08)*

LU 1.13 Adequate Infrastructure and Services. [GP/CP] For health, safety, and general welfare reasons, approvals of new development shall be subject to a finding that adequate infrastructure and services will be available to serve the proposed development in accordance with the Public Facilities and Transportation Elements. *(Amended by Reso. 08-30, 6/17/08)*

Policy LU 2: Residential Land Uses [GP/CP]

Objective: *To provide appropriate land areas for the residential needs of existing and future city residents consistent with the existing character of the city's neighborhoods.*

LU 2.1 Residential Land Use Categories. [GP/CP] The residential land use categories, permitted uses, and recommended standards for density and building intensity are shown in Table 2-1. The recommended planned residential densities and building intensities in residential neighborhoods have been established to be consistent with the density, intensity, and scale of existing development in order to reinforce the character of well-established neighborhoods. *(Amended by Reso. 08-30, 6/17/08)*

LU 2.2 Residential Use Densities. [GP/CP] All proposed residential projects shall be consistent with the recommended standards for density and building intensity set forth in this plan. The recommended densities described in the policies for the residential use categories and in Table 2-1 are maximum permitted densities but are not guaranteed. Density of development allowed on any site shall reflect site constraints, including:

- a. Environmentally sensitive habitat areas (ESHA).
- b. Areas prone to flooding and geologic, slope instability, or other natural hazards.
- c. Areas with stormwater drainage problems.
- d. Presence of other significant hazards or hazardous materials.
- e. Protection of significant public and private views.

- f. Exposure to exterior noise levels that exceed a Community Noise Exposure Level (CNEL) of 60 dBA (see related NE 1.2).
- g. Areas with archaeological or cultural resources.
- h. Deficiencies in the type or level of services necessary for urban development, such as transportation facilities (roadway and pedestrian), sewer and water service, and emergency service response time.
- i. Prevailing densities of adjacent developed residential areas. *(Amended by Reso. 08-30, 6/17/08)*

**TABLE 2-1
ALLOWABLE USES AND STANDARDS FOR RESIDENTIAL USE CATEGORIES**

Allowed Uses and Standards	Residential Use Categories				
	R-SF	R-P	R-MD	R-HD	R-MHP
Residential Uses					
One Single-Family Detached Dwelling per Lot	X	X	-	-	-
Single-Family Attached and Detached Dwellings	X	X	X	X	-
Multiunit Apartment Dwellings	-	X	X	X	-
Mobile Home Parks	-	-	-	-	X
Second (Accessory) Residential Units	X	X	-	-	-
Assisted-Living Residential Units	-	-	X	X	-
Other Uses					
Religious Institutions	X	X	X	X	-
Small-Scale Residential Care Facility	X	X	-	-	-
Small-Scale Day Care Center	X	X	X	X	X
Public and Quasi-public Uses	X	X	X	X	-
Accessory Uses					
Home Occupations	X	X	X	X	X
Standards for Density and Building Intensity					
Recommended Standards for Permitted Density					
Maximum Permitted Density (units/acres)	5 or less	5.01–13	20	30	15
Minimum Permitted Density (units/acres)	N/A	N/A	15	15	N/A
Recommended Standards for Building Intensity					
Structure Height (Inland Area)	25 feet	35 feet	35 feet	35 feet	25 feet
Structure Height (Coastal Zone)	25 feet	25 feet	25 feet	25 feet	25 feet
Maximum Lot Coverage Ratio	N/A	0.30	0.30	0.40	N/A
Notes:					
1. Use Categories: R-SF – Single-Family Residential; R-P – Planned Residential; R-MD – Medium-Density Residential; R-HD – High-Density Residential; R-MHP – Mobile Home Park.					
2. X indicates use is allowed in the use category; - indicates use not allowed.					
3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.					
4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.					
5. Central Hollister Housing Opportunity Sites in the R-MD land use designation (as identified in Housing Element Subpolicy HE11.6) shall provide for development of residential units at densities ranging from a minimum of 20 to a maximum of 25 units per acre.					
6. N/A = Not applicable.					
7. Accessory uses to the allowed uses in this table are regulated through zoning.					
<i>(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, Reso. 09-44, 8/18/10, and Reso. 19-21, 4/16/19)</i>					

LU 2.3 Residential Development Standards. [GP/CP] The following standards or criteria shall be applicable to residential development proposals:

- a. The privacy of existing residential uses in the immediate area shall be protected in the design of new or expanded structures.
- b. Solar access of residential uses shall be protected in the design of new or expanded structures.
- c. Proposals for construction of new or expanded homes shall be required to have a size, bulk, scale, and height that are compatible with the character of the immediate existing neighborhood.

LU 2.4**Single-Family Residential Use**

Category (R-SF). [GP/CP] The intent of this use category is to identify and protect appropriately located land areas for family living in low-density residential environments. Existing developed areas with this designation were generally subdivided at four units per acre or less and are characterized by a suburban atmosphere. This designation may be applied to provide a transition from the more intensely developed areas of the city to rural open spaces. The designation is also appropriate for areas that are subject to hazards or environmental constraints that limit the suitability of such areas for higher intensity uses. This designation is intended to provide for development of one single-family residence per lot at densities ranging from one or fewer to five units per acre. Assuming an average household size of 2.0 to 3.0 persons, this use category will allow population densities between 2.0 and 15.0 persons per acre.



Existing Single-Family Residential Use

LU 2.5**Planned Residential (R-P).**

[GP/CP] The intent of the Planned Residential designation is to allow flexibility and encourage innovation and diversity in design of residential developments. This is accomplished by allowing a wide range of densities and housing types while requiring provision of a substantial amount of open space and other common amenities within new developments. Clustering of residential units is encouraged where appropriate to provide efficient use of space while preserving natural, cultural, and scenic resources of a site. Planned residential areas may also function as a transition between business uses and single-family residential neighborhoods.



Existing Planned Residential Use at the Willow Springs Development

This designation permits single-family detached and attached dwellings, duplexes, apartments in multiunit structures, and accessory uses customarily associated with residences. This designation is intended to provide for development of residential units at densities ranging from 5.01 units per acre to 13.0 units per acre, with densities for individual parcels as shown on the map in Figure 2-1. Assuming an average household size of 2.0 to 3.0 persons, this use category will allow population densities between 10 persons per acre and 39 persons per acre.

- LU 2.6 Medium-Density Residential (R-MD). [GP/CP]** This use category permits multi-family housing and accessory uses customarily associated with residences. Development may also include attached and detached single-family dwellings and duplex structures. Medium-density areas may also function as a transition between business uses and single-family residential neighborhoods. This designation is intended to provide for development of residential units at densities of up to 20.0 units per acre. In order to achieve efficient use of a limited supply of land designated in this use category, the minimum density permitted shall be 15.0 units per acre, except where site-specific constraints are determined to limit development to fewer units. Central Hollister Housing Opportunity Sites as identified in Housing Element Subpolicy HE 11.6 shall provide for development of residential units at densities ranging from a minimum of 20 to a maximum of 25 units per acre in support of the achievement of affordable housing goals. Assuming an average household size of 2.0 to 3.0 persons, the range of population densities allowed in this use category is between 26.0 persons per acre and 60.0 persons per acre. (See related Policy LU 8 and Subpolicy HE 11.6) *(Amended by Reso. 09-44, 8/18/10)*

- LU 2.7 High-Density Residential (R-HD). [GP]** This category permits multifamily housing units and accessory uses customarily associated with residences. Such areas may also function as a transition between higher intensity business uses and medium-density multifamily housing and single-family residential neighborhoods. Housing for special needs populations may be approved at higher than the base density in this designation provided that the City finds that the impacts on traffic, public facilities and services, biological resources, air and water quality, visual resources, or other environmental resources would not be greater than the impacts associated with development at the base density. This designation is intended to provide for development of residential units at densities ranging from 20.01 units per acre to 30.0 units per acre. In order to achieve efficient use of a limited supply of land designated in this use category, the minimum density permitted shall be 15.0 units per acre, except where site-specific constraints are determined to limit development to fewer units. Assuming an average household size of 2.0 to 3.0 persons, this use category allows population densities between 40 persons per acre and 90 persons per acre. *(Amended by Reso. 08-30, 6/17/08)*

- LU 2.8 Mobile Home Park (R-MHP). [GP/CP]** This category shall permit planned mobile home parks where sites for placement of individual mobile home units may be unsubdivided and held in a common ownership or subdivided



Existing Mobile Home Park

and sold as separate lots to individual mobile home unit owners. The intent is that mobile home park sites be planned as a whole, with an adequate internal vehicular and pedestrian circulation system, adequate common and individual parking, common open space and recreation facilities, and other common amenities. Mobile homes usually provide a more-affordable housing alternative, and this designation is intended to preserve and protect existing mobile home parks in the city. The Mobile Home Park designation is intended to provide for development of residential units at densities ranging up to a maximum of 15.0 units per acre. Assuming an average household size of 2.0 to 3.0 persons, this use category allows population densities between 30.0 persons per acre and 45.0 persons per acre.

Policy LU 3: Commercial Land Uses [GP/CP]

Objective: *To provide lands in locations that are suitable, functional, attractive, and convenient for an appropriate mix and scale of residential- and business-serving commercial uses, including business and professional offices, retail trade, business services, and residential mixed uses.*

LU 3.1 Commercial Land Use Categories. [GP/CP] Table 2-2 shows the permitted uses and recommended standards for building intensity in each of the commercial land use designations. The commercial use categories are intended to provide appropriate locations for business uses that serve neighborhoods, the community, the region, and the traveling public while seeking to minimize traffic congestion, visual, and other impacts on surrounding residential areas. The intent of each use category is further described in the following sections. *(Amended by Reso. 08-30, 6/17/08)*

LU 3.2 Regional Commercial (C-R). [GP] This category is intended to provide for a wide range of retail commercial uses, including, but not limited to, larger scale commercial uses that serve the community, the region, and the traveling public. These uses are typically land-extensive. The Regional Commercial use designation provides for commercial uses that require large sites or attract large volumes of activity, such as “large box” retail uses, restaurants, high-volume retail businesses, and professional, personal, and financial services. In order to limit regional traffic impacts, lands designated in this category shall be limited to existing locations of “large-box” uses as of 2005, shown on the Land Use Plan map in Figure 2-1, and no additional areas shall be designated.

LU 3.3 Community Commercial (C-C). [GP] The Community Commercial category is intended to allow relatively small commercial centers that provide convenience goods and services to serve the everyday needs of the surrounding residential neighborhoods



Regional Commercial at the Camino Real Marketplace

TABLE 2-2
ALLOWABLE USES AND STANDARDS FOR COMMERCIAL USE CATEGORIES

Allowed Uses and Standards	Commercial Use Categories					
	C-R	C-C	C-OT	C-VS	C-I	C-G
Retail Trade						
Large-Scale Retail Establishments	X	X	-	-	-	-
General Merchandise	X	X	X	-	-	X
Food and Drug Stores	X	X	X	-	X	X
Apparel and Specialty Stores	X	X	X	-	-	X
Building/Landscape Materials and Equipment	X	X	X	-	-	X
Eating and Drinking Establishments	X	X	X	X	X	X
Other Retail Trade Establishments	X	X	X	X	-	X
Coastal-Related Commercial	X	X	X	X	-	-
Cannabis Storefront Retail	X	X	X	-	-	X
Services (Including Offices)						
Finance, Insurance, and Real Estate	X	X	X	-	-	X
Personal Services	X	X	X	-	-	X
Business Services	-	X	X	-	-	X
Information Technology Services	-	-	-	-	-	X
Professional Services	-	X	X	-	-	X
Medical and Health-Related Services	X	X	X	-	-	-
Educational Services	-	-	X	-	-	X
Entertainment and Recreation Services	X	X	X	X	-	-
Building and Construction Services	-	-	-	-	-	X
Other Services	X	X	X	X	X	X
Transient Lodging and Services						
Resorts	-	-	-	X	-	-
Hotels, Motels, Bed and Breakfast Inns	X	X	X	X	-	-
RV Parks	-	-	X	X	-	X
Other Visitor Services and Attractions	-	-	-	X	-	X
Auto-Related Uses						
Retail – Automotive Sales and Rentals	-	-	X	-	-	X
Auto Repair and Painting	-	-	-	-	-	X
Auto Wrecking Yard/Junk Yard	-	-	-	-	-	X
Auto Service (Gas) Station	X	-	X	-	X	X
Car Wash	-	X	X	-	X	X
Wholesale Trade and Storage						
General Wholesale Trade	-	-	-	-	-	X
Warehousing – General	-	-	-	-	-	X
Warehousing – Self-Storage	-	-	-	-	-	X
Outdoor Storage	-	-	-	-	-	X
Residential Uses						
Residential Units	-	X	X	-	-	-
One Caretaker Unit	X	X	X	X	-	X
Assisted-Living Residential Units	-	-	-	-	-	X
Other Uses						
Religious Institutions	-	X	X	-	-	X
Public and Quasi-public Uses	X	X	X	-	X	X
Wireless Communications/Telecommunications	X	X	X	X	X	X
Cannabis Microbusiness	-	-	-	-	-	X*
Standards for Density and Building Intensity						
<i>Recommended Standards for Density</i>						
Maximum Residential Density	N/A	12/acre	20/acre	N/A	N/A	20/acre
<i>Recommended Standards for Building Intensity</i>						
Structure Height	35 feet	35 feet	30 feet	35 feet	25 feet	35 feet
Maximum Lot Coverage Ratio	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Use Categories: C-R – Regional Commercial; C-C – Community Commercial; C-OT – Old Town Commercial; C-VS – Visitor Commercial; C-I – Intersection; Commercial; C-G – General Commercial.
 2. X indicates use is allowed in the use category; – indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. Wholesale trade is permitted within the C-R use category, provided that it is an integral part of a retail trade use.
 5. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 6. N/A = Not applicable.
 7. Accessory uses to the allowed uses in this table are regulated through zoning.
- * Cannabis microbusiness, as defined by Section 26070 of the California Business and Professions Code, is allowed on parcels designated C-G only where a cannabis business legally existed prior to June 16, 2009.

(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

while protecting the residential character of the area. Uses that may attract significant traffic volumes from outside the Goleta Valley are discouraged. Mixed-use, including residential, development at densities up to 12 units per acre may be permitted subject to approval of a conditional use permit in appropriate locations provided that it is compatible with adjacent uses, does not break up the continuity of commercial use at the sidewalk level, or is not within the airport approach zone as designated in the Safety Element. All community commercial development shall be designed to facilitate and promote pedestrian circulation in and to the area, as well as to link these areas to other activity centers. Noise levels and hours of operation may be regulated to avoid any potential conflict with adjacent residential uses. The size of any mixed-use developments shall be consistent with street and utility capacities. The Fairview Shopping Center and Calle Real Center are included in this designation.

LU 3.4 Old Town Commercial (C-OT). [GP] This designation is intended to permit a wide range of local- and community-serving retail and office uses. A major purpose is to enhance the physical and economic environment for existing businesses and uses of the Old Town commercial district, the historic center for the Goleta Valley situated along Hollister Avenue between Fairview Avenue and State Route 217 (SR-217). The following criteria and standards shall apply to lands designated Old Town Commercial:

- a. Management of this area shall emphasize improving and reinforcing the character of the area as a pedestrian-oriented retail business area with a mix of businesses and services.
- b. "Large box" uses shall not be permitted within this use designation.
- c. Visitor-serving commercial uses, including transient lodging, may be permitted by conditional use permit.
- d. Existing heavy commercial uses (including printing and auto services and repair) are permitted uses although significant expansion of these activities shall be allowed only by conditional use permit if the expansion is compatible with adjacent uses.
- e. Allowed uses include retail uses; professional and business office uses; public uses, including governmental administration activities; restaurants; entertainment; cultural activities; personal, financial, and small business services; and various other public and quasi-public uses. See Table 2-2 for a complete listing of permitted uses.



Old Town Commercial

- f. Any new development in the Old Town Commercial category shall include buildings, pedestrian plazas, design amenities, and facilities that are consistent with the Goleta Old Town Heritage District architecture and design guidelines.
- g. Continuity of retail and office uses is required at the street or sidewalk level. Residential and office uses may be allowed on the second floor of a structure or behind the portion of a building adjacent to the street, subject to approval of a conditional use permit.
- h. Residential uses may be approved only in conjunction with a permitted principal nonresidential use on the same site.
- i. New uses or design features (such as drive-through windows, excessive light and glare) that are incompatible with residential uses or pedestrian-oriented retail activities are prohibited.

LU 3.5 Intersection or Highway Commercial (C-I). [GP] This use category is intended to provide for a limited variety of commercial uses of low to moderate intensity located at major roadway intersections. Customers are anticipated to drive to these establishments. Uses are limited to various commercial and retail services oriented to the traveling public, including, but not limited to, gas stations, convenience markets, highway-oriented restaurants, and similar uses.

LU 3.6 Visitor Commercial (C-V). [GP/CP] This use category is intended to provide for a variety of commercial uses of low to moderate intensity often at or near scenic locations that may serve as destinations for visitors. Customers are anticipated to drive or be transported to these establishments by vehicles. Development in Visitor Commercial areas shall be designed in a manner that will limit encroachment into residential or resource areas. When located near the beach or other natural areas, public access to resource areas shall be required. Transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be permitted uses, regulated through measures including but not limited to owner-occupancy limitations, to assure these accommodations are available without limitation to the general public and protect the City's transient occupancy tax base. *(Amended by Reso. 08-30, 6/17/08)*

LU 3.7 General Commercial (C-G). [GP] The purpose of this category is to provide appropriate sites to accommodate a diverse set of commercial uses that do not need highly visible locations, such as wholesale trade and service commercial, or that may involve activities that reduce compatibility with other uses. Appropriate sites are in locations that may have limited suitability for other more retail-oriented uses. General commercial uses may serve as a buffer between industrial activities or major transportation corridors and residential areas. The following criteria and standards apply to lands within this designation:

- a. The permitted uses in this classification have similar characteristics to some industrial uses, and mixed-use developments that include residential uses, except for assisted living residential uses, are not allowed.
- b. While General Commercial uses do not usually generate high volumes of traffic, sites within this designation should be accessible from major arterials in order to minimize the need for traffic to pass through residential areas on local streets.
- c. Uses that require access by heavy vehicles shall be permitted only in locations where the street can support such heavy vehicle traffic and such uses would be compatible with adjacent uses.

- d. Heavy commercial uses that may cause noise, air emissions, hazardous materials, or excessive light and glare shall require approval of a conditional use permit.

Policy LU 4: Office and Industrial Uses [GP/CP]

Objective: *To provide lands in areas suitable for businesses that create diverse types of employment opportunities and related economic activities where impacts of these uses on the surrounding residential neighborhoods can be minimized and where traffic impacts can be adequately managed.*

LU 4.1 General Purpose. [GP/CP] Table 2-3 shows the various office and industrial land use designations, including permitted uses and recommended standards for building intensity for each category. The categories are intended to provide appropriate locations for a range of employment-creating economic activities, from those based on advanced technology to storage and warehousing, while seeking to minimize traffic congestion, visual, and other impacts on the surrounding residential areas. The intent of each office and industrial use category is further described in the following sections. *(Amended by Reso. 09-32, 5/19/09)*

LU 4.2 Business Park (I-BP). [GP/CP] This use designation is intended to identify lands for attractive, well-designed business parks that provide employment opportunities to the community and surrounding area. The intensity, design, and landscaping of development should be consistent with the character of existing development currently located in these areas. Uses in the Business Park designation may include a wide variety of research and development, light industrial, and office uses, as well as small-scale commercial uses that serve the needs of business park employees. In addition, lands designated with a Hotel Overlay may include transient lodging that emphasizes extended stays, as set forth in LU 1.12. Activities in business park areas shall be conducted primarily indoors, and outdoor storage, processing, manufacturing, and vehicle repair are prohibited.

Performance standards for Business Park uses shall ensure that:

- a. The scale and design of these uses are compatible with each other and with the existing character of the park and surrounding neighborhoods.
- b. Lighting from these uses will not interfere or conflict with adjacent nonindustrial properties.
- c. Signage will be controlled.
- d. Curb cuts will be minimized and sharing of access encouraged.



Business Park on Robin Hill Road

TABLE 2-3
ALLOWABLE USES AND STANDARDS FOR OFFICE AND INDUSTRIAL USE CATEGORIES

Allowed Uses and Standards	Office and Industrial Use Categories			
	I-BP	I-OI	I-S	I-G
Industrial (Manufacturing)				
General Manufacturing – No Noxious Impacts	X	–	X	X
General Manufacturing – Potential Noxious Impacts	–	–	–	X
Research and Development	X	X	–	X
Scientific and Similar Instruments	X	X	–	X
Bio-Medical Technology	X	X	–	X
Other Advanced Technology	X	X	–	X
Transportation and Utilities				
Transportation (other than right-of-way)	–	–	X	X
Wireless Communications/Telecommunications	X	X	X	X
Utilities	X	X	–	–
Retail Trade				
Building/Landscape Materials and Equipment	–	X	–	X
Eating and Drinking Establishments	X	X	–	–
Other Retail Trade Establishments	X	X	–	–
Cannabis Storefront Retail	–	–	–	X**
Services (Including Offices)				
Finance, Insurance, and Real Estate	X	X	–	–
Personal Services	X	X	–	–
Business Services	X	X	–	–
Information Technology Services	X	X	–	–
Professional Services	–	X	–	–
Medical and Health-Related Services	–	X	–	–
Educational Services	–	X	–	–
Entertainment and Recreation Services	–	X	–	–
Building and Construction Services	–	–	X	X
Other Services	–	–	X	X
Auto-Related Uses				
Automotive Sales and Rentals	–	–	X	X
Auto Repair and Painting	–	–	X	X
Auto Wrecking Yard/Junk Yard	–	–	X	X
Auto Service (Gas) Station	–	–	–	X
Wholesale Trade and Storage				
General Wholesale Trade	X***	–	X	X
Warehousing – General	X*	–	X	X
Warehousing – Self-Storage	–	–	X	X
Outdoor Storage	–	–	X	X
Residential Uses				
Residential Units	–	X	–	–
One Caretaker Unit Per Parcel	X	X	X	X
Assisted-Living Residential Units	–	X	–	–
Other Uses				
Public and Quasi-public Uses	X	X	X	X
Religious Institutions	–	X	–	–
Cannabis Microbusiness	–	–	X	X
Standards for Density and Building Intensity				
Recommended Standards for Density				
Maximum Residential Density	N/A	20units/acre	N/A	N/A
Recommended Standards for Building Intensity				
Structure Heights	35 feet	35 feet	35 feet	35 feet
Maximum Lot Coverage Ratio	0.35	0.40	N/A	N/A

Notes:

1. Use Categories: I-BP – Business Park; I-OI – Office and Institutional; I-S – Service Industrial; I-G – General Industrial.
 2. X indicates use is allowed in the use category; – indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 5. N/A = Not applicable.
 6. Accessory uses to the allowed uses in this table are regulated through zoning.
- * Warehousing is allowed on parcels designated Business Park (I-BP) if it is in association with a permitted use.
** Cannabis Storefront Retail is allowed on parcels designated General Industrial (I-G) where a medical marijuana dispensary legally existed prior to June 16, 2009.
*** General Wholesale Trade in Business Park (I-BP) is limited to Cannabis Distribution.
(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

- e. Adequate and safe motorized and nonmotorized access to the site is provided, and transportation and circulation impacts, especially on residential areas, will be mitigated.
- f. Quality landscaping, including outdoor seating areas, will be provided to enhance the visual appeal of the area. *(Amended by Reso. 08-30, 6/17/08 and Reso. 09-32, 5/19/09)*

LU 4.3 Office and Institutional (I-OI).

[GP] This designation is intended to provide areas for existing and future office-based uses. Uses allowed include moderate-density business and professional offices, medical and medical-related uses, hospitals, research and development, services oriented primarily to employees (such as day care centers, restaurants, personal and professional services), and public and quasi-public uses. In addition, lands designated with a Hotel Overlay may include transient lodging and related uses.

Mixed-use developments with residential uses on the same site may be permitted at appropriate locations where the residential uses are compatible with adjacent uses and do not break up the continuity of office and institutional uses.



Goleta Valley Cottage Hospital

The Office and Institutional use category includes lands intended to support the needs of the Goleta Valley Cottage Hospital and related medical services. These lands, which are in the vicinity of Hollister Avenue and Patterson Avenue, are designated within a Hospital Overlay on the land use plan map (Figure 2-1). The following shall apply solely to lands within the Hospital Overlay:

- a. The recommended structure height set forth in Table 2-3 is increased from 35 feet to 55 feet for hospital buildings and to 45 feet for medical office buildings, provided however that no building shall exceed 3 stories in height. The heights of hospital and medical office buildings shall be the minimum height necessary to comply with applicable state hospital construction standards and/or technical requirements.
- b. The maximum recommended lot coverage ratio set forth in Table 2-3 is increased from 0.4 to 0.6 for hospitals and to 0.5 for medical office buildings. *(Amended by Reso. 08-30, 6/17/08 and Reso. 09-32, 5/19/09)*

LU 4.4 Service Industrial (I-S).

[GP/CP] This designation is applied to properties within the airport flight path where airport operations limit the range and density of activities that may be allowed. Densities shall not exceed 25 persons per acre to conform to the Airport Land Use Plan and airport operations, as well as to maintain acceptable levels of service on roadways serving these areas. Uses may occur in a less-

managed environment than in the Business Park category. Allowed uses include warehouses, storage, outdoor storage (including storage of vehicles and recreational vehicles), automotive sales and rentals, manufacturing, heavy commercial uses, and similar uses that may be compatible with airport operations. The processing or storage of flammable or hazardous materials shall be strictly controlled. Near the airport, heights of structures and landscaping shall be limited so as not to interfere with the airspace in the airport approach zone and clear zone.

- LU 4.5 General Industrial (I-G). [GP/CP]** This designation is intended to provide land areas for a wide range of manufacturing uses, including those with potential noxious impacts, and for similar heavy commercial uses. Uses in these areas may occur in a less managed environment than in the Business Park designation. The processing or storage of hazardous materials shall be strictly controlled and subject to necessary permits in accordance with state and federal law. Uses appropriate in this land use designation include but are not limited to general manufacturing, assembly and fabrication, heavy commercial uses, high-technology manufacturing, research and development, wineries, breweries, building and construction services, and public facilities.
- LU 4.6 South Kellogg Industrial Area. [GP]** The following requirement shall apply to the South Kellogg Industrial Area, which consists of about 14 parcels generally located between Highway 101 and Armitos Avenue (including APNs 071-041-029; 071-041-030; 071-041-031; 071-041-032; 071-041-033; 071-041-038; 071-041-039; 071-041-040; 071-041-041; 071-043-002; 071-090-074; 071-090-082; 071-090-083; and 071-090-047):
- a. **Inventory of Existing Businesses.** The number of businesses and types of uses existing as of 2006 in the subject area is uncertain, as is whether all uses and development have been properly authorized by permits. In association with the owners of these parcels, the City shall require a precise inventory that includes the following information for each separate business activity: (1) the name of the business and its owner; (2) its location on the site; (3) a description of the type of use; and (4) existing site improvements.
 - b. **Determination of Permit Status.** The City shall review permit records and make a determination as to uses and/or development that have been duly authorized by the appropriate type of permits.
 - c. **Cessation of Unpermitted Uses.** Uses determined to not have proper permit authorization and which are not allowed by the zoning code shall be terminated.
 - d. **Permit Applications.** Existing uses and development determined to not have proper permit authorization but which are allowed by the zoning code shall be required to submit the appropriate applications to the City.
 - e. **Mitigation of Adverse Impacts on the Adjacent Residential Area.** Approvals of any permits shall include conditions that require mitigation of adverse effects on the adjacent residential area.
 - f. **Time Frame.** The City shall review the status of compliance after 3 years. If substantial progress has not been demonstrated, the City may initiate more intense code enforcement efforts and/or a General Plan amendment process to consider redesignation of the subject area to "Planned Residential – 8 units/acre" or other appropriate land use category.

Policy LU 5: Public and Quasi-Public Land Uses [GP/CP]

Objective: To provide land areas for governmental administration and operations, schools, fire stations, and other public and institutional uses within the city.

- LU 5.1 General. [GP/CP]** Table 2-4 shows the permitted uses and recommended standards for building intensity for the Public and Quasi-Public land use category. *(Amended by Reso. 08-30, 6/17/08)*

- LU 5.2 Public and Quasi-Public Use (P-QP). [GP]** This designation is intended to identify existing and planned land areas for public facilities, such as, but not limited to, community centers, governmental administration, governmental operations, libraries, and public schools. The designation also allows quasi-public uses, such as private schools, religious institutions, lodges, social clubs, day care centers, and similar uses. Land within the rights-of-way for US-101 and SR-217 are also designated within this use category. Public and quasi-public uses are also permitted in various other land use categories in order to provide maximum flexibility in determining locations for future public facilities. The Public and Quasi-Public use category does not include public and private parks, recreation, or open space, which are accommodated in a separate use category.



Dos Pueblos High School

Policy LU 6: Park and Open Space Uses [GP/CP]

Objective: To provide land areas for public parks, recreation, and open space land uses and private recreational lands within the city and recognize the importance of their contribution to the overall quality of life in Goleta.

- LU 6.1 General. [GP/CP]** Table 2-4 shows the Park and Open Space use categories, including permitted uses and recommended standards for building intensity for each category. The two use categories are intended to identify appropriate locations for parks and other active recreational uses and for open space and passive recreation. The intent of each use category is further described in the following sections. *(Amended by Reso. 08-30, 6/17/08)*

- LU 6.2 Open Space/Passive Recreation. [GP/CP]** This use category is intended to identify and reserve areas with significant environmental values or resources, wildlife habitats, significant views, and other open space values. It may be used to designate both private and public open space areas. The category includes areas reserved for natural drainage courses that may be managed as part of the City's stormwater management program. The following criteria and standards shall apply to lands within this designation:

TABLE 2-4
ALLOWABLE USES AND STANDARDS FOR OTHER LAND USE CATEGORIES

Allowed Uses and Standards	Other Land Use Categories			
	AG	OS-PR	OS-AR	P-S
Residential Uses				
One Single-Family Detached Dwelling per Lot	X	-	-	-
Farmworker Residential Units	X	-	-	-
Second Residential Dwelling Unit	X	-	-	-
Caretaker Residential Unit	-	-	X	X
Agricultural Uses				
Orchards and Vineyards	X	-	-	-
Row Crop Production	X	-	-	-
Specialty Agriculture and Floriculture	X	-	-	-
Livestock Grazing	X	-	-	-
Small-Scale Confined Animal Operations	X	-	-	-
Small-Scale Agricultural Processing	X	-	-	-
Small-Scale Greenhouses	X	-	-	-
Sale of On-Site Agricultural Products	X	-	-	-
Other	X	-	-	-
Open Space and Outdoor Recreation				
Active Recreation	-	-	X	X
Open Space and Passive Recreation	-	X	X	X
Golf Course, including customary ancillary uses and structures	-	-	X	X
Nature Preserve	-	X	X	X
Public and Quasi-public Uses				
General Government Administration	-	-	-	X
Fire Stations	X	-	-	X
Schools (Public and Private)	-	-	-	-
Other Government Facilities	-	-	-	X
Other Uses				
Religious Institutions	-	-	-	X
Small-Scale Residential Care Facility	X	-	-	-
Small-Scale Day Care Center	-	-	-	X
Wireless Communications/Telecommunications	X	-	-	X
Recommended Standards for Building Intensity				
Structure Height	N/A	N/A	N/A	N/A
Maximum Lot Coverage Ratio	N/A	N/A	N/A	N/A

Notes:

1. Use Categories: AG: Agriculture; OS-PR: Open Space/Passive Recreation; OS-AR: Open Space/Active Recreation; P-S: Public and Quasi-public Uses.
 2. X indicates use is allowed in the use category; - indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 5. N/A = Not Applicable.
 6. Accessory uses to the allowed uses in this table are regulated through zoning.
- (Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

- a. Open space lands are intended to maintain the land in a natural condition in order to protect and conserve sensitive habitats.
- b. Resource management activities, including, but not limited to, habitat restorations, are permitted.
- c. Minimal improvements to accommodate passive public use, such as trails, nature education, beach access, and public viewing areas, are permitted.
- d. Except for existing facilities, active recreational uses involving structures or improvements to the land shall not be permitted.
- e. Limited parking and public access improvements may be allowed provided that any adverse impacts on the associated resources are either avoided or mitigated.



Open Space and Passive Recreation at Lake Los Carneros Natural and Historic Preserve

LU 6.3

Open Space/Active Recreation. [GP/CP] This designation is intended to identify existing or planned areas for public parks and active recreational activities and facilities, such as playgrounds, picnic areas, tennis courts, ballparks, and sports fields. This use category is also intended to apply to significant private outdoor recreational facilities, such as golf courses and privately owned parks. Individual recreational areas may include a mix of passive and active recreational features or improvements. Appropriate caretaker facilities and residences may also be allowed if consistent with the character of the planned uses. The designation may also include storm drainage facilities.

Policy LU 7: Agriculture [GP]

Objective: *To preserve existing agricultural lands and reserve vacant lands suitable for agriculture to maintain the option of future agricultural uses, including local production of food commodities.*

LU 7.1

General. [GP] Table 2-4 shows the permitted uses and recommended standards for building intensity for the Agriculture land use category. Related standards for management of agricultural areas are set forth in Policy CE 11 in the Conservation Element. *(Amended by Reso. 08-30, 6/17/08)*

LU 7.2

Purpose. [GP] The Agriculture use designation shall identify land areas reserved for or used for agricultural production. The intent of this designation is to preserve lands used for agriculture, as well as lands with characteristics that make them suitable for agriculture, to meet the needs of present and future generations.

LU 7.3 Designation Criteria. [GP] Sites designated in the Agriculture land use category shall generally meet one or more of the following criteria:

- a. The site was zoned for agriculture by the County of Santa Barbara at the time of incorporation of the City of Goleta in 2002.
- b. The site is or has been used for agricultural production activities, and the site is devoid of structural improvements that prevent or limit the continued or resumed use of the land for agricultural purposes.
- c. The site has soils or other characteristics that make it suitable for production of agricultural commodities to meet local food supply or other needs and is devoid of structural improvements or other alterations that prevent or limit the use of the land for agricultural purposes.



Agriculture Uses at Fairview Gardens Farm

LU 7.4 Permitted Uses. [GP] The Agriculture designation allows for a wide range of agricultural uses, including, but not limited to, grazing, raising of livestock and poultry, orchards, vineyards, growing of food and fiber crops, nurseries, and other forms of horticulture. Structures customary and incidental to agricultural activities are permitted, including one primary dwelling unit; farmworker housing, limited to workers employed on-site; barns; storage sheds; fences; and similar improvements. Except for these structures and appropriate utility and access improvements, activities or structures that impair the productivity of soils shall not be allowed. Retail sale of produce and products produced on the site, products produced by wineries and other small-scale processing facilities, and agricultural products grown off-site are allowed subject to approval of a conditional use permit.

LU 7.5 City of Goleta Heritage Farmlands. [GP] The voters of the City of Goleta have, through the City of Goleta Heritage Farmlands Initiative (“Initiative”), established and adopted a Heritage Farmlands Policy in the City of Goleta General Plan. Section 3 of the Initiative: (1) reaffirmed and readopted General Plan goals and policies regarding agricultural lands; (2) reaffirmed and readopted the General Plan Land Use Map’s designations for lands designated “Agriculture,” which were ten (10) or more acres in size as of February 21, 2012; and (3) designated as “Agriculture” lands which were on the County of Santa Barbara Comprehensive Land Use Map and which were ten (10) or more acres in size as of February 21, 2012, and which were located within the City of Goleta’s Planning Area. The lands affected by the Initiative are “Heritage Farmlands.”

Until December 31, 2032, the General Plan provisions readopted and/or amended by Section 3 of the Initiative (“Initiative’s Plan Amendments”) may not be further amended or repealed except by a vote of the people or as follows:

- a. The City Council, following at least one public hearing, may amend the Initiative's Plan Amendments to comply with state law regarding the provision of housing for all economic segments of the community. Such amendment may be adopted only if the City Council makes each of the following findings based on substantial evidence:
 1. That the proposed development is necessary to comply with a state law imposing a mandatory housing obligation (e.g., the provision of low and very low income housing), and the area of land within the proposed development will not exceed the minimum necessary to comply with the mandatory housing obligation; and
 2. That there is no existing non-agricultural land available within the City of Goleta to accommodate development that will address the housing need identified in the analysis by which the City has determined that it is not in compliance with state.
- b. Upon request of an affected landowner, the City Council may, following at least one public hearing, amend the Initiative's Plan Amendments if the City Council does so pursuant to a finding, based on substantial evidence in the record, that the application of such Policy to any specific property for which a development application has been submitted constitutes an unconstitutional taking of the landowner's property; however, any such amendment shall be made only to the extent necessary to avoid such unconstitutional taking.
- c. The City Council may, following at least one public hearing, amend the Initiative's Plan Amendments to exempt land contemplated for construction of public schools or public parks. Such amendment may be adopted only if the City Council makes each of the following findings based on substantial evidence:
 1. The land is immediately adjacent to existing compatibly developed areas and there is evidence that the Fire Department, Police Department, Department of Public Works, the Community Services Department, and the applicable water and sewer districts with jurisdiction over such land have or will have adequate capacity to accommodate the proposed development and provide it with adequate public services; and
 2. That there is no existing non-agricultural or open space land available to accommodate the proposed development.
- d. The City Council may reorganize, reorder, and renumber the Initiative's Plan Amendments. *(Amended by Measure G, 11/06/12)*

Policy LU 8: Central Hollister Residential Development Area [GP]

Objective: To promote coordinated planning and development of designated medium-density residential sites in the Central Hollister area in order to create a quality, livable environment with appropriate design and amenities for future residents of this new residential neighborhood.

LU 8.1 Applicability. [GP] Twenty-four vacant parcels of land totaling 68.25 acres, situated largely within North Willow Springs and the Castilian Drive area, are designated for future medium-density residential development. This area lies between Hollister Avenue and the Union Pacific railroad tracks, extending from east of Los Carneros Way to Storke Road. These vacant lands, a portion of which is interspersed with

existing Business Park development, collectively include a large portion of the residential development capacity defined by this plan. *(Amended by Reso. 14-43, 7/15/14)*

LU 8.2 Purpose. [GP] The intent for this area is to enable new residential development on the existing vacant parcels along with provision of incidental and subordinate small-scale commercial uses that will serve the needs of existing employees and future residents in the immediate area. The nonresidential development should be clustered at a single site or a small number of individual sites west of Los Carneros Way. A related intent is to enable transit-oriented development along the city's primary transportation corridor so as to efficiently utilize existing infrastructure, reduce future increases in automobile travel, and support use of alternative, less-polluting modes of travel.

LU 8.3 Permitted Uses. [GP] The land area addressed by this policy shall be subject to a new Central Hollister Residential Overlay Zone, or district, that defines the scope, extent and character of neighborhood-serving nonresidential uses and development that may be permitted.

LU 8.4 Affordable Housing Development. [GP] The land area addressed by this policy, which was redesignated from nonresidential to residential use through adoption of this plan, is intended to accommodate a substantial portion of the future production of affordable housing units within the city. Properties designated 23 and 27 on Figure 10A-2 of the Housing Element shall be subject to an Affordable Housing Overlay Zone. *(Amended by Reso. 14-43, 7/15/14)*

LU 8.5 Coordinated Development Plan and Quality Design. [GP] In considering proposed projects within the Central Hollister Residential Development Area, emphasis shall be given to coordinated planning and design for the mixed-use area as a whole, including the parcels designated for Business Park uses. This may be accomplished by the creation of specific plans.

The provisions of specific plan and/or coordinated development projects shall:

- a. Ensure that the various uses are blended in a manner so that each use is compatible with the others on an individual site, as well as uses on adjacent sites.
- b. Ensure that any future residential development will not threaten the continued viability of the existing Business Park uses.
- c. Require that design and location of internal roadways and circulation be integrated with external circulation in a manner that improves overall safety and traffic flow.
- d. Provide for appropriate internal street, bicycle, and pedestrian circulation systems.
- e. Provide an adequate supply of parking within each development, with consideration of shared (or joint) parking between uses where peak parking demand is in the daytime and uses where peak demand is typically in the evening hours.
- f. Require that any future housing development create a living environment that is attractive, with high-quality architectural and landscape design.

- g. Provide for a mix of unit sizes (number of bedrooms) in residential projects.
- h. Ensure that future development will include ample open space, recreational facilities, and other amenities for employees and residents of the new housing.
(Amended by Reso. 14-43, 7/15/14)

LU 8.6 Performance Standards. [GP] Performance standards applicable to development within this area shall ensure that:

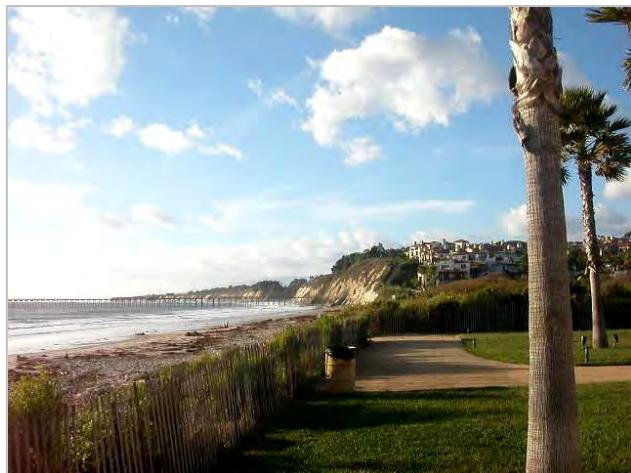
- a. The scale and design of uses are compatible with each other and reinforce the character and functions of other uses in the area and surrounding areas.
- b. The timing of new development will ensure a balance of housing and commercial uses.
- c. Lighting, noise, odors, and air pollutant emissions from commercial and Business Park uses will not interfere or conflict with residential uses.
- d. Signage will be controlled and limited to maintain an attractive living environment.
- e. Curb cuts for driveway access to individual properties will be minimized and sharing of access encouraged.
- f. Efficient and attractive pedestrian and bicycle connectivity will be provided between uses.
- g. Pedestrian-oriented outdoor spaces will be provided at strategic locations in the development.
- h. Adequate and safe motorized and nonmotorized access to each site is provided.

Policy LU 9: Coastal-Dependent and -Related Uses (Key Pacific Shoreline Sites) [GP/CP]

Objective: *To designate lands in appropriate locations near or on the shoreline for uses that are dependent upon coastal locations and cannot readily be provided at inland sites.*

LU 9.1 Site #1 – Coastal Resort Parcels (Visitor Commercial). [GP/CP]
The Land Use Plan map designates the lands that comprise the Bacara Resort as Visitor Commercial. This site is the only shoreline land in the City that is designated in this category or that is suitable for this type of use. The requirements applicable to this property are as follows:

- a. The site shall continue to be used for transient lodging, such as a hotel, and various facilities and services accessory to transient lodging, such as restaurants, retail shops, conferences and meetings, hotel-related events, recreational services, and other services that are dependent upon a coastal location, while ensuring the conservation and protection of coastal resources.
- b. Residential use shall be prohibited.



Coastal Resort Parcels at Haskell's Beach and the Bacara Resort

- c. All transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be limited to occupancy for no more than 30 consecutive days at any one time and shall be available for overnight stays by the general public.
- d. Transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be a permitted use regulated by mechanisms such as owner-occupancy limits, to ensure that these accommodations are available to the general public.
- e. Approval of any proposal for transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall limit occupancy by owners of individual units to 30 or fewer consecutive days for any single stay and no more than 90 total days in any calendar year. All transient lodging units in above-mentioned forms of ownership shall be made available for transient occupancy use by the general public through the hotel reservation system at times when units are not occupied.
- f. Any expansion or alteration of existing development shall be required to maintain or expand the extent of existing coastal access facilities, including parking and vertical access to the beach. "Maintain or expand" is clarified to include flexibility, if at least one of the following is met:
 1. To provide better protection of coastal resources;
 2. To maximize public access; and/or
 3. If natural processes impede existing access.
- g. Any expansion or alteration of existing development shall be required to protect environmentally sensitive habitats and archaeological resources, including provision of the buffers set forth in the Conservation Element. *(Amended by Reso. 08-30, 6/17/08)*

LU 9.2

Site #2 – Coastal Recreation. [GP/CP] This parcel, occupied as of 2005 by the Venoco EOF, is designated in the Open Space/Active Recreation use category. The requirements applicable to this site are as follows (see Figure 2-2):

- a. The Recreation designation shall continue the nonconforming status of the existing use. The use was nonconforming at the time of incorporation of the City of Goleta. Its nonconforming status dates to the early 1990s when the property's zoning was changed by the County of Santa Barbara to the Recreation District as part of a plan to consolidate onshore oil and gas processing at the Las Flores Canyon site in the unincorporated area west of Goleta.
- b. The intent is that in the long-term use of the property for oil and gas processing shall be terminated. The processing of hazardous materials and the risks associated with air emissions make this location, which is adjacent to Bacara Resort and Sandpiper Golf Course and near Ellwood School and the residential neighborhoods of Santa Barbara Shores and Winchester Commons, unsuitable for oil and gas processing in the long term.
- c. Until such time as the oil and gas processing use is terminated, any modifications or alterations of the existing facilities shall be in accordance with the provisions of LU 10.1 and shall be designed to improve air quality, reduce environmental impacts and hazards, and improve safety for nearby lodging, recreational, and residential uses.
- d. Upon termination of the oil and gas processing use, the priority use for the site shall be coastal-dependent and coastal-related recreational uses that are

conducted primarily outdoors or limited to small-scale structures. Adequate on-site parking shall be provided to serve all recreational uses (see related Policy OS 2).

LU 9.3 **Site #3 – Coastal Recreation**

Parcels. [GP/CP] These parcels, which were occupied by the Sandpiper Golf Course as of 2005, are designated in the Open Space/Active Recreation use category. The requirements applicable to this site are as follows (see Figure 2-2):

- a. The Sandpiper site shall continue to be used for golf course and other related outdoor recreation purposes.
- b. The golf course shall be maintained as a public course and shall not be converted to a members-only course.
- c. Any future project that requires a discretionary approval by the City shall be subject to a condition that requires preference to be given to local residents in terms of fees and tee times during appropriate time periods each week.
- d. The size and design of any new buildings and structures, or expansions and alterations of existing buildings, shall be controlled so as to preserve the character of the property as open land and minimize impacts on views of the ocean and Channel Islands from Hollister Avenue and views of the Santa Ynez Mountains from within the property and from beach and water areas.
- e. Any new development or alteration of the existing facilities and golf course shall be required to maintain or expand the extent of existing coastal access facilities, including parking and vertical access to the beach. Lateral bluff-top access may also be considered and should connect with the bluff-top trail on Santa Barbara Shores Park, with a transition down the bluff to the SL 421 access road. The intent is to secure access easements, or offers to dedicate, that will provide for lateral access during all seasons and tide conditions. Conceptual locations for future coastal accessways are shown on Figure 3-1 in the Open Space Element (see also OS 1.7).
- f. Any commercial uses, including restaurants, shall be open to the general public.
- g. Views from Hollister Avenue to the ocean and islands shall be preserved. Perimeter walls and landscaping that would obstruct or impair coastal views shall not be permitted.
- h. Any rerouting or alteration of the golf course shall be designed in a manner that protects and enhances environmental resources, including adjacent monarch butterfly habitat areas, Devereux Creek, and other drainages, and that protects safety on the beach.



Coastal Recreation Parcels at Sandpiper Golf Course

(See related Policies OS 1 and OS 2.)

LU 9.4 Site #4 – Santa Barbara Shores Park and Sperling Preserve Parcels (Open Space/Passive Recreation). [GP/CP] This group of parcels, with a total of about 229 acres, is owned by the City. These lands are subject to deed restrictions that require the use of the property to be restricted in perpetuity to passive recreational activities and habitat protection. The criteria applicable to these parcels are as follows (see Figure 2-2):

- a. All future actions shall be consistent with the primary purposes of (1) preserving and enhancing the properties' sensitive habitats, including habitats for monarch butterflies, various raptors, and western snowy plovers, as well as vernal pools, riparian areas, native grasslands, coastal scrub, and other sensitive aquatic and terrestrial habitats and (2) preserving or improving the past level of access and use by the public.
- b. Any development of structures shall be limited to a public restroom facility to be located at the public parking lot at Hollister Avenue.
- c. An extensive coastal access trail system shall be maintained, as shown in Figure 3-2 of the Open Space Element. The trails shall include segments of the California Coastal Trail and the Juan Bautista de Anza Historic Trail.
- d. Any trail improvements shall be designed to maintain the natural, low-impact appearance of the existing informal trails; surfacing materials shall be limited to compacted fines or native soil materials without binders. The widths of trails shall be the minimum necessary to accommodate the planned types of users.
- e. A public coastal access parking lot, not to exceed 45 parking spaces, shall be maintained at Santa Barbara Shores Park, with vehicular access from Hollister Avenue.
- f. Any ornamental landscaping shall be limited to native species that will maintain the natural appearance of the area and that will not impair or obstruct scenic views from Hollister Avenue to the coastal bluffs, Pacific Ocean, and Channel Islands and preserve views from within the property to the Santa Ynez Mountains.

(See related Policy OS 5 and Figures 3-3 and 3-4.)

Policy LU 10: Energy-Related On- and Off-Shore Uses [GP/CP]

Objective: *To promote the discontinuation of onshore processing and transport facilities for oil and gas, the removal of unused or abandoned facilities, and the restoration of areas affected by existing or former oil and gas facilities within the city.*

LU 10.1 Oil and Gas Processing Facilities (Venoco Ellwood Onshore Oil and Gas Processing Facility). [GP/CP] As of 2005, the city had one existing oil and gas processing facility situated within its boundaries, the Venoco-owned EOF, which is a nonconforming use. The EOF and other oil and gas processing facilities generate emissions of air pollutants, pose safety hazards to nearby areas, create visual impacts, and create risks to marine and land resources associated with spills, leaks,

or pipeline ruptures. The following standards shall apply to oil and gas processing facilities:

- a. The City supports County policies regarding consolidation of oil and gas processing in the South Coast Consolidation Planning Area at Las Flores Canyon in the unincorporated area west of Goleta. No new oil and gas processing facilities shall be permitted within Goleta.
- b. The Venoco EOF site is an inappropriate location for processing of oil and gas because of the public safety and environmental hazards associated with this type of use and its close proximity to residential neighborhoods, Ellwood School, Bacara Resort, and environmentally sensitive habitat areas. The site is designated in the Open Space/Active Recreation use category on the Land Use Plan map and shall continue to be a nonconforming use.
- c. The EOF shall continue to be subject to the rights and limitations applicable to nonconforming uses under California law. No modifications or alterations of the facility or other actions shall be authorized that would result in the expansion of the permitted throughput capacity of the EOF. The existing maximum permitted capacity shall not be exceeded, except for very minor increases that may be incidental to actions designed to improve safety or reduce environmental impacts.
- d. Until the EOF use is terminated, the priority shall be to insure that the facility strictly meets or exceeds all applicable environmental and safety standards.



Venoco Ellwood Onshore Oil and Gas Processing Facility

LU 10.2 Decommissioning of the Venoco Ellwood Onshore Oil and Gas Processing Facility. [GP/CP] The following requirements shall apply to the cessation of operations and decommissioning of the facility:

- a. Within 12 months of cessation of operations, the existing owner/operator shall submit an Abandonment Plan application for City review and approval. The Abandonment Plan shall include a detailed description of all decommissioning work and site restoration, including, but not limited to, remediation of soil and groundwater contamination if required by the City or County Fire Department. Removal of all oil and gas facilities and debris from the site shall be required, except where such removal would result in greater adverse impacts than abandonment in place. Disposition of all materials shall be at a properly licensed disposal site and in compliance with any applicable requirements. The estimated cost of the decommissioning work shall be deposited to an escrow account no later than the time the Abandonment Plan is submitted to the City.

- b. An Abandonment Plan shall also be required as part of any request for expansion of production levels for oil or gas. This Abandonment Plan shall be subject to a requirement for the owner/operator to provide a sinking fund or other financial instrument or surety that would pay for the full costs of decommissioning, including any required soil or groundwater remediation.
- c. The owner/operator shall commence the decommissioning activities within 2 years of the cessation of operations and shall complete removal of all oil and gas facilities within 2 years following the start of the decommissioning project.
- d. Decommissioning shall include restoration of the EOF site to a natural condition or to a condition that is suitable for the uses and development that are allowed within the Open Space/Active Recreation use category designated for the property. Restoration shall include recontouring the site, if appropriate, and revegetation with suitable native plant material. The restoration plan shall be prepared by the owner/operator and shall be subject to review and approval by the City.

LU 10.3 Oil and Gas Transport and Storage Facilities. [GP/CP] Existing active oil and gas pipelines and storage facilities as of 2005 are associated with transporting oil and gas from Platform Holly and shoreline wells at S.L. 421 to the EOF and to Line 96, which transports oil from the EOF to the Ellwood Marine Terminal (EMT). Inactive and abandoned pipelines may exist at various locations within the city, particularly near the shoreline. The following shall apply to oil and gas transport and storage facilities within the city:

- a. New oil and gas pipelines and storage facilities, except for transmission and distribution facilities of a Public Utility Commission (PUC) regulated utility, shall not be approved within the city unless there is no feasible or less environmentally damaging alternative location for a proposed pipeline. Existing facilities shall be maintained and operated in a manner that assures safety, minimizes or avoids risks of leakage or rupture, and that avoids impacts to visual and recreation and scenic resources, including beaches. Alterations or replacement of existing pipelines or segments of pipelines shall be limited to the minimum necessary to ensure safety or prevent environmental damage.
- b. In the event that extended field development from Platform Holly is approved, the City supports the processing of oil and gas production at the South Coast Consolidation Planning Area at Las Flores Canyon. Any increase in throughput above currently permitted levels shall require a General Plan amendment and rezone of the EOF site to a use category and zoning district that allow oil and gas processing.
- c. Unused, inactive, or abandoned pipelines as of 2005, including the remnants of the Arco pipeline, shall be required to be decommissioned. An Abandonment Plan application shall be required to be submitted for City review and approval. Where such pipelines exist on property that is proposed for development or redevelopment, the Abandonment Plan application shall be submitted concurrent with the application for development of the property but shall be processed separately.
- d. Existing pipelines that were actively used as of 2005 shall be decommissioned as part of and concurrent with the decommissioning of the related oil and gas

facilities, such as the EOF, EMT, the S.L. 421 shoreline wells and piers, and Platform Holly.

- e. When onshore and offshore oil and gas pipelines are decommissioned, regardless of whether the pipeline was active or unused as of 2005, the pipeline and all related debris shall be removed. Exceptions may be granted for segments of onshore pipelines that are within city street rights-of-way or that traverse environmentally sensitive habitat areas, provided that the applicable pipeline segments are properly cleaned and treated prior to abandonment in place. Areas of ground disturbance shall be restored to pre-project conditions, including revegetation of the affected area. Where segments of pipelines that traverse environmentally sensitive habitats, including, but not limited to, wetlands, streams, or coastal dunes and beaches, are decommissioned and/or removed, all affected habitat areas shall be restored consistent with the character of the habitat.
- f. The existing owner/operator of a pipeline to be decommissioned shall be responsible for all costs related to the decommissioning. When a responsible owner/operator of an inactive or abandoned pipeline cannot be found, any successor in interest shall be the responsible party, including the owner of the real property on which the pipeline is situated.

LU 10.4

State Lands Commission Lease 421. [GP/CP] Two idle wells, one for oil production and one for wastewater injection, and related piers exist as of 2005 in state tidelands at the Pacific shoreline below the Sandpiper Golf Course property. These are the last two remaining shoreline oil wells in the state. Production has been idled since 1994 when the former owner/operator stopped operations following a pipeline rupture and oil spill. The location of the wells within the tidal zone results in a risk of discharge of oil into the seawater in the event of failure of the wells or their components. S.L. 421 is served by several onshore facilities, including pipelines and an access road protected by a riprap seawall at the base of the bluff. The current owner, Venoco, has an interest in recommissioning production at the idled oil well. The following policy applies to S.L. 421 and the related onshore facilities:

- a. The City's intent is that oil production not be recommenced at S.L. 421 because of the environmental hazards posed by the resumption of oil production and processing over coastal waters and the impacts to visual resources and recreation at the beach. Unless it is determined that there is a vested right to resume production at S.L. 421, the City supports termination of the lease by the State Lands Commission (SLC) and/or a quitclaim of the lease by the owner/operator.
- b. If resumption of production is considered for approval, on-pier processing of the oil at a site within the tidal zone should not be approved unless it is demonstrated that there is no feasible and less environmentally damaging alternative to processing on the pier. The development of new



processing facilities over the sea would result in an increased and unacceptable level of risk of environmental damage.

- c. Decommissioning and proper abandonment of S.L. 421 facilities, including the piers and riprap seawall, shall be required concurrent with decommissioning of the EOF or immediately upon termination of S.L. 421. An Abandonment Plan application shall be submitted by the owner/operator within 12 months following an action to terminate the lease. The owner/operator shall commence the decommissioning activities within 2 years of the action to terminate the lease. All work to remove S.L. 421 facilities shall be completed within 3 years after starting the decommissioning project.
- d. Decommissioning work shall include restoration of the site to its natural preproject conditions. Restoration plans shall be subject to review and approval by the City.

LU 10.5 Ellwood Marine Terminal. [GP] The onshore portion of the existing EMT is located just outside the city boundary on lands leased by Venoco from the University of California, Santa Barbara. The current lease expires in January 2016. The portion seaward of the mean high tide line is subject to a lease from the State Lands Commission and includes an undersea pipeline that extends to a mooring area for barges. The onshore component of the EMT is situated adjacent to the City-owned Ellwood Mesa Open Space Preserve. Oil is transported to the EMT from the EOF via the Line 96 pipeline.

- a. The City supports the termination of the lease between UCSB and Venoco at, or prior to, the present expiration date in January of 2016.
- b. Upon cessation of use, the EMT should be properly decommissioned, including removal of the onshore and offshore portions of the facility, except where such removal would result in greater adverse impacts than abandonment in place, and the site should be restored to a natural condition with appropriate revegetation.
- c. The City supports the cessation of transport of oil by barge or tanker. In the event of new production at Platform Holly from extended-reach drilling of new wells, the City supports the transport of the new oil and gas production by pipeline to the Las Flores Canyon area for processing.

LU 10.6 Oil and Gas Production Areas. [GP] As of 2005, all oil and gas transported by or processed at facilities within the city was produced from wells in offshore lease areas. These include leases within state waters administered by SLC, specifically State Leases 421, 3120, and 3242. Leases beyond the 3-mile boundary of the state within the waters of the outer continental shelf (OCS) are administered by the U.S. Minerals Management Service (MMS).

- a. The City shall oppose any new leases in the western Santa Barbara Channel for offshore oil and gas production within state waters and within the waters of the outer continental shelf.
- b. The City shall oppose the construction of any new oil and gas production or processing facilities in the waters offshore of Goleta.
- c. Upon cessation of production at Platform Holly, the City supports the timely quitclaim of all associated leases, permanent discontinuation of all oil and gas

production, and inclusion of all former lease areas into the California Coastal Sanctuary offshore of Goleta and the County of Santa Barbara.

- d. If oil and gas production from new offshore leases or facilities occurs, the new production shall not be processed at the EOF. Any such production should be transported by pipeline to the nearest consolidated processing facility as defined by the County of Santa Barbara's South Coast Consolidation Planning Area policies.

Policy LU 11: Growth Management [GP]

Objective: *To manage the timing of future growth based on maintenance of service levels and quality of life.* (Amended by Reso. 09-59, 11/17/09)

- LU 11.1 Pacing of Growth. [GP]** The City shall ensure that the timing of new development is consistent with resource and service constraints, including, but not limited to, transportation infrastructure, parks, water supply, sewer system capacity, and energy availability. (See also LU Guiding Principle and Goal #9; LU 1.13; TE 1.2; TE 13; TE 14; PF Guiding Principles and Goals #6, 7 and 9; PF 4; PF 7.1; PF 7.2; HE 3)

(Amended by Reso. 09-59, 11/17/09)

Policy LU 12: Land Use In Goleta's Environs [GP]

Objectives: *To identify possible areas for future service delivery and boundary expansion by the City. To influence the amount and character of land use change and development in nearby areas of the Goleta Valley that are not within the city but that may result in impacts inside the city and provide guidance with respect to mitigation of those impacts.*

- LU 12.1 City of Goleta Planning Area. [GP]** The City of Goleta Planning Area, shown on Figure 2-3, extends from the western sphere of influence (SOI) boundary of the City of Santa Barbara in the east to the westernmost boundary of the service area of the Goleta Water District at the El Capitan area to the west. The planning area is bounded by the Pacific Ocean on the south and Los Padres National Forest on the north. The planning area includes lands within Goleta; lands within the city of Santa Barbara, including the Santa Barbara Municipal Airport; lands within the UCSB campus subject to the jurisdiction of the University of California Board of Regents and the California Coastal Commission; and a wide array of lands in unincorporated Santa Barbara County, ranging from the densely developed community of Isla Vista to the scenic rural landscapes of the Gaviota Coast. The planning area also includes lands within the jurisdiction of a variety of special districts, including the Goleta Water District, the Goleta Sanitary District, the Goleta West Sanitary District, the Embarcadero Community Services District, the Isla Vista Recreation and Park District, the Santa Barbara County Fire Protection District, the Santa Barbara County Flood Control District, the Metropolitan Transit District, and others.

In addition to the specific guidelines or criteria set forth in subsequent sections of this policy, the following general guidelines shall apply to lands within the planning area that are outside the city boundary:

- a. Land use changes and service delivery changes within the planning area shown in Figure 2-3 are likely to have impacts on Goleta and on its residents and

businesses. Such changes could affect the ability of the City to fully or effectively achieve the various objectives and purposes set forth in this plan. Consequently, the City has a strong interest in reviewing and commenting on all proposals for change in the Planning Area.

- b. The City encourages the various entities with jurisdiction over lands within the Planning Area to refer all proposals for changes to the City for its review and comments. The changes of interest to the City include, but are not limited to, the following:
 1. Proposals for development of buildings or other structures.
 2. Proposals for subdivision of land, including lot line adjustments.
 3. Proposals for changes in zoning, including the map of zoning districts and text regulations applicable to the land.
 4. Proposed new plans or amendments to existing plans, including community or area plans, specific plans, the Long-Range Development Plan (LRDP) of UCSB, the Santa Barbara Airport Master Plan, resource-related plans, and other similar planning documents.
 5. Master plans and similar planning documents for services and facilities of special districts.
 6. Proposals for annexation of lands.
 7. Proposals for acquisition or disposition of real property.
 8. Proposals to extend or modify services and/or infrastructure facilities.
- c. The City encourages that proposals related to the foregoing items be referred to the City at the earliest possible time so that the City's comments may have a role in helping shape the proposal prior to its being considered for final action in formal hearings or other proceedings.
- d. The City encourages that the Lead Agencies pursuant to the California Environmental Quality Act (CEQA) for projects situated within the Planning Area include the City in their distributions of all CEQA notices for those projects, including, but not limited to, notices of preparation and notices of public scoping meetings.
- e. The City shall notify all agencies and governmental entities having jurisdiction within the Planning Area of all City projects or actions that could potentially affect the agency or entity. This shall include notifications regarding the items set forth in section b. above and other notifications as may be requested by the agency or entity.
- f. Additional rural lands should not be annexed to the Goleta Water District, Goleta Sanitary District, or the Goleta West Sanitary District.
- g. Creation of new private service systems for sewer and water in rural areas north and west of Goleta shall be opposed.

LU 12.2 City of Goleta Service Boundary/Potential Sphere of Influence. [GP] Figure 2-4 shows Goleta's probable ultimate physical boundaries and service area, including boundaries for potential future additions to Goleta's service area. The subject areas are likely to share an identity as part of the greater Goleta area and in some

instances are portions of neighborhoods that are split by present (2006) city boundaries. The following guidelines shall apply to lands within these areas:

- a. Planned Land Uses. Figure 2-4 shows the land uses planned by the City within the potential areas that may be added to Goleta's service area. These land use designations, which are described in Policies LU 2 through LU 7, indicate the City's intended land uses during the time that such lands remain under the land use control of the County, as well as following any future boundary changes to incorporate such lands within the City.
- b. Service Delivery. The City has determined that it has the ability to effectively and efficiently provide municipal-type services to the land areas depicted on the map in Figure 2-4. Further, the City is willing to extend its services to the subject areas, provided that there is interest by area residents in having the City as a primary service provider. In some instances, access to the subject areas is exclusively by streets from within Goleta. In these and other instances, it is likely to be more practical for the City of Goleta to provide services rather than other governmental entities. Urban services (such as sewerage systems) should not be extended outside the land areas that are designated for land uses and densities that necessitate such services.
- c. Sphere of Influence. The City may prepare a request to the Santa Barbara County Local Agency Formation Commission (LAFCo) for adoption (or amendment) of a SOI for the City of Goleta that includes all or portions of the lands identified in Figure 2-4. The environmental impact report prepared for this plan has evaluated the potential impacts of the subject area being incorporated into the SOI, including potential impacts of future land use and service changes.
- d. Future Boundary Changes. The City of Goleta places the highest importance on self-determination by the voters and property owners within the areas identified in Figure 2-4 as to the appropriate governmental organization for the areas. Since some of the areas are "inhabited," as defined in LAFCo law, any future boundary change would require approval by a majority of the voters within a subject territory. The City encourages property owners and residents within these areas that may be interested in consideration of a boundary change to advise the City at the appropriate time. The City will provide appropriate assistance to help evaluate the merits of possible changes in governmental organization.
- e. Development Proposals. Following adoption of an SOI for Goleta, the City encourages that any future proposals for urban-type development on lands within the SOI boundary be evaluated to determine if such development should only be considered following any appropriate change in governmental organization for the subject area. These determinations should involve participation by all affected parties, including the City, the County, the affected property owner(s), and any affected residents.

LU 12.3 Santa Barbara Municipal Airport. [GP] Future changes at the Santa Barbara Municipal Airport, which is located on noncontiguous territory of the City of Santa Barbara situated at the center of Goleta, are of great interest and concern to the City of Goleta and Goleta's residents. Any future changes at the airport should take into account the following:

- a. New facilities or changes to existing physical facilities, such as runways and passenger terminals, should not be approved unless the impacts of the projects on nearby areas within Goleta have been fully evaluated pursuant to CEQA, and any residual impacts following implementation of mitigations are determined to be minor or insignificant. Mitigation measures should be required that avoid or reduce impacts to the maximum extent practicable.
- b. If noise impacts are anticipated to occur as a result of planned changes to airport operations or facilities, appropriate noise mitigation measures shall be considered, including adjustments of flight paths, authorized types of aircraft, and hours of operation, as well as acoustical insulation of affected residential units.
- c. The Santa Barbara Municipal Airport is situated on lands that were historically a portion of the Goleta Slough and its associated streams and wetlands. Any new facilities or changes to existing physical facilities should avoid or minimize further fill or contamination of these sensitive coastal wetlands. Fill or alteration of existing wetlands or streams should be considered only in circumstances where there is no feasible alternative and should be the minimum necessary to accomplish the essential purpose.
- d. The new passenger terminal project, and other future changes, should be designed to provide sufficient on-site parking for all airport users so that no parking impacts would occur on streets or parcels of land within Goleta neighborhoods. The passenger terminal project should incorporate design features to promote use of buses, vanpools, and other alternative forms of transportation by air passengers to reduce or avoid parking impacts and traffic impact on Goleta's streets and neighborhoods.
- e. A Mitigation Agreement between the City of Santa Barbara and the City of Goleta should be developed and adopted to provide for monetary contributions by the City of Santa Barbara for its "fair share" of the costs of any road improvements within Goleta needed to serve planned future airport projects. The agreement should also address mitigation of other types of impacts by airport projects that would occur within Goleta's territory.
- f. Proposed changes in tenants or uses on airport property should be evaluated for impacts.
- g. Appropriate mechanisms should be created in airport governance to provide for participation by representatives appointed or selected by the City of Goleta.



Aerial Photograph of the Santa Barbara Municipal Airport

LU 12.4 City of Santa Barbara Lands North of Hollister Avenue. [GP] The following criteria should apply to future uses and development on lands owned by the City of Santa Barbara north of Hollister Avenue:

- a. Goleta encourages the City of Santa Barbara to consult with the City of Goleta when it considers development proposals on these lands.
- b. Development should be limited to uses that do not have high traffic-generation rates. Retail uses in general have very high traffic-generation rates.
- c. Provisions for mitigation of traffic impacts of development on these lands on streets and intersections within Goleta should be encompassed with the Mitigation Agreement identified in LU 12.3.
- d. Development of uses that will adversely affect revitalization efforts by the City of Goleta Redevelopment Agency in the Goleta Old Town Project Area should be avoided. Uses that would likely adversely affect Old Town revitalization include retail stores of all types, including, but not limited to, discount stores, "big box" retail, convenience retail, restaurants, and specialty retail. The City of Goleta supports uses such as an active park, recreational facilities oriented toward teens, and cultural or performance facilities.
- e. Development should be compatible with existing and planned uses on adjacent parcels within Goleta.
- f. Projects should be designed to minimize the appearance of bulk and size. Very large individual buildings should be avoided, and the mass of structures should be moderated by variations in roof and wall planes.
- g. An adequate quantity of parking spaces should be provided on-site.
- h. Development should incorporate facilities to serve pedestrians and transit riders.
- i. Any outdoor service and storage areas should be screened by fencing and appropriate landscape plantings.

LU 12.5 Future Growth of the University of California, Santa Barbara. [GP] Due to its size and location adjacent to Goleta, actions by UCSB affect the City and its neighborhoods, residents, and businesses. Access to UCSB from outside the campus and the community of Isla Vista occurs exclusively via streets and highways that pass through Goleta. An ongoing mechanism or procedure to provide for consultation between UCSB and Goleta should be established for the purpose of identifying and addressing issues of mutual interest or concern. The following concerns should be considered when future developments and/or revisions of the university's LRDP are proposed:

- a. Any future revisions to increase the cap on enrollment at UCSB and/or development associated with increases in faculty and staff should be consistent with the available and planned capacity of infrastructure that will be affected, including Goleta's streets and highways. Off-campus street and highway improvements needed to accommodate new development, including improvements within Goleta, should be provided concurrent with the construction of individual projects.
- b. A Mitigation Agreement between UCSB and the City should be developed and adopted to provide for monetary contributions by UCSB for its fair share of the

costs of road improvements needed to serve planned future university projects. The agreement should also address mitigation of other types of impacts that would occur within Goleta.

- c. Sufficient parking should be provided for university uses and facilities on campus so that parking impacts do not spill over into nearby community areas within Goleta.
- d. Any north- or west-campus projects adjacent to or near existing residential neighborhoods within Goleta should be designed to be similar in scale, height, and character to the existing neighborhood. Vehicular access to projects should emphasize routes that minimize impacts on neighborhood streets.
- e. The UCSB portion of the Ellwood-Devereux Open Space area, including the South Parcel, should be subject to deed restrictions or other equivalent mechanisms that limit its use in perpetuity to open space, passive recreation, and habitat management. Future improvements, including trails and habitat enhancements, shall be consistent with the provisions of the joint Ellwood-Devereux Coast Open Space and Habitat Management Plan.

LU 12.6 County Lands North of Cathedral Oaks Road. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County north of Cathedral Oaks Road:

- a. Low-intensity rural and agricultural uses are appropriate in this area; higher intensity uses allowed by conditional use permit, such as churches or greenhouses, are not appropriate in the foothill area north of the City.
- b. The urban-rural boundary line should not be extended to include any additional areas within the rural area.
- c. Preservation of scenic viewsheds is a high priority; development that would extend above the ridgelines should be avoided.
- d. Hillside development should be avoided; appropriate erosion and sediment control measures should be incorporated into all development proposals to avoid downstream impacts within Goleta.
- e. Any development should be designed to protect watersheds and water quality and should incorporate stormwater retention measures to avoid increases in stormwater flows in downstream areas of Goleta.
- f. The City supports the provision



*Glen Annie Golf Course Located in the
Unincorporated Area North of Cathedral Oaks
Road*

of trail connectors between the Goleta urban area and the foothills and the Los Padres National Forest area.

LU 12.7 County Lands East and South of Goleta. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County between Goleta and the boundary of the city of Santa Barbara and southward of Goleta toward UCSB and Isla Vista:

- a. New development in areas near the Goleta boundary should be of a scale, height, intensity, and design that will be compatible with the character of any adjacent residential neighborhoods within Goleta.
- b. Any impacts of development in the unincorporated area on streets and/or intersections within Goleta should be mitigated to the fullest extent feasible.
- c. A Traffic Mitigation Agreement between the County and the City should be developed and adopted by the two jurisdictions. The agreement should provide for payments by future project developers of appropriate traffic mitigation fees for each project's fair share of the costs of road improvements needed to address the impacts on streets and/or intersections in both jurisdictions. The agreement should further provide a mechanism to transfer the applicable amount of fees to the other jurisdiction based upon the impacts and street and/or intersection improvements required to mitigate impacts within its territory.
- d. New development in these unincorporated areas should be required to provide adequate on-site parking so as to avoid any parking impacts within Goleta's neighborhoods.
- e. The Ocean Meadows Golf Course should be retained as a permanent open space and recreation use. If a residential project is developed on a portion of the property, a deed restriction requiring the undeveloped portion to remain as open space in perpetuity should be required.
- f. Any future development within the Devereux Creek and Slough watershed and the Goleta Slough watershed should incorporate measures to protect water quality and wildlife corridors.
- g. The South Patterson Agricultural Area should be preserved; large-scale or high-intensity uses unrelated to agricultural use are a threat to the continued viability of this area for agricultural production and should not be approved.

LU 12.8 County Lands West of Goleta. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County westward of Goleta, including the Gaviota Coast:

- a. The City supports County policies and zoning that will retain rural uses and the low-intensity, undeveloped character of this segment of the coastal terrace and nearby foothill areas.
- b. The urban-rural boundary line should not be extended to include any additional areas.
- c. Development of residential estates and "ranchettes" should be minimized. Whenever possible, any development potential should be transferred to lands on

- the inland side of US-101 at locations where such development will not be visible from the freeway and coastal bluffs.
- d. Low-intensity rural and agricultural uses are appropriate in this area; higher intensity uses that are allowed subject to a conditional use permit, such as churches or greenhouses, should not be approved in this coastal area.
 - e. Preservation of scenic viewsheds is a high priority; development that would extend above the ridgelines should be avoided.
 - f. Hillside development should be avoided; appropriate erosion and sediment control measures should be incorporated into all development proposals. Any development should be designed to protect watersheds and water quality.
 - g. The City supports the provision of trail connectors between the Goleta urban area and the foothills and the Los Padres National Forest area.

2.5 IMPLEMENTATION ACTIONS [GP]

The following measures to implement this plan will need to be considered. Actions on these measures will be taken following plan adoption:

LU-IA-1 Preparation and Adoption of New Zoning Code and Map. A new zoning code to replace the County zoning code adopted by the City upon incorporation must be prepared and adopted by the City Council. The new Zoning Code and Zoning Map are required to implement the policies set forth in the Land Use and other elements of this plan. A single, unified zoning code that includes zoning regulations applicable to inland areas and the coastal zone is anticipated. The portion of the zoning code applicable to the coastal zone will be subject to certification by the California Coastal Commission.

Time period: 2006 to 2007

Responsible parties: Planning and Environmental Services Department, Planning Commission, and City Council.

LU-IA-2 Adoption of Sphere of Influence for Goleta. The Santa Barbara County LAFCo is required to adopt an SOI for Goleta pursuant to Section 56425 of the California Government Code. The Goleta SOI will be a plan that defines the probable future physical boundaries and service area of the city. The SOI defines an area within which future annexations to the city may be considered. The City may submit a request to LAFCo for adoption of an SOI that is consistent with this plan. Alternatively, if LAFCo adopts an SOI for the City that is coterminous with Goleta's existing boundaries at the conclusion of its municipal service review for the south coast area, the City will need to determine whether, based on this plan, it is appropriate to prepare and submit an SOI amendment request to LAFCo to include additional territory.

Time period: 2006 to 2007

Responsible parties: Planning and Environmental Services Department, City Council, and LAFCo (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-3 Traffic Mitigation Agreements with UCSB, City of Santa Barbara, and County of Santa Barbara. These agreements are intended to provide for payments in lieu of traffic mitigation fees or pass through of traffic mitigation fees paid by private developers from a jurisdiction where a project is located to those jurisdictions where the streets and intersections are affected by the project. With respect to the Goleta-UCSB agreement, the agreement should address future projects that are accommodated by the University's LRDP and by subsequent amendments to the LRDP.

Time period: 2006 to 2007

Responsible parties: Community Services Department and City Council (with assistance from PES) (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-4 Neighborhood Compatibility Ordinance/Program. This program may consist of two parts: design criteria and a neighborhood compatibility ordinance (NCO). The NCO may be included within the new zoning code and could include standards for residential districts pertaining to Floor Area Ratios, height, bulk and scale, coverage by impervious surfaces, off-street parking, and other standards that are appropriate to provide for compatibility of new development and remodels with existing development in the immediate neighborhood, ensure access to sunlight and air, protect scenic views, and maintain privacy.

Time period: 2006 to 2007

Responsible party: Planning and Environmental Services Department and City Council (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-5 Transfer of Development Rights Ordinance/Program. This measure is intended to create a ordinance prescribing procedures for transfer of development rights from parcels within Goleta that may not be buildable due to policy limitations associated with habitat resources to receiving sites designated by the Land Use Plan map for residential use. In addition to the ordinance, the program would need to identify both sending and receiving sites and describe the procedures applicable to approval of individual density transfers. In order to facilitate regional planning goals, the program may include the consideration of areas outside the City's jurisdiction as sender and/or receiver sites.

Time period: 2008 to 2009

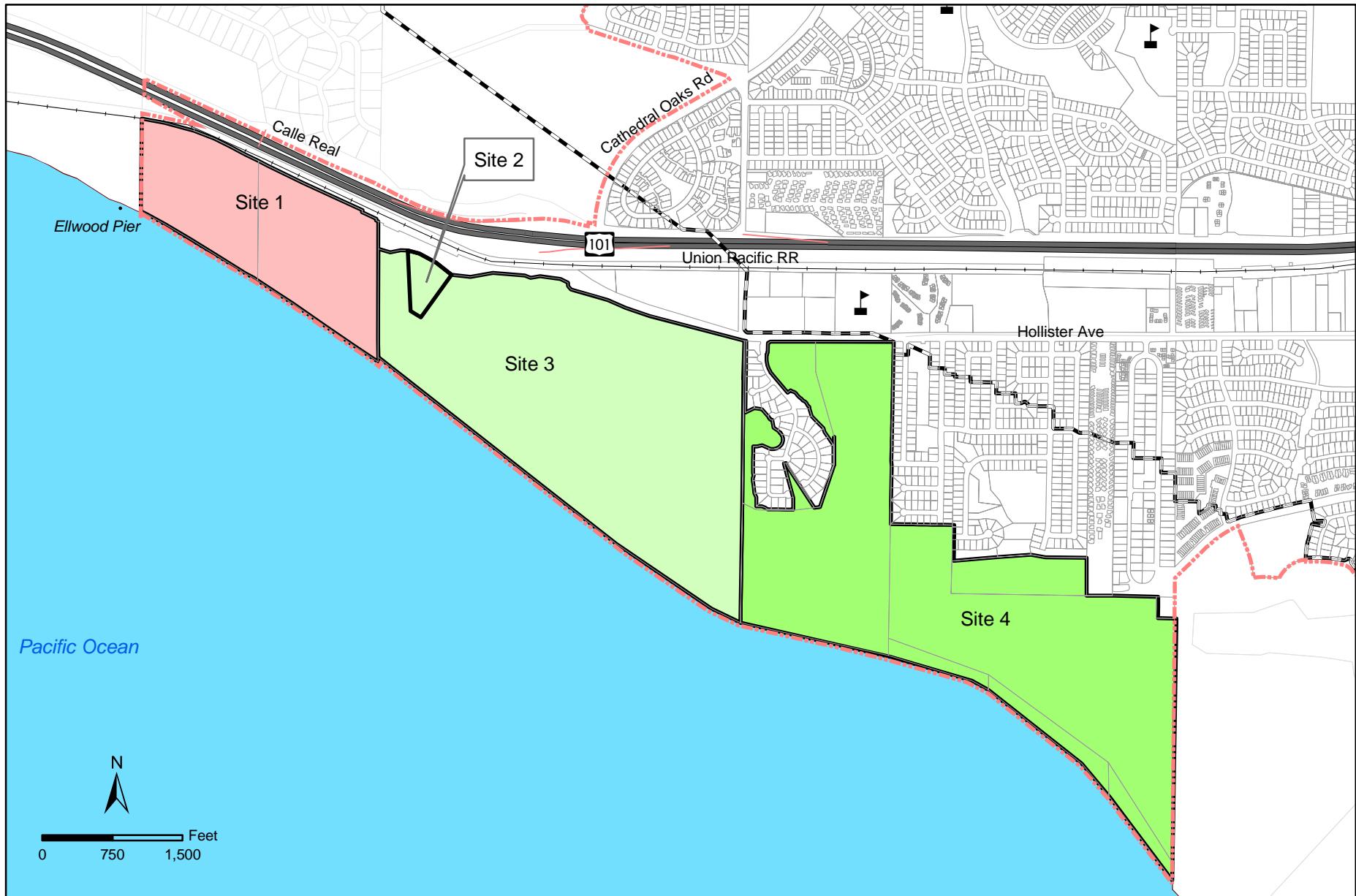
Responsible parties: Planning and Environmental Services Department and City Council (*Amended by Reso. 08-30, 6/17/08 and renumbered per Reso. 09-59, 11/17/09*)

LU-IA-6 South Kellogg Industrial Area Compliance Program. The City shall establish a systematic program to achieve land use compatibility between the South Kellogg Industrial Area and the adjacent residential area. The program shall include the components set forth in LU 4.6 and others as appropriate.

Time period: 2006 through 2009

Responsible parties: Property Owners and Businesses; Planning and Environmental Services Department; Neighborhood Services and Redevelopment Department (*Renumbered per Reso. 09-59, 11/17/09*)

ATTACHMENT B



Legend

Pacific Shoreline Sites

- [Box] Site 1 Bacara
- [Box] Site 2 Venoco
- [Box] Site 3 Sandpiper Golf Course
- [Box] Site 4 Santa Barbara Shores Park - Sperling Preserve

Land Use Categories

- [Pink Box] Commercial Visitor-Serving
- [Light Green Box] Open Space / Active Recreation
- [Darker Green Box] Open Space / Passive Recreation

Other Features

- [Dashed Red Line] Goleta City Boundary
- [Thick Black Line] Coastal Zone
- [Flag Icon] Schools

**Figure 2-2
PACIFIC SHORELINE SITES**

GENERAL PLAN/COASTAL LAND USE PLAN
September 2006



ATTACHMENT C

CHAPTER 3.0

OPEN SPACE ELEMENT: OPEN SPACE, RECREATION, AND COASTAL ACCESS (OS)

3.1 INTRODUCTION

General Plan Law Requirements [GP]

The Open Space Element is one of seven mandatory elements of a general plan as described in California Government Code (Government Code) Section 65302. The detailed requirements applicable to the Open Space Element are presented in Sections 65560 through 65570 of the Government Code. The intent of this law is to ensure that cities recognize that open space land is a limited and valuable resource that must be conserved wherever possible and to require

local plans that will accomplish the objectives of a comprehensive open space program. Open space land is defined by the law as any area of land that is essentially unimproved and designated for one or more of the following open space uses: (1) land for the preservation of natural resources; (2) land for the managed production of resources; (3) open space for outdoor recreation; (4) open space for public health and safety; and (5) protection of Native American cultural sites, including burial, historic or archaeological, sacred, or other cultural sites. State law requires that any public acquisition or disposition of any interest in open space land must be consistent with the Open Space Element. Similarly, approvals of building permits, subdivision maps, and open space zoning ordinances must also be consistent. Portions of the required subjects are addressed in the Visual and Historic Resources Element.

Open Space Element Policies

- OS 1: Lateral Shoreline Access
- OS 2: Vertical Access to the Shoreline
- OS 3: Coastal Access Routes, Parking, and Signage
- OS 4: Trails and Bikeways
- OS 5: Ellwood-Devereux Open Space Area
- OS 6: Public Park System Plan
- OS 7: Adoption of Open Space Plan Map
- OS 8: Protection of Native American and Paleontological Resources
- OS 9: Financing Public Parks, Open Space, and Recreation Facilities

Coastal Act Requirements [CP]

One fundamental purpose of the California Coastal Act (Coastal Act) is to maximize provision of public coastal access and recreation consistent with private property rights and protection of sensitive habitats and other coastal resources. The Coastal Act requires that development not interfere with the public right of access to the sea and shoreline and provides that public access must be incorporated in new development, with limited exceptions. The Coastal Act also addresses the need to regulate the time, place, and manner in which public access is provided. It specifies the need to protect shoreline land suitable for coastal recreation uses and gives priority to the use of such land for public recreational uses, including ocean-dependent and ocean-related uses, over other uses. The Coastal Act policies provide that, wherever feasible, public access and recreation facilities, including public parking lots, should be distributed throughout an area so as to prevent overcrowding or overuse of any single area. The Coastal Act further encourages the provision of lower-cost visitor and recreational facilities for the public.

Goleta's Open Space, Recreation, and Coastal Access Resources – 2005 [GP/CP]

An essential aspect of Goleta's character and livability is derived from the diverse open space and resource lands within and surrounding the community. These assets include: approximately

two miles of Pacific shoreline, beaches, and coastal bluffs; open coastal mesas; Goleta and Devereux Sloughs; agricultural lands, including citrus groves and vegetable crops as well as fallow lands; creeks, riparian areas, ponds, wetlands, and woodlands; diverse wildlife habitats, including eucalyptus groves comprising the largest complex of monarch aggregation sites in southern California; numerous public and private parks and open space areas, many of which include especially valued resource lands; lands with historic structures and landscapes; Lake Los Carneros and its surrounding open lands; and the scenic backdrops provided by the Santa Ynez Mountains, Pacific Ocean, and Channel Islands. Parks and open space not only serve to protect environmental resources, but they also provide accessible recreational venues for residents, including families, elderly persons, and disabled and low-income residents. Preservation of these resources is integral to maintaining the natural and historical qualities of the area for the benefit of present and future generations.

Existing Parks and Open Space

As of 2005, Goleta's 16 public parks, four private parks and open space areas, and 18 public open space areas comprise a total of 526 acres, which equates to about 17 acres per 1,000 residents. The three larger City-owned regional open space preserves—the Sperling Preserve, Santa Barbara Shores Park, and Lake Los Carneros Natural and Historical Preserve—collectively accounted for 363 acres of that total. Approximately 40 percent of Goleta's two miles of Pacific shoreline is now in City ownership. Together with the neighborhood open space areas, these preserves provide many opportunities for passive recreation activities and enjoyment of natural areas. Areas specifically developed for active recreational uses were less abundant in 2005, with about 3 acres of land per 1,000 residents, and additional active parks were an important need identified in the public workshop process that led to creation of this plan. The city's single recreation center, the Goleta Valley Community Center, is insufficient to fulfill all needs by community groups and residents. In addition, although the privately owned and managed Girsh Park provided much-needed facilities for active recreation, there was a shortage of public facilities for active recreation, such as sports fields and tennis courts, and a shortage of dedicated trails.



Stow Grove Park

Existing Coastal Access

Direct access to beach areas is limited due to Goleta's short 2-mile-long coastline and the presence of steep bluffs along the shoreline, except at the mouths of Bell and Tecolote Creeks. Existing public beach access is available at two locations—Ellwood Beach at the City-owned Santa Barbara Shores Park/Sperling Preserve and Haskell's Beach at the Bacara Resort property. Coastal access improvements as of 2005 included a dedicated 50-space, public coastal access parking lot at the Bacara access site and a City-owned 45-space lot at Santa Barbara Shores Park/Sperling Preserve. Additional onstreet parking is available on several streets in the Ellwood neighborhood for coastal access in the vicinity of the Coronado Preserve,

which is owned by the Land Trust for Santa Barbara County. Approximately 10 miles of public trails are provided at the 228-acre Santa Barbara Shores Park/Sperling Preserve properties. The only known outstanding offer to dedicate coastal access was at the Bacara site, which had not been accepted as of 2005.

3.2 GUIDING PRINCIPLES AND GOALS [GP/CP]

Parks and open space provide a highly valued and important component of the existing and future environment of Goleta. This element provides goals, policies, and actions intended to achieve the City's vision for open space, parks, and recreation facilities that are accessible to all members of the community. Community workshops held as part of the public process of creating this plan emphasized the present inadequate supply of active park and recreation facilities and a desire that this need be addressed by the General Plan. The following guiding principles and goals, which are not in order of priority, provide the foundation for the Open Space Element. All policies set forth in subsequent sections of this element have been established to conform to the guiding principles and goals, and future actions of the City following adoption of the plan are required to be consistent.

1. Provide and maintain, in coordination with other agencies, a system of parks, open spaces, and recreation facilities that are accessible to and will meet the needs of present and future users of all age groups.
2. Ensure that new parks and recreational services for the public are provided concurrent with new development.
3. Increase the amount of active parks, emphasizing those areas of the community that were relatively underserved as of 2005 and areas designated for future new residential development.
4. Manage, operate, and maintain park, recreation, and open space facilities (including trails) in a manner that is responsive to the site and adjacent neighborhoods and balances the needs of the community with available funding.
5. Preserve Goleta's existing open space areas, including its beaches and Pacific shoreline, sensitive habitat areas, and agricultural lands, and increase the amount of permanently protected open space as opportunities for acquisition arise.
6. Provide for convenient public access to Goleta's beach and shoreline areas and protect these areas for coastal-dependent and coastal-related recreation use.
7. Manage open space areas in a manner that provides for public access, passive and active recreational use, and enjoyment, consistent with protection of natural and scenic resource values.
8. Provide and maintain a system of trails that will connect major parks and open space areas with each other, neighborhoods, the regional trail system, and Los Padres National Forest.
9. Ensure the protection of areas associated with Native American culture, including burial sites, religious and ceremonial sites, archaeological or historical sites, and other cultural sites.

3.3 COASTAL ACT POLICIES [CP]

The Coastal Act policies 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 plan maps show the location of the California Coastal Zone boundary.

30210 In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

30212 (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

(b) For purposes of this section, "new development" does not include:

- (1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.
- (2) The demolition and reconstruction of a single-family residence; provided that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.
- (3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.
- (4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.
- (5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have adverse impact on lateral public access along the beach.

As used in this subdivision, "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

30212.5 Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the

impacts, social and otherwise, or overcrowding or overuse by the public of any single area.

- 30213** Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facilities located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

- 30214** (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
- (1) Topographic and geologic site characteristics.
 - (2) The capacity of the site to sustain use and at what level of intensity.
 - (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
 - (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.
- (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.



Bella Vista Open Space

3.4 CITY POLICIES

Policy OS 1: Lateral Shoreline Access [GP/CP]

Objective: To provide for the creation of continuous public lateral beach and bluff-top access along the entire Goleta shoreline and increase and enhance opportunities for enjoyment of beach, shoreline, and bluff-top areas, consistent with the natural shoreline character, private property rights, and public safety.

OS 1.1 Definition. [GP/CP] Lateral shoreline access is defined as the right of public access and use of areas generally along and parallel to the shoreline that have been secured for public use by the granting and recordation of access easements or by offers to dedicate such access. As used in this plan, such public access may be on the beach landward from the mean high tide line for a particular specified distance or to the base of the ocean bluffs. Beach areas seaward of the mean high tide line are considered by Article X of the Constitution of the State of California to be public tidelands and are administered by the California State Lands Commission. Lateral shoreline access may also include public access and use of areas along and generally parallel to the top of the ocean bluffs.

OS 1.2 Adoption of Coastal Access Plan Map. [GP/CP] The overall coastal access system plan, shown in Figure 3-1, is hereby adopted. The Coastal Access Plan map identifies Goleta's existing and proposed coastal access facilities, including lateral and vertical accessways, the California Coastal Trail and Juan Bautista de Anza National Historic Trail (Anza Trail) corridors, other trails, beach access locations, and public parking areas.

OS 1.3 Preservation of Existing Coastal Access and Recreation. [GP/CP]
Goleta's limited Pacific shoreline of approximately two miles provides a treasured and scarce recreational resource for residents of the city, region, and state. Existing public beaches, shoreline, parklands, trails, and coastal access facilities shall be protected and preserved and shall be expanded or enhanced where feasible (see related Policies LU 9 and OS 4).



Ellwood Coastal Trail

OS 1.4 Mitigation of Impacts to Lateral Coastal Access. [GP/CP] New development, including expansions and/or alterations of existing development, shall be sited and designed to avoid impacts to public access and recreation along the beach and shoreline. If there is no feasible alternative that can eliminate all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts shall be mitigated through the dedication of an access and/or trail easement where the project site encompasses an existing or planned coastal accessway, as shown on the map in Figure 3-1.

- OS 1.5 Existing and Planned Lateral Coastal Access. [GP/CP]** Existing and planned lateral beach and bluff-top accessways within Goleta are shown on the map in Figure 3-1. Lateral beach and shoreline public access and recreation shall be permitted uses in the Visitor-serving Commercial, Recreation, and Open Space land use categories, which are the land-use categories applicable to lands situated along Goleta's shoreline.
- OS 1.6 Dedication of Lateral Beach Accessways. [GP/CP]** Lateral beach access along the entire length of Goleta's shoreline shall be required. Access easements shall be a required condition for approval of coastal development permits for projects within the city, provided there is a clear nexus to project impacts and the required condition is roughly proportional to the extent of the impacts. The following criteria and standards shall apply to lateral accessways:
- a. The access easement, or offer to dedicate, shall apply to the beach area extending from the mean high tide line landward to the base of the ocean bluffs. Where there is no ocean bluff, the area shall extend to the nearest nonbeach natural feature, but generally shall not be less than 25 feet in width.
 - b. It shall be the intent of the City to accept all dedications or offers to dedicate for lateral beach access for areas located within the city boundaries. If the City is unable to accept the dedication of particular access easements, it shall have authority to designate another public entity or a private nonprofit organization such as a land trust to accept the easement, provided the entity is willing to operate and maintain the easement.
 - c. Mitigation measures that require dedication of public access and recreational opportunities shall be implemented prior to or concurrent with construction of the proposed development or initiation of the proposed use in instances where there is no physical development.
- OS 1.7 Lateral Bluff-Top Accessways. [GP/CP]** Lateral bluff-top access easements, or offers to dedicate easements, may be required as a condition of approval of coastal development permits for projects located on shoreline parcels, provided there is a clear nexus to project impacts and the required condition is roughly proportional to the extent of the impacts. The intent shall be to provide a trail along the entire shoreline of the city that is usable during all seasons and tide conditions, extending from the eastern boundary of the City-owned Sperling Preserve westward through the Bacara Resort site to the City's western boundary. Some segments of the trail, such as part of the alignment on the Sandpiper Golf Course property, may be located below the bluff but above the beach on an access road to State Lease 421.
- OS 1.8 Prescriptive Access Rights. [GP/CP]** Public prescriptive rights may exist in certain areas along the beach and shoreline within Goleta. Development shall not interfere with the public's right of access to the sea where such right has been acquired through historic use or legislative authorization. Where there is substantial evidence that such rights exist, these rights shall be protected through public acquisition measures or through conditions imposed on approvals of permits for new development.
- OS 1.9 Siting and Design of Lateral Accessways. [GP/CP]** Public accessways and trails shall be an allowed use in environmentally sensitive habitat areas (ESHAs). The

following criteria and standards shall apply to the siting and design of lateral accessways:

- a. Sensitive habitat areas shall be avoided to the extent practicable in circumstances where there are feasible alternative alignments of lateral accessways.
- b. Except as expressly provided for the Anza Trail (in Policy OS 4), all lateral accessways shall be designed to use native beach or soil materials and have no more than the minimum width needed to accommodate the intended type(s) of users.
- c. Lateral beach accessways shall be maintained in a natural condition free of structures and other constructed facilities and shall be limited to native sand supply.
- d. Lateral beach accessways shall be sited, designed, managed to avoid and/or protect marine mammal hauling grounds, seabird and shorebird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes.
- e. New public beach facilities shall be limited to only those structures that provide or enhance public access and recreation activities. No structures shall be permitted on sandy beach areas.
- f. All lateral shoreline access and recreation improvements shall be designed to minimize any adverse impacts to visual resources and shall be compatible with maintenance of a natural appearance.
- g. Signs shall be designed to minimize impacts to scenic coastal resources and shall be limited to trail markers and regulatory and interpretative signs. Commercial signs are prohibited.

OS 1.10 Management of Public Lateral Access Areas. [GP/CP] The following criteria and standards shall apply to use and management of lateral shoreline access areas:

- a. Private commercial uses of public beach areas shall be limited to coastal-dependent recreational uses, including but not limited to surfing schools, ocean kayaking, and similar uses. All commercial uses of beach areas and other lateral accessways shall be subject to approval of a permit by the City. The number, size, duration, and other characteristics of commercial uses of beach areas may be limited in order to preserve opportunities for use and enjoyment of the beach area by the general public. For-profit commercial uses at the City-owned Santa Barbara Shores Park and Sperling Preserve (the Ellwood-Devereux Open Space and Habitat Management Plan [OSHMP] area) are prohibited (see related Policy OS 5).
- b. Temporary special events shall minimize impacts to public access and recreation along the shoreline. Coastal Development Permits shall be required for any temporary event that proposes to use a sandy beach area and involves a charge for admission or participation.
- c. Where sensitive habitat resources are present, limited or controlled methods of access and/or mitigation designed to eliminate or reduce impacts to ESHAs shall be implemented.

- d. The hours during which coastal access areas are available for public use shall be the maximum feasible while maintaining compatibility with nearby neighborhoods and land uses. The hours for public use shall be set forth in each individual coastal development permit. Unless specific hours are described within a permit, the access shall be deemed to be 24 hours per day and 7 days per week.
- e. In order to maximize public use and enjoyment, user fees for access to lateral beach and shoreline areas shall be prohibited. Activities and/or uses that would deter or obstruct public lateral access shall be prohibited.
- f. Overnight camping and use of motorized vehicles, except for public safety vehicles and vehicles associated with construction of access improvements and maintenance and restoration or enhancement activities, shall be prohibited in lateral shoreline access areas.

Policy OS 2: Vertical Access to the Shoreline [GP/CP]

Objective: *To provide for expanded and enhanced public vertical access to Goleta's shoreline by preserving existing accessways and establishing new vertical access opportunities at key locations so as to increase opportunities for public enjoyment of beach, bluff-top, and other shoreline areas, consistent with the natural shoreline character, private property rights, and public safety.*

OS 2.1 **Definition. [GP/CP]** “Vertical” accessways are defined as the right of public access and use of areas generally perpendicular to the beach and shoreline that provide access to beach and shoreline areas from public street rights-of-way or parking areas and that have been secured for public use by the granting and recordation of access easements or by offers to dedicate such access.

OS 2.2 **Planned Vertical Accessways. [GP/CP]** Existing and planned vertical accessways to the beach and bluff-top within Goleta are shown on Figure 3-1. Vertical beach and shoreline public access shall be a permitted use in the Visitor-serving Commercial, Recreation, and Open Space land use categories, which are the land-use plan map categories applicable to lands situated along Goleta’s shoreline.

OS 2.3 **Preservation of Existing Vertical Accessways. [GP/CP]** Vertical access to Goleta’s Pacific shoreline was limited to two locations as of 2005. These include access to Haskell’s Beach within the Bacara Resort property and access at the City-owned Santa Barbara Shores Park and Sperling Preserve properties. The latter includes numerous trails that provide access to the bluff tops, although access from the bluff top to Ellwood Beach is available at only two locations. Existing public vertical coastal access facilities shall be protected and preserved



Public Access to Haskell’s Beach

and shall be expanded or enhanced where feasible (see related Policies LU 9 and OS 4).

OS 2.4 Mitigation of Impacts to Vertical Coastal Access. [GP/CP] New development, including expansions and/or alterations of existing development, shall be sited and designed to avoid impacts to public vertical accessways to the shoreline unless a comparable, feasible alternative is provided. If there is no feasible alternative that can eliminate all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts shall be mitigated through the dedication of an access and/or trail easement in the general location where the project site encompasses an existing or planned coastal accessway, as shown generally on the map in Figure 3-1. (Amended by Reso. 08-30, 6/17/08)

OS 2.5 Dedication of Vertical Accessways. [GP/CP] Dedication of vertical access easements, or offers to dedicate, shall be a required condition of approval of coastal development permits for projects on shoreline sites within the city, provided there is a clear nexus to the project impacts and the required condition is roughly proportional to the extent of the impacts. The following criteria and standards shall apply to vertical accessways:

- a. The access easement, or offer to dedicate, shall apply to an area that includes the entire public accessway that extends from the public road or parking area to the shoreline.
- b. The width of the access easement should not be less than 25 feet and shall be centered on a pathway of at least 5 feet in width.
- c. It shall be the intent of the City to accept all dedications or offers to dedicate for vertical beach access for areas located within the city boundaries. If the City is unable to accept the dedication of particular access easements, it shall have authority to designate another public entity or a private nonprofit organization, such as a land trust, to accept the easement, provided the entity is willing to operate and maintain the easement.
- d. Mitigation measures that require dedication of public access and recreational opportunities shall be implemented prior to or concurrent with construction of the proposed development or initiation of the proposed use in instances where there is no physical development.
- e. The opening of access easements that are dedicated as a condition of approval of coastal development permits shall occur only after the City, or other public or nonprofit entity designated by the City, has accepted the offer of dedication and agreed to open, operate, and maintain the accessway.
- f. New offers to dedicate access easements shall include an interim deed restriction that: (1) states the terms and conditions of the permit do not authorize any interference with prescriptive rights prior to acceptance of the offer and (2) prohibits any development or obstruction in the easement area prior to acceptance of the offer.

OS 2.6 Prescriptive Vertical Access Rights. [GP/CP] Public prescriptive vertical access rights to the shoreline may exist in certain areas within Goleta. Development or uses shall not interfere with the public's right of access to the sea where such right has been acquired through historic use or legislative authorization. Where there is substantial evidence that such rights exist, these rights shall be protected through

public acquisition measures or through conditions imposed on approvals of permits for new development.

OS 2.7 Siting and Design of Vertical Accessways. [GP/CP] Public vertical accessways and trails shall be an allowed use in ESHAs. The following criteria and standards shall apply to the siting and design of all vertical accessways:

- a. Sensitive habitat areas shall be avoided to the extent practicable in circumstances where there are feasible alternative alignments of vertical accessways.
- b. Public access paths shall maintain a natural appearance and shall not be paved with impervious materials, except for segments that are intended to provide handicapped access or short segments to beach overlook points.
- c. No structures shall be permitted on bluff faces except for vertical beach accessways.
- d. Access to the beach shall be provided by natural trails or ramps down the face of the bluff rather than by concrete or wooden stairways. Railroad ties or a similar material may be used to provide stability to the access route and to reduce bluff erosion.
- e. Where vertical access to the beach area is not feasible or appropriate, vertical accessways may terminate at a beach overlook or vista point.

OS 2.8 Management of Vertical Accessways. [GP/CP] The following standards shall apply to management of vertical accessways:

- a. Where sensitive habitat resources are present, limited or controlled methods of access and/or mitigation designed to eliminate or reduce impacts to ESHAs shall be required.
- b. The hours during which vertical coastal access areas are available for public use shall be the maximum feasible while maintaining compatibility with nearby neighborhoods and land uses. The hours for public use shall be set forth in each individual coastal development permit. Unless specific hours are described within a permit, the access shall be deemed to be 24 hours per day, 7 days per week.
- c. In order to maximize public use and enjoyment, user fees for access to vertical beach and shoreline areas shall be prohibited. Activities and/or uses that would deter or obstruct public vertical access shall be prohibited.
- d. Private for-profit commercial use of vertical accessways shall be prohibited.



Existing Vertical Accessway to Haskell's Beach

- e. Camping or other use of vertical accessways for overnight accommodations shall be prohibited.
- f. Motorized vehicles shall be prohibited on vertical accessways.

Policy OS 3: Coastal Access Routes, Parking, and Signage [GP/CP]

Objective: *To provide an adequate supply of public coastal access parking in lots or areas that are appropriately distributed along Goleta's shoreline with convenient and linkages to regional transportation routes.*

OS 3.1 Coastal Access Highway Routes. [GP/CP] Coastal access highway routes are defined as public or private roadways or rights-of-way that link the local and regional highway network to vertical coastal access facilities, including public parking areas. These routes, shown on Figure 3-1, include the following:

- a. Hollister Avenue, from its interchange at U.S. Highway 101 (US-101) to the Bacara access road and to the Santa Barbara Shores Park parking lot, which connects to vertical accessways to the bluff-top and to Elwood Beach.
- b. Bacara access road to the public parking lot situated on the Bacara property and to the proposed future public parking and vertical accessway on the Venoco/Sandpiper site along Bell Creek to Haskell's Beach.
- c. Storke Road, from the US-101 interchange to Phelps Road and along Phelps Road to a proposed public coastal access parking lot on UCSB property, which provides access to the Ellwood-Devereux Open Space Area and the Sperling Preserve.
- d. Storke Road, continuing from the Phelps Road intersection southerly to the city boundary (which provides an access route to Coal Oil Point and Sands Beach on University of California, Santa Barbara [UCSB] property).

OS 3.2 Coastal Access Parking.

[GP/CP] Adequate public parking shall be provided and maintained to serve coastal access and recreation uses to the extent feasible. The following criteria and standards shall apply:

- a. Existing and planned public coastal access parking areas are shown on Figure 3-1.
- b. Existing public parking areas serving coastal recreation users shall not be displaced unless a comparable replacement parking area is provided.



Coastal Access Parking at Santa Barbara Shores Park

- c. New development shall be required to provide offstreet parking sufficient to serve the proposed uses in order to minimize impacts to public onstreet parking available for coastal access and recreation.
- d. New or expanded nonresidential development that may individually or cumulatively impact public shoreline access and recreation shall include parking areas that are designed to serve beach access during weekends as well the proposed uses on weekdays. In addition, vehicular access to the shoreline with a drop-off point for marine recreation equipment shall be required in appropriate locations, as shown on the map in Figure 3-1.

OS 3.3 Signage for Coastal Access. [GP/CP] Coastal access signage should be provided as follows:

- a. Distinctive logo signs or markers consistent with visual resources may be provided for the California Coastal Trail, the Coastal Bluff-Top Trail, and the Anza Trail.
- b. Coastal access signs shall be provided at appropriate locations within street and highway rights-of-way to direct visitors to coastal access sites, including signs at appropriate locations along the California Department of Transportation right-of-way for US-101.
- c. Coastal access signs shall be provided at entrances to public coastal access parking lots.

OS 3.4 Coastal Access Amenities. [GP/CP] The following amenities for users of coastal accessways may be provided at appropriate locations that minimize impacts on sensitive habitat and visual resources:

- a. Signage, including trail markers, interpretative signage, and other appropriate low-impact informational signs compatible with visual resources.
- b. Trash receptacles.
- c. Benches, picnic tables, or other seating.
- d. Bike racks or other devices for securing bicycles.
- e. Public restrooms.
- f. Other low-impact user amenities, provided that they are compatible with sensitive environmental habitats and visual resources.

Policy OS 4: Trails and Bikeways [GP/CP]

Objective: *To designate, preserve, and expand a public trail system that will provide recreation opportunities for multiple types of users in diverse and attractive environmental settings and that will connect various parks and neighborhoods with the regional trail network and to Los Padres National Forest.*

OS 4.1 Definition. [GP/CP] As set forth in this policy, trails are defined as foot paths where rights of public use are obtained through acquisition of access easements for trail purposes by a public agency or a nonprofit organization and are made available for

use by the general public. Some trail segments may be multiuse, and allow use by bicyclists and/or equestrians as well as pedestrians.

OS 4.2 Adoption of Trail Plan Map. [GP/CP] The overall trail system plan, shown in Figure 3-2, is hereby adopted. The Trail Plan map identifies the city's existing and proposed trail segments, which are intended to provide diverse recreational and aesthetic experiences serving the entire community, achieve connections to parks and major recreational facilities, link with trail systems of adjacent jurisdictions, and facilitate recreational corridors between the Santa Ynez Mountains (Los Padres National Forest) and the coast. The alignments for proposed trail segments are conceptual only. Sidewalks and bikeways are intended to be connecting links to or between trails. The Pedestrian System Plan Map and the Bikeways Plan Map are Figures 7-5 and 7-6 in the Transportation Element.

OS 4.3 California Coastal Trail. [GP/CP] The California Coastal Trail segment within Goleta, as shown on the maps in Figures 3-1 and 3-3, shall be planned as a part of a continuous lateral shoreline trail system traversing the entire length of the state's coastline, connecting with contiguous California Coastal Trail segments within the jurisdictions of the County and UCSB. The following criteria and standards shall apply to the California Coastal Trail:

- a. The trail shall be sited as close to the ocean as possible, while maintaining an appropriate setback for safety purposes from the edge of the coastal bluff.
- b. The trail shall be connected at appropriate intervals to existing and proposed local trail systems and to vertical access facilities.
- c. The trail shall be sited to maximize ocean views and scenic coastal vistas.
- d. The trail shall be planned primarily as a pedestrian trail, although certain segments, particularly within the City-owned Ellwood-Devereux Open Space Area, may be planned to accommodate the needs of bicyclists and/or equestrians.
- e. Segments of the trail located along the beach and shoreline that may not be passable at all times shall, where feasible, have an alternate landward or bluff-top route that will allow continuous passage during all seasons and tide conditions.
- f. The trail shall be sited and designed to minimize impacts to environmentally sensitive habitat areas to the extent feasible. The trail surface shall generally be limited to groomed and/or compacted native soil or sand material, except that segments intended for handicapped access or to beach overlooks (vista points) may be improved to a higher standard.



California Coastal Trail

The California Coastal Trail (CCT) is a continuous public right-of-way along the entire California coastline designed to foster appreciation and stewardship of the diverse scenic and natural resources of the California coast through a hiking, biking, and equestrian trail system. The CCT's projected length of 1,300 miles will be comprised of many different segments over varied terrain, reflecting the great diversity of California's coastal communities and providing opportunities for public access to beaches, scenic vistas, wildlife viewing areas, recreational or interpretive facilities and other points of interest.

- g. Trail easement dedication and installation of trail improvements shall be required as a condition of approval of all coastal development permits on properties located on the California Coastal Trail corridor, when dedication will mitigate impacts by the project on public access and/or recreation.

OS 4.4 Juan Bautista de Anza National Historic Trail. [GP/CP] The following criteria and standards apply to future improvements to the Anza Trail segment within Goleta:

- a. The planned corridor for the Anza Trail is shown on the maps in Figures 3-1 and 3-3.
- b. Within the City-owned Sperling Preserve and Santa Barbara Shores Park, the Anza Trail shall be planned for multiple user types, including pedestrians, bicyclists, and equestrians, as shown on the map in Figure 3-3.
- c. Within the City-owned open space property the Anza Trail shall generally be designed as follows:
 - 1) The equestrian path or tread may be separate from or combined with the main trail tread for pedestrians and bicyclists.
 - 2) The trail shall be designed to have the minimum width necessary to accommodate the multiple users. The surface may be native soil materials or imported compacted fines (such as decomposed granite) without stabilizer or binder.
- d. As it exits the public open space area, the future Anza Trail corridor extends along Hollister Avenue to the Bacara access road and along that road to the city's western boundary. Standards for improvements of this segment of the Anza Trail shall be flexible to respond to the amount of available space for trail improvements. Dedication of a public access easement for the trail shall be required as a condition of approval of all coastal development permits for properties located along the Anza Trail corridor.
- e. Connectivity of the Anza Trail in Goleta with segments within the jurisdictions of the County and UCSB shall be provided as indicated in the multi-jurisdictional Ellwood-Devereux OSHMP.

OS 4.5 Creekside Trails. [GP] Trails shall be sited to minimize damage to riparian areas while allowing some public access. To the extent feasible, trail corridors should be located outside riparian areas but provide occasional contact to streams to allow public access and enjoyment of the resources. Where feasible, public trail easements should be located within the boundaries of flood control easements. All trail construction should minimize removal of riparian vegetation and utilize natural features and/or lateral fencing to discourage public access to streamside areas not



Juan Bautista de Anza Trail

The Juan Bautista de Anza Trail extends from the Mexican border at Nogales, Arizona across Arizona and California to the San Francisco Bay Area. The trail recognizes the route of the 1775-76 Anza expedition to bring more than 240 settlers from Mexico through little-known territory to Alta California. The expedition, an integral part of Spanish foreign and colonial policy to extend its hold upon territories in the New World, brought the influence of the language, customs, traditions, and general expressions of Hispanic culture on the early development of California.

directly within the trail alignment. Any fences constructed along trail corridors should allow for wildlife movement. Where necessary to prevent disturbance of nesting birds, sections of trails may be closed on a seasonal basis. At such times, alternative trail segments should be provided, where feasible. In order to protect riparian resources, the number of creek crossings should be limited and maintenance should be conducted to minimize introduction and spread of invasive plants.

OS 4.6 Trail Connectors to Los Padres National Forest. [GP] The City shall encourage and help facilitate public trail access from the community to the rural foothills and mountainous areas of the Los Padres National Forest by providing connections from the urban areas within city boundaries to the following proposed trail segments:

- a. Ellwood Canyon Trail.
- b. Glen Annie Trail.
- c. San Jose Creek Trail.

OS 4.7 Acquisition/Dedication of Trails. [GP] The City shall create a system of interconnecting, useable public trails within designated trail corridors through a combination of mechanisms such as required dedications of easements, public purchase, land exchange, private donation and other voluntary means. Trail easement dedications shall be required as a condition of approval for development on property that contains a mapped trail corridor when the dedication will mitigate adverse impacts created by the project on public access and/or recreation. Development and the trail alignment shall be sited and designed to provide maximum privacy and safety for both residents and trail users. The corridors for proposed trail segments shown on Figure 3-2 are conceptual, and precise alignments shall be determined at the time of development approval.

Policy OS 5: Ellwood-Devereux Open Space Area [GP/CP]

Objective: *The portion of the Ellwood-Devereux Open Space Area within Goleta, which includes the City-owned Sperling Preserve and Santa Barbara Shores Park units, shall be managed to provide coastal access and passive, coastal-dependent recreational opportunities consistent with protection and enhancement of the site's environmentally sensitive habitat areas and other environmental and scenic resources.*

OS 5.1 Definition. [GP/CP] The provisions of this policy apply to the lands within the boundaries of the Ellwood-Devereux Coast OSHMP that are within the City's jurisdiction, as shown on Figures 3-3 and 3-4. These lands include the City-owned 137.6-acre Sperling Preserve, acquired in February 2005 by the City with the assistance of the Trust for Public Land; the 91.7-acre City-owned Santa Barbara Shores Park; other contiguous City-owned open space areas; and the 9.5-acre Coronado Preserve, owned and managed by the Land Trust for Santa Barbara County.

OS 5.2 Adoption of Open Space and Habitat Management Plan Maps. [GP/CP] The Open Space and Habitat Management Plan maps in Figures 3-3 and 3-4, which respectively designate coastal access and recreation areas and environmentally sensitive habitat areas that are to be protected and/or enhanced, are hereby adopted.

OS 5.3 Public Access and Recreation.

[GP/CP] The Ellwood-Devereux Open Space Area shall be managed to maintain the site's historical public access and recreation uses while managing accessways to protect natural resources such as the monarch butterfly groves, vernal pools, native grasslands, beaches, coastal bluffs, and other environmentally sensitive habitat areas. The planned trail and beach access system, shown on the map in Figure 3-3, is based on the locations of existing informal trails created by repeated public use, with some trail segments being closed to avoid impacts to environmentally sensitive areas, to eliminate hazardous segments, and/or to eliminate parallel redundant trail segments. Although some trail closures are proposed, the planned trail system will not reduce overall access or trail experiences in the public open space area, but will redirect users to alternate routes located in close proximity. The following standards shall apply to public access and recreation in the open space area:



Ellwood-Devereux Open Space Area

- a. The Anza Trail is one of two major planned east-west trails across the Ellwood Mesa. This trail extends from the eastern boundary with UCSB to the public access parking lot at Santa Barbara Shores Park adjacent to Hollister Avenue (see related OS 4.4).
- b. The California Coastal Trail segment within the Ellwood-Devereux Open Space Area, the other major east-west trail, is planned to have a bluff-top alignment (see related OS 4.3).
- c. The locations of additional planned trails are also shown on Figure 3-3. Although the trail system shall be planned primarily as footpaths for pedestrians, bicyclists and/or equestrians may also be accommodated on certain trail segments as shown in Figure 3-3. At least one trail from the Hollister parking lot to the bluff-top shall be designated for exclusive use by pedestrians.
- d. Except for the Anza Trail, trails shall generally be designed to utilize native soil materials with appropriate grooming and maintenance to provide for slightly crowned cross sections, defined trail edges, and proper drainage. Trail improvements shall be designed to maintain natural drainage patterns in order to avoid potential impacts to Devereux Creek and the associated eucalyptus groves that comprise the monarch butterfly aggregation sites. Trail improvements may include boardwalks and/or bridges across Devereux Creek in wet or eroded areas in the vicinity of the Ellwood Main grove
- e. Two accessways from the bluff top to Ellwood Beach (identified as accessways E and F) are planned, as shown on Figure 3-3. These beach accessways shall be planned to accommodate pedestrians only.
 - 1) Improvements to accessway E, which is a steeply sloped former roadway with a badly eroded asphalt surface, are limited to repairs to improve the

surface for the safety of users and to reduce further erosion of the bluff face and pathway.

- 2) Improvements to accessway F, which is a steep pathway down the face of the bluff, shall be designed to smooth the surface, improve drainage, and reduce erosion of the path and bluff face and are generally limited to minor grading and placement of landscape ties or a similar material to stabilize the pathway.
- f. A public access parking lot consisting of not less than 40 parking spaces shall be provided adjacent to Hollister Avenue, as shown in Figure 3-3. The following standards shall apply to public parking serving the open space area:
 - 1) The Hollister Avenue lot shall be paved with permeable materials to reduce stormwater runoff and prevent pollution of surface waters.
 - 2) Landscaping of the parking lot and Hollister Avenue street frontage shall maintain a natural appearance and shall be limited to drought-tolerant species. Landscaping shall not impair views of the coastal bluff-top, ocean, and Channel Islands from Hollister Avenue.
 - 3) Onstreet parking on streets within the Ellwood neighborhood shall be available as needed for public coastal access, subject to appropriate restrictions on the hours of availability and duration of such parking.
- g. A limited amount of facilities or amenities may be provided within the open space area to better accommodate users and manage accessways to protect natural resources. These may include the following:
 - 1) A potential public restroom facility to be located between the public parking lot and Hollister Avenue, which shall be designed to avoid impairing views of the ocean and the Channel Islands from Hollister Avenue.
 - 2) Low-profile signs to identify permitted uses, guide pedestrians, interpret resources, and advise users on resource protection regulations.
 - 3) Temporary or permanent barriers to establish protection for sensitive plants and animals and habitat restoration areas that are compatible with the natural appearance of the surroundings.
 - 4) Benches at a limited number of selected scenic locations.
 - 5) Trash receptacles, mutt-mitt dispensers, and other similar low-impact facilities.
- h. A signage program shall be prepared for the open space area. The overall intent or purposes of the sign program shall be to assist and inform visitors as to open space regulations, directions, and information. Signs shall be designed and located in a manner that is protective of environmental and visual resources and may include the following:
 - 1) A donor recognition sign.
 - 2) Trail markers identifying names, directions, and distances.
 - 3) Trail head signs.
 - 4) Interpretative signs.

- 5) Regulatory signs, including trail and open space rules, closures, and hazardous areas.
- 6) Habitat protection signs.

OS 5.4 Protection and Enhancement of Habitat Areas. [GP/CP] Within its boundaries, the Ellwood-Devereux Open Space Area encompasses a diverse array of sensitive aquatic and upland habitats, as shown on Figure 3-3. These habitats include beach and shoreline areas, dunes, rocky intertidal areas, coastal bluffs, monarch butterfly aggregation sites and associated eucalyptus groves, vernal pools, riparian areas along Devereux Creek and its tributaries, coastal sage and scrub areas, native grasslands, and raptor nesting and roosting areas. All environmentally sensitive habitat areas shall be managed and protected consistent with the policies and standards described in the Conservation Element of this plan. In addition, the following criteria and standards shall apply to the Ellwood-Devereux Open Space Area:

- a. Habitat management on City owned lands shall be implemented within a broad ecosystem context in which habitat management priorities will consider the role of the targeted habitats and the interrelationships with other habitats in the open space area. In addition to protection of existing habitats, management actions may include interventions to enhance or restore degraded habitat conditions. All management activities shall use an adaptive approach that includes monitoring and adjustments to ensure that self-sustaining habitats will be created that are not reliant on long-term human intervention.
- b. Priority habitat management activities include ensuring the long-term vitality of the eucalyptus groves and stability in the monarch butterfly population; restoration of native grasslands; enhancement of vernal pools and riparian habitats; and protection of special status species, including various raptors and the western snowy plover. Some examples of habitat management action areas are shown on Figure 3-4.
- c. Habitat management activities shall be designed to accommodate public access and use in or adjacent to habitat areas, where practicable, in a manner consistent with protection of the resource.
- d. In all habitat enhancement or restoration projects, genetic stock for seeds and plants from the Devereux Creek watershed shall be used, unless such use has been determined to be infeasible.

OS 5.5 Use and Management of the Open Space Area. [GP/CP] The following management policies shall apply to lands owned by the City within the Ellwood-Devereux Open Space area:

- a. An advisory committee may be established to provide advice and recommendations to the City regarding management of access, recreation uses, and habitat within the area. The committee may include residents of the adjacent neighborhoods as well as technical experts.
- b. Permitted uses include, but are not limited to, the following compatible passive and coastal-dependent recreation activities: hiking, bicycling on designated trails, horseback riding on designated trails, bird-watching, surfing, sunbathing and beach play, surf fishing as allowed by law, swimming, scuba diving and

snorkeling, kayaking, picnicking, playing of nonamplified musical instruments, kite flying, small educational tours, habitat restoration, scientific studies, and other uses as deemed appropriate by the City. Particular uses may require advance approval of a permit by the City.

- c. Prohibited uses include, but are not necessarily limited to, the following: fireworks; camping; plant or wildlife collecting unless approved by the City; amplified music; radio-controlled motorized equipment such as model airplanes and cars; organized competitive sporting events such as track and field and bicycle races; large-scale special events and public gatherings; model rockets; fires of any kind, including in pits or in camp stoves; and archery, BB guns, pellet guns, paint guns, and firearms of all types.
- d. All private for-profit commercial uses of the City-owned portion of the Ellwood-Devereux Open Space Area shall be prohibited, including but not limited to commercial equestrian operations.
- e. Beach grooming using mechanical equipment shall be prohibited.
- f. Any group activity that causes damage to vegetation or soil outside of designated trails shall be prohibited.
- g. Use of herbicides, insecticides, and similar toxic substances shall not be permitted unless other nonchemical methods of pest control have been attempted or determined to be infeasible.

OS 5.6 Multi-jurisdictional Open Space Area. [GP/CP] The Ellwood-Devereux Open Space area within Goleta is a part of a planned contiguous open space area of over 650 acres along or near the Pacific shoreline. This larger multi-jurisdictional open space area includes lands managed by the Land Trust for Santa Barbara County, UCSB, and the County of Santa Barbara. The City intends to cooperate with the Land Trust of Santa Barbara County, UCSB, and the County of Santa Barbara in assuring connectivity of trails and in formulating and implementing habitat management strategies where such management activities have effects that extend beyond the boundaries of individual jurisdictions.

Policy OS 6: Public Park System Plan [GP]

Objective: *To develop a well-maintained, interconnected system of multi-functional parks, recreation facilities and public open spaces that will meet the needs of existing and future residents and employees and that are attractive, safe, and accessible to all segments of the city's population, and supportive of established neighborhoods.*

OS 6.1 Definition. [GP] The following types of public parks and open space are defined by this plan: mini parks, neighborhood parks, neighborhood open space, community parks, regional open space, and special-use parks. The provisions set forth in subsequent sections of this policy define each of these categories and provide criteria and standards applicable to each category.

OS 6.2 Equitable Distribution of Park Facilities. [GP] To the extent feasible, park and recreation facilities shall be equitably distributed throughout the city to serve the various neighborhoods and all socioeconomic segments of the city's population. Particular emphasis shall be placed on provision of new park and recreation facilities

in areas that were underserved as of 2005 and in areas of the city that are designated for new residential use and development in the future. These areas include, but are not limited to, the Goleta Old Town (Old Town) and the Mid-Hollister areas. The distribution of existing and planned future public park and recreation facilities and public open space areas is shown on Figure 3-2, and information about each site is summarized in Table 3-1.

- OS 6.3 Mini or “Pocket” Parks. [GP]** A mini park is characterized by a relatively small size and specialized facilities that serve a small local area and/or specific segment of the population, such as children or senior citizens. The following standards shall apply to mini or pocket parks:

- a. The typical service area shall be a radius of 0.33 mile.
- b. The typical size shall be 1 acre or less.
- c. Mini parks should be located in close proximity to housing and/or other activity centers in the immediate neighborhood to provide accessibility and visibility.
- d. Typical facilities provided in mini parks may include children’s play areas and equipment, exercise and fitness areas, outdoor seating and picnic areas, and plazas.

OS 6.4 Neighborhood Parks. [GP]

Neighborhood parks provide the nearby residential neighborhood with active recreational activities for a variety of age groups. The following standards shall apply to neighborhood parks:

- a. The typical service area radius shall be 0.5 mile.
- b. The typical size shall be less than 10 acres.
- c. Neighborhood parks should be easily accessible to the surrounding neighborhood population through safe pedestrian and bicycle access. Neighborhood parks do not generally require onsite parking, although a limited amount of parking may be provided.



Nectarine Park



San Miguel Park

TABLE 3-1
EXISTING AND PLANNED PARKS AND OPEN SPACE AREAS

Assessor's Parcel Number	Map# ¹	Name	Park Type	Acres	Description
<i>Existing Parks and Open Space Areas</i>					
079-570-046	1	San Miguel	Neighborhood Park	2.71	0.52-acre lawn; timber play structure; picnic areas
079-600-061	1	San Miguel Open Space	Neighborhood Open Space	3.07	Creek with bridge crossing; picnic areas
079-600-060					
079-344-014	2	Winchester II	Neighborhood Park	1.20	0.7-acre lawn; swing set; softball backstop; play field; 2 picnic tables
079-371-005	3	Winchester I	Neighborhood Park	1.14	0.20-acre lawn; playground; merry-go-round; 2 picnic tables; footbridge
079-383-013	4	Winchester I Open Space	Neighborhood Open Space	2.22	Undeveloped
079-382-005	5	Brandon	Neighborhood Open Space	2.22	Undeveloped field
079-121-011	6	Evergreen Acres	Community Park	28.72	3.47-acre lawn; 2 tennis courts; 18-hole disc golf course; 1 bench; 3 foot-bridges; playing field; softball backstop; walkways; playground; 2 picnic tables; 1 portable restroom
079-121-012					
079-121-013					
079-560-008	7	Koarts Apartments	Neighborhood Open Space	6.60	Open field
079-560-009					
079-110-045	8	Koarts Apartments	Neighborhood Open Space	0.34	Undeveloped sloping hillside
077-391-011	9	Bella Vista III	Neighborhood Park	0.77	Undeveloped road shoulder
077-351-001	10	Bella Vista I & II	Neighborhood Park	3.50	2.87-acre lawn; playground; 2-foot-bridges; 8 picnic tables; walkway; bench
077-121-022	11	Glen Annie at Del Norte	Neighborhood Open Space	0.99	Undeveloped
077-121-023					
077-160-061	12	Lake Los Carneros Natural and Historical Preserve (Including Stow House)	Regional Open Space	139.99	22-acre lake; hiking paths; elevated boardwalk over lake; 3 benches; 2 portable toilets; George Adams picnic area with 3 tables; 1 bench, earth dam; Stow House Museum; Goleta Train Depot Railroad Museum
077-160-009	13	Stow Grove Park	Community Park	11.10	0.45-acre lawn; soccer field; ball diamond, volleyball courts; horseshoe pits; swing sets; reservation group BBQ areas; children's picnic tables; redwood groves
077-361-011	14	Stonebridge	Neighborhood Open Space	2.60	Parallels San Pedro Creek; undeveloped; hiking trail
077-331-017	15	Stow Tennis Courts	Community Park	2.68	0.74-acre lawn; 2 tennis courts; 1 bench
077-470-052	16	La Goleta	Neighborhood Open Space	6.13	Parallels Las Vegas Creek; undeveloped
077-470-051					
077-480-062					
077-480-064					
069-391-001	17	Oro Verde	Neighborhood Open Space	2.65	Undeveloped
069-380-001					
069-401-001					
069-380-011	18	Oro Verde	Neighborhood Open Space	4.70	Undeveloped
069-392-008					
069-362-001	19	Andamar	Neighborhood Park	2.45	1.0-acre lawn; play equipment; 1 picnic table
069-463-003					
069-322-011	20	Emerald Terrace Tennis Courts	Community Park	4.20	1.49-acre lawn; 2 handicap-accessible tennis courts; swings; 2 picnic tables; 4 benches
069-413-010					
069-142-038	21	San Jose Creek	Neighborhood Open Space	4.87	Parallels San Jose Creek; undeveloped
069-142-039					
069-153-001					
071-090-080	22	Armitos Park	Neighborhood Park	1.63	Parallels San Jose Creek; undeveloped

(continued on next page)

TABLE 3-1 (CONTINUED)

Assessor's Parcel Number	Map#¹	Name	Park Type	Acres	Description
071-130-009	23	Community Center	Community Center	9.84	Various adult and children's classes, Headstart, Rainbow Preschool, Boys & Girls Club, lawn with gazebo
071-061-023	24	Nectarine	Mini Park	0.13	Sandlot with toddler playground equipment and bench
073-060-050	25	Willow Springs Open Space (<i>private</i>)	Neighborhood Open Space	2.37	For protection of cultural resources
073-440-020 073-440-021	26	Girsh Park ² (<i>private</i>)	Community Park	24.90	Softball, soccer, and basketball facilities, grassy open space, community meeting room, play equipment, barbecue-picnic areas
073-195-023	27	Armstrong	Mini Park	0.46	0.2-acre lawn; swing set; 1 toddler picnic table; 1 picnic table; 2 benches
073-260-056 073-230-049 073-240-058 073-260-021	28	University Village	Neighborhood Park	3.16	1.74-acre lawn; footbridge over drainage ditch.
Lot 7, Ellwood Acres No.2	29	Mathilda	Mini Park	0.20	Play equipment; picnic table
079-210-051 079-210-024	30	Sperling Preserve	Regional Open Space	136.60	136.6 acres of open space; monarch butterfly habitat sites; extensive trails w/ beach access to Ellwood Beach
079-395-015 079-210-050 079-445-001 079-491-016 079-442-023	31	Campus Glen	Regional Open Space	6.31	Eucalyptus groves
079-210-045	32	Coronado Preserve ² (<i>private</i>)	Regional Open Space	6.83	Monarch butterfly informational markers; small circular theatre sitting area
079-322-001 079-332-014	33	Santa Barbara Shores (Small)	Neighborhood Open Space	4.83	0.15-acre lawn; playground; 1 picnic table
079-321-001 079-355-009	33	Santa Barbara Shores Open Space (Small)	Neighborhood Open Space	1.24	Eucalyptus groves
079-210-067	34	Santa Barbara Shores Park	Regional Open Space	91.7	91.7 acres of open space; coastal vista, trails; bluff top, shoreline, and public parking lot
NA	35	Haskell's Beach	Regional Open Space	NA	Pacific shoreline and beach
079-200-013	36	Haskell's Beach Access (<i>private</i>)	Regional Open Space	0.89	50 space public parking lot with beach access walkway
Planned New Parks and Open Spaces					
071-090-036 071-090-090	A	Expansion of Armitos Park	Neighborhood Park	8.0	Parallels San Jose Creek; undeveloped
071-190-035	B	Potential Active Recreation Park	Community Park	4.0–5.0	Active recreation park by State Route 217 (SR-217) and Old Drive-in Theatre
073-060-031 to 073-060-043	C	Willow Springs Park	Neighborhood Park	2.0–3.0	South of US-101, east of Los Carneros Road, and north of Camino Vista Road
073-330-028 073-330-029	D	Village at Los Carneros Park	Neighborhood Park	3.0–5.0	Castilian Dr. by proposed Village at Los Carneros Project adjacent to creek
073-450-005	E	Cabrillo Business Park Open Space	Neighborhood Open Space	15.8	Los Carneros Road. (by southeast corner of parcel)

¹ See Figure 3-2.

² Private parks are owned and maintained by nonprofit private entities.
(Amended by Reso. 12-46, 7/17/12 and Reso. 17-46, 10/17/17)

- d. Typical facilities provided in neighborhood parks include playgrounds and associated equipment, picnic tables, open undeveloped areas, lawns or grassy areas for field games, and benches.
- e. Neighborhood parks may be developed as a school park or community center park.

OS 6.5 Neighborhood Open Space. [GP] Neighborhood open space areas integrate natural features such as trees, riparian corridors, and varied undeveloped landscape with the adjacent neighborhoods. The following standards apply to neighborhood open space areas:

- a. Primary emphasis is placed on protection of the natural resource, with limited passive recreation activities such as trails. Accordingly, the locations of these facilities are based upon the presence of natural resources rather than accessibility to a service area.
- b. The typical size is variable and is based upon the physical extent of the natural resource area.
- c. Neighborhood open space areas should be made accessible to the surrounding neighborhood population through safe pedestrian and bicycle access, where feasible and appropriate. Onsite parking facilities are not appropriate in neighborhood open space areas.
- d. Typical facilities provided in neighborhood open space areas are limited to space for quiet or passive recreational activities. Structural or land improvements, other than dirt trails and resting areas, shall be avoided in these areas. Some neighborhood open space areas may integrate with a small neighborhood park (as described above), usually consisting of a small playground or similar active area. Restrooms and facilities for more intensive, active forms of recreation are not appropriate improvements in neighborhood open space areas.



Oro Verde Open Space

OS 6.6 Community Parks. [GP] Community parks include developed areas suited for intense active recreational activities, large natural areas suited for passive outdoor recreation, or a combination of both. These parks may contain special amenities, facilities, or features that attract people from throughout the surrounding community. The following standards apply to community parks:

- a. The typical service area radius shall be 1 to 2 miles.
- b. The typical size shall be 10 or more acres.
- c. Community parks should be easily accessible from the surrounding neighborhoods and by automobile from more distant neighborhoods. Since these

facilities are intended to serve areas beyond their immediate neighborhoods, onsite parking and restroom facilities may be provided.

- d. Multiple facilities for various types of users are typically provided in community parks, including both active and passive recreational facilities. Active facilities may include a range of formal and informal athletic fields (i.e., the play areas are less developed and generally not designed to support competitive play), tennis courts, play areas, developed picnic areas, and meeting and gathering spaces. Passive facilities may include areas for rest and relaxation with a mix of both improved areas (lawns and informal play areas) and unimproved natural areas.



Evergreen Open Space

OS 6.7 Regional Open Space. [GP] Regional open space areas are contiguous to or encompass significant natural resources and may include areas of historical, environmental, or ecological value. These areas may contain special amenities or features that attract people from throughout the city and the surrounding region. The following standards apply to regional open space areas:

- a. The typical service area shall be within a 0.5- to 1.0-hour drive.
- b. The typical size shall be appropriate for the protection of the associated natural or open space values.
- c. Regional open spaces should be easily accessible from the surrounding neighborhoods and easily accessible by automobile for visitors from more distant locations. Since these areas may attract people from distant locations, they may provide on-site parking and restroom facilities. Such services should be located on the periphery of the open space area and designed in a way to minimize any adverse impact on natural and visual resources. The capacity of such parking and restroom facilities shall be consistent with the character and carrying capacity of the open space area.



Santa Barbara Shores Park

- d. Typical facilities provided in regional open space areas are designed to be primarily passive in character, although historical and special purpose attractions may be included. The primary purpose of these areas is to protect their open space and natural values and passive recreation shall be managed in a way that does not conflict with these values, while still providing appropriate public access.

OS 6.8 Special Use Parks. [GP] Special use parks cover a broad range of parks and facilities oriented toward a single-purpose use or a small number of uses. Special use parks are facilities strategically located throughout the community. The following standards apply to special use parks:

- a. The typical service area is variable, depending upon the type of facilities provided.
- b. The typical size will depend on the specific facility space requirements.
- c. Special use parks should be accessible from the surrounding neighborhoods and by automobile for visitors from more distant locations. Since these areas may attract people from distant locations, such areas may require onsite restroom facilities, parking, and automobile access.
- d. Typical facilities are those appropriate and associated with uses such as golf courses; skateboard parks; tennis courts; ice rinks; zoos; areas that preserve buildings, sites, or features of historical significance; and community centers. Special use parks may also include public beach access points not included in another park type.



Goleta Valley Community Center

OS 6.9 Park Master Plan. [GP] The City will prepare a Park Master Plan for the system of municipal park facilities. This master plan may be used to determine resource development, expansion, maintenance, operation, or capital improvements appropriate for these city facilities and as a basis for pursuing funding opportunities. To match resource needs to individual park sites, the City may prepare a development and/or management plan for individual parks, particularly for the largest park sites.

OS 6.10 Design and Management of Public Parks and Open Space. [GP] The City should ensure that park, recreation, and open space facilities are designed and managed in a manner that is consistent with protection of the ecology of the natural systems at each park site and that will serve the needs of the intended user groups. The following criteria shall apply to the design and management of public parks and open space areas:

- a. Wherever feasible and appropriate, landscaping should emphasize native and drought-tolerant, noninvasive species that will reduce maintenance costs and water use and be supportive of wildlife habitats.
- b. To the extent feasible, the City shall maintain parks and open space areas without the use of herbicides, pesticides, chemical fertilizers, and other toxic substances. Herbicide use is restricted within 100 feet of the top-of-bank of any watercourse in parks and open space to those herbicides approved by the U.S. EPA for use in aquatic environments.
- c. The types of improvements and facilities at each site should be based on the recreation and leisure needs of the targeted user groups and the physical opportunities and constraints of the site.
- d. Improvements should provide for convenient access by pedestrians from the adjacent neighborhood areas.
- e. The design of improvements shall provide for maximum visibility of the park from public streets and incorporate measures to assure adequate security and safety for users.
- f. Provision of lighting shall be limited to the minimum needed for the types of uses planned in order to reduce light pollution and glare. Lights shall not be directed upward or into adjacent habitat.
- g. Adequate off-street parking to serve the intended uses shall be provided in order to minimize the burden placed on onstreet parking in the neighborhood.

OS 6.11 Planned New Parks and Open Space. [GP] The locations of planned new public parks and open space are shown on Figure 3-2 and described in Table 3-1. Specific improvements will be implemented as conditions require and when funding is available. These planned new public parks and open space include:

- a. Expansion of the Armitos Park. An approximately 4-acre neighborhood park located in the vicinity of Old San Jose Creek between Hollister Avenue and Armitos Avenue adjacent to the Armitos Park in Old Town.
- b. A park in the southern portion of Old Town. A 4- to 5-acre active recreation community park, potentially including sports fields, located on or in the vicinity of the former drive-in theater in Old Town between the Santa Barbara Airport and SR-217.
- c. Willow Springs Park. A 2- to 3-acre neighborhood park in the proposed Willow Springs North project located south of US-101, east of Los Carneros Road, and north of Camino Vista Road, on property totaling approximately 16.19 gross acres.
- d. Village at Los Carneros Park. A 3- to 5-acre neighborhood park in the proposed Village at Los Carneros project located south of US-101 and west of Los Carneros Road, on property totaling approximately 18 acres. The park should include active recreation facilities, such as fields suitable for organized sports.
- e. Cabrillo Business Park Open Space. An approximately 15-acre neighborhood open space located west of Santa Barbara Airport on an approximately 92-acre property bound by Hollister Avenue and Los Carneros Road.

Parks and open space in new developments shall be open to the general public and not limited to residents of individual development projects. *(Amended by Reso. 12-46, 7/17/12)*

- OS 6.12 Public Use of Private Facilities. [GP]** Private open space and recreational facilities shall be made accessible to the public whenever the associated development is granted concessions related to park impact fee reductions, open space dedication, or other similar benefits.

Policy OS 7: Adoption of Open Space Plan Map [GP]

Objective: *To designate, preserve, and protect significant open space resources including agricultural, ecological, recreational, and scenic lands in Goleta and surrounding areas for current and future generations.*

- OS 7.1 Definition. [GP]** Pursuant to Section 65560 of the California Government Code, open space land is defined as any area of land, parcel, or portion of a parcel that is essentially free of structures and similar improvements and that is designated by this plan to remain in an open and undeveloped status for the following public purposes:

- a. To preserve natural resources, including but not limited to, areas required for the preservation of plant and animal life, streams, lagoons, coastal beaches, and lands needed for watershed protection.
- b. To preserve lands for the managed production of resources, including but not limited to, agricultural lands, lands with soils suitable for agricultural production, streams and marshes important to maintain fishery resources, and areas required for the recharge of groundwater basins.
- c. To preserve lands for outdoor recreation, including but not limited to, areas with outstanding scenic, historic, and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and streams, including amenities/structures that support the public's use or enjoyment of beach areas and other such open space areas; and areas that serve as links between recreation lands, including utility easements and banks of streams.
- d. To protect health and safety, including but not limited to, lands that require special management or regulation because of hazardous or special conditions such as earthquake fault zones, flood plains, tsunami run-up areas, and others.
- e. To protect the places, features, and objects associated with Native American cemeteries, religious or ceremonial sites, archaeological or historical sites, or other cultural sites. *(Amended by Reso. 08-30, 6/17/08)*

- OS 7.2 Adoption of Open Space Plan Map. [GP]** Figure 3-5 designates land areas in Goleta that are planned for preservation as public and private open space.

- OS 7.3 Open Space for Preservation of Natural Resources. [GP]** Goleta's natural resource lands include sandy beaches and dunes; rocky intertidal areas; coastal lagoons; coastal bluffs; eucalyptus groves and monarch butterfly aggregation sites; native grasslands; streams and associated riparian areas; wetlands, lakes, and ponds; and habitats for various protected plant and animal species. Figure 3-5 designates all ESHAs as protected open space. The following standards shall apply to these areas:

- a. The designated natural resource areas shall be managed by the City in accord with the policies described in the Conservation Element.
- b. The City may require dedication of open space easements as a condition of approval of development on sites that have open space resources as shown in Figure 3-5.
- c. The City encourages the donation of easements or fee-simple interests in open space lands to the City or other appropriate nonprofit entity, such as a land trust.

OS 7.4

Open Space for Managed Production of Resources. [GP] Goleta's managed resource lands include lands actively used for agricultural production, vacant lands that were historically used and zoned for agriculture and that have soils suitable for agricultural production, watersheds appropriate for recharge of groundwater basins, and coastal streams and marshes important for the management of recreational and commercial fisheries. Figure 3-5 designates land areas that are to be preserved as open space for managed production of resources. The following standards shall apply to these areas:

- a. Lands designated for agricultural use by the Land Use Element include areas devoted to agricultural production as of 2005 and those lands that were zoned for agriculture at the time of incorporation of the City in February 2002. These lands, shown on the Land Use Plan map in Figure 2-1, shall be protected as open space to preserve the potential for future agricultural production. Although some of these lands were not actively used for agriculture, their historical use for agricultural activities and soil characteristics make them suitable for agricultural production in the long term.
- b. Agricultural lands shall be managed in accord with Land Use Element Policy LU 7 and with Conservation Element Policy CE 11. Conversion of lands designated for agriculture to urban or other nonagricultural uses shall not be permitted.
- c. Streams and their associated watershed lands shall be managed in accord with Conservation Element Policy CE 10.
- d. Open space easements or deed restrictions may be acquired by dedication, where feasible, or by donation or purchase.



Fairview Gardens

OS 7.5

Open Space for Outdoor Recreation. [GP] Lands designated in Figure 3-5 for outdoor recreation include Goleta's diverse City-owned parks and open space areas, as well as private lands that are devoted to active recreation. Private lands, such as Girsh Park and the Sandpiper Golf Course, may be available to the general public or may be for the exclusive use and enjoyment of residents or customers of particular

development projects. The following shall apply to lands designated for outdoor recreation:

- a. City-owned parks and recreation areas shall be managed in accord with the provisions of Policy OS 7.
- b. Lake Los Carneros Natural and Historic Preserve shall be managed primarily as a passive preserve, with low-intensity activities allowed near the Stow House, the historic farm buildings, and the historic Goleta Train Depot and South Coast Railroad Museum.
- c. Private lands for outdoor recreation, including but not limited to Girsh Park and Sandpiper Golf Course, shall be protected and preserved for the valuable contribution that they make to the supply of recreation services available to residents of Goleta and adjacent areas.
- d. The City should maximize the use of the existing park, recreation, and open space resources within the City by connecting them with an integrated system of trails and sidewalks.
- e. General locations for proposed or planned future park sites are shown in Figure 3-2.



Girsh Park

OS 7.6 Open Space for Protection of Public Health and Safety. [GP] Although lands that provide open space for public health and safety are not specifically designated on Figure 3-5, the following land areas that are subject to hazardous conditions shall be considered to be designated open space as if fully depicted on the map:

- a. Lands situated along streams identified on the latest edition of the Flood Insurance Rate Maps (FIRM) published by the Federal Emergency Management Agency (FEMA), or any successor agency, as falling within the area of inundation caused by a 100-year flood event.
- b. Lands along the Pacific shoreline and at the mouths of streams identified on the FIRM maps as subject to 100-year event coastal flooding hazards, including areas potentially inundated by high velocity wave action.
- c. Lands subject to wildland fire hazards or lands needed as a buffer between urban development and wildland fire hazard areas.
- d. Lands within 50 feet on each side of active earthquake fault zones.
- e. Land areas with slopes in excess of 25 percent.
- f. Lands subject to the safety hazards identified in items a through e above shall be managed in accord with the applicable policies and standards of the Safety Element of this plan.

- OS 7.7** **Ownership of Open Space Lands. [GP]** Open space lands include public lands owned by the City or other public entities, lands owned by nonprofit organizations such as the Land Trust for Santa Barbara County and the Girsh Park Foundation, as well as lands in private ownership. The Open Space Plan Map (Figure 3-5) and related provisions of this policy shall not be construed in such a manner as to render any privately owned legal parcel created prior to the date of this plan unusable in its entirety for any purpose allowed by the Land Use Element.
- OS 7.8** **Provision of Open Space in New Development. [GP]** A minimum open space area shall be required in new development situated in certain land use categories, as set forth in the applicable policies of the Land Use Element. These private open space areas shall be in addition to any public park and open space land that may be required to be dedicated pursuant to the Quimby Act or other state or local statutes. Although private open space areas may be reserved to protect resources or avoid development in areas subject to hazards, such reservations shall include lands usable for outdoor recreation activities, where feasible.
- OS 7.9** **Open Space or Greenbelt around Goleta. [GP]** The City supports the preservation of an open space area, or greenbelt, around the city's perimeter in existing unincorporated rural areas. To advance this purpose, the Land Use Element designates lands near Goleta's northern, southeastern, and western boundaries for low-intensity uses to provide a gradual transition between the city's urban edge and the surrounding open rural areas.

Policy OS 8: Protection of Native American and Paleontological Resources [GP/CP]

Objective: *To identify and protect prehistoric and historic cultural sites and resources from destruction or harmful alteration.*

- OS 8.1** **Definition. [GP/CP]** Cultural resources include Native American archaeological sites and areas of the natural landscape that have traditional cultural significance. Archaeological sites include prehistoric sites that represent the material remains of Native American societies and their activities and ethnohistoric sites that are Native American settlements occupied after the arrival of European settlers in California. Such archaeological sites may include villages, seasonal campsites, burial sites, stone tool quarry sites, hunting sites, traditional trails, and sites with rock carvings or paintings. Areas of traditional cultural significance include Native American sacred areas where religious ceremonies are practiced or which are central to their origins as a people, as well as areas traditionally used to gather plants for food, medicinal, or economic purposes.
- OS 8.2** **Inventory. [GP/CP]** The City shall coordinate with UCSB's Central Coast Information Center to identify archaeologically sensitive areas within city boundaries. To prevent artifact gathering and other forms of destruction, the exact location of sensitive sites may remain confidential.
- OS 8.3** **Preservation. [GP/CP]** The City shall protect and preserve cultural resources from destruction. The preferred method for preserving a recorded archeological site shall be by preservation in place to maintain the relationship between the artifacts and the archaeological context. Preservation in place may be accomplished by deed

restriction as a permanent conservation easement, avoidance through site planning and design, or incorporation of sites into other open spaces to prevent any future development or use that might otherwise adversely impact these resources.

- OS 8.4 Evaluation of Significance. [GP/CP]** For any development proposal identified as being located in an area of archaeological sensitivity, a Phase I cultural resources inventory shall be conducted by a professional archaeologist or other qualified expert. All sites determined through a Phase 1 investigation to potentially include cultural resources must undergo subsurface investigation to determine the extent, integrity, and significance of the site. Where Native American artifacts have been found or where oral traditions indicate the site was used by Native Americans in the past, research shall be conducted to determine the extent of the archaeological significance of the site.
- OS 8.5 Mitigation. [GP/CP]** If research and surface reconnaissance shows that the project area contains a resource of cultural significance that would be adversely impacted by proposed development and avoidance is infeasible, mitigation measures sensitive to the cultural beliefs of the affected population shall be required. Reasonable efforts to leave these resources in an undisturbed state through capping or covering resources with a soil layer prior to development shall be required. If data recovery through excavation is the only feasible mitigation, the City shall confer with the affected Native American nation or most-likely descendants, as well as agencies charged with the responsibility of preserving these resources and organizations having a professional or cultural interest, prior to the removal and disposition of any artifacts.
- OS 8.6 Monitoring and Discovery. [GP/CP]** On-site monitoring by a qualified archaeologist and appropriate Native American observer shall be required for all grading, excavation, and site preparation that involves earth moving operations on sites identified as archaeologically sensitive. If cultural resources of potential importance are uncovered during construction, the following shall occur:
- a. The grading or excavation shall cease and the City shall be notified.
 - b. A qualified archeologist shall prepare a report assessing the significance of the find and provide recommendations regarding appropriate disposition.
 - c. Disposition will be determined by the City in conjunction with the affected Native American nation.
- OS 8.7 Protection of Paleontological Resources. [GP/CP]** Should substantial paleontological resources be encountered during construction activities, all work that could further disturb the find shall be stopped and the City of Goleta shall be notified within 24 hours. The applicant shall retain a qualified consultant to prepare a report to the City that evaluates the significance of the find and, if warranted, identifies recovery measures. Upon review and approval of the report by the City, construction may continue after implementation of any identified recovery measures.

Policy OS 9: Financing Public Parks, Open Space, and Recreation Facilities [GP]

Objective: *To establish equitable methods that will generate sufficient financial resources to meet future needs for acquisition and improvement of public parks, recreation facilities, and open space areas.*

OS 9.1 Park and Open Space Standards and Fee Study. [GP] As of 2005, the City owned a total of 491 acres of park and open space lands, or 16 acres per 1,000 people. If private park facilities, such as Girsh Park, are included, the total acreage was 526 acres, or 17 acres per 1,000 people. The City shall undertake a study pursuant to AB 1600 (Chapter 927, stats. 1987, California Government Code Section 66000 et seq.) to: (1) establish specific service standards for parks, recreation, and open space facilities; (2) describe and quantify the costs of acquiring land for proposed new facilities and constructing proposed improvements to existing and new park, recreation, and open space facilities; (3) apportion the costs between those needed to address existing deficiencies and those needed to serve new development; and (4) establish an equitable method for determining each individual new development's proportionate share of the total costs attributable to new development. Separate requirements may be established for parks, recreation facilities, and open space.

OS 9.2 Mitigation of Impacts of New Development on Parks and Recreation Facilities. [GP] The following shall apply to approvals of new development projects:

- a. To ensure new development pays a proportionate share of the cost of acquisition and improvement of parks, recreation facilities, and open space, the City shall require a one-time impact fee to offset costs necessary to accommodate the development. These fees shall be used for acquiring and/or developing new or improving/rehabilitating existing park, recreation, or open space facilities.
- b. At its discretion, the City may allow any appropriate park and recreational facilities provided within a development to meet all or part of the mitigation requirement in lieu of payment of a portion of the impact fee only if they are open and accessible to the public.
- c. Within new subdivisions, where the City may allow dedications of land in lieu of payment of fees pursuant to California Government Code Section 66477 (Quimby Act), the land area to be dedicated shall be usable space for active recreation purposes.

OS 9.3 Alternatives to Impact Fees. [GP] In appropriate circumstances for larger development proposals, the City may consider using alternatives to impact fees for meeting park, recreation, and open space needs. These alternatives may include negotiated development agreements wherein the developer agrees to provide land and construct appropriate park, recreation, and open space facilities that will be dedicated to the City and made available for use by the general public. Any agreements may also include a funding mechanism for maintenance of the dedicated facilities.

OS 9.4 Other Funding Sources. [GP] The City shall consider other funding mechanisms for the acquisition of land and improvements to parks as well as recreation and open space facilities, including, but not limited to, the following:

- a. State, federal, local, and private grant sources.
- b. Special assessments, subject to the requirements of applicable law.
- c. Special taxes, subject to the requirements of applicable law.
- d. Special districts.
- e. Private gifts and donations.
- f. User fees.

OS 9.5 Park and Recreation Facilities of Other Public and Private Entities. [GP] To maximize the provision of park and recreation services with limited land and facilities, the City may consider joint use agreements with the Goleta Union School District and/or the Santa Barbara High School District to make existing or planned facilities available for use by the public during certain times when they are not needed for school activities. The City may also support joint use of existing and/or planned recreation facilities with the City of Santa Barbara and the County.

OS 9.6 Private Support. [GP] The City encourages and supports efforts to establish a foundation to support parks, trails, and public landscaping.

3.5 IMPLEMENTATION ACTIONS [GP]

OS-IA-1 Preparation and Adoption of New Zoning Code. A new zoning code to replace the County Zoning Code adopted by the City upon incorporation must be prepared and adopted by the City Council. The new zoning code shall include an open space overlay district and establish requirements for dedications or reservations of lands for parks, coastal access, trails, and open space. At a minimum, the open space overlay will include the following APNs: 079-554-023, 079-554-024, 079-554-025, 079-554-026, 079-554-027, 079-554-028, 079-554-029, 079-554-030, 079-554-031, 079-554-032, 079-554-039, 079-553-016, 079-553-015, 079-553-014, 079-553-013, 079-553-012, 079-553-011, and 079-553-010.

Time period: 2008 to 2009

Responsible parties: Planning and Environmental Services Department, Planning Agency, and City Council (*Amended by Reso. 08-30, 6/17/08*)

OS-IA-2 AB 1600 Fee Study for Park, Recreation, and Open Space Facilities. A study pursuant to AB 1600 must be prepared to identify the purpose and use of development fees before such fees are imposed. This study is intended to (1) establish specific service standards for parks, recreation, and open space facilities; (2) describe and quantify the costs of acquiring land for proposed new facilities and constructing proposed improvements to existing and new park, recreation, and open space facilities; (3) apportion the costs between those needed to address existing deficiencies and those needed to serve new development; and (4) establish an equitable method for determining each individual new development's proportionate share of the total costs attributable to new development.

Time period: 2006 to 2008

Responsible parties: Community Services Department, Planning & Environmental Services Department, Planning Agency, and City Council

- OS-IA-3 Feasibility Study for Open Space District/Acquisition Methods.** This study may analyze the feasibility of creating an open space district financed primarily through property tax revenues or special assessments to acquire, preserve, and maintain open space. Such a study may also analyze other acquisition methods including but not limited to fee simple ownership, bargain sale, eminent domain, right of first refusal, less-than-fee interest methods such as conservation easements, purchase of development rights, and low or no-cost preservation programs.

Time Period: 2008 to 2009

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

- OS-IA-4 Preparation of Park System Master Plan.** A Park Master Plan developed for the system of municipal park facilities would provide a framework to meet existing and future park and recreation service needs. Such a plan may be used to determine resource development, expansion, maintenance, operation, or capital improvements appropriate for these city facilities and as a basis for pursuing funding opportunities.

Time period: 2008 to 2009

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

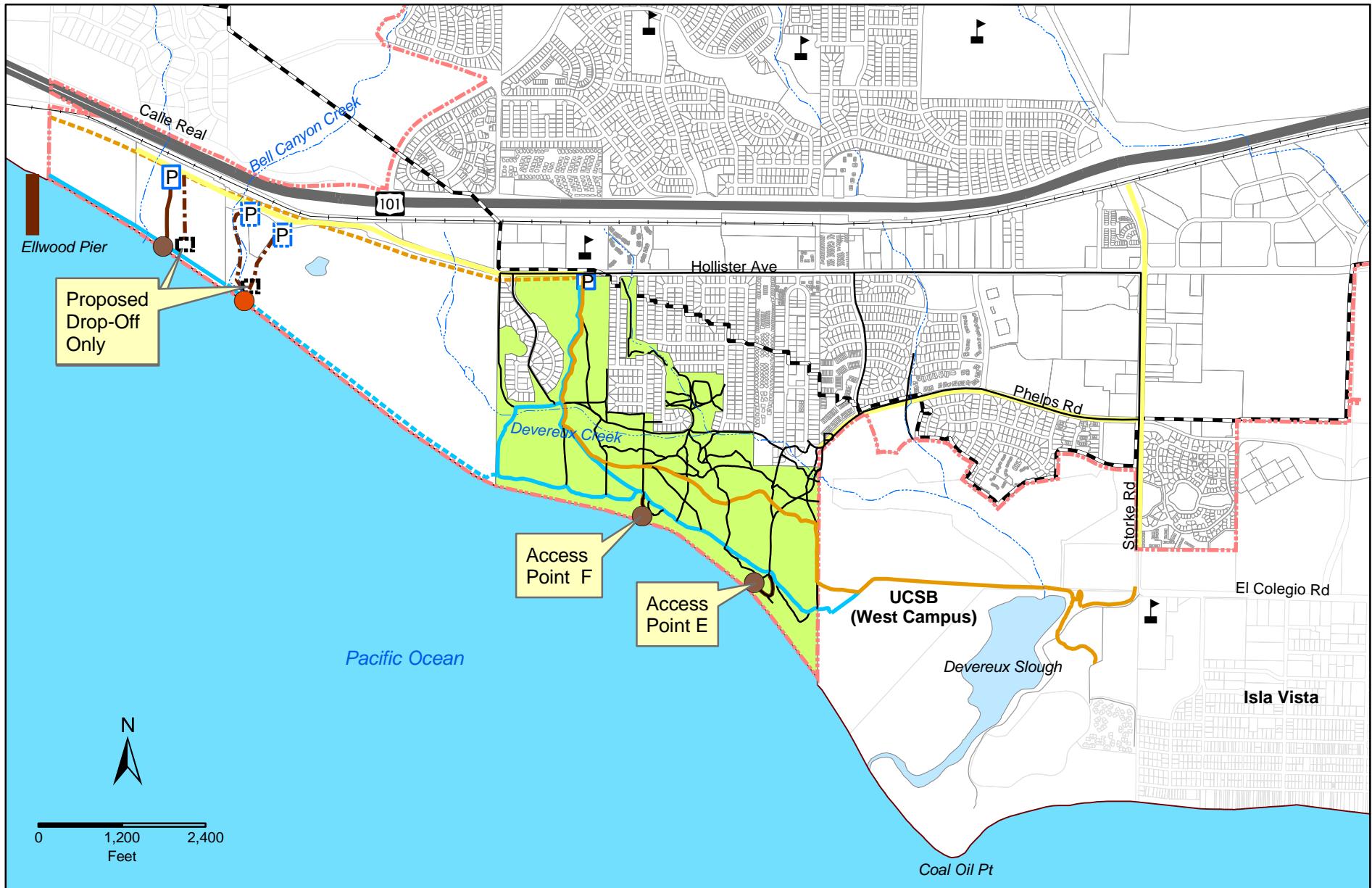
- OS-IA-5 Preparation of Individual Park Development and/or Management Plans.** A development and/or management plan for individual parks, particularly the largest park sites, may be prepared to match resource needs to individual park sites. Similar to the park master plan, these plans are intended to be used to determine resource development, expansion, maintenance, operation, or capital improvements as appropriate and as a basis for pursuing funding opportunities for individual parks.

Time period: Ongoing

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

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ATTACHMENT D



**Figure 3-1
COASTAL ACCESS MAP**

GENERAL PLAN/COASTAL LAND USE PLAN
September 2006



ATTACHMENT E

RESOLUTION NO. 15-55

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA, APPROVING THE CITY OF GOLETA COASTAL HAZARDS VULNERABILITY AND FISCAL IMPACT DRAFT REPORT

WHEREAS, the risk of coastal hazards is significant for people living on the south coast of the Santa Barbara County, including the City of Goleta, due to the potential loss of life, property damage, and potential loss of natural and cultural resources; and

WHEREAS, in consideration of coastal hazards risks, the City of Goleta retained consultant Revell Coastal, LLC to assist with the development of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report; and

WHEREAS, public outreach was coordinated via one public workshop on August 12, 2015, for the purpose of providing the public with information, receiving input on the development of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report, and establishing climate adaptation strategies and Local Coastal Program recommendations; and

WHEREAS, future implementation of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report will protect life and safety, enhance community values, and sustain natural, cultural, visual, and recreational resources; and

WHEREAS, on December 1, 2015, the City Council considered the Coastal Hazards Vulnerability and Fiscal Impact Draft Report and oral and written testimony from interested persons.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GOLETA AS FOLLOWS:

SECTION 1. Recitals

The City Council hereby finds and determines the foregoing recitals, which are incorporated herein by reference, are true and correct.

SECTION 2. Approving of Coastal Hazards Vulnerability and Fiscal Impact Draft Report

The City Council has reviewed the Coastal Hazards Vulnerability and Fiscal Impact Draft Report, attached as Exhibit 1, and hereby finds that the Coastal Hazards Vulnerability and Fiscal Impact Draft Report adequately addresses the risk of coastal hazards and is consistent with the City's General Plan / Coastal Land Use Plan. The City Council hereby

approves the Coastal Hazards Vulnerability and Fiscal Impact Draft Report.

SECTION 3. Documents

The documents and other materials which constitute the record of proceedings upon which this decision is based are in the custody of the City Clerk, City of Goleta, 130 Cremona Drive, Suite B, Goleta, California, 93117.

SECTION 4. California Environmental Quality Act

Approving of the informational Coastal Hazards Vulnerability and Fiscal Impact Draft Report is not a project subject to CEQA.

SECTION 5. Certification

The City Clerk shall certify to the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED, APPROVED AND ADOPTED this 1st day of December, 2015.



PAULA PEROTTE, MAYOR

ATTEST:

DEBORAH S. LOPEZ
CITY CLERK

APPROVED AS TO FORM:

TIM W. GILES
CITY ATTORNEY

*Resolution No. 15-55
Coastal Hazards Vulnerability and Fiscal Impact Draft Report*

STATE OF CALIFORNIA)
COUNTY OF SANTA BARBARA) ss.
CITY OF GOLETA)

I, DEBORAH S. LOPEZ, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing City Council Resolution No. 15-55 was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 1st day of December, 2015, by the following vote of the Council:

AYES: MAYOR PEROTTE, MAYOR PRO TEMPORE FARR,
COUNCILMEMBERS ACEVES, BENNETT AND VALLEJO.

NOES: NONE

ABSENT: NONE

(SEAL)

DEBORAH LOPEZ
CITY CLERK

EXHIBIT 1

Coastal Hazards Vulnerability and Fiscal Impact Draft Report

Draft

2015 City of Goleta Coastal Hazards Vulnerability Assessment and Fiscal Impact Report



Prepared by:

City of Goleta
130 Cremona Drive, Suite B
Goleta, California 93117

With Assistance from:

Revell Coastal
125 Pearl Street
Santa Cruz, CA 95060



November 2015



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Acronyms/Abbreviations

BASH	Bird Air Strike Hazards
BEACON	Beach Erosion Authority for Clean Oceans and Nourishment
CCC's	California Coastal Commission's
CEC	California Energy Commission
CIP	Capital Improvement Program
City	City of Goleta
CoSMoS 3.0	Coastal Storm Modeling System of the USGS
EMHW	Extreme Monthly High Water level
ESHAs	Environmentally Sensitive Habitat Areas
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
GHADs	Geologic Hazard Abatement Districts
IPCC	Intergovernmental Panel on Climate Change
JPA	Joint Powers Authority
LCP	Local Coastal Program
LUFTs	Leaking Underground Fuel Tanks
NAVD	North American Vertical Datum 1988
NRC	National Research Council
PDO	Pacific Decadal Oscillation
SE	Safety Element
TDR	Transfer of Development Rights
TOT	Transient Occupancy Tax
UCLA	UC Los Angeles
UCSB	University of California, Santa Barbara
US-101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Executive Summary

ES.1 Purpose

The development of a coastal hazards vulnerability assessment is the process whereby a community collaboratively seeks to understand the threat of climate-induced coastal hazards, such as sea level rise. It identifies the community's values, determines whether these values are vulnerable to damage or loss from coastal hazards, and develops a course of action for protecting those values.

The **2015 City of Goleta Coastal Hazards Vulnerability Assessment and Fiscal Impact Report** (report) provides a science-based assessment that includes extensive field data gathering, compilation of existing data and information, and the participation of stakeholders such as citizens, business owners, local organizations, and community leaders.

The purpose of this report is to enhance community planning by identifying coastal hazards and associated vulnerabilities that are in balance with fiscal resources. This information will assist the City in making more informed decisions regarding land use and development standards from the project level (e.g., coastal development permits, land use permits) to the plan level (e.g., Old Town Revitalization Plan, Community Wildfire Protection Plan, etc.).

ES.2 Definitions

Planning Horizon: The planning horizon is the future time that forecasts of climate impacts are made and the time that an organization will look into the future when preparing a strategic plan.

Vulnerability Assessment and Sector Profiles:

A vulnerability assessment is the process of identifying, quantifying, and prioritizing (or ranking) the vulnerabilities in a system. There are a variety of vulnerable "sectors" within the City, ranging from building structures, oil and gas, coastal armoring, water supply, and transportation.

Fiscal Impact Analysis: A fiscal impact analysis estimates the financial impact on the City within a particular sector to the identified vulnerabilities.

Adaptation: Adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the vulnerabilities and reduce the fiscal impacts.

ES.3 Report Overview

Planning Background

This section describes the purpose of the report, the study area boundary of planning sub-areas, existing conditions, the planning process that was conducted as part of preparation for the report, and the connection with the California Coastal Commission's (CCC's) 2015 Sea Level Rise Policy Guidance Document.

Physical Setting

This section characterizes developed areas, natural resources, creeks, coastal and shoreline areas, and elevation. Further details are provided that elaborate on the unique geology and geomorphology of the Goleta shoreline, including cliff erosion rates and shoreline change rates. A summary of the substantial

shoreline alterations largely resulting from historic oil and gas development in combination with historic and current Goleta Slough inlet management practices is provided.

Climate Science

The differences between climate “cycles” and climate “change” is provided for background purposes. Projections of climate-induced impacts created by temperature and precipitation patterns, wildfire, extreme event flooding, and sea level rise is provided. Shoreline structures—including location, age, and condition of each structure—are described. Local geology and uplift are described. Five historic storm events are included in this section, with photos to visually demonstrate the local impacts of historic events that are likely to worsen over time. Federal Emergency Management Agency (FEMA) flood maps and statistics regarding repetitive flood-related losses are described. The regional context details how the Goleta-focused report relates to other regional and state climate and coastal hazards studies.

Vulnerability and Fiscal Impacts by Sector

Hazard projections and vulnerability assessment methodologies and assumptions used to model and map coastal hazards are presented for use in determining future levels of vulnerability for the various planning horizons (i.e., 2010, 2030, 2060, and 2100). The mapping of existing hazards has been based on a 2010 LiDAR topographic survey of the region. Flow pathways for flood hazards were mapped based on surface connections. In low-lying areas with unknown flow pathways, potentially connected hazardous areas are denoted as “potentially connected.” Study limitations and data gaps, such as the absence of creek modeling are discussed. Coastal creek flood hazards are presented and include the following:

- Wave run-up (momentum)
- Wave flooding (ponding)
- Barrier beach flooding
- Inundation (tidal)
- Long-term and storm-induced coastal erosion

Potential impacts on urban uses and natural resources are described, based on the five coastal process hazards as the foundation for the vulnerability assessment. Based on the characteristics of the City's coastline and watersheds and input from the City and public, Revell Coastal analyzed eleven sectors in the vulnerability assessment. The sector profiles are presented in Appendix A and are discussed in more detail throughout the report:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Water Supply
- J. Wastewater
- K. Utilities

The fiscal impact analysis resulting from future projected sea level rise and coastal storm vulnerabilities is described, starting with the methodology, assumptions, and limitations of the analysis. Ranges of cost estimates are detailed for potential losses to infrastructure, property, buildings, economic activity, and tax revenues; as well as cleanup costs.

Adaptation Strategies by Sector

An overview of the process used to identify the adaptation strategies is presented, followed by a discussion of the proposed strategies that are intended to address Goleta-specific hazards and vulnerable assets. The interplay of maladaptation, challenges, and secondary impacts is presented to provide further context in the decision-making process. The focus is on the areas of protection, accommodation, and retreat consistent with CCC policy guidance.

Implementation

Factors to consider in order to establish priorities are detailed and include project costs, grant availability, community support, regional participation, and likelihood of effectiveness. Specific focus is on planning and financing mechanisms that the City can employ as part of implementation.

Policy and Regulatory Recommendations

This section makes recommendations based on findings of the report toward informing General Plan and Local Coastal Program policies, regulations, and future capital improvement projects in the probable event that climate change and sea level rise affect the City of Goleta (City) community and environment.

Monitoring

A timeline for implementing strategies is included, and monitoring criteria is outlined to identify thresholds of impacts and to guide future implementation. Further optional studies are suggested for the City.

ES.4 Key Findings

The following are key findings identified as a result of analyses in this report:

- Existing hazards are primarily caused by the barrier beach closure of the Goleta Slough and existing FEMA creek flooding hazards.
- Three neighborhoods face flooding impacts: the Winchester Canyon neighborhood located north of Highway 101; the Aero Camino neighborhood located just south of the 101; and the Placencia neighborhood located in the southern portion of Old Town, east of Highway 217.
- Coastal erosion will likely accelerate above historic erosion rates along the Coastal Resources Area once the existing timber seawall becomes derelict over time or is removed.
- The Goleta Slough and Devereux Slough may physically connect with one another upon experiencing 5 feet or more of sea level rise by 2100.
- Climate change impacts on future creek flooding extents, including changes to precipitation and sea level rise, have not been modeled and therefore remain a significant data gap in the vulnerability assessment, especially considering the extent of existing creek flood hazards mapped by FEMA.

Vulnerabilities by Planning Horizon

The following is a summary of the resulting vulnerabilities organized by Planning Horizons for purposes of planning, implementation, monitoring, and adaptation:

2010 (Existing) Vulnerabilities

- The Bacara Resort and Spa Beach House, in addition to the coastal public access to Haskell's Beach, is vulnerable to all existing hazards, including: creek flooding, coastal erosion, and coastal flooding. The estimated replacement and relocation costs are approximately \$420,000.
- The two active Lease 421 oil wells are threatened by existing coastal hazards.
- The existing coastal armoring is severely outdated and derelict, and the structure will continue to erode and become a nuisance over time. The cost of removing this structure is approximately \$1 million. The City's financial liability is approximately 25 percent of this amount, or equates to approximately \$250,000.
- The City faces a serious potential threat from oil spills, both from active and inactive wells. The costs of mitigating these issues are high. The estimates range from \$7.9 million to \$63.2 million for capping and/or recapping the existing wells. The cost of an oil spill cleanup effort is significantly higher and equates to \$257 million, based on the recent 2015 Refugio oil spill costs.
- The low-lying Placencia neighborhood and nearby roads are already susceptible to substantial flooding during closed Goleta Slough conditions and creek flooding.
- FEMA has mapped 640 acres, or 12 percent, of the City in an existing 100-year creek flood hazard zone.

2030 Vulnerabilities

(<1 foot of sea level rise)

- Most hazards in Goleta over the next 30 years will be determined by the extent that the Goleta Slough is managed from both inlet (open versus closed) and sediment management.

- Barrier beach flood hazards primarily affect structures and land uses in the Old Town Area, specifically in the Palencia neighborhood, Aero Camino, and the neighborhoods between Fairview Avenue and Highway 217.
- The Goleta West Sanitary District Pump Station and the Goleta Sanitary District Firestone Pump Station could be affected by stormwater and coastal flooding (pending a closed Goleta Slough).
- The City could lose 3,684 feet of coastal trails at the Ellwood Mesa Open Space/Sperling Preserve from coastal erosion, which would cost over \$600,000 to restore.

2060 Vulnerabilities

(~2 feet of sea level rise)

- The Bacara Resort and Spa has six buildings that are potentially threatened by erosion around 2060. These buildings contain 139 guest rooms and one restaurant; the cost of replacing these structures is approximately \$50 million. Assuming that the 139 rooms are permanently closed and not replaced elsewhere on the property, this implies a loss of \$2,935 per day (or \$88,058 per 30-day month) in Transient Occupancy Tax (ToT) revenues during high season and \$2,051 per day/\$61,530 per 30-day month during low season.
- Although the City does not have direct liability for the Leaking Underground Fuel Tanks (LUFTs), these may become an issue by 2060 (approximately 2 to 3 feet of sea level rise). The costs of mitigating are relatively low (\$125,000) before hazardous materials leak into the groundwater. However, delays in requiring cleanup until after the sites have been flooded dramatically increase costs and impacts on the City to approximately \$1.5 million per tank.

2100 Vulnerabilities

(~5 feet of sea level rise)

- By 2100, there is the potential for Goleta Slough and Devereux Slough to connect, causing the Storke Ranch development to become increasingly vulnerable.
- By 2100, the Sandpiper Golf Club will likely need to modify up to six holes on the course because of coastal erosion.
- Damages to structures reach a threshold, with the largest flood damages to the light-manufacturing sector (\$9.3 million) in the Old Town Area.

Economic and Fiscal Impact Analysis Summary

The most serious economic and fiscal impacts facing the City are (by estimated dollar value of losses) the following:

- Oil spills may equate to \$257 million in remediation costs.
- Oil well costs include an estimated \$7.9 million to \$63.2 million for capping and/or recapping the existing wells.
- Costs related to LUFTs may be between \$750,000 and \$10.5 million, depending on whether the tanks are leaching due to long duration floodwaters.
- Cleanup costs from one storm flood event can cost between \$0.5 million and \$4.5 million, depending on the storm intensity, duration, flood depths, and flood extents.
- Longer term, the risk of flood damage to private and public property increases between 2060 and 2100 to an estimated \$14 million, with the majority being \$9.3 million within the light manufacturing sector in Old Town Area.
- The City could adapt the road elevations using a thicker layer of asphalt (approximately 4 to 6 inches) every 10 years as part of routine resurfacing,

which would reduce road flooding. The estimated costs are as follows:

- 2030: ~\$500,000
- 2060: ~\$2.2 million
- 2100: ~\$12.5 million
- To remove the derelict timber seawalls from the Coastal Resources Area, it is estimated that the City would be liable for approximately \$243,440–\$286,400. Other landowners would be liable for their portion (e.g., 421 road seawall equates to approximately \$329,290–\$387,400; Sandpiper equates to approximately \$342,040–\$402,400).

ES.5 Adaptation Strategies for Implementation

The following are considerations and a list of specific adaptation strategies that the City could implement to address the climate-induced hazards and related vulnerabilities:

- Recognizing the interrelated jurisdictional boundaries, it will be essential that the City participate in continuing regional dialogs related to oil spill response, coastal management, and climate change adaptation. Goleta cannot adapt to the identified vulnerabilities on its own because both of the major sloughs lie just outside the City's jurisdictional boundary. Goleta should cultivate and be engaged in regional partnerships such as Goleta Slough Management Committee and Beach Erosion Authority for Clean Oceans and Nourishment (BEACON).
- Inlet management remains key to reducing vulnerabilities. If managed for open tidal conditions, the number of vulnerable structures decreases from 129 structures to 14. This enables hybrid approaches with

structural elevation or acquisition to be cost-effective solutions.

- Coastal armoring removal and phased relocation of public access and trails will provide the best long-term protections for certain environmentally sensitive habitat areas (ESHAs) and coastal-dependent recreation in the City.

ES.6 Policy and Regulatory Recommendations

This vulnerability assessment is advisory and is not a regulatory or legal standard of review for actions that the City or the CCC may take under the California Coastal Act. This assessment provides the best available science, and is part of an ongoing process to understand and prepare for coastal hazards. The following represents the overall recommendations based on the analyses completed in this report:

- Adopt Hazard Zone Overlays based on the completed hazard mapping. The Hazard Zone Overlay would trigger the following:
 - Real estate disclosures for coastal and climate-induced hazards.
 - Triggers for a site-specific hazard report.
 - Building code revisions such as movable foundations.
 - Changes to building heights to accommodate additional freeboard elevation.
- The current cliff erosion setback policy contained in the General Plan/Local Coastal Land Use Plan: Safety Element Policy 2.1 takes a conservative approach to calculating any potential development setback. This should be improved to account for an acceleration of historic erosion rates from sea level rise and the derelict existing

coastal armoring. The policy should consider that there is a natural failure distance of cliff erosion that constitutes an "existing hazard." In Goleta that distance is about 15 to 25 feet and should be used as a trigger to develop and implement a phased relocation or other suitable adaptation strategy.

- Develop rolling easements along the oceanfront cliff edge for all public trails.
- Promote outreach and education by providing signage depicting historic flooding depths and elevations.
- Encourage a balanced approach for Goleta Slough management of water levels and sediment.
- Develop a Repetitive Loss Clause Program to allow properties to be downzoned over time to accommodate increased coastal flooding and related impacts.
- Participate in establishing a regional Joint Powers Authority (JPA) with California Office of Spill Prevention and Response, State Lands Commission, Coast Guard, County of Santa Barbara Energy Division, and the City. This JPA would form a round table for oil and gas responses and lessons learned.

ES.7 Monitoring

As appropriate, development projects, coastal development permits, Local Coastal Programs, and other planning updates should incorporate an adaptive management framework with regular monitoring, reassessments, and dynamic adjustment in order to account for uncertainty. Examples include monitoring the following:

- Physical environment to identify when the City is nearing thresholds for escalating impacts from coastal hazards.
- Beach profiles and elevations around coastal armoring structures to determine

impacts on elevations on the narrower beaches in front of the structures. These should be compared with adjacent control sites.

- Structural monitoring to identify when there is an impact on beach elevations (and thus ecology and ESHAs) and lateral access.
- Sea level rise trends from local tide stations.
- Inland extent of inundation and duration of flooding.
- Biological monitoring of sensitive and endangered species.
- Habitat monitoring to understand relationships between habitats/elevation and duration of inundation.
- Support monitoring of specific climate variables that affect habitat location.
- Current climate science related to precipitation, wildfire, and temperature.
- Hydrology data, including water levels in the sloughs and stream flows in the creeks.
- Pre- and post-storm monitoring: erosion extents, high water marks, and inland locations of flooding.

ES.8 Data Gaps for Next Steps

Next steps for the City include a variety of actions, including continued coordination with other relevant partners and research institutions, such as the University of California, Santa Barbara, based on the recommended adaptation strategies and implementation mechanisms contained in this report. The following are representative of a starting point for the City:

- Initiate a coastal confluence modeling effort. This project would consider climate impacts of sea level rise and precipitation on creek flood extents. This report's vulnerability assessment understates the

extents of this increasing flood risk because it currently relies on existing FEMA flood extents for a 100-year event.

- Analysis of habitat (i.e., ESHA) evolution and adaptive capacity.
- Mapping and removal plan for existing and potential relocation of oil and gas pipeline and related infrastructure locations.
- Mapping and removal plan for chemicals in LUFTs and dispersal mechanisms.

ES.9 Positive Findings

Although climate change and its related impacts present challenges for the future, it is not without hope. Some positive findings are as follows:

- School and emergency services are outside of the coastal hazards zones.
- Wildfire risk is projected to be reduced in the future, based on publicly available completed peer-reviewed climate modeling.
- The City has adequate time to implement these adaptation strategies.
- The City has relatively few structures threatened by erosion.
- The City's property tax base is reasonably safe.

ES.10 Sector Profile Results

Sector profiles that summarize the findings and recommendations that can be used in future decision-making are included in Appendix A. Each sector has its own profile, complete with a vulnerability map and 2-page description of findings for ease of communication.

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1. Planning Background

1.1 Introduction

The California Coastal Act requires local governments in the state's Coastal Zone to create and implement Local Coastal Programs (LCPs). Each LCP consists of a Coastal Land Use Plan (General Plan) and an Implementation Plan (Zoning Code). Using the California Coastal Act, the California Coastal Commission (CCC) and local governments managed coastal development, including addressing the challenges presented by coastal hazards like storms, flooding, and erosion. Sea level rise and the changing climate present new management challenges with the potential to significantly threaten many coastal resources. One of the CCC's priority goals is to coordinate with local governments, such as the City of Goleta (City), to complete a LCP in a manner that addresses sea level rise.

In order to address sea level rise and associated hazards in the City's LCP project, the City and its consultant prepared this **2015 City of Goleta Coastal Hazards Vulnerability and Fiscal Impact Report** (report). The purpose of this report is to provide technical analysis using climatic modeling and fiscal impact analysis to support the City's effort to incorporate a range of coastal and climate change hazards into the City's planning and regulatory processes. This information will assist the City in making more informed decisions regarding land use and development standards from the project level to the plan level.

1.2 Location

The City is located in Southern California on the South Coast of Santa Barbara County, approximately 100 miles northwest of Los Angeles and 10 miles west of the City of Santa Barbara. The City is situated along U.S. Highway 101 (US-101), the major coastal highway linking the northern and southern portions of the state. Goleta lies within a narrow coastal plain of exceptional natural beauty between the Santa Ynez Mountains and the Pacific Ocean. A portion of the City, including its 2-mile Pacific shoreline, is within the California Coastal Zone. Incorporated in February 2002, the City approved its General Plan on October 2, 2006, with the last amendment approval occurring in 2009.

The Coastal Zone and City boundaries are shown in Figure 1-1, *City of Goleta Overview*, along with neighboring jurisdictions. The adjacent jurisdictions include the following: City of Santa Barbara (Airport), County of Santa Barbara, and the University of California, Santa Barbara (UCSB). The Coastal Zone in Goleta can largely be separated into distinct landscapes. To the west, the Ellwood Mesa rises along the coast, with most of the Coastal Zone remaining rural open space in public ownership, converted from historic oil and gas development (Figure 1-1 and Photo 1-1). To the east and inland, the more residential and urbanized portions of the City are encompassed in the five watersheds that drain into the low-lying Goleta Slough.



Photo 1-1. 1930 Oblique of Ellwood Mesa (Photo: Spense Collection UCLA 10/30/30)

1.3 Existing Conditions

The Goleta coast is situated within the Santa Barbara Sandshed (watershed + littoral cell), which extends 145 miles from the Santa Maria River in the north and around Point Conception, where the north-south-trending U.S. West Coast takes an abrupt turn to a west-east-trending shoreline orientation into the Southern California Bight (Figure 1-1).

Point Conception in the northwest and the Channel Islands to the south create a narrow swell window that shelters much of the south-facing coast of Santa Barbara County from extreme wave events. Winds and wave heights vary seasonally. The focus of waves into the

Santa Barbara Channel drive an almost unidirectional longshore sediment transport from west to east in which beaches narrow during the winter and spring (November to April) and widen during the summer and fall (May to October). The sand found on the beaches of Goleta move along the coast of southern Santa Barbara and Ventura Counties to the Point Mugu submarine canyon in the south. Extensive coastal armoring along this south-facing coast reflects the recurrence of historic coastal hazards.

Because of the many creeks running from the mountains to the coast through the City, the CCC has appeal jurisdiction in many areas in addition to the typical Coastal Zone. The unique

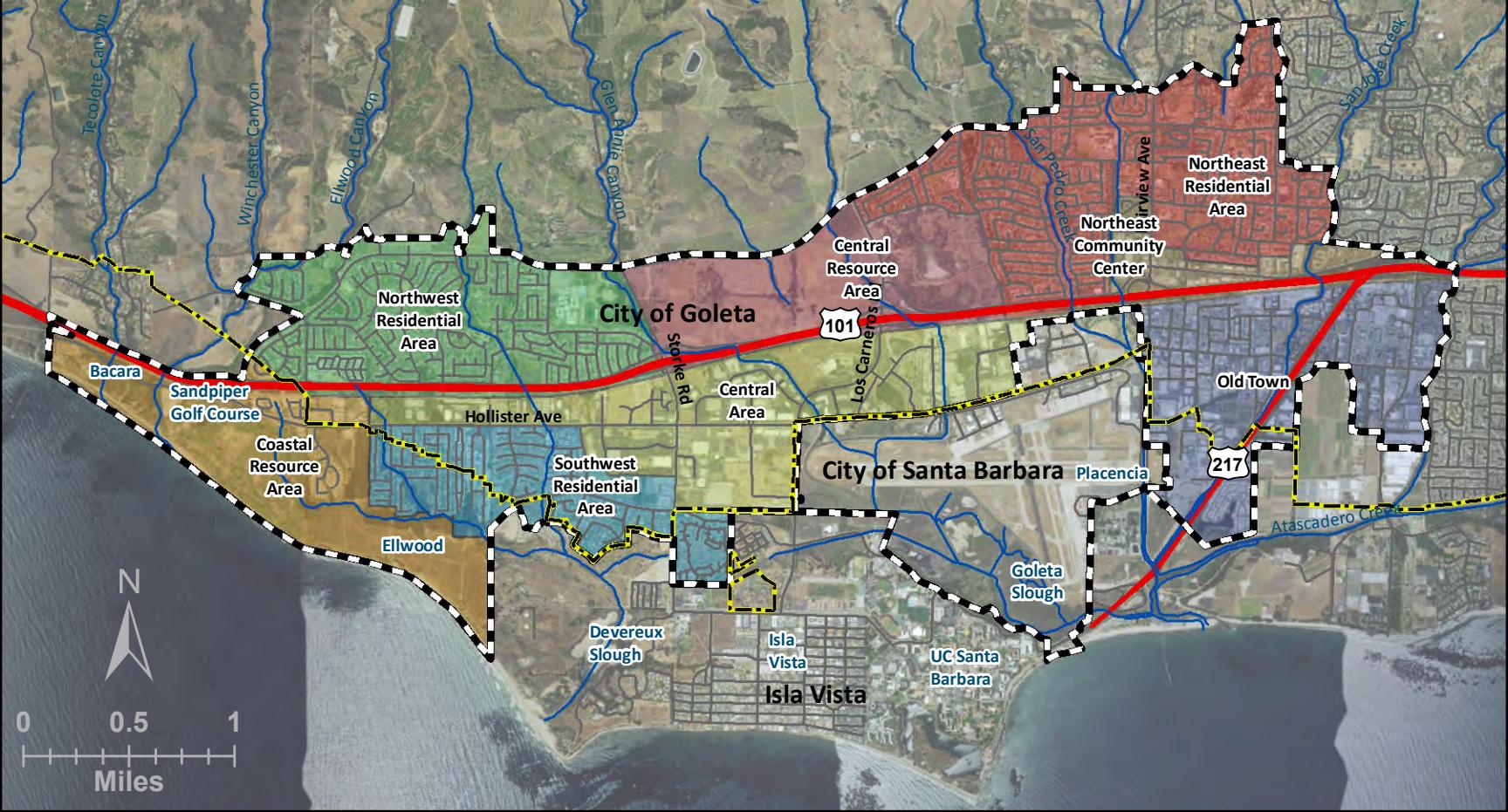


Figure 1-1. City of Goleta Overview



City Boundary



Coastal Zone Boundary



CITY OF
GOLETA



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Goleta Coastal Zone boundary is partially attributed to revisions in the California Coastal Act pertaining to the Devereux Lagoon and Goleta Slough areas, with approximately 170 acres being excluded and 245 acres added to the Coastal Zone. While Coastal Zone restrictions may not mean the end for urban growth in Southern California, sea level rise and other climate-related projections could lead to changes in land use and zoning regulations that require adaptability in new development. For instance, changes in building height restrictions and rolling easement language can allow for development to occur while anticipating future hazards, such as storm surges. Significant upwelling along the coast of Southern California provides nutrient-dense waters, contributing to unique and abundant marine biodiversity.

As climate change shifts temperature, precipitation, and vegetation ranges, species that previously inhabited this area may face increasing difficulty in finding suitable habitat. Species with restricted ranges are acutely sensitive to changes in abundance, distribution, and timing of growth or life stages and will require intervention to continue living in these altered biological systems. For marine species, ocean acidification is an additional stressor (Climate Change Indicators Report 2013).

Episodic, cool winter storms and hot, dry summers characterize the Mediterranean climate of this region. Precipitation is variable, but averages about 28 inches in the mountains and 15.7 inches across the coastal plains. Rainfall primarily occurs in the winter months, with actual rainfall amounts varying widely depending on tropical moisture in the subtropical Pacific. El Niño conditions can increase this subtropical moisture; many of the wettest years on record occurred during El Niño years.

1.4 Planning Sub-Areas

Coastal Resource Area

The City's coastline is located in this Coastal Zone area. This planning sub-area consists of beaches, mesa top grassland, eroding cliffs, and two wetlands. It also contains the Ellwood Mesa Sperling Preserve, the Coronado Butterfly Preserve, and the Ellwood On-Shore Facility. This area provides habitat for sensitive species, opportunities for recreation, coastal access, and the only coastal resort, the Bacara Resort and Spa.

Northwest Residential Area

This area enjoys scenic views of adjacent open spaces, creeks, the ocean, and agricultural lands. There is an elementary school, a high school, and a private school in the area, along with the Winchester neighborhood. There are also several parks and open space areas, such as Evergreen Park, Bella Vista Park, and Winchester Open Space.

Southwest Residential Area

The western portions of this area are partially in the Coastal Zone. The area borders the Ellwood Mesa Open Space area and subsequently has a variety of protected scenic views. The area as a whole primarily consists of residential areas and contains Girsh Park.

Old Town

Old Town, situated along the primary thoroughfare (Hollister Avenue), is the historic center of the City and characterizes the small-town character of the City. It consists of commercial, industrial, light manufacturing, residential, and open space areas. The industrial area and a mobile home park are within the Coastal Zone. Like the Central Area, it borders the City of Santa Barbara's airport property.

1.5 Goleta Local Coastal Program

In 2014, the City initiated the LCP. The intent of this report is to meet Steps 1–4 of the CCC policy guidance (Figure 1-2).



Figure 1-2. California Coastal Commission Guidance for Including Sea Level Rise into Local Coastal Programs (Source: CCC 2015)

1.6 The Planning Process

LCP Stakeholder Meeting

The City hosted an LCP stakeholder meeting on February 11, 2015. This meeting was targeted at property owners and related community

members that have an interest in land use and natural resources within the Coastal Zone.

California Coastal Commission Staff Consultation

The City has been in consultation with the CCC throughout 2015 regarding the City's draft Coastal Land Use Plan and related elements. Several of the elements (Safety and

Conservation) contain sea level rise, coastal hazards, and climate adaptation policy language. The elements have been drafted and reviewed by the CCC's technical staff, including its Coastal Engineer, Lesley Ewing. Upon adoption of this report, the final draft policies will be submitted to the CCC for consideration.

Coastal Hazards Public Workshop

As part of the development of the report, City staff has engaged the public, decision-makers, and various City departments. On August 12, 2015, a public workshop was held to provide an overview of the draft report results and related adaptation strategies. Staff sought and received input on the coastal hazards areas that would be most impacted and what possible adaptation strategies could be effectively applied and at the most appropriate time. The community desired a separation of sectors (e.g., coastal armoring, water supply, oil and gas) to better summarize the most relevant issues.

City Departmental Briefing

On August 12, 2015, a City departmental meeting was held with both directors and staff in attendance to review the draft report results. The City sought and received input regarding strategies and findings as they related to each of the departments' prioritization of strategies. It was determined that flooding and emergency management was the highest priority to City staff.

Planning Commission and City Council Briefings

Planning Commission briefings occurred on February 23, April 13, June 22, and October 12, 2015. City Council briefings occurred on February 17 and September 15, 2015. The

presentations provided the opportunity for an in-depth overview of the sea level rise/coastal hazards, hazard mapping, vulnerability assessment, fiscal impact analysis, and possible climate adaptation strategies for the City. Some of the discussion focused on the CCC's adopted 2015 Sea Level Rise Policy Guidance and the need to incorporate those results and steps into the LCP to garner CCC support.

1.7 2015 California Coastal Commission Sea Level Rise Policy Guidance

In August 2015, the CCC adopted the Sea Level Rise Policy Guidance to aid jurisdictions in preparing for sea level rise in LCPs, Coastal Development Permit, and regional strategies. The document outlines specific issues that policymakers and developers may face as a result of sea level rise, such as extreme events, challenges to public access, vulnerability and environmental justice issues, and consistency with the California Coastal Act. The policy guidance document also lays out the recommended planning steps to incorporate sea level rise into the legal context and planning strategies to reduce vulnerabilities and inform adaptation planning (Figure 1-2).

The policy guidance has a strong emphasis on incorporating coastal hazards and sea level rise into LCP planning and using soft or green adaptation strategies. The following are specific steps that are outlined in the document:

Step 1. Establish the Projected Sea Level Rise Ranges

Consistent with the CCC policy guidance, the City is evaluating a worst-case scenario: the 60.2 inches by 2100 scenario projected by the National Research Council (NRC) for South of Cape Mendocino. With regional subsidence and uplift taken into consideration, Goleta can expect between 0.04 and 10.2 inches of sea level rise by 2030, between 2.8 and 27.2 inches by 2060, and between 10.6 and 60.2 inches by 2100 (Table 1-1). The City has selected 2010, 2030, 2060, and 2100 as the most relevant planning horizons because these time horizons align with the City's future General Plan buildout (2030) as well as consistency with the County of Santa Barbara and UCSB's time horizons and availability of coastal hazards modeling results. 2010 represents the most recently flown LIDAR for the Santa Barbara coastline and therefore is the baseline for this analysis.

**Table 1-1. Sea Level Rise Scenarios by Planning Horizon without Vertical Land Motion
(adapted from NRC 2012)**

Year	Low SLR	Medium SLR	High SLR*
2030	0.04 inches	3.5 inches	10.2 inches
2060	2.8 inches	11.8 inches	27.2 inches
2100	10.6 inches	30.7 inches	60.2 inches

Step 2. Identify Potential Impacts from Sea Level Rise

Based on the 2015 Santa Barbara County South Coast Modeling and Vulnerability Assessment Report, the potential hazards for the City include dune erosion, cliff erosion, coastal flooding, wave run-up, tidal inundation, and storm erosion. Given the boundaries and setting of the City, the two most dominant hazards are

1) the flooding associated with a closed lagoon and 2) coastal erosion. It should also be noted that the influence of sea level rise on creek flood extents is unknown. We based our initial analysis on the existing Federal Emergency Management Agency (FEMA) flood maps and recommend future work to accomplish modeling of the climate impacts on coastal creek flood extents.

Step 3. Assess the Risks and Vulnerabilities to Coastal Resources and Development

The following sectors were determined to experience some form of existing or future risk and related vulnerability to sea level rise (e.g., dune erosion and/or coastal flooding):

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities

Step 4. Identify Adaptation Measures and LCP Policy Options

Consistent with the CCC policy guidance, the City has included adaptation measures such as a repetitive loss clause program, setback requirements, real estate disclosures, phased removal, and hazard overlays. Results from this

report will be used to further refine these policies. The City is also actively seeking ways to generate financial incentives and generate revenues to support risk reduction and removal of nuisance structures.

Step 5. Draft New LCP for Certification with the California Coastal Commission

Following additional public outreach and the resulting revisions, the City will incorporate these adaptation strategies, via policy and regulatory language, into the Draft LCP for submittal and final plan certification by the CCC.

Step 6. Implement, Monitor, and Revise as Necessary

The science and models can be further refined, necessitating an updated report. As adaptation measures become increasingly common, certain strategies may stand out against others as being more feasible to implement with minimal economic costs and legal issues.

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2. Physical Setting

2.1 Geology

Complicated tectonics shape Goleta's coastline with varying levels of uplift and subsidence. This faulting results in a diverse backshore with uplifted marine terraces of varying thicknesses underlain by the Monterey Formation, which is a calcareous deposit subject to minor landslides (Minor et al. 2009). The majority of the Coastal Resources Area cliffs are composed of Monterey Formation with steeply dipping cliffs. This geologic unit is relatively steep and not as conducive to catastrophic rotational landslide failures seen elsewhere in Santa Barbara County (e.g., the Mesa). Several creeks at Bell Canyon and Tecolote Creek have incised these marine terraces. Offshore, the Monterey Formation remains the dominant geology off of the Ellwood Mesa; however, just east of the City, multiple submarine landslides have been mapped at the mouth of many of the creek drainages, whereby highlighting the risk of a localized tsunami hazard generated from nearby submarine landslides.

The faulting is also responsible for the two major sloughs adjacent to the City boundary. Both Devereux and Goleta Sloughs lie outside the City boundary but clearly fall within the City's Sphere of Influence, as City policies could influence water, sediment, and habitat resources in these systems. These wetland systems also pose flood hazard risks and affect water and sediment transport across the landscape. Sea level rise will affect the beach elevations, which would in turn affect the extents of inland flood extent.

2.2 Geomorphology

Geomorphological information for the study area was collected through a combination of 1) field data collection completed by Dr. David Revell and funded for this specific LCP update, 2) review of existing scientific literature; and 3) consultation with Steve Campbell, P.G. and other local experts, including Dr. Larry Gurrilla and Dr. Edward Keller.

Beach sediments in the region are primarily composed of bedrock platforms of the underlying Monterey Shale Formation with a base layer of cobbles and a thin veneer of beach sand. Cobbles and bedrock are often seasonally exposed in the wintertime. Sand comes primarily from stream delivery of watershed-derived sediments and some cliff erosion. Beaches and shoreline position have oscillated through time, but generally show a relatively stable width and position.

Beach elevations are a result of sea level, tides, and waves. These elevations also vary seasonally. During the late summer and fall, beach berm crest elevations and toe of cliff elevations are around 10 to 11 feet North American Vertical Datum 1988 (NAVD). These field-surveyed elevations are consistent with other beach profile surveys collected by the U.S. Geological Survey (USGS), Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), and Coastal Frontiers. Field-surveyed measurements of the geomorphology have identified that toe elevations are slightly lower in front of the remnant shoreline armoring than on natural beaches.

Beach slopes, which affect wave run-up, were also measured and show a range between 0.07 and 0.12, moderate beach slopes. These slopes

are consistent with other field-surveyed beach profiles by USGS, BEACON, and Coastal Frontiers. No bedrock platform slopes, which underlie the beaches, were exposed at the time of the field survey; therefore, measurements of these platform slopes remain uncertain.

Bar-built estuaries such as those found near the inlets to Tecolote Creek and the beach berm crest in front of these creek mouths largely control Bell Canyon Creek. Cobbles comprise the majority of the beaches fronting these lagoons (Photo 1-2). During the dry season and low wave energy time period (typically summer and fall), the beach will naturally close the estuary, which results in a bathtub-like filling of the lagoon. During the rainy season (typically winter and spring), the creek will naturally breach the beach and flow into the ocean, lowering the estuary water levels. As the flood extents are related to the elevation of the beach berm crest, any climate-related changes to either sediment supply or increase in wave run-up elevations will alter the beach berm crest elevations and potentially increase the flood depths and spatial extents. Changes in these flood extents will largely depend on management actions of the Goleta Slough that are largely outside the jurisdictional control of the City.



Photo 2-1. Cobble and Sand Beach Fronting the Bell Canyon Creek (Photo: D. Revell)

Cliff heights vary along the City coastline and range from 60 to 100 feet NAVD88, according to

the field study. In general, the highest cliffs are at the west end of the Ellwood Mesa where the Bacara Resort and Spa is located and shorten as one moves east toward the Devereux Slough.

The size of the landslides in the sea cliffs largely depends on the height of the cliff and dip (angle of internal bedding) of the rock unit. Along the cliffs in the City, the dip generally ranges from 55 to 75 degrees, although there are some slopes as shallow as 45 degrees. As the cliffs are relatively steep, the large rotational landslides seen along Hope Ranch and More Mesa, located in Santa Barbara County, are not as likely in the City of Goleta.

Cliff erosion rates are often reported in “average annual retreat”; however, cliffs rarely fail in an average sense. Instead, characteristic behavior includes a cliff failure of some distance with the material from the failure accumulating at the base of the cliff. However, many of the calculations for setbacks require reporting of “average annual rates” of erosion. These have been updated from previous studies and are broken out into “cliff erosion rates” and “shoreline erosion rates.” Future land use policy should consider that there is a natural failure width that constitutes an “existing hazard.” In Goleta that distance is about 15 to 25 feet.

2.3 Cliff Erosion Rates

Historic long-term cliff erosion rates were calculated along the Coastal Resources Area along the Ellwood Mesa. These rates were based on multiple shorelines, including those from USGS (Hapke and Reid 2007), and updated with a 2010 cliff edge derived from recent LIDAR data. Linear regression rates of erosion rates were calculated between 1933 and 2010 and were found to range between 0 inches per year and 11.4 inches per year. Caution must be taken when using these rates as the toe or base of the sea cliffs in this area is largely protected by the remnants of oil and gas infrastructure, namely a timber seawall that was backfilled and has protected the toe of the cliffs from wave

attack. This timber wall is in relatively poor condition, as documented in the Beach Hazards section in the General Plan and other field mapping conducted for the LCP. Therefore, it is likely to fail in the next decade (Photo 2-2). Once the timber wall and artificial fill are eroded, then the erosion rates of the cliff will likely increase to a more normal background rate. This background rate is anticipated to accelerate over time as sea level rise increases the duration of wave attack at the toe and the cliff face. Modeling currently in process as part of the Santa Barbara County Coastal Resilience Project should assess the accelerated rate of cliff retreat.

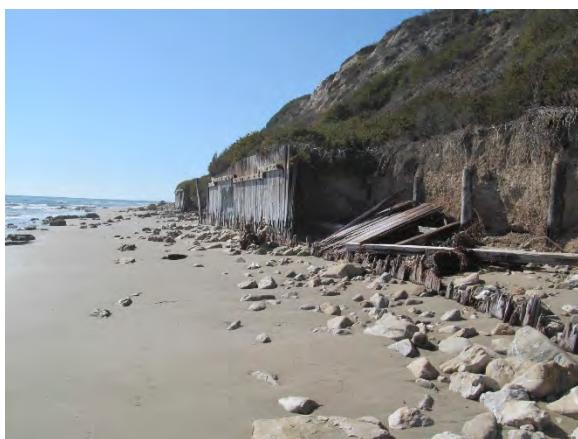


Photo 2-2. Condition of 1930s-Era Coastal Armoring along Goleta Coastline

2.4 Shoreline Change Rates

Multiple historic shoreline change rates were calculated along the Coastal Resources Area, using historic aerial photo analysis to document changes in beach widths. Overall, the beaches along this area showed oscillations through time with no overall trend in narrowing and no strong trend of erosion in any of the shoreline reference features (Revell and Griggs 2006, Revell 2007, Barnard et al. 2009).

For the time period between 1929 and 2005, the back of the beach shoreline changed between 2.7 inches/year of erosion and

11.4 inches of accretion. The mean sea level shoreline demonstrated additional variability, as one would expect, with ranges from 9 inches/year of erosion to 6.3 inches/year of accretion. After including shoreline position information from the 1871 topographic sheet, the Mean Sea Level shoreline showed accretion of between 0.7 and 8.3 inches per year. These patterns of shoreline changes are consistent with findings along much of the Santa Barbara Channel beaches. In summary, beaches oscillate based on occurrences of large erosional wave events, sediment deposition following flood events, and periods of accretion during extended periods of time with reduced wave energy (Revell and Griggs 2006, Revell 2007, Barnard et al. 2009).

2.5 Human Alterations to the Shoreline

Historic Uses

The coastline along the City experienced substantial alterations largely resulting from historic oil and gas development dating back to the 1920s. Most notably are the remnants of an old timber sheet pile wall that was built on the beach and backfilled to provide driving access to the host of oil piers that once lined this coastline.

Survey work measuring the back of beach toe elevations in front of the remnant seawalls constructed during previous oil industry activities showed that these elevations were slightly lower than the elevations of unarmored sections of coast. The armored back of beach elevations were consistently around 9.5 to 10 feet NAVD, which is 0.5 to 1.5 feet lower than the unarmored beaches along the City's shoreline. These are consistent with impacts of structures that interact with wave run-up more frequently and disrupt the normal wave run-up depositional process (i.e., active erosion).

The poor condition and advanced age of these structures indicate that failure is imminent and that once these walls fail and the road fill is eroded, cliff erosion rates will escalate beyond historic levels of erosion that are calculated and reported in average annual erosion rate methods above. The actual timing of the failure of these structures and the erosion of the road fill will depend on the sequence of large storm events and the availability of continued sediment supply from up-coast sources.

The management implication of these human alterations' influence on historic erosion trends is that additional setbacks may be required should additional bluff top development be considered. The countywide modeling work will consider the acceleration of erosion rates from sea level rise and attempt to document a natural rate of erosion. Presently the City's Coastal Bluff setback requires using 1.3 feet/year of erosion, which is greater than that documented in the historic shoreline change analysis. Therefore, setback policies remain a conservative estimate of future coastal erosion impacts.

Inlet Management

Presently, all of the sloughs and lagoons within the City form at the mouth of Tecolote and Bell Canyon Creeks. During the summer, reduced wave energy and stream flow cause the sand bars to close and remain closed for many months. This is the natural functioning of these unique bar built estuary ecosystems, which typically breach once substantial precipitation causes them to open. Regionally, however, inlet management of Goleta Slough has changed. For much of the last 30 years the inlet has been mechanically reopened within 2 weeks of closure by the Santa Barbara County Flood Control District to reduce localized flooding, maintain dissolved oxygen levels in the Slough, reduce Bird Air Strike Hazards (BASH), and to minimize viable mosquito breeding habitat (Photo 2-3). In 2012, however, the U.S. Fish and Wildlife Service (USFWS) stopped this inlet opening management practice over concerns

for endangered species, notably the Southern Steelhead trout, and the Tidewater Goby. Ongoing studies and consultation with resource agencies and the City of Santa Barbara Airport leave this inlet management question presently unresolved.



Photo 2-3. Goleta Slough Inlet Breaching, 2014
(Photo: Patrick Bermond, City of Santa Barbara)

3. Climate Science

3.1 Climate Cycles

Climate change is not to be confused with climate cycles, which also operate independently of human-induced climate change. Some of these climate cycles occur at long time periods and are related to the orbit of the earth around the sun, the tilt of the earth on its axis, and precession (subtle shift) of the earth's orbit. These Milankovitch cycles occur at approximately 41,000, 120,000, and 400,000 years and are responsible for the Ice Ages observed in the geologic record.

Some of these climate cycles are shorter; the most commonly known cycle is the El Niño/La Niña cycle, which is related to changes in equatorial trade winds and shifts in ocean temperatures across the Pacific Ocean. An El Niño brings warmer water to the Eastern Pacific, and this shift in ocean temperatures elevates sea level rise by about a foot above predicted tides in the Santa Barbara Channel. These warmer ocean temperatures can increase evaporation, resulting in more atmospheric moisture and often substantially more precipitation. The 1982–1983 and 1997–1998 El Niños have caused both river and coastal flood damages across the Santa Barbara County region. The January 1983 wave event is considered to be the largest storm recorded in the Santa Barbara Channel.

One other climate cycle that impacts the Goleta area is the Pacific Decadal Oscillation (PDO), which is an approximately 25–30-year cycle that changes the distribution of sea surface temperatures across the Pacific. Its effects were first noticed by fishery researchers in Washington (Mantua et al. 1997). The result of this ocean temperature shift is largely a shift in

the jet stream. During the warm phase, the jet stream changes the storm track toward the south, affecting both the wave direction (increase in wave energy into the Santa Barbara Channel) and precipitation. At present, the index has been on the cool side, which tends to lead to less precipitation in Goleta. One other implication of the PDO is that the rate of sea level rise is reduced in the Eastern Pacific (off the U.S. West Coast). Recent PDO research indicates that a shift in the PDO would likely result in much more rapid rise in sea levels off the U.S. West Coast than has been seen in the last three decades (Bromirski et al. 2011).

3.2 Climate Change

Human-induced climate change is a consequence of increased greenhouse gas emissions from the burning of fossil fuels that accumulate in the atmosphere and insulate the earth from outgoing long-wave radiation. As this atmospheric emissions blanket gets thicker, more heat is trapped in the earth's atmosphere, warming the earth and triggering a series of climate changes related to different feedback mechanisms. Once set in motion, many of the climate change feedbacks take centuries to millennium to stabilize.

Globally, sea levels are rising as a result of two factors related to increasing temperature caused by human-induced climate change. The first factor is the thermal expansion of the oceans. As ocean temperatures warm, the water in the ocean expands and occupies more volume, resulting in a sea level rise. The second factor contributing to eustatic (global) sea level rise is the additional volume of water added to the oceans from the melting of mountain glaciers and ice sheets. It is predicted that if all of the ice were to melt on earth, ocean levels

would rise by approximately 220 feet above present-day levels. The rate at which it rises will largely depend on the feedback loop between the melting of the ice, which changes the land cover from a reflective ice surface, and the open ocean water, which absorbs more of the sun's energy and increases the rate of ice melt.

3.3 Climate-induced Impacts

Temperature

Temperature increase, one of the primary impacts of climate change, is caused by the increase in greenhouse gases in the atmosphere, which traps more heat. Temperature changes can cause health risks associated with increases in extreme heat days, increase the length of warm period heat waves, increase the length of droughts, and force existing habitats and species to move to more suitable, cooler habitats.

Rainfall patterns will change and vary regionally, with winter and spring rainfall in the

northern U.S. expected to rise and rainfall in the Southwest, including California, to decrease, particularly in the spring. Even as overall precipitation in the Southwest is projected to decrease, the number of heavy rainfall events is anticipated to increase (Walsh et al. 2014).

Future temperature projections for the Goleta Valley show that average annual temperatures are expected to rise by between 2.2° and 3.2°F by 2030, 3.9° and 4.9°F by 2060, and 4.5° and 5.3°F by 2100 (Figure 3-1). The projected increase in temperature in the Goleta Valley would not be uniform throughout the year. The wintertime (January) and summertime (August) temperatures are projected to rise at different rates than the average annual changes. January temperatures are projected to rise between 1.9° and 2.1°F by 2030, 3.4° and 3.7°F by 2060, and 3.6° and 5.9°F by 2100. In contrast, August temperatures are projected to rise between 2.1° and 3.4°F by 2030, 3.4° and 5.5°F by 2060, and 6.3° and 8.1° by 2100. In summary, temperature projections show an increase in temperature throughout the year with the summer (August) showing the greatest increase up to 8.1° by 2100.

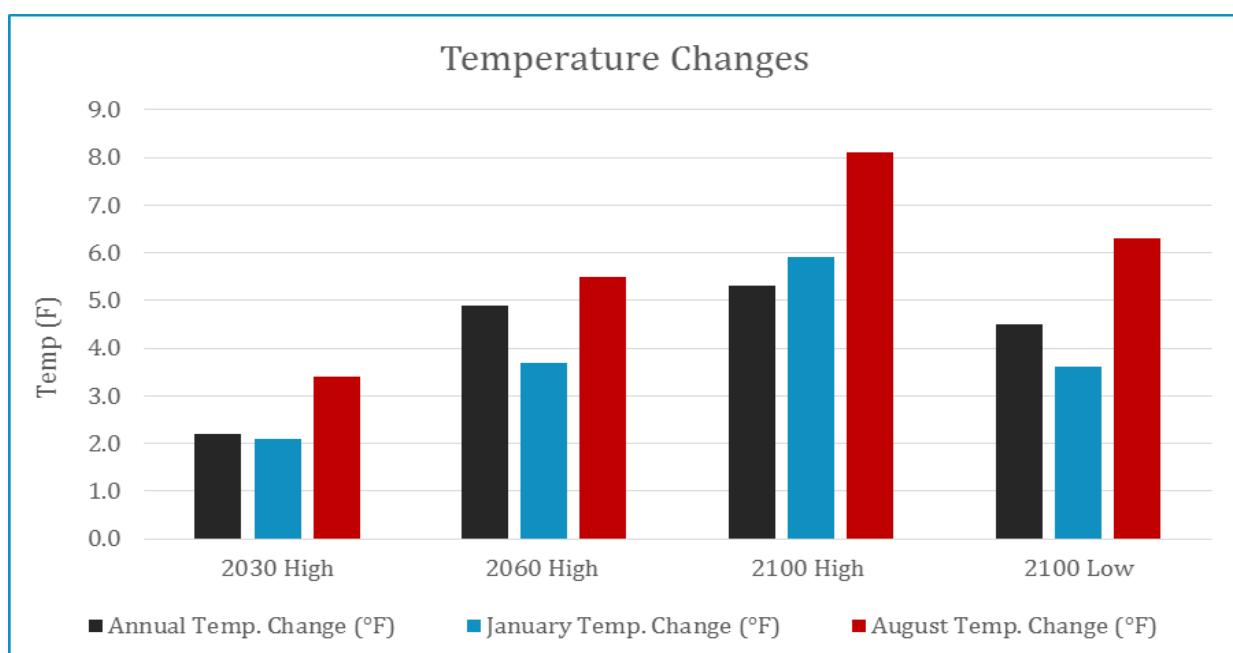


Figure 3-1. Projected Temperature Changes in Goleta (Source: Cayan et al. 2009)

Extreme heat in Goleta is defined as a day between April and October that temperatures are above 79°F (Figure 3-2). The historical average for the time period from 1961 to 1990 was 4 days between April and October with an average length of the extreme heat waves of 1 day. By 2030 models project between 17 (low scenario) and 25 (high scenario) days per year with the duration of the heat waves increasing

up to 6 consecutive days a year. By 2060, a projection of extreme heat days ranges from 27 to 42 days between April and October with an estimated increase in the length of heat waves up to 7 consecutive days. By 2100, projections of extreme heat waves increase up to between 35 and 87 days between April and October with further increase in the length of the heat waves up to 20 consecutive days.

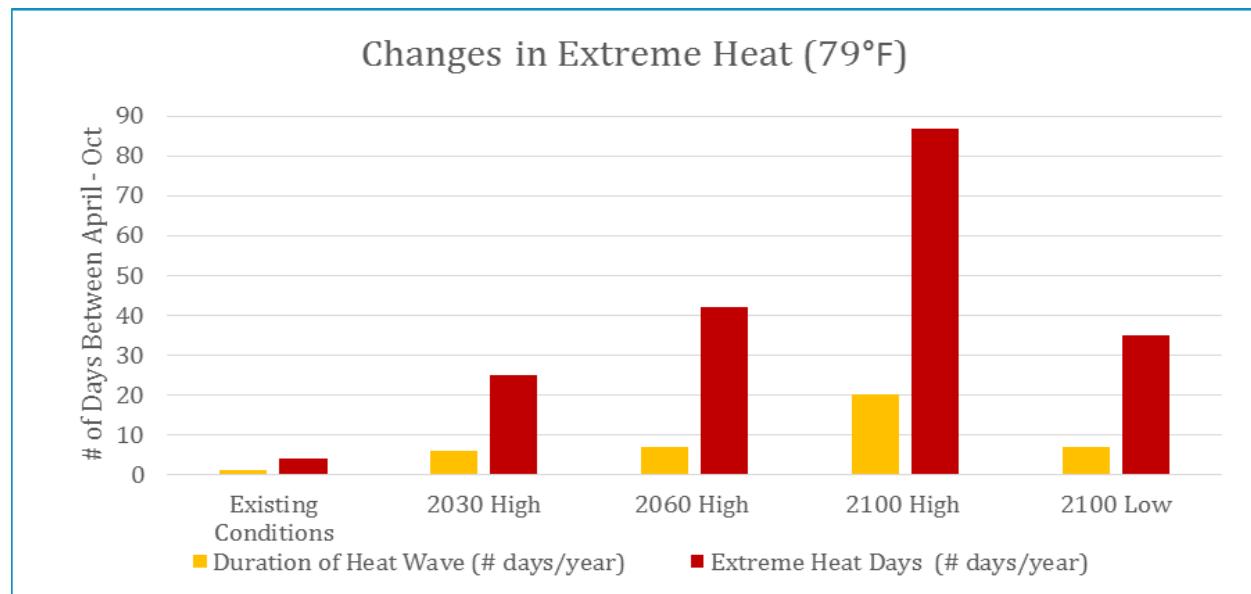


Figure 3-2. Projected Extreme Heat and Duration of Heat Waves (Source: Cayan et al. 2009)

Precipitation and Wildfire

Another climate change impact will likely be in precipitation; the amount of moisture in the atmosphere can either increase or decrease based on the amount of temperature changes affecting evaporation and changes in humidity. Precipitation and temperature also affect the wildfire risk. Increased precipitation increases plant growth, thereby adding more fuel, and increases in extreme heat can reduce vegetative growth (Figure 3-3). Changes in both precipitation and wildfire are relative to percent changes from the time period between 1961 and 1990.

However, the precipitation variable (and thus the changes in wildfires that are dependent on precipitation) is one of the least certain of the climate change impacts. Models can vary

widely, and this is an area of active research. Results in this section come from modeling completed in 2009. Ongoing active research at Scripps Institution of Oceanography and UCSB continue to investigate these two climate change variables and are expected to be available as part of the Coastal Ecosystem Vulnerability Assessment, funded by California Sea Grant and expected to be available by the end of 2016.

Precipitation in the Goleta Valley is projected to experience a long-term decline through 2100. By 2030, the precipitation projections range from an increase of 1.6 percent to a decrease in 5.6 percent. By 2060, precipitation is projected to decline between 12.8 percent and 24.0 percent. By 2100, the precipitation is projected to decline between 6.7 percent and 24.0 percent. In general, the pattern is for declining

amounts of annual precipitation, longer droughts, and more extreme events.

One positive climate change projection is that wildfires in the Goleta Valley are projected to experience a long-term decline from the historic period of 1961 and 1990. By 2030, wildfire is projected to decrease between 10 percent and 15 percent. By 2060, the wildfires are projected

to decline between 20 percent and 25 percent, and finally by 2100 the wildfires are projected to decline by 20 percent to 30 percent. While this finding is a bit counterintuitive, the decline in precipitation is likely to reduce the amount of vegetative growth, which reduces the fuel load available for wildfires.

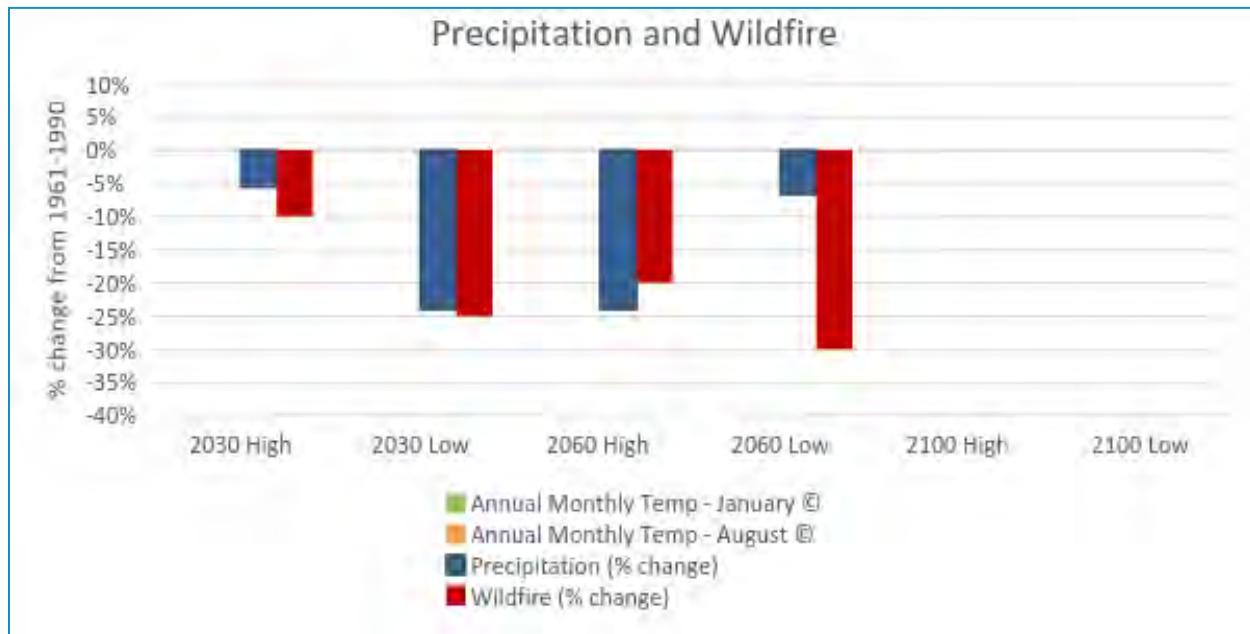


Figure 3-3. Precipitation and Wildfire

Sea Level Rise

Sea level rise can increase flood risks in low-lying coastal areas and areas bordering rivers. A 5-foot increase in water levels caused by sea level rise, storms, and tides is estimated to affect 499,822 people, 644,143 acres, 209,737 homes, and \$105.2 billion of property value in coastal areas (Climate Central 2014).

The time scales for sea level rise are related to complex interactions between the atmosphere and the oceans and the lag times associated with the stabilization of greenhouse gases in the atmosphere with the dissolution of those gases into the ocean. The Intergovernmental Panel on Climate Change (IPCC) has published scientific evidence that demonstrates that, due to the greenhouse gases already released into the

atmosphere, the sea levels will be rising for the next several thousand years. Given this long-term perspective, it is not a question of if sea level rise will happen, but when it will happen.

Sea level rise scenarios used in this analysis were selected consistent with the CCC's 2015 Sea Level Rise Policy Guidance (CCC 2015) and consistent with the science published by the National Research Council (NRC 2012) for areas south of Cape Mendocino (where the faulting and vertical land motion change) (Table 1-1). One specific difference in the Goleta Valley is the use of local vertical movement measurements that have been documented by geology researchers at UCSB (Gurrolla et al. 2014).

Relative Sea Level Rise

Sea level rise is not the same everywhere around the world. Because of local differences in tectonic uplift; subsidence caused by oil, gas, and groundwater extraction; and saltwater intrusion, the land itself is moving vertically. The difference between the local land motion and the global rise of sea level gives the relative sea level rise that will determine the magnitude of local sea level rise impacts. Vertical land motion in some studies would identify this

relative rate from local tide gages. However, the nearest Santa Barbara Tide Gage, which reports the local sea level rise rate at a rate of approximately 0.73 (+/-1.2) millimeters per year, has a sporadic historical record (Figure 3-4). Since the tide gage was installed in the mid-1970s, nearly every major El Niño has broken the gage and consequently left a 7- to 10-year data gap, rendering the relative sea level rise calculations from the tide gage suspect.

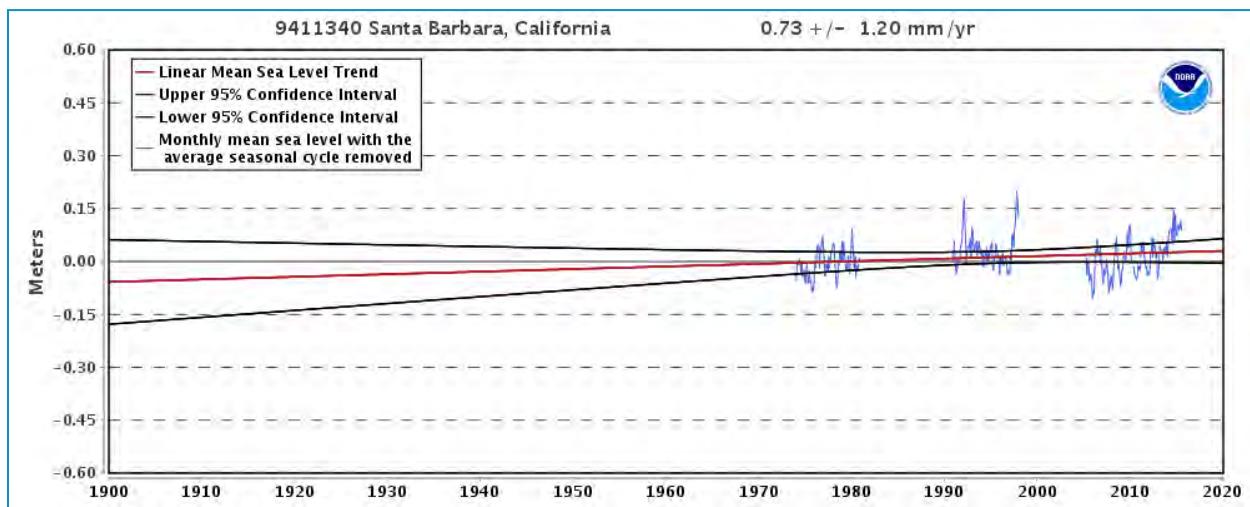


Figure 3-4. Tide Record and Sea Level Rise Trend from the Santa Barbara Tide Gage (NOAA Station 9411340)

Locally along the Goleta coastline, there are differences within the City due to the complex faulting in and around the City. Along the western portion of the City, specifically along the Ellwood Mesa, the land is uplifting at approximately 1.6 millimeters per year, based on radiocarbon dating of shells found in the marine terraces (Gurrola et al. 2014). This relative rate decreases the overall impact of sea level rise and coastal erosion hazards (Table 3-1).

Table 3-1. Goleta Specific Values, Including 1.6 Millimeters per year Uplift along Ellwood Mesa

Year	Low SLR	Medium SLR	High SLR*
2030	-1.3 inches	2.2 inches	8.5 inches
2060	-0.3 inches	8.7 inches	24.1 inches
2100	4.9 inches	25.0 inches	54.5 inches

In contrast, along the Goleta Slough, the land is subsiding at a rate of approximately 1.5 millimeters per year. This equates to the relative rate of local sea level rise being greater than that of the global rate (Table 3-2).

Table 3-2. Goleta Specific Values, Including 1.5 Millimeter per Year Subsidence at Devereux and Goleta Slough

Year	Low SLR	Medium SLR	High SLR*
2030	1.2 inches	4.7 inches	11.4 inches
2060	5.8 inches	14.8 inches	30.2 inches
2100	15.9 inches	36.0 inches	65.5 inches

3.4 Future Climate Projections: Scientific Overview

Substantial research in California is currently underway to effectively downscale climate change models and to project various human-induced climate change impacts at a local scale. By analyzing the outputs of these downscaled models, the City can better understand the range of likely climate impacts specific to Goleta. Several of the key climate change impacts are likely to include increased temperature, decreased precipitation, increased wildfire, and sea level rise.

For each of these impacts, downscaled global climate model results are summarized based on a medium high future emissions scenario ("business as usual") and a medium low scenario ("substantial reduction in global greenhouse gas emissions") to provide a range of future projections specific to Goleta. All of this research is summarized from available climate data acquired from climate impacts studies funded by the California Energy Commission (CEC). For more detail in any specific parameter, please see the cited information. In addition, new climate models are being developed and results should be available in the future. These should be reviewed and incorporated into the City's vulnerability/adaptation process as appropriate. The climate model results presented below are a summary of the climate change impacts from statewide-downscaled

models completed in 2009 and available publicly from Cal Adapt.

3.5 Other Regional Scientific Initiatives

Currently, there are a wide variety of scientific investigations studying and modeling the impact of climate change and downscaled global models on the regional Goleta Valley. The studies discussed below demonstrate the most promise and focused applicability to the City of Goleta.

2009 Coastal Regional Sediment Management Plan for Santa Barbara

In 2009, BEACON completed an update of the Coastal Regional Sediment Management Plan, which identified what is known about sand supplied to the coast between Point Conception and Point Mugu, including new understanding of erosion hot spots and shoreline armoring. Recommendations from this plan include new ways to manage sediment, including development of an opportunistic sand placement program, sand rights policies, and changes in regional governance structure, which would support better use of coastal sediments.

2014 Adopted UC Santa Barbara's Long Range Development Plan

The UCSB Long Range Development Plan supports development of UCSB property, while carefully considering consistency with the California Coastal Act. The plan provides policies incorporating climate change/adaptation and associated impacts along the shoreline, such as loss of critical ecosystem areas, interruption of shoreline

processes, loss of public access, and degradation of scenic resources.

2015 Santa Barbara County South Coast Coastal Resiliency Phase 1 Project Modeling (by ESA)

This modeling effort projects the impacts of coastal erosion and coastal flooding for the south coast of Santa Barbara County, extending from Jalama Beach County Park to Rincon Point. A technical methods report presents technical documentation of the methods used to map erosion and coastal flood hazards under various future climate scenarios. The climate-change-exacerbated coastal hazard modeling considered sea level rise, wave climate, and precipitation. This study and model outputs provide the hazard identification to support the City's vulnerability assessment.

Ongoing Goleta Slough Management Committee

The Goleta Slough Management Committee's purpose is to work cooperatively with regulatory agencies, property owners, and public interest groups to provide for a healthy Goleta Slough, considering the Slough's ecosystem and recognizing a mixture of land uses. Between 2011 and 2015, the committee completed a sea level rise vulnerability and adaptation plan for the Goleta Slough. The work was funded by the California Coastal Conservancy and included some habitat evolution modeling. It also evaluated at-risk regional infrastructure, such as the Santa Barbara Airport, and considered the implications of inlet mouth management into the future.

2015 Goleta Slough Inlet Management Study

This study modeled the impact of different sea level rise and management scenarios on the function of the Goleta Slough Inlet. The goal of the project was to primarily look at the impact of management changes, restoration, and storage volume on the opening and closing dynamics of the Goleta Slough. The study found that an increase in volume of the slough (a.k.a. tidal prism) is an expected result of sea level rise. This could create tidal wetlands in areas that are currently blocked from tidal action, resulting in a more frequent open lagoon mouth. This increase in lagoon volume could reduce the need for mechanical breaching and provide an increase in ecosystem services provided by the wetlands. Lesser amounts of sea level rise (around 1 foot) would result in more frequent closed conditions, while high sea level rise (3 to 5 feet) may maintain an open inlet for much of the year.

2015 The Nature Conservancy's Coastal Resiliency Mapping Tool

The Coastal Resiliency Mapping Tool by The Nature Conservancy has been developed for geographies around the world to visualize the extent and magnitude of sea level rise and coastal hazards. The web mapping application (maps.coastalresilience.org/California) provides an interactive visualization tool. Extensive work on a web mapping application was included as part of the City of Goleta's Coastal Hazard Mapping and Vulnerability Assessment Public Workshop on August 12, 2015. This tool allows users to explore the risks of different scenarios of coastal hazards—such as sea level rise, storm surges, and inland flooding—at a variety of spatial scales.

2016 Coastal Ecosystem Vulnerability Assessment

Consistent with the CCC's emphasis on crafting regional approaches to sea level rise, the Santa Barbara Coastal Ecosystem Vulnerability Assessment coordinates efforts among researchers from Scripps, UCSB, and others to address impacts on ecological resources within Santa Barbara County. The specific ecosystem-based approach is focusing on wetlands and beaches and watersheds to better understand the regional habitat vulnerability. This project was initially estimated for completion in time to be included in this study, but delays by the researchers indicate that it will likely be the end of 2016 before research results are made available.

2016 FEMA Pacific Coastal Flood Mapping

FEMA is currently updating the Pacific Coastal flood maps for FEMA Region IX. The California Coastal Analysis and Mapping Project is conducting updates to the coastal flood hazard mapping with best improved science, coastal engineering, and regional understanding. Specific to the Southern California Bight (the area between Point Conception and the U.S.-Mexico border), the project incorporates regional wave transformation modeling and new run-up methods and will be revising the effective flood insurance rate maps for coastal flood hazard zones. This will include revised VE (wave velocity), AE (ponded water), and X (minimal flooding) zones. The anticipated completion date is 2018.

2016 CoSMoS 3.0

The Coastal Storm Modeling System of the USGS (CoSMoS 3.0) is focusing coastal hazard modeling on the area between Point Conception and the U.S.-Mexico border. The hope is to provide region-specific, consistent information

on coastal storm and sea level rise scenarios. The model uses downscaled global climate models and considers factors such as long-term coastal shoreline change, stream inputs, dynamically downscaled winds, and varying sea level rise scenarios to produce hazard projections, accounting for various planning horizons and risk tolerance. It is intended to support policy and planning through usage in vulnerability assessments, hazard mitigation plans, and LCPs and by providing data for other shoreline change or hazard models within the region. The anticipated deliverable is summer/fall 2016.

Ongoing Ocean Meadows Restoration

This restoration project aspires to remove the former Ocean Meadows golf course and restore the upper portion of the Devereux Slough by excavating substantial fill from the former golf course and restoring the south parcel (adjacent to the Ellwood Mesa). This project is focused on restoring the Ellwood-Devereux coastal wetland not only to serve as contiguous habitat and public recreational space, but also to provide additional ecosystem services, such as flood and storm surge protection.

3.6 Coastal Hazards

Historic Storm Impacts

Coastal and creek flood hazards have historically occurred across Goleta. Significant wave events in 1943, 1982–83, 1997–98, 2002, 2007, and 2014 have demonstrated that the coast is a dynamic and hazardous environment (Photo 3-1). The 1982–83 event is considered the largest wave event in the Santa Barbara channel, with waves reported to be 24 feet at 22 seconds (Seymour 1996).



Photo 3-1. Goleta Beach Wave Overtopping during the 1997–1998 El Nino (Photo: M. Morey)

In addition, creek flooding combined with high tides has caused substantial flood damages, particularly in the area around Old Town Goleta (Photo 3-2). During the flood of 1861–62, the overgrazed hillsides burned by fire shed sediment and raised the elevation of Goleta Slough in places up to 14 feet; this forever changed the navigability of the slough. Finally, the change in Goleta Slough inlet management has resulted in increasing flooding and duration of inundation at the low-lying areas around the Placencia neighborhood (Photo 3-3).



Photo 3-2. The Santa Barbara Airport, 1969 (Photo: Santa Barbara Historical Society)



Photo 3-3. Flooding in the Placencia Neighborhood 2014 (Photo: T. Feyram)

FEMA repetitive loss data shows that there are 5 parcels that have multiple claims against the National Flood Insurance Program. These parcels are located in Old Town; the San Jose Creek Channel Improvement Project will likely better protect some of them in the short-term.

Existing Coastal Hazards

Coastal erosion and coastal flooding are caused by large storm waves coupled with high tides. These types of coastal processes cause vulnerabilities in the western Coastal Resource Area. Current coastal erosion could cause a cliff failure between 15 and 20 feet, given the local geology. FEMA is currently remapping the Pacific Coast flood maps with final results expected in 2018. Given the current mapped 1 percent run-up elevations of the FEMA VE zone (velocity/wave run-up) at 9–12 feet (annual beach elevations range from 9 to 11 feet), it should be anticipated that the insurance rate maps would increase in elevation for existing conditions.

Given the unique City limits and Coastal Zone boundary, Goleta has an additional flood risk resulting from beach closure of the Goleta and Devereux Slough during the low wave energy summer and fall months. This closed inlet forms a natural dam that can back up water and cause flooding even during the dry summers or drought conditions (Photo 3-4).



Photo 3-4. Barrier Beach Flooding Caused by a Sandbar across Goleta Slough Inlet, February 18, 2014 (Photo: A. Bermond)

Existing Creek Flooding

Historic flooding is known to occur around the City (Photo 3-5). Existing creek flood hazards have been mapped by FEMA as part of the National Flood Insurance Program. This program requires very specific technical analysis of watershed characteristics, topography, channel morphology, hydrology, and hydraulic modeling to map the extent of existing watershed-related flood hazards. These maps, representing existing 100-year flood hazards (1 percent annual chance of flooding) are known as the Flood Insurance Rate Maps (FIRMs) and determine the flood extents and flood elevations across the landscape. The effective date of the existing FIRM map for Goleta was December 12, 2012 (Maps # 06083C1341G, 06083C1342G, 06083C1361G, and 06083C1362G). The City has invested in the San Jose Creek Channel Improvement Project, which is altering the existing channel configuration to increase the flood conveyance capacity. Once completed, this channel improvement will reduce the flood risk through portions of Old Town Goleta (Figure 3-5). At the time of publication, the FEMA flood maps have not been officially updated. However, to best represent the City's creek flood risk, the flood modeling results associated with the channel improvement were acquired from Bengal Engineering and merged with the existing FEMA map. This combined

map was used in the vulnerability assessment to identify existing vulnerabilities.



Photo 3-5. Intersection of Fairview and Hollister during the 1997–1998 El Niño Flooding

Currently, there are 640 acres (about one square mile) within the FEMA-designated 100-year floodplain within Goleta. This is approximately 12 percent of the entire area of the City. Base flood elevations based on a 1 percent annual recurrence probability for creek hazards range from 10 to 40+ feet across the City. Table 3-3 below shows the range of FEMA-modeled creek flood hazard zones. The City has only five parcels that have repetitive loss claims with the National Flood Insurance Program. These parcels all flooded from creek hazards in the 1995 flood, with others during the 1998 El Niño, and a February 2000 stream flood event. All of these parcels are all located in Old Town.

Table 3-3. Base Flood Elevations from the FEMA Maps for Creeks in Goleta City Limits

Drainage	Base Flood Elevation (NAVD88)
San Jose Creek/Goleta Slough	13–17+ feet
Devereux Creek/Upper Devereux Slough	17–20 feet
Bell Canyon/Tecolote Creek	10–22 feet
Storke Ranch	14–15 feet



Figure 3-5. Existing FEMA 100 Year Flood Hazard

City Boundary

Coastal Zone Boundary

Existing FEMA 100-Year Flood



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4. Vulnerabilities and Fiscal Impacts by Sector

4.1 Introduction

This report used several primary data sources:

- Coastal hazards modeling analysis results (ESA 2015).
- FEMA effective flood maps (FEMA 2010).
- Spatial and locational data available from the City, County of Santa Barbara, Environmental Systems Research Institute (ESRI), and The Nature Conservancy (TNC 2015) (and Figure 4-1).

Projections of future climate change impacts came from a variety of sources including: Cal Adapt, UC Los Angeles (UCLA), UCSB, and Scripps Institution of Oceanography.

Projections of future coastal hazards and sea level rise were modeled as part of a separate project completed during the Santa Barbara County South Coast Coastal Resiliency Project Phase 1 (ESA 2015). Substantial research in California is currently underway to effectively downscale climate change models and to project various human-induced climate change impacts at a local scale.

4.2 Vulnerability Assessment Methodology

The modeling work for the 2015 Santa Barbara County South Coast Coastal Resiliency Phase 1 Project included modeling of the following coastal processes:

- **Coastal King Tide Flooding:** Based on an expected monthly recurrence.
- **High Tide Coastal Flooding:** Based on the largest El Niño storm on record (January 1983), this included storm surge and large waves with sea level rise.
- **Barrier Beach Flooding:** Based on beach elevations that control water levels in the lagoons.
- **Wave Impacts:** Wave impacts similar to the historic January 1983 storm with sea level rise.
- **Short-Term Coastal Erosion:** Short-term coastal erosion based on a 1 percent annual chance storm wave event.
- **Long-Term Coastal Erosion:** Long-term coastal changes caused by erosion related to sea level rise and historic trends in erosion.

Coastal Erosion

Erosion was modeled for the respective backshore types—dune-backed or cliff-backed shorelines. The coastal dune erosion hazard modeling considered a short-term response based on the erosion from a 100-year storm wave event. For long-term dune erosion, two components—erosion from sea level rise and erosion caused by historic trends in shoreline change (as a proxy for sediment supply)—were combined and mapped separately. In modeling for both types of dune erosion, inland extents were projected using a geometric model of dune erosion originally proposed by Komar et al. (1999) and applied with different slopes to make the model more applicable to sea level rise (Revell et al. 2011). This method is consistent with the FEMA Pacific Coast Flood Guidelines for storm-induced erosion (FEMA 2005).

Cliff erosion was modeled using a model that accelerates historic erosion rates based on the increase in duration of wave attack at various elevations on the cliff. In addition, an erosion factor of safety was included and represented in the standard deviation of the historic erosion rates for each the geologic unit then multiplied by the planning horizon.

Coastal Storm Flooding

The coastal storm flood modeling was consistent with FEMA's Pacific Coastal Flood Guidelines (FEMA 2005). The high tide coastal storm flood modeling was integrated with the coastal erosion hazard zones. Every 10 years, erosion projections were made and the coastal storm flood model considered areas that were eroded during this time period and thus exposed to wave flooding through enhanced hydraulic connectivity. For the coastal storm flooding, the storm of record was used—a large historic storm event that occurred during the strong El Nino winter of 1982–1983 on January 27, 1983, during which wave heights

reached 25 feet at 22 seconds (Seymour 1996, ESA PWA 2012, ESA 2015).

Barrier Beach Flooding

The barrier beach flooding was modeled based on beach geomorphic characteristics interpreting the barrier beach crest elevation. Seasonally, the beaches close all of the lagoons and estuaries along the Goleta Coast. During the closed mouth time, the lagoons fill up to the berm crest elevations from a combination of waves overtopping the beach and freshwater flows from the watersheds. Just before rains usually happen, the barrier beach flooding reaches its maximum height. The four lagoon systems affecting the City are Tecolote Creek, Bell Canyon, Devereux Slough, and Goleta Slough, which were modeled using beach berm crest elevations of 12 feet NAVD for Tecolote Creek, Bell Canyon, and Devereux Slough and 11 feet NAVD for Goleta Slough (based on reduced wave exposure at Goleta Beach).

Coastal Wave Impact

Wave impact modeling assessed the inland extent of wave velocity and inland extents of flooding using the method of Hunt (1959) and supported in the Shore Protection Manual (USACE 1984). This method calculated the dynamic water surface profile, the nearshore depth limited wave, the wave run-up elevation, and inland extent at the end of each representative profile. This hazard represents a future FEMA velocity wave impact zone (a.k.a. V-Zone).

Coastal Inundation

Tidal inundation modeling represents the Extreme Monthly High Water level (EMHW) or what areas are projected to get wet once a month. This modeling is similar to a king tide. This monthly elevation was averaged from maximum monthly water levels at the Santa Barbara Tide Gage (EMHW = 6.53 feet NAVD88)

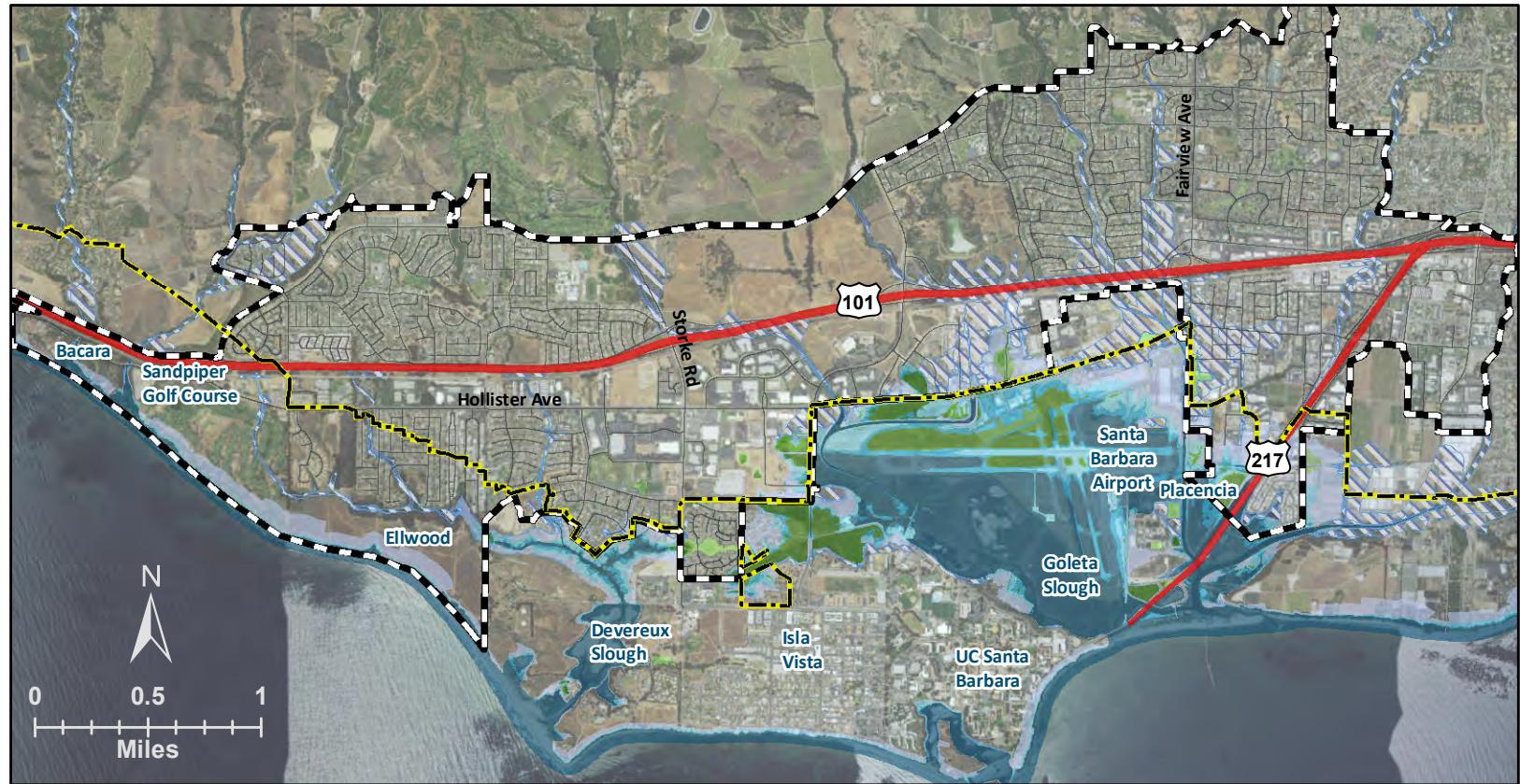


Figure 4-1. Existing and Future Coastal Hazards

Flood Hazard Zones

Surface Connected
Potentially Connected

Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA 100-Year Flood
Hazard Modeling by ESA 2015

City Boundary Coastal Zone Boundary



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and then applied to each of the sea level rise scenarios.

Combined Hazards

For each planning horizon, projected hazards were combined into a single layer using a process called “spatial aggregation” (ESA PWA 2012). This layer represents the overlap in all of the hazard zones and shows how many of the various sea level rise and wave condition scenarios impact specific areas. For example, an area mapped under three scenarios indicates that the area was hazardous during that planning horizon for all scenarios.

The localized coastal hazard modeling methodology relies on a detailed parcel-level backshore characterization that includes backshore type, geology, and local geomorphology (i.e., elevations, beach slopes). The backshore characterization was analyzed at approximate 100-yard spacing and then statistically represented at an approximate 500-yard alongshore distance. Calculations of wave run-up and tides are combined into a total water level elevation, which then drives coastal erosion and shoreline response models (Pacific Institute 2009, Revell et al. 2011). Climate change impacts—assessed using a series of sea level rise, wave climate, and precipitation scenarios—projected potential future coastal erosion and flooding hazards (ESA PWA 2012). Projected impacts were evaluated at four planning horizons: existing (2010), 2030, 2060, and 2100. All hazards were mapped on the California Coastal LIDAR Digital Elevation model (available from the National Oceanic and Atmospheric Administration Digital Coast website).

Modeling Assumptions

As with all modeling, assumptions had to be made to complete the work. Below are some of the more important modeling assumptions made in the ESA PWA 2015 work.

Coastal Erosion and Flood Hazard Projections Do Not Consider Existing Coastal Armoring

The coastal hazard projections did not consider the influence of the existing water outfall structures and coastal armoring on changes to coastal erosion and coastal flood hazard projections.

Projections of Potential Erosion Do Not Account for Uncertainties in the Duration of a Future Storm

The erosion projections assume that the coast would respond to the combination of high tides and large waves inducing wave run-up. Instead of predicting future storm-specific characteristics (waves, tides, and duration), the potential erosion projection assumes that the coast would erode under a maximum high tide and storm wave event with undefined duration.

Modeling Does Not Consider Future Changes to Precipitation and Runoff from the Watersheds with the Joint Occurrence of River and Coastal Flooding

The coastal confluence flood modeling has not been completed for the City, so the influence of changes in precipitation and higher water levels from sea level rise in Goleta Slough on the overall extent of river flooding has not been analyzed.

Mapping of these flood hazards using existing topography and geomorphic interpretation of the top of the beach (i.e., the beach berm crest) elevations show that Devereux Slough and Goleta Slough may become a singular wetland system and the resulting waters could flood portions of Old Town Goleta, Central Area, and the Southwest Residential Areas. Refer to Figures 4-1 and 4-2).

For purposes of analysis, the City's General Plan/Coastal Land Use Plan land uses were categorized into five typical land use types for ease of communicating climate-induced impacts and related vulnerabilities: 1) residential, 2) industrial, 3) commercial, 4) infrastructure, and 5) agriculture/open space. An example of agriculture/open space includes those areas such as the Ellwood Mesa Open Space/Sperling Preserve and the Sandpiper Golf Club. The Bacara Resort and Spa is categorized under commercial. Other land uses ranging from industrial, infrastructure, and residential are located within Old Town.

4.3 Economic and Fiscal Impact Analysis Methodology

The economic and fiscal impact analysis prepared for this project is designed to identify the potential costs of adaptation, mitigation, and increased public safety and health services that the City would be responsible for in the case of a storm being exacerbated by sea level rise or due to coastal erosion. This analysis will also include the potential loss in (Transient Occupancy Tax) revenues from the Bacara Resort and Spa. The analysis contained in this report also considered other economic and tax revenue losses for the City, but concluded that these losses would be both minimal/temporary as well as difficult to quantify accurately.

This study identified existing land, buildings, and infrastructure (roads, trails, water/power lines, etc.) within the erosion and flood zones for 2030, 2060 and 2100. It also identified the potential for hazardous waste or oil spills/leakages and estimated the cost of mitigation. In order to estimate the costs of replacement or mitigation, this analysis relied on various sources discussed in more detail below.

For land and structures subject to property tax (generally land/structures not owned by a governmental entity), this report used the County of Santa Barbara Parcel Database, which contains detailed information on the size of the parcel (in square feet) as well as the size of the structure (also in square feet). In California, Proposition 13 caps any increase in the assessed value of the land/structure at 2 percent a year, until the parcel is resold.

The cost of infrastructure replacement was estimated based on interviews with experts/engineers. Where this information was not available, reasonable metrics (e.g., the cost of replacing overhead power lines) were found from reputable sources, generally in Southern California.

Changes in Tax Revenues

The primary changes in tax revenues from the City could come from a number of different sources. First, the City would experience a loss in property tax revenues if property is lost to erosion or flooding. Although it was anticipated that estimating this loss in property taxes would be substantial, this study did not find any private parcels in the erosion hazard zone aside from the Bacara Resort and Spa and the Sandpiper Golf Club (discussed below). There are, however, a number of structures within the flood hazard zone. The operating assumption is that these structures and property will be repaired and that the assessed value will not fall, nor will property tax revenues.

The Bacara Resort and Spa provides a significant contribution to the City in the form of Transient Occupancy Tax (ToT) revenues. Information was obtained from the Bacara Resort and Spa on the average revenue per room and the average occupancy rate in high and low season. Six buildings, including 139 rooms and a restaurant, at the Bacara Resort and Spa are within the 2060 erosion zone. Therefore, it is likely that these buildings will either be lost or relocated within the next 50

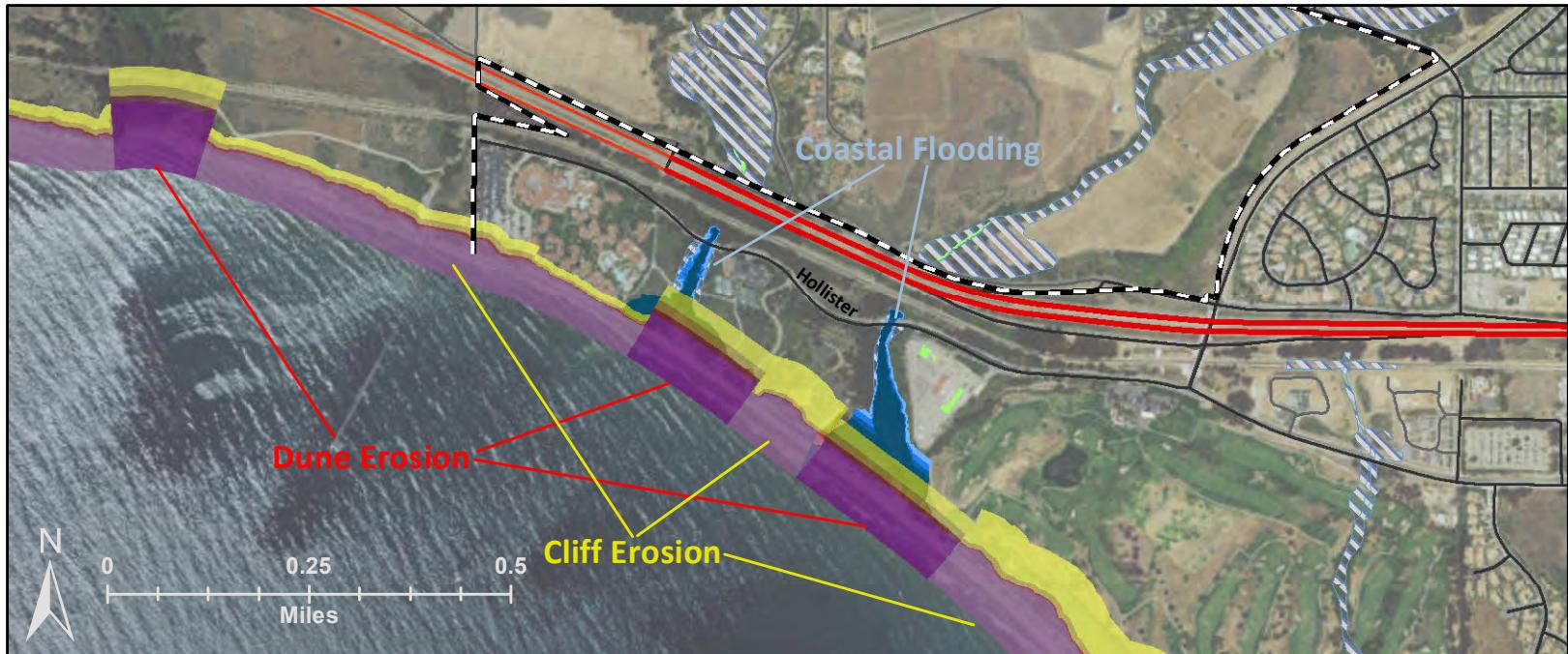
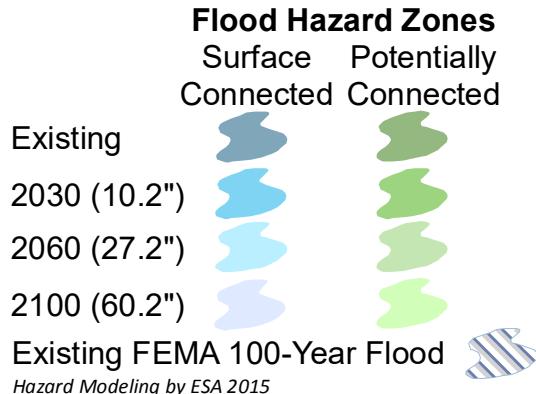


Figure 4-2. Flood and Erosion Hazard Zones

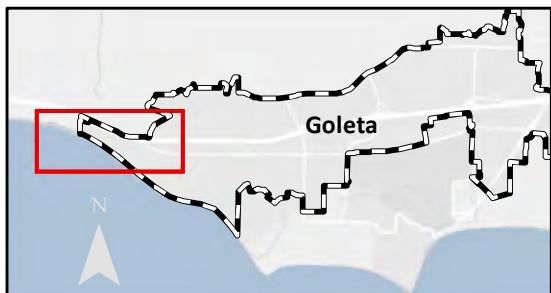


Cliff Erosion Hazard Zones

- Existing
- 2030
- 2060
- 2100

Dune Erosion Hazard Zones

- Existing
- 2030
- 2060
- 2100



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years. The loss of ToTs was estimated from these 139 rooms during high and low season per day and per month. It is uncertain when, or how long, these buildings would be closed.

Metrics

Table 4-1 below summarizes the metrics used to estimate various losses in this report. As discussed above, this study obtained these values in three main ways:

1. The County Parcel Data was updated to accurately reflect the market value of the parcel/structures and the replacement value of the structure in the City.
2. City officials and experts from the private sector (Bacara, utility districts, etc.) were

interviewed to obtain accurate estimates of adaptation costs.

3. Standard metrics from reliable sources were used to estimate other costs (e.g., cost of replacing aboveground power lines).

The timing of these adaptation costs by parcel was identified using GIS analyses based on the timing of impacts mapped in the flood and erosion zones. In some cases it was necessary to make judgment calls. For example, the 2060 erosion map shows a thin gap between the buildings and the bluff (<25 feet), and it was determined that around this timeframe the buildings would need to be relocated.

Table 4-1. Fiscal Impact Analysis Metrics

Item	Cost/Value	cost basis
LUFTs—no groundwater intrusion	\$125,000	Per tank
LUFTs—groundwater intrusion	\$1,500,000	Per tank
2005 Goleta flood costs	\$500,000	Goleta
1998 Goleta flood costs in 2015 dollars	\$4–5,000,000	1998 flood adjusted
Capping oil well on land	\$100,000	Per well
Capping oil well in water	\$800,000	Per well
Oil spill costs	\$257,000,000	Total cost
Trails	\$170	Per linear foot
Road improvement	\$135	Per linear foot
Coastal armoring	\$170–\$200	Per linear foot
Manhole cover retrofits	\$150	Per manhole
Wastewater lift station	\$150,000	Per lift
Property tax parcel	Updated using HPI	Sale price
Buildings/structures	Size of building	\$/square foot
Flood damages to buildings	Current market value	Depth damage curves
Aboveground power lines	\$10	Per linear foot
Belowground power lines	\$30	Per linear foot
Bacara Resort Buildings	\$0	Per room
Bacara Boathouse	\$419	Per boathouse
Bacara ToTs—low season	\$42	Per room
Bacara occupancy rate—high season	83%	
Bacara occupancy rate—low season	58%	
Bacara average revenue per room	\$353	Per room

Adaptation Costs

Table 4-2 below contains the estimates of the adaptation costs for the City as well as other public and private agents. The table identifies who has responsibility/liability for each cost. In some cases (e.g., leaking underground fuel tanks [LUFTs]), the liability falls on the owners, but the City may nevertheless have to assume liability if the owner fails to mitigate (e.g., the operating entity is bankrupt). In other cases, the City is liable (e.g., flood costs), but it may be able

to obtain funds from other sources for emergency flood cleanup (e.g., FEMA or a state agency). In some cases (e.g., 2100 and the Sandpiper Golf Club), it was not possible to estimate costs, but these costs would be significant. The table estimates costs for a one-time event (e.g., a major coastal flood) within the planning horizons of 2030, 2060, and 2100. The total potential adaptation costs are \$370 million (not discounted by time horizon). However, the most significant cost is the potential cleanup cost of an oil spill.

Table 4-2. Estimated Adaptation Costs

Category	Item	City Responsibility	Event-Driven Costs	2030 Cost	2060 Cost	2100 Cost
Hazardous materials	LUFTs—no leaching	City potentially responsible			\$125,000	\$625,000
Hazardous materials	LUFTs—with leaching	City potentially responsible			\$1,500,000	\$7,500,000
Oil and gas—coastal storm	Capping wells—in water	City potentially responsible	\$63,200,000			
Oil and gas—coastal storm	Capping wells—on land	City potentially responsible	\$7,900,000			
Oil and gas—coastal storm	Oil spill	City potentially responsible	\$257,000,000			
Wastewater	Manhole covers	Sanitary Districts responsible		\$2,100	\$4,350	\$12,300
Wastewater	Two lift station retrofits	Sanitary Districts responsible	\$300,000			
Recreation trails	Eroded trails	City responsible		\$626,280	\$1,175,380	\$1,945,310
Roads	Flooding	City partially responsible		\$--	\$--	\$--
Southern California Edison utilities	Aboveground lines	Southern California Edison responsible		\$3,220	\$3,600	\$6,370
Southern California Edison utilities	Belowground lines	Southern California Edison responsible		\$15,930	\$20,130	\$49,080
Stormwater	Manhole covers	City responsible		\$4,350		
Flood cleanup	2005 Flood	City partially responsible	\$500,000			
Flood cleanup	1998 Flood	City partially responsible	\$4,500,000			
Coastal armoring	Seawall removal cost already completed	City partially responsible	\$225,000			

Category	Item	City Responsibility	Event-Driven Costs	2030 Cost	2060 Cost	2100 Cost
Coastal armoring	Seawall construction	City partially responsible	\$264,920			
Land use	Property flood costs	Private owners responsible		\$1,000,000	\$1,500,000	\$14,000,000
Land use	Bacara Bath House	Bacara responsible		\$421,000		
Land use	Bacara 6 buildings	Bacara responsible			\$52,500,000	
Bacara ToTs	High season	Loss to City			\$88,058/month	
Bacara ToTs	Low season	Loss to City			\$61,530/month	
Total by Time Horizon			\$333,889,920	\$2,072,880	\$59,828,460	\$24,138,060

Finally, Table 4-3 presents the likely, partial, and possible liabilities for the City at various time horizons. For flood cleanup costs, our analysis assumes one 1998-level flood and one 2005-level flood. If the City experiences more of these types of floods, especially a costly flood similar to the 1998 flood, the costs could be much higher. The second row in Table 4-3 estimates costs that the City is

likely to be partially responsible for (i.e., road improvement costs as well as the costs of seawall removal and new construction.) The third row in Table 4-3 presents the *potential* liability for the City. This analysis assumes that the City could be liable for up to 20% of the costs of cleaning up an oil spill. The City also faces a serious potential liability in the 2060 and 2100 planning horizons for LUFTs.

Table 4-3. Estimated City Liability for Vulnerabilities

City Responsibility	Event-Driven Clean-Up Costs	2030 Cost	2060 Cost	2100 Cost	Total (Undiscounted)
City responsible	\$500,000	\$630,630	\$1,175,380	\$1,945,310	\$4,251,320
City partially responsible	\$4,750,000	\$471,052	\$2,193,387	\$12,490,707	\$19,905,146
City potentially responsible	\$264,900,000	--	\$1,625,000	\$8,125,000	\$274,650,000

This analysis examined the economic losses associated with increased erosion and storm events caused by sea level rise. Although forecasting future events is always fraught with uncertainty, it makes sense for the City to start planning now for these events. In some cases, relatively inexpensive preventative measures, such as mitigating hazardous waste in underground storage tanks or sealing manhole covers, could save the City millions of dollars.

The analysis indicates that, in dollar terms, the most serious issues facing the City are (in order): 1) oil spills, 2) LUFTs, and 3) flood cleanup costs. In terms of private and public property, the City has limited exposure until 2060, when parts of the Bacara Resort and Spa become threatened. Longer term, the risk of flood damage to private and public property increases between 2060 and 2100.

4.4 Sector Profile Results

The results of the vulnerability assessment and fiscal impact analysis are summarized in Appendix A. Further details on the fiscal impact results are provided below and are categorized by Sector Profile for consistency:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities

Land and Structures: Old Town Area

Since the rate of housing inflation in Goleta has exceeded 2 percent for many years, the original sales price of the parcel—land and structure(s)—is adjusted to reflect current market conditions using a housing price index created from local housing sales data. The replacement cost of the structure was estimated per square foot using FEMA's Hazard Guidance files (2006).

Flood damages to structures were estimated by applying the U.S. Army Corps of Engineers (USACE) depth damage curves, which estimate damages as a percent of the total value of the structure. USACE's method also allows one to estimate the average damage to the contents of the structure (e.g., furniture, appliances).

The study team spoke with officials from the City about flooding costs. The costs of cleanup vary considerably depending on the extent of the flooding, the winds associated with the storm, and other factors. These costs generally include the costs of removing debris from downed trees, power lines, etc. Since costs vary widely, this study used the actual costs from two recent significant flood events in Goleta in 1998 and 2005. The 1998 El Niño event was an extreme event, while the flooding that occurred in 2005 was a relatively small flood event. Road damages and cleanup costs alone could range from \$30,000 to \$100,000 per mile, depending on the type of road and amount of debris associated with the flooding.

Land and Structures: Coastal Resources Area

Bacara Resort and Spa

The most significant property examined was the Bacara Resort and Spa, which has a Bath House plus six additional buildings (including a restaurant and 139 hotel rooms) within the coastal hazards zones. This analysis indicates that these buildings may have to be abandoned and/or moved by 2060 because of coastal erosion; the Bath House is presently exposed to all of the hazards. One can estimate the cost of replacing these buildings using standard industry metrics (see HVS Consultants 2014). The potential loss in ToTs revenues was estimated based on data provided by the Bacara Resort and Spa on average room occupancy in high and low season and the average yield per room. The ToT rate for the City of Goleta is 12 percent. However, the City has an arrangement with Santa Barbara County in which the County receives 40 percent of ToT revenues.

Sandpiper Golf Club

The Sandpiper Golf Club and the neighboring Ellwood Mesa Open Space/Sperling Preserve

will also experience a small amount of shoreline erosion. However, the golf course will not be seriously affected until 2100, when some reconfiguration of the course (cost not estimated here) would be necessary.

Ellwood Mesa Open Space/Sperling Preserve

The Ellwood Mesa Open Space/Sperling Preserve will also lose some land. The primary loss here would be to coastal trails. This analysis estimated the cost of replacing these trails based on estimates of the cost of the Ellwood Coastal Trails Restoration Project (Santa Barbara Trails Council 2015).

Coastal Armoring

Cost estimates for removing the timber seawall were obtained from Cushman Contracting Corporation (www.cushmancontracting.com), based on an estimated cost of \$150,000–\$175,000 to remove 900 linear feet of timber wall from the California State Lands Commission Beach Hazards Removal Project completed in 2014. An approximate range for removal would be \$170–\$200 per linear foot.

Oil and Gas

A number of oil wells exist onshore and offshore of the City. While most of these wells no longer operate, these wells can still represent a danger if they are damaged by coastal erosion or flooding. Nearby Summerland is currently facing similar issues and trying to resolve slow leakage from old poorly capped wells. Data was obtained from the City on the cost of capping or recapping wells and the cost of a potential oil spill cleanup based on the recent costs for the Refugio Oil Spill.

Hazardous Materials

Several LUFTs, mostly consisting of current or abandoned gas stations, that contain hazardous materials that could leak were identified. Not only could increased erosion and coastal flooding exacerbate the risk of these tanks leaking, but increased exposure to high ground waters could also spread the contaminants much more widely. This study compiled data from the U.S. Environmental Protection Authority and other sources on the mitigation costs for LUFTs. These costs vary depending upon whether the hazardous materials have leached into the groundwater or onto adjacent properties.

Natural Resources

Habitat resources occur in each of the subareas, including the western Coastal Resources Sub-Area, Storke Ranch wetlands, Phelps Road vernal pools, Rancho Goleta Lake, the southern portion of the Southwest Residential Sub-Area, and along streams. Two creeks, Bell Canyon Creek and Tecolote Creek, drain to the ocean via coastal estuaries; the other creeks drain into either Devereux or Goleta Sloughs, just south of the City boundary. There are also a lot of important considerations that fall outside of the realm of municipal budgets. For example, fiscal impacts of development on adjacent jurisdictions, local businesses, and natural resources are not accounted for in most fiscal impact models. Therefore, no fiscal impact analysis was conducted on this sector.

Public Access

The Ellwood Mesa Open Space/Sperling Preserve contains a number of hiking trails. Some of these trails are quite close to the coast and lie within the projected coastal erosion hazard zones. Data from the Ellwood Coastal Trails Restoration Project Conceptual Funding Plan (Santa Barbara Trails Council 2015) was used to estimate the cost of trail replacement

per linear foot. There would also be some loss in recreation from flooding. However, the City does not have any data on current usage and assumed that hikers could substitute other trails/activities during flood events.

Transportation

Although a number of roads in Goleta are subject to flooding, none of the roads are in the erosion hazard zone. Consequently, data on the costs of clearing debris and other hazards was collected. However, potential costs related to increased traffic or commuting times were not estimated. Since the affected roads are minor, secondary roads, these costs should not be significant unless the flooding persisted for many days.

Wastewater

Wastewater infrastructure is operated and maintained by the Goleta Sanitary District and the Goleta West Sanitary District. This study identified two lift stations that were vulnerable (discussed later), as well as a number of manhole covers that need to be retrofitted. This study also examined the City's stormwater system and determined that there are no issues related to flooding/erosion, although severe floods would overload the stormwater system.

Water Supply

The revenue environment has remained stable and is supported by rate adjustments needed to address the costs of providing ongoing water service to Goleta Water District customers. In addition to a 2015 rate increase, relatively dry weather resulted in an increase in water consumption by 6.9 percent compared to consumption in 2013. When consumption reduction methods are implemented during various drought stages, Goleta Water District will consider implementing an accompanying rate change to maintain fiscal health, in full compliance with state law. This rate

adjustment, combined with possible use of Goleta Water District reserves, would mitigate the financial impact of reduced water sales and revenues. Moreover, the rate adjustment would provide a conservation incentive to customers through price signals during shortage conditions (2010 Urban Water Management Plan Update).

Utilities

A number of power lines, both above- and belowground are in the erosion and flooding hazard zones. For lines lost because of erosion, this study estimated the cost of replacement based on standard industry metrics provided by Southern California Edison and others. For above- and belowground lines, it was determined that coastal flooding was not an issue. However, aboveground power lines may be vulnerable to strong winds associated with coastal storms. Future wind hazards were not analyzed as part of this vulnerability study.

5. Adaptation Strategies by Sector

5.1 Introduction

Adaptation to climate change involves a range of small and large adjustments in natural or human systems that occur in response to already experienced or expected climate changes and their impacts. Adaptation planning involves a wide range of policy and programmatic measures that can be taken in advance of the potential impacts, or reactively, depending on the degree of preparedness and the willingness to tolerate risk. Good adaptation planning should improve community resilience to natural disasters.

Adaptation measures that reduce the ability of people and communities to deal with and respond to climate change over time are called maladaptation. An example of this is the levee system for the City of New Orleans. While the levees provided short-term adaptation and allowed communities to remain in areas below sea level, they actually increased the long-term vulnerability—both by providing a false sense of security and underestimating the impact that storm events could cause.

This is the first focused endeavor by the City to identify possible responses to the identified vulnerabilities through adaptation strategies based on preparedness, avoidance, and/or protection from the risks projected to occur over time. Good adaptation stems from a solid understanding of the City's specific risks and the physical processes responsible for causing the risk, now and in the future.

5.2 Adaptation Planning

Adaptation planning requires considering each vulnerable sector and taking effective and timely action to alleviate the range of consequences. One adaptation measure may reduce the risk to one sector but cause issues in another sector or lead to unintended secondary consequences. Good adaptation planning considers these secondary impacts and how the different adaptation measures that could be used to alleviate vulnerability in one sector interact with the other measures in developing a sustainable community adaptation strategy.

Risks can be addressed by reducing vulnerability or exposure. First, the City has to choose what level of risk it is willing to tolerate. Increasing infrastructure resilience, transferring the risk, negating the risk through technological change or retreat, or revising policies can accomplish this.

As not all issues can or should be addressed at once, it is important that risks be prioritized to maximize the use of the City's resources while avoiding a costly emergency response. Many of these adaptation strategies take substantial time to implement. As a result, advanced planning and fundraising is key. Factors to consider when prioritizing projects include: public health and safety, available funding sources, legal mandates, planning consistency, capacity and level of service, cost-benefit relationship, and public support. Risks that present the most serious consequences and are

projected to occur first should raise a project's level of priority. (See Figure 5-1.)

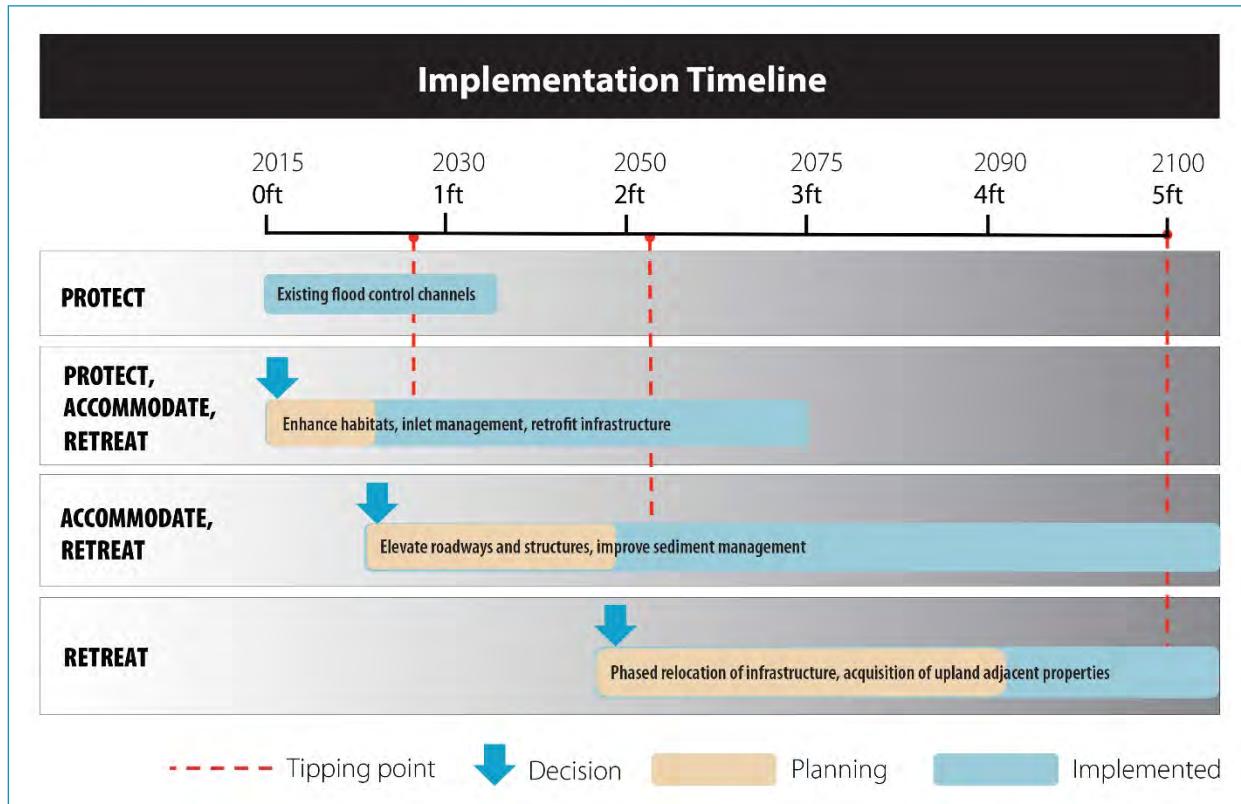


Figure 5-1. Implementation Timeline and Sea Level Rise Accommodation

This report should increase the City's understanding of the vulnerabilities associated with coastal hazards and is supporting the education of the community to encourage decision-makers to consider these impacts without creating further vulnerabilities or liabilities. As this is the beginning of the City's process of developing its adaptation response, many early initiatives are exploratory in nature and aim to identify appropriate changes or actions to respond to the impacts of concern.

Reviewing current City programs associated with risk reduction is the first step to identify immediate adjustments to alleviate or eliminate risks. Where adjustments to current practices will not sufficiently address the risks, then more substantial actions will be identified and should be implemented.

Of utmost importance to the successful implementation of an adaptation strategy is communicating the issues and proposed responses to the community. Studies repeatedly show that a knowledgeable community that understands how to respond to extreme events is far more resilient to the impacts. An informed community is also more likely to implement its own programs and decisions that reflect its members' knowledge of the projected changes and enable them to contribute to developing a prosperous, livable, and affordable City in the face of climate change.

5.3 Maladaptation

M maladaptation is a trait that is (or has become) more harmful than helpful, in contrast with an adaptation, which is more helpful than harmful.

One of the most significant concerns with maladaptation is that it reduces incentives to adapt while simultaneously diminishes the capacity to adapt in the future. Maladaptation occurs when efforts intended to “protect” communities and resources result in increased vulnerability, often realized indirectly or too late after a direction has been set. For instance, previously unaffected areas can become more prone to climate-induced hazards if the system that is being altered is not sufficiently understood. Likewise, if too much focus is placed on one time period—either the future or the present—effects on the other can be ignored, resulting in an increased likelihood of impacts from climate-induced hazards. Avoiding maladaptation is critical to a successful climate adaptation strategy. To do so, the City must first be able to make informed decisions based on an accurate vulnerability assessment, and to determine its own level of tolerance. Flexibility and a precautionary approach are key to avoiding maladaptation in the adaptation planning process.

5.4 Challenges

Adaptation planning does come with its challenges. A single jurisdiction like Goleta cannot adapt to climate changes on its own. A successful process requires regional dialog and partnerships to identify, fund, and implement solutions. Challenges range from acquiring the necessary funding for adaptation strategies, communicating the need for adaptation to elected officials and local departments, and gaining commitment and support from federal government agencies to address the realities of local adaptation challenges. Lack of resources and limited bridges between local, state, and federal agencies make it difficult for cities to make significant gains in adaptation.

When identifying appropriate adaptation responses, the City should consider taking a precautionary approach by using the following seven principles:

1. Strategy should not increase greenhouse gas emissions.
2. Strategy should support the protective role of ecosystems and their sustaining physical processes.
3. Strategy should avoid disproportionately burdening the most vulnerable.
4. Strategy should avoid high-cost strategies unless holistic economic work (including ecosystem services, recreation, and damages) demonstrates a strong net benefit over time.
5. Strategy should incentivize adaptation (e.g., reward early actors).
6. Strategy should increase flexibility and not lock the community into a single long-term solution.
7. Strategy should reduce decision-making time horizons to better incorporate new science.

5.5 Secondary Impacts

Almost all adaptation strategies have secondary impacts associated with them. Some of these are minor issues, such as short-term habitat impacts following removal of oil and gas infrastructure or undergrounding of overhead power lines. Others can be quite confounding and expensive, such as the burial of beaches under rocks following construction of revetments, or a retrofit to a critical infrastructure component.

Many communities have relied on setbacks in an effort to reduce hazard risk, and some are currently experimenting with establishing setback lines that are based on modeled predictions of where the new coastline will be. Setbacks alone could be considered maladaptive because they eventually lead to structures being at risk. Therefore, it is important to have elements of retreat, such as movable foundations or locations for transfer of development. Further, triggers for action, such

as relocation, should take the place or work in conjunction with regulatory setback policies.

Sediment management is another option to combat erosion by building wider beaches and higher sand dunes or increasing wetland accretion. However, sediment management can be costly, and ongoing sand supplies for large projects can become scarce. Research investigations by USGS and UC Santa Cruz were unsuccessful at locating substantial offshore sand deposits that would support large nourishment projects along the Goleta coast (Barnard et al. 2009). Secondary impacts from sediment management vary depending on the volume, frequency, and method of placing, but they can substantially degrade sandy beach ecosystems, limiting recreational use and suffocating rocky intertidal habitats.

Shoreline protective devices (e.g., coastal armoring, flood control levees) can also adversely affect a wide range of other coastal resources and uses that the California Coastal Act protects. They often impede or degrade public access and recreation along the shoreline by occupying beach area or tidelands and by reducing shoreline sand supply. Protecting the back of the beach ultimately leads to the loss of the beach as sea level rise and coastal erosion continue on adjacent unarmored sections. Shoreline protection structures therefore raise serious concerns regarding consistency with the public access and recreation policies of the California Coastal Act. Such structures can also fill coastal waters or tidelands and harm marine resources and biological productivity, which is in conflict with California Coastal Act Sections 30230, 30231, and 30233. They often degrade the scenic qualities of coastal areas and alter natural landforms, which is in conflict with Section 30251. Finally, by halting disrupting landscape connectivity, structures can prevent the inland migration of intertidal and beach species during large wave events. This disruption will prevent intertidal habitats, saltmarshes, beaches, and other low-lying

habitats from advancing landward as sea levels rise over the long-term.

5.6 Protect, Accommodate, and Retreat

Adaptation generally falls into three main categories: protect, accommodate, and retreat.

The Protection Approach

Protection strategies employ some sort of engineered structure or other measure to defend development (or other resources) in its current location without changes to the development itself. Protection strategies can be further divided into "hard" and "soft" defensive measures. A gray (hard) approach would be to engineer a seawall or revetment, while a green approach may be to nourish beaches or build sand dunes. Although the California Coastal Act clearly provides for potential protection strategies for "existing development," it also directs that new development be sited and designed to not require future protection that may alter a natural shoreline. It is important to note that most protection strategies are costly to construct, require increasing maintenance costs, and have secondary consequences to recreation, habitat, and natural defenses. Many of these are forms of maladaptation, especially if applied as a long-term solution.

The Accommodation Approach

Accommodation strategies employ methods that modify existing or design new developments or infrastructure to decrease hazard risks and therefore increase the resiliency of development to the impacts of sea level rise. On an individual project scale, these accommodation strategies include actions such as elevating structures, performing retrofits, or using materials to increase the strength of

development such as to handle additional wave impacts; building structures that can easily be moved and relocated; or using additional setback distances to account for acceleration of erosion. On a community-scale, accommodation strategies include many of the land use designations, zoning ordinances, or other measures that require the above types of actions, as well as strategies such as clustering development in less vulnerable areas or requiring mitigation actions to provide for protection of natural areas.

The Retreat Approach

Retreat strategies relocate or remove existing development out of hazard areas and limit the construction of new development in vulnerable areas. These strategies include creating land use designations and zoning ordinances that encourage building in less hazardous areas or gradually removing and relocating existing development. Acquisition and buy-out programs, transfer of development rights programs, and removal of structures where the right to protection was waived (i.e., via permit condition) are examples of strategies designed to encourage retreat.

The Hybrid Approach

For purposes of implementing the California Coastal Act, no single category or even specific strategy should be considered the “best” option as a rule. Different types of strategies will be appropriate in different locations and for different hazard management and resource protection goals. The effectiveness of different adaptation strategies will vary across both spatial and temporal scales. In many cases, a hybrid approach that uses strategies from multiple categories will be necessary, and the suite of strategies chosen may need to change over time. Nonetheless, it is useful to think about the general categories of adaptation strategies to help frame the discussion around

adaptation and the consideration of land use planning and regulatory options in the City.

The Do Nothing Approach

There are a number of options for how to address the risks and impacts associated with sea level rise. Choosing to “do nothing” or following a policy of “non-intervention” may be considered an adaptive response. However, in most cases, the strategies for addressing sea level rise hazards will require proactive planning to balance protection of coastal resources with development.

5.7 Sector Profile Results

Adaptation strategies have been identified based on the specific risks and vulnerabilities identified in the vulnerability results and the applicable California Coastal Act requirements. Adaptation strategies typically involve policy modifications for land use plans and regulatory permit conditions that focus on avoidance or minimization of risks and the protection of coastal resources.

Adaptation strategies may include requiring proposed projects to anticipate longer-term impacts in design, considering how much critical infrastructure will be able to withstand the increasing exposure without being put in danger, or rezoning hazardous areas as open space. Other adaptation strategies may build adaptive capacity into the plan so that future changes in hazard risks can be effectively incorporated into long-term resource protection. In most cases, especially for LCP land use and implementation plans, multiple adaptation strategies will need to be employed. This section provides an overview of the three general categories of adaptation planning measures, ranging from soft “nature based” or “green” measures to “hard” or “gray” engineering measures.

The recommended adaptation strategies are summarized in Appendix A. Further details on the individual strategies are provided below.

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities.

Retreat (Relocation/Removal)

Retreat refers to the gradual removal or relocation of structures away from unstable erosion-prone areas. Retreat allows shore migration and mitigates coastal hazards by limiting, altering, or removing development in hazardous areas. This measure can be implemented in a number of ways through policy option. Retreat can be phased in combination with some of the other land use measures described below.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, Water Supply, Public Access, Natural Resources, Coastal Armoring, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Northeast Residential, Northeast Community Center, and Old Town Area

Transfer of Development Rights Program

This program involves transferring development rights from parcels near hazardous areas, such as the coast, to parcels that are further away from the hazard and can therefore accommodate development better, such as a more inland location. Often there is an incentive for this relocation such as increased density or relaxation of building heights. This strategy can be used to incentivize and encourage private property development away from hazardous areas.

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Fee Simple Acquisition

Simple acquisition is the purchase of vacant or developed land in order to prevent or remove property from the danger of coastal hazards such as erosion or flooding. One such example of this adaptation strategy is to purchase properties at risk and to demolish structures and restore habitats and physical processes, as has been done in Pacifica, California. A hybridized version of this adaptation strategy may be a public acquisition program in which an entity purchases the hazardous property and then leases the land back to the previous landowner with the deed restriction and understanding that when the structure or parcel is damaged that the lease may expire.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Rolling Easements

The term “rolling easement” refers to a policy or policies intended to allow coastal lands and habitats, including beaches and wetlands, to migrate landward over time as the mean high tide line and public trust boundary moves inland with sea level rise. Such policies often restrict the use of shoreline protective structures, limit new development, and encourage the removal of structures that are seaward (or become seaward over time) of a designated boundary. This boundary may be designated based on such variables as the mean high tide line, dune vegetation line, or other dynamic line or legal requirement. In some cases, implementation of this can be through a permit condition (such as the “no future seawall” limitation) or purchased at a substantial discount (such as purchasing the land between the MHW boundary and the dune vegetation line or MHW boundary plus 5 feet so the policy can adjust with sea level rise).

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Public Access, Natural Resources, and Coastal Armoring

Applicability to Goleta Sub-Areas: Coastal Resources Area, Central Area, Central Resource Area, and Old Town Area

Conservation Easements

A conservation easement is a legally enforceable agreement attached to the property deed between a landowner and a government agency or a non-profit organization that restricts development or certain uses “for perpetuity,” but allows the landowner to retain ownership of the land. The allowable uses for

this easement could be structured to allow flooding or erosion processes to occur.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resource

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Structural Adaptation

Structural adaptation is the modification of the design, construction, and placement of structures sited in or near coastal hazardous areas to improve their durability and/or facilitate their eventual retreat, relocation, or removal. This is often done through the elevation of structures, specific site placement, and innovative foundation construction. These can be implemented through revisions to the Building Code.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Water Supply, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Central Resource Area, and Old Town Area

Habitat Adaptation

Also called “living shorelines,” habitat adaptation reduces vulnerabilities by supporting the physical processes that support habitat creation. The maintenance of these physical processes allows habitats to evolve and is compatible with anticipated climate changes to environmental parameters. This measure and related policies are intended to maintain landscape connectivity, which can provide habitats room to transgress and evolve. For a more active adaptation approach, salt-tolerant vegetation could be planted and sediment (e.g.,

dunes or mud) added to the system to mimic natural sedimentary processes. Examples include sediment management, oyster reefs, and horizontal levees.

Applicability to Goleta Sectors: Land Use and Structures, Water Supply, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Central Resource Area, and Old Town Area

Real Estate Disclosures for Coastal Hazards

This strategy requires that upon any real estate transaction, buyers of properties in the coastal hazards zones are made aware of the potential hazards to their property. This disclosure informs buyers that they may face such hazards as erosion, coastal flooding, inundation, wildfire, or flooding as a result of climate-induced impacts, such as sea level rise. It is important to note that a disclosure for creek flooding already exists if a property is required to carry flood insurance

Applicability to Goleta Sectors: Land Use Structures, Oil and Gas, and Hazardous Materials

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Zoning and Building Code Revisions

This approach involves agencies incorporating flexibility into building codes to help adapt to changes in climate. This includes limiting development in flood-prone areas, increasing building heights, using movable foundations, or requiring materials and foundations that are resistant to hazards such as fires or extreme wind. Updating height restrictions by freeboard

elevation, which would allow buildings to be raised for flood protection purposes, and revising the grading ordinance to reflect sea level rise projections are two examples.

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Coastal Hazard Zoning Overlays

This measure identifies areas that are vulnerable to a set of specific hazards. Within each hazard zone, there can be a restriction on the types of development (e.g., residential), a basis for setback lines, or triggers for site-specific technical analyses or studies (e.g., geologic report triggers, slope stability analysis).

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Downzoning for Coastal Hazards

Downzoning is the process by which an area of land is rezoned to a usage that is less dense and less developed than its previous usage. This is typically done to limit sprawl and overgrowth of cities; however, it can also be applied in cases where hazards are present in order to lessen the amount of damage during a flood or similar event. One example is the downzoning of the

Ellwood Onshore Facility, which was downzoned upon City incorporation in 2006 from industrial to open space, and is now legally non-conforming. The site is to be remediated and restored following termination of oil and gas activities.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Inlet Management

This measure is most applicable to flooding hazards associated with the seasonal beach closure of the Goleta Slough and Devereux Slough inlet, which results in a bathtub-like filling of the estuaries or sloughs. Inlet management can take many forms, including 1) mechanical breaching by dozer, 2) pre-grading or lowering the beach elevations, 3) performing restoration activities to increase storage volumes and promote tidal scour of the inlet, and 4) more engineered options with siphons and pump systems.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, Water Supply, Public Access, Natural Resources, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Sediment Management

Sediment is nature's natural defense resource. This form of management uses different types of sediment to mitigate the impacts of rising seas. This form of soft protection either augments or alters where sediment accumulates. By replenishing or mimicking natural buffers or elevating land, habitats are less vulnerable to flooding, king tides, and

erosion. In the Goleta Slough, several debris basins are actively managed, which alters where sediment would naturally accrete or deposit. Examples include dynamic cobble berms, mud placement into salt marshes, and beach or dune nourishment. Implementation can occur at a variety of scales, including changes in dredged sediment disposal, opportunistic sand placement from upland sources, or offshore mining from the seafloor.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, Natural Resources, Coastal Armoring, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Passive Beach Dewatering

Passive beach dewatering involves the use of tubes placed in the beach, which help to lower the beach groundwater and increase natural sediment accretion. It works on the premise that when waves run up a dry beach, the ocean water will be deposited on the beach as the water infiltrates. During dropping tides this deposition does not work because the beach is saturated, so the sand is picked up off the beach and carried offshore. By drying the beach, natural deposition is increased. This has never been tried in California and thus is a rather scientifically uncertain approach, but it has been successful in other international locations. The characteristics for successful experiments elsewhere have included a high tide range, mixed sand grain sizes, and high sediment transport. Goleta has all of these. As a low cost adaptation option, it may be worth experimenting and monitoring in the near future.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area

Seawalls or Revetments

A seawall or revetment is a structure separating land and water areas, primarily designed to prevent erosion and other damages caused by wave action. A seawall is usually a vertical structure made of wood or concrete, while a revetment is a pile of rock built at a stable angle with enough weight of the armor stone to withstand erosive wave forces. The City General Plan/Coastal Land Use already precludes future coastal armoring for new development.

Applicability to Goleta Sectors: Not Applicable

Groins

Groins are structures built perpendicular to the beach with the objective of capturing or retaining sand. Sand capture occurs as sand is transported alongshore by the waves. When the sediment being transported alongshore encounters the groin, the currents and sediment

are diverted offshore into deeper water where the currents slow down, depositing much of their sediment load. Existing groins in the Santa Barbara channel have been shown to cause down-coast erosion.

Applicability to Goleta Sectors: Not Applicable

Artificial Reefs/Submergent Breakwaters

The artificial reef (submerged breakwater) is a variation of the common shore-parallel emergent breakwater in which the structure crest is below the surface. The artificial reefs can cause waves to break offshore, dissipating the wave energy. While they have some benefits because of their low aesthetic impact, enhanced water exchange, and recreational benefits (e.g., fishing, surfing, diving), they become less effective when the water over the crest deepens. Unfortunately, this is a result of storm wave events and sea level rise.

Applicability to Goleta Sectors: Not Applicable

6. Implementation

6.1 Planning Implementation

City of Goleta Local Coastal Program

The City's LCP has an important role to play in adaptation planning. The Land Use Plan lays out the policy framework for addressing climate change, whereas the Implementation Plan provides site-specific regulatory implementation language. The policies, along with implementing language, can influence the level of consequence from climate change impacts.

2002 California State Lands Commission Beach Hazard Cleanup/Mitigation Plan

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. Additionally City funding is required to expedite the planned removal of the existing seawalls and related debris. Portions of the steel-reinforced wooden seawall along the eastern frontage of the Sandpiper Golf Club (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. This requirement does not apply to the rock revetment that protects the access

road to the State Lease 421 Piers, until these wells are properly abandoned and the pier structures are removed.

2012 City of Goleta Community Wildfire Protection Plan

In addition to gathering background information to develop an understanding of the City's fire history, the initial data collection work effort included an evaluation of City policy considerations and management approaches, sensitive environmental resource areas, infrastructure locations, and critical data gaps. The Community Wildfire Protection Plan includes a hazard assessment, risk assessment, and fire hazard mitigation plan. The City approved this plan as a programmatic plan in March 2012. This plan did include discussion of climate-related impacts.

2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

The 2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan was prepared with input from County residents and responsible officials, and with the support of the State of California Governor's Office of Emergency Services and FEMA. This plan will guide the County toward greater disaster resistance in harmony with the character and needs of the County and its communities. It is the County's intent that this plan will be used as a tool for stakeholders to increase awareness of local hazards and risks, while at the same time providing information about options and resources available to reduce those risks.

City of Goleta Capital Improvement Program

The Capital Improvement Program (CIP) allows the City to identify the needs of the community and to prepare a long-term funding strategy to meet those needs. The CIP includes any project that involves needed repairs or improvements to existing infrastructure (streets, parks, city facilities, etc.) and the acquisition or construction of new infrastructure. The City inherited a list of CIPs from the County upon incorporation. This included a portion of the transportation improvement projects identified in the County's Goleta Transportation Improvement Program. It is intended to address infrastructure needs associated with both existing and future development identified in the General Plan. The CIP does not have any discussion of climate change impacts.

6.2 Financing Implementation

FEMA's Hazard Mitigation Assistance

As there is overlap between LCP planning and Local Hazard Mitigation planning, FEMA's Hazard Mitigation Assistance grant programs provide significant opportunities to reduce or eliminate potential losses to the City's assets through hazard mitigation planning and project grant funding. Currently, there are three programs: the Hazard Mitigation Grant Program, Pre-Disaster Mitigation, and Flood Mitigation Assistance.

Geologic Hazard Abatement Districts

Geologic Hazard Abatement Districts (GHADs) provide a potential means for future renovations or improvements to flood control

structures, including future alterations that may be necessary because of sea level rise. By accumulating a funding reserve for future maintenance and rehabilitation, a GHAD can provide the financial resources necessary for potential future expansion of flood control structures. Further, because of the relative safety of GHAD revenues (GHADs are typically financed through the collection of supplemental tax assessments), GHADs can borrow from lenders or issue bonds with very attractive credit terms.

Infrastructure Financing Districts

California has recently passed a bill allowing cities and other entities to create enhanced infrastructure financing districts; this allows incremental property tax revenues to be devoted to a specified purpose such as a fund for cleanup, or infrastructure adaptation costs. With the passage of Assembly Bill 313 and Senate Bill 628, the requirements for establishing these districts has been streamlined.

Innovative Structured Fees

Certain structured fees could be established to generate revenues for 1) covering the necessary planning of, technical studies for, design of, and implementation of adaptation strategies or 2) developing an emergency cleanup fund to be able to respond quickly and opportunistically following disasters. Disasters, through a different lens, are opportunities to implement changes. A good example is the Beach Hazard Removal Project, which was activated shortly after the March 2014 storm when the sand on the beach had been removed, naturally exposing many of the legacy oil and gas infrastructure hazards.

Sand Mitigation Fees and Ecosystem Damage Fees

There are two structured fees that the CCC currently uses to address the impacts of coastal armoring—sand mitigation fees and a relatively new ecosystem damage fee. The sand mitigation fee is a fee intended to mitigate for the loss of sand supply and the loss of recreational beaches in front of coastal armoring structures. The ecosystem damage fee is intended to provide mitigation funds to restore the damages to the coastal habitats from the development. These could be to restore rocky intertidal habitat, sandy beach and dune habitat, or wetland habitats.

Rental Surcharge Fees

A new type of fee would be a rental surcharge fee for property owners with armoring and coastal structures that occupy a portion of the public trust beach below MHW. For these structures, there would be an annual lease or rent for the ability to have a structure occupy the public trust resource (i.e., beaches). This rent would increase each time the tidal epoch was updated and MHW moved farther landward as more of the structure occupied more of the beach.

Increase Taxes

The City could also use more traditional mechanisms such as raising the sales tax and devoting a portion to these costs. Since the City recently raised ToTs to 12 percent, an additional increase in ToTs may be more difficult.

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7. Policy and Regulatory Recommendations

7.1 Introduction

The City is recommending updating or adding the following policy and regulatory language into the LCP. Where applicable, the corresponding California Coastal Act Sections have been referenced. Note: The actual implementation of these policies and regulations may vary based on a variety of factors, including applicable policies and location- or project-specific factors that may affect feasibility.

7.2 Minimize Coastal Hazards through Planning and Development Standards¹

The City should adopt the mapped Coastal Flood Hazard Zones.

The City should adopt the Coastal Flood Hazard Zones as displayed in this report as part of the LCP. Updating land uses and zoning requirements to minimize risks from sea level

rise in the identified coastal flood hazard zones can better prepare the City for such hazards. The Coastal Flood Hazard Zones would trigger the following:

- Real Estate disclosures for coastal and climate-induced hazards.
- Triggers for a site-specific hazard report.
- Building code revisions, such as movable foundations.
- Changes to building heights to accommodate additional freeboard elevation.

The City should develop a Repetitive Loss Clause Program for properties within the Coastal Flood Hazard Zones.

The City should develop a Repetitive Loss Clause Program as part of the LCP that would assist in the process of properties being rezoned over time to accommodate increased coastal flooding and related impacts. An example of this would be possibly rezoning the Placencia neighborhood. If a building has been severely damaged or repeatedly flooded, the City can designate the property as "substantially damaged" or a "repetitive loss property." The policyholder is then required to rebuild it in a flood-safe way, which usually means elevating or moving the structure. Through the Flood Insurance Reform Act of

¹ The applicable CCC Sections are: 30253, 30235; 30001, 30001.5.

2004 (FIRA 2004), Congress directed FEMA to develop a program to reduce future flood losses. The Severe Repetitive Loss Grant Program makes funding available for a variety of flood mitigation activities. Under this program, FEMA provides funds to state and local governments to make offers of assistance to National Flood Insurance Program-insured severe repetitive loss residential property owners for mitigation projects that reduce future flood losses through:

- Acquisition or relocation of at-risk structures and conversion of the property to open space;
- Elevation of existing structures; or
- Dry flood proofing of historic properties.

The City should require new development to avoid coastal flood hazards in the Local Coastal Program.

In order to minimize the adverse effects of sea level rise, flooding, and storms, it is important to carefully consider decisions regarding areas vulnerable to flooding, inundation, and erosion. The City should avoid permitting any significant new structures or infrastructure that will require new coastal armoring or flood protection from sea level rise, coastal flooding, or coastal erosion during the expected life of the structure. This should include careful long-term consideration of extending routine maintenance of existing levees or other protective measures. In some instances it may be better to rezone or acquire properties that are in hazardous areas. If the City permits development that will require new protection during the expected life of the new project, the City should require that the project proponent:

- Minimizes risks through siting, design and engineering.
- Requires viable funding sources for building, monitoring, and maintaining the new sea level rise protections. This should include a performance bond to repair,

maintain, or remove the structures if they become public nuisances.

- Requires that any new development must consider how risk changes over time requires that actions to reduce risk in the short-term do not increase risk in the long-term (no maladaptation).
- Designs protection in a manner that maximizes conservation of natural resources and public access.

The City should require redevelopment strategies contained in the Goleta Old Town Revitalization Plan and Local Coastal Program to reflect sea level rise/coastal flood hazards.

This will require modifying the applicable building codes to enable structures to withstand higher water levels within the City's Coastal Flood Hazard Zones, including the portion within Old Town. For example, development and redevelopment in the City's Coastal Flood Hazard Zones may require additional setbacks, increased base floor elevations, limited first floor habitable space, innovative stormwater management systems, special flood protection measures, mitigation measures for unavoidable impacts, relocation and removal triggers and methodologies, etc. This may require a change in the maximum building height.

The City should update setback regulations in the Local Coastal Program.

The current cliff erosion setback policy contained in the existing Safety Element (SE) Policy 2.1 takes a conservative approach to calculating any potential development setback. This should be improved to account for an acceleration of historic erosion rates from sea level rise and the derelict existing coastal

armoring. The policy should consider that there is a natural failure distance of cliff erosion that constitutes an “existing hazard.” In Goleta that distance is about 15 to 25 feet and should be used as a trigger to develop and implement a retreat or other suitable adaptation strategy. Additionally, a more appropriate setback would entail a minimum forecast period of 100 years and include consideration of accelerated sea level rise and the size of an erosion event failure distances appropriate for the backshore type and failure mechanism. Variations to this standard could be tiered based on the type and size of proposed development. Some variances may be warranted on some parcels since strict application of setbacks may preclude redevelopment in some cases and trigger takings claims.

The City should incorporate sea level rise into calculations of the Geologic Setback Line.

The City should update geotechnical report requirements for establishing the Geologic Setback Line (bluff setback) to include consideration of bluff failure mechanisms, accelerated retreat due to sea level rise in addition to historic bluff retreat data, future increase in storm or El Niño events, and any known site-specific conditions. Consider approving significant new foundation work only when it is located inland of the setback line for new development, or when it changes the type of foundation to one that is conducive for relocating structures when they become threatened from erosion, and only when it will not interfere with coastal processes in the future.

The City should provide policy and regulatory triggers for relocation and removal of structures in the Local Coastal Program.

The LCP would contain policies for phased removal of existing development (i.e., the

Bacara Resort and Spa and Sandpiper Golf Club). These policies should be implemented in the Implementation Plan (i.e., Zoning Code) through a variety implementation mechanisms, such as rolling easements and incentive programs, based on defined triggers. The boundary for said triggers could be based on such variables as the mean high tide line, proximity to the cliff edge, other dynamic line, or legal requirement. These triggers should allow enough time to identify appropriate actions and to plan and implement said actions. The regulatory triggers for relocation or removal of the structure would be determined by changing site conditions, such as when erosion is within a certain distance of the foundation, monthly high tides are within a distance of the finished floor elevation, building officials prohibit occupancy, or wetland buffer area decreases to a certain width.

The City should develop and adopt a Transfer of Development Rights Program within the Local Coastal Program.

The LCP should establish policies to implement a Transfer of Development Rights (TDR) program to restrict development in areas vulnerable to sea level rise and allow for transfer of development rights to parcels with less vulnerability to hazards. A TDR program can encourage the relocation of development away from at-risk locations, and it may be used in combination with a buy-out program. A TDR program could also be used to promote other smart planning principles such as infill development and mixed uses.

The City should protect critical infrastructure contained in the Capital Improvement Program.

The CIP should contain special considerations for critical infrastructure and facilities (e.g., City bridges, roadways) affected by coastal flood hazards. The City should establish measures

that require continued function of critical infrastructure, or the basic facilities, service, networks, and systems needed for the functioning of a community. Repair and maintenance, elevation or spot-repair of key components, or fortification of structures where consistent with the California Coastal Act may be implemented through Coastal Development Permits. An additional section should be added to the CIP that identifies the remaining expected life of the infrastructure and how and where any relocation may occur.

The City should retrofit existing transportation infrastructure as necessary and consistent with the Capital Improvement Program.

In instances where relocation is not an option, the City should repair damage and/or retrofit existing structures to better withstand sea level rise impacts. For example, use stronger materials, elevate bridges or sections of roadways, and build larger retention capacity or additional drainage systems to address flooding concerns. Additionally, the City should provide alternate routes, as possible, to allow for access to and along the coast in instances in which sections of roadways may become temporarily impassible as a result of coastal hazards. The City should improve the communication of alternate route information to residents and visitors alike.

7.3 Maximize Protection of Public Access, Recreation, and Sensitive Coastal Resources

The City should protect public recreation resources consistent with the Ellwood-Devereux Coast Open Space and Habitat Management Plan.

Recognizing that sea level rise will cause the public trust boundary to move inland, new shoreline protective devices should not result in the further loss or encroachment on public trust lands. Therefore, the City should allow dune erosion of Access Points E and F and inward migration of public trails (i.e., use of non-permanent materials).

The City should plan for retrofitting or relocating sections of the California Coastal Trail.

This can be accomplished through the use of boardwalks, bridges, and/or other design features to maintain continuity of the California Coastal Trail in sections that are vulnerable to coastal hazards. Some sections will need to be relocated over time. The LCP should identify vulnerable sections of the California Coastal Trail and establish a phased approach to relocate sections of the trail in such a way that is consistent with provisions of the Coastal Act and requires that the trail remains within sight, sound, or smell of the sea.

The City should protect Public Access at Haskell's Beach.

As Haskell's Beach is the only designated Coastal Public Access for the City, the City should design and implement natural (i.e., soft) solutions for protection of public access. The City could establish a program to minimize loss of beach area through an opportunistic beach and cobble nourishment program, or other actions.

The City should develop an opportunistic sand placement program.

Consistent with the initial recommendation in the Coastal Regional Sediment Management Plan, the City should participate in the BEACON regional opportunistic sand management activities and use opportunistic sediment to improve beach and wetland resiliency. This should not be considered an effective long-term erosion mitigation strategy because of the limited volumes of sediment. We assume that the volumes of available opportunistic sand are small; however, there may be future opportunities to obtain larger volumes of sand, which would be incorporated into a larger nourishment alternative.

The City should implement the adopted Community Wildfire Protection Plan.

The purpose of the Community Wildfire Protection Plan is to enhance community wildfire protection by identifying fire hazard treatments, which are in balance with sustainable ecological management and fiscal resources. The fuel management prescriptions for each of Goleta's Vegetation Management Units were developed to guide treatments to achieve a less hazardous fuel profile. Future updates of the Community Wildfire Protection Plan should include updates of climate change

projections for precipitation, wildfire, and temperature.

The City should complete and adopt the Monarch Butterfly Inventory and Habitat Management Plan.

The purpose of the Butterfly Habitat Management Plan is to identify low impact habitat improvement strategies to protect long-term monarch butterfly population viability. Fuel treatments in areas near human developments are critical measures in the wildfire protection strategy for both residences and butterfly aggregations and habitat. Trees along grove edges buffer aggregation sites from wind and weather; therefore, it is important to maintain adequate tree density within these edges. Larger trees are not the primary fuel of concern in the spread potential of wildfire; rather, the understory vegetation, dead-downed trees, and fuels creating fire ladders pose the greatest hazard and threat. Future updates of the Monarch Butterfly Inventory and Habitat Management Plan should include updates of climate change projections for precipitation, wildfire, and temperature and implications for species habitat concerns

7.4 Maximize Agency Coordination and Public Participation²

The City should continue to build education and community awareness about coastal hazards.

The City should invest in efforts to raise awareness of the limitations of flood insurance and disaster relief and the costs associated with

² The applicable CCC Chapter 5 policies; Sections 30006, 30320, 30339, 30500, 30503, and 30711.

response and recovery efforts associated with various anticipated sea level rise impacts, some of which have been identified in this report. Given the high costs estimated to manage the hazards resulting from coastal erosion, we recommend public outreach and citizen initiatives to document the extents of floods and real estate disclosures to educate property owners on the risks of coastal hazards. Additionally, the City will educate the residents, tourists, etc. by providing signage that effectively depicts previous flood depths and elevations.

The City should continue to coordinate with surrounding jurisdictions, the Goleta Slough Management Committee, and the Beach Erosion Authority for Clean Oceans and Nourishment.

Given the limited ability of the City to resolve slough-related hazards and adapt to the impacts of climate change along with the multitude of coastal management, sea level rise planning, research, and guidance efforts occurring in Santa Barbara County, it is critical for the City to continue to share information, coordinate efforts, and collaborate where feasible to leverage existing work efforts. Specifically with the Goleta Slough, continued involvement with the Goleta Slough Management Committee is important to improving consistency. For adaptation issues along the wave exposed Goleta coast, continued involvement with BEACON remains important for sea level rise and related coastal hazards adaptation planning. Both the Goleta Slough Management Committee and BEACON include multiple jurisdictions, so there is the ability to share lessons learned, cooperate on funding applications, and coordinate on multi-agency reviews and decision-making. Finally, the City should encourage a balanced approach for Goleta Slough Mouth management of water and sediment management.

The City should continue to participate in the Santa Barbara County Local Multi-Hazard Mitigation Plan.

The purpose of the Santa Barbara County's Multi-Hazard Mitigation Plan is to significantly reduce deaths, injuries, and other disaster losses attributed to natural- and human-caused hazards. This plan can continue to be used as a tool for all stakeholders to increase public awareness of local hazards and risks, while at the same time providing information about options and resources available to reduce those risks. Additionally, the plan will provide continued Inter-Jurisdictional Coordination of Mitigation-Related Programming to support funding proposals for mitigation initiatives. The City may wish to develop its own Local Hazard Mitigation Plan, which would make it eligible for direct implementation and disaster preparedness funds.

The City should continue to coordinate with surrounding jurisdictions and entities responsible for oil and gas response activities.

Oil and gas issues are contentious and expensive. An oil spill poses one of the most significant potential fiscal impacts to the City. Recent experiences from the Refugio Oil Spill and the Summerland Leaking legacy wells highlight the shortcomings and regulatory hurdles that interfere with responding quickly to an oil spill. The City should instigate and support an oil and gas roundtable that would discuss oil and gas response and share lessons learned. Such a forum would include the State Lands Commission, the Office of Oil Spill Prevention and Response, the Coastal Guard, and regional jurisdictions. Such a forum could establish itself as a Joint Powers Authority and seek to cooperate on a regional environmental document to streamline permitting for a rapid response of legacy wells.

8. Monitoring

8.1 Introduction

The importance of monitoring is critical in order to develop the appropriate feedback loop to incorporate the results of the coastal hazards vulnerability assessment and fiscal impact analysis in order to assist decision-makers. Upon certification of the City's LCP, adaptation strategies will be implemented through the certified implementing ordinances and related processes and actions (e.g., local review of CDPs, proactive action plans). Additionally, an important component of successful adaptation is to secure funds for implementation, regularly monitor progress and results, and update any policies and approaches as needed. Sea level rise projections should be re-evaluated and updated as necessary. Therefore, the City is recommending the following:

- Monitor physical environment to identify when the City is nearing thresholds.
- Study beach profiles to understand variability in sand supply and erosion.
- Monitor beach elevations around coastal armoring structures to determine impacts on elevations on the narrower beaches in front of the structures. Compare with elevations at adjacent unarmored control sites.
- Conduct structural monitoring to identify when there is an impact on beach elevations (and thus ecology and ESHA) and lateral access.
- Monitor sea level rise trends from local tide stations.
- Monitor inland extent of inundation and duration of flooding at key locations (e.g., Placencia neighborhood).

- Conduct biological monitoring of sensitive and endangered species.
- Conduct habitat monitoring to understand relationships between habitats/elevation and duration of inundation.
- Support monitoring of specific climate variables that affect habitat location.
- Stay current on climate science related to precipitation, wildfire, and temperature.
- Monitor hydrology data, including water levels in the sloughs and stream flows in the creeks.
- Monitor pre-and post-storm monitoring—erosion extents, high water marks, and inland locations of flooding.

8.2 Optional Studies

Based upon input from Revell Coastal, the City is recommending the following optional studies to further expand the City's knowledge base as well as better inform future decision-making. They are as follows:

- Model future creek flooding that incorporates climate impacts to precipitation and sea level rise.
- Estimate economic and engineering cost estimates for select adaptation strategies.
- Analyze and map the social vulnerabilities and related environmental justice issues.
- Conduct hydrodynamic urban flood models to identify the flow pathways leading to flooding.

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9. Conclusion

The City's economy and quality of life are intrinsically linked to the coastline, environmental sensitive habitats, public access, and recreational opportunities. Because of the City's unique geographic location, geomorphology, and dependence on coastal resources, the City is particularly valuable to the effects of climate-induced coastal hazards and their associated impacts, ranging from coastal flooding to dune/cliff erosion. This report assesses the City's vulnerability to current and future sea level rise and presents recommendations that will reduce the level of risk. This information will assist the City in making more informed decisions regarding land use and development standards from the project level (e.g., coastal development permits, land use permits) to the plan level (e.g., Old Town Revitalization Plan, Community Wildfire Protection Plan, etc.).

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11. Acknowledgments

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- The County of Santa Barbara, including Heather Allen, Katie Hendrich, Brett Buyan, and David Lackie.

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Appendix A.

Sector Profile Results

This appendix contains sector profiles that summarize the findings and recommendations that can be used in future decision-making. Each sector has its own profile, complete with a vulnerability map and 2-page description of findings for ease of communication. The vulnerability maps contain a combination of the existing FEMA creek flood maps and the projected future coastal hazards. The only exception will be Water Supply and Utilities, due to confidentiality of infrastructure locations of such, they are without maps. They are as follows:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Water Supply
- J. Wastewater
- K. Utilities

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Land Use and Structures - Old Town Area

Land Use and Structures: Overview

There are 5 land use categories that occur within the Old Town Area which includes Old Town and portions of the surrounding City, including: (1) residential, (2) industrial, (3) commercial, (4) infrastructure, and (5) recreation/open space.

Existing Conditions

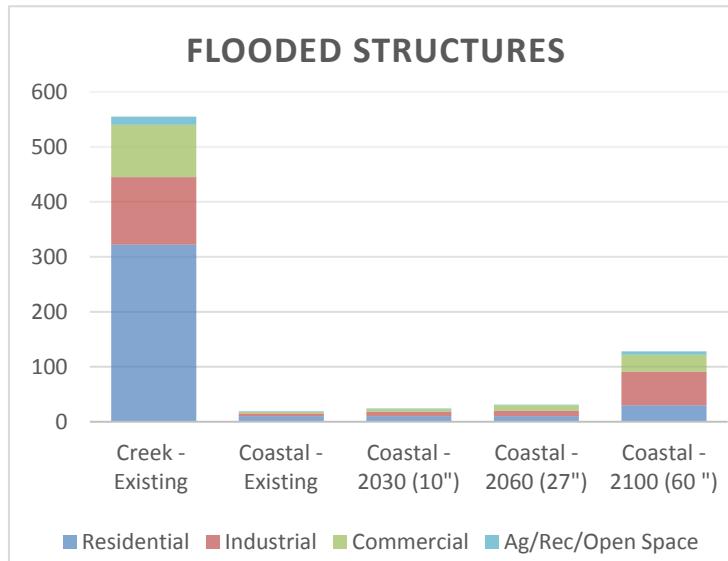
Description: Old Town is recognized as a unique asset and historic center of Goleta. Future development and redevelopment actions are required to respect the current diversity of uses while maintaining Old Town's unique character.

Vulnerabilities: Land use and structures are primarily subject to existing creek flooding and coastal flooding associated with a closed Goleta Slough Mouth. This barrier beach flooding mainly impacts structures and land uses in the Palencia neighborhood, Aero Camino, Storke Ranch, and the neighborhoods between Fairview Ave and Highway 217. For details on the locations of the impacted neighborhoods, refer to Figure A.

Measures of Impact:

- Parcels by land use
- Structures by land use (flooding)
- Square footage of structures by land use (adaptation)

Vulnerabilities: Flooding of Structures



Fiscal Impacts

Damages:

Caused primarily by barrier beach flooding. Residential damages are relatively small in comparison to those of the light-manufacturing sector located within Old Town, which by the year 2100 includes 50 industrial businesses that may contain specialized equipment with replacement costs higher than estimated by FEMA.

Damages	2010	2030	2060	2100
Residential	\$0.2 M	\$0.3 M	\$0.4 M	\$1.4 M
Industrial	\$0.2 M	\$0.5 M	\$0.7 M	\$10.0 M
Commercial	\$0.1 M	\$0.2 M	\$0.4 M	\$2.6 M
Total	\$0.6 M	\$1.0 M	\$1.5 M	\$14.0 M

Cleanup costs: could range between \$0.5 million and \$4.5 million depending on the magnitude and extent of the flooding.

Cost to Elevate	2010	2030	2060	2100
Residential	\$1.9 M	\$1.9 M	\$1.9 M	\$9.6 M
Industrial	\$1.2 M	\$30.0 M	\$31.0 M	\$130.0 M
Commercial	\$0.7 M	\$2.7 M	\$3.9 M	\$48.5 M
Total	\$3.8M	\$35.0 M	\$37.0M	\$188.4 M

Adaptation Strategies

Range of Strategies: Includes "No Action" and clean up, policy, and regulations, as well as retreat, accommodate, and protection strategies as defined by the California Coastal Commission.

Retreat - Includes policy and/or regulatory options (e.g., downzoning, transfer of development, FEMA repetitive loss clause, and rolling easements) as well as purchase of the vulnerable properties.

Accommodate - Includes elevating structures and inlet management. The reduction in vulnerabilities associated with inlet management supports some hybrid approaches, but management of the Goleta Slough inlet is outside the City's authority.

Elevating - In the short term (approximately 2030) elevating buildings less than 1 foot to avoid flood cleanup costs at a cost of approximately \$3.8 million makes more economical sense considering damages and cleanup costs from a large flood event (approximately \$5.1 million). Over the medium and long term time horizons (2060, 2100), elevating structures more than 2 feet appears to be maladaptive. **By 2100, estimated damages and cleanup costs could be approximately \$18.5 million following a major storm event versus the cost to elevate all of the vulnerable structures at an estimate cost of approximately \$188.4 million.**

Inlet Management - With inlet management, the number of structures exposed by 2100 drops from 129 to 14. Furthermore, inlet management with elevation of at risk structures equates to about \$5.1 million; whereas inlet management with purchase of at risk parcels would cost an estimated \$3.6 million in 2015 dollars.

Protect - The construction of levees to prevent flooding within the most vulnerable neighborhoods is a "gray" protection approach, whereas a "green" protection approach would consist of contoured transitional slopes to accommodate flooding.

Secondary Impacts: Retreat and elevation strategies have few secondary impacts. Inlet management could impact ESHA and listed species. Gray protection options would result in a loss of ESHA wetlands over time. Green protection strategies may benefit wetlands by increasing wetland transition slopes.

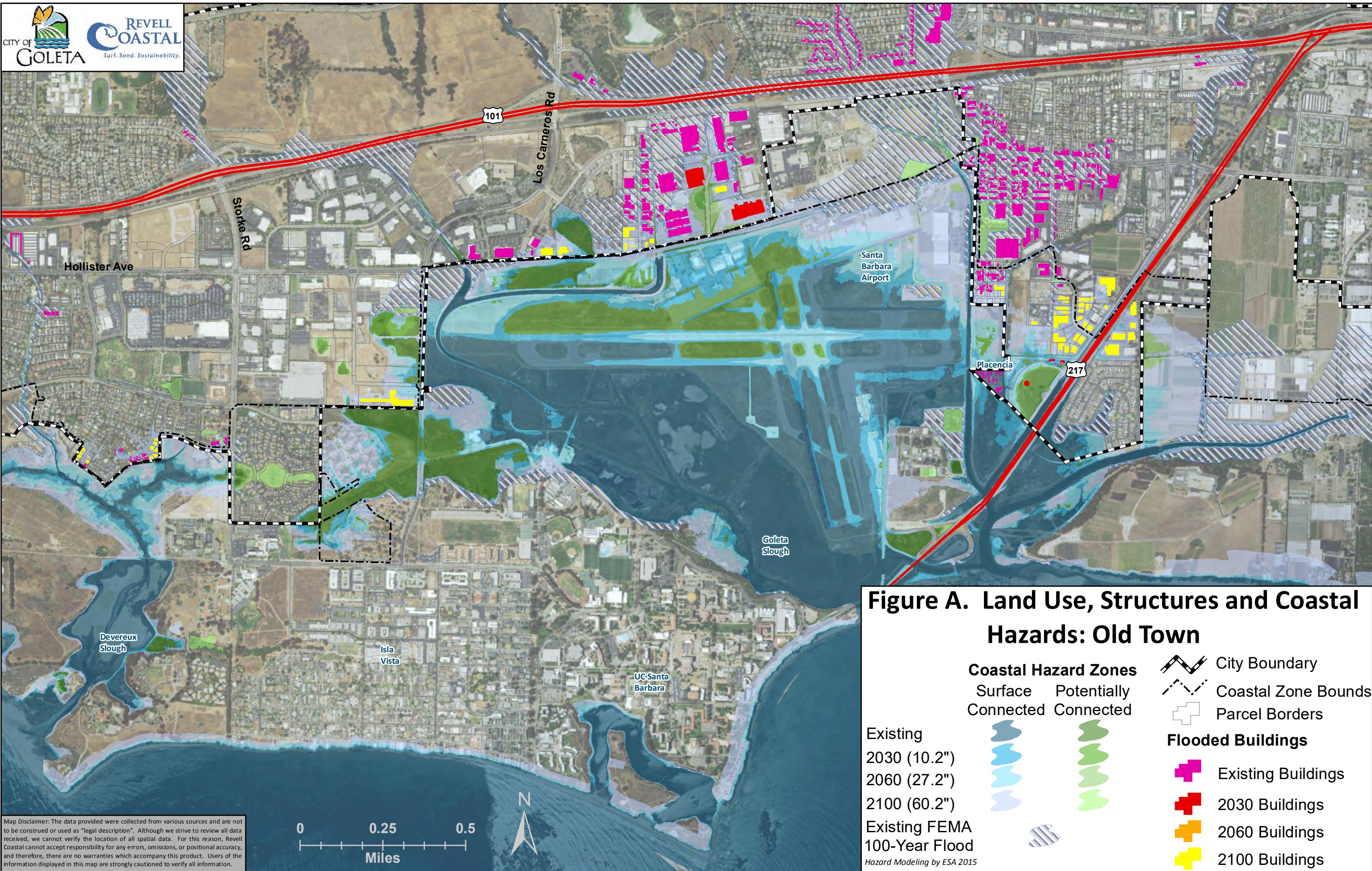
Findings and Recommendations

Findings:

- Existing creek hazards (FEMA) are the highest hazard in the City. Coastal flooding will be exacerbated by SLR, however future climate impacts on creek flooding not available.
- Coastal flooding damages to structures in Goleta could increase dramatically by 416% between the time horizons of 2060 and 2100.
- Adaptation costs to elevate and accommodate coastal flooding by 2100 (\$175 million) exceed damages (\$14 million) and cleanup (approximately \$5 million) by an order of magnitude.
- The Storke Ranch neighborhood becomes exposed around 2100, when Goleta and Devereux Sloughs come together.
- Coastal flooding impacts the light manufacturing sector the greatest between 2 and 5 feet of SLR during the time period of 2060 to 2100.

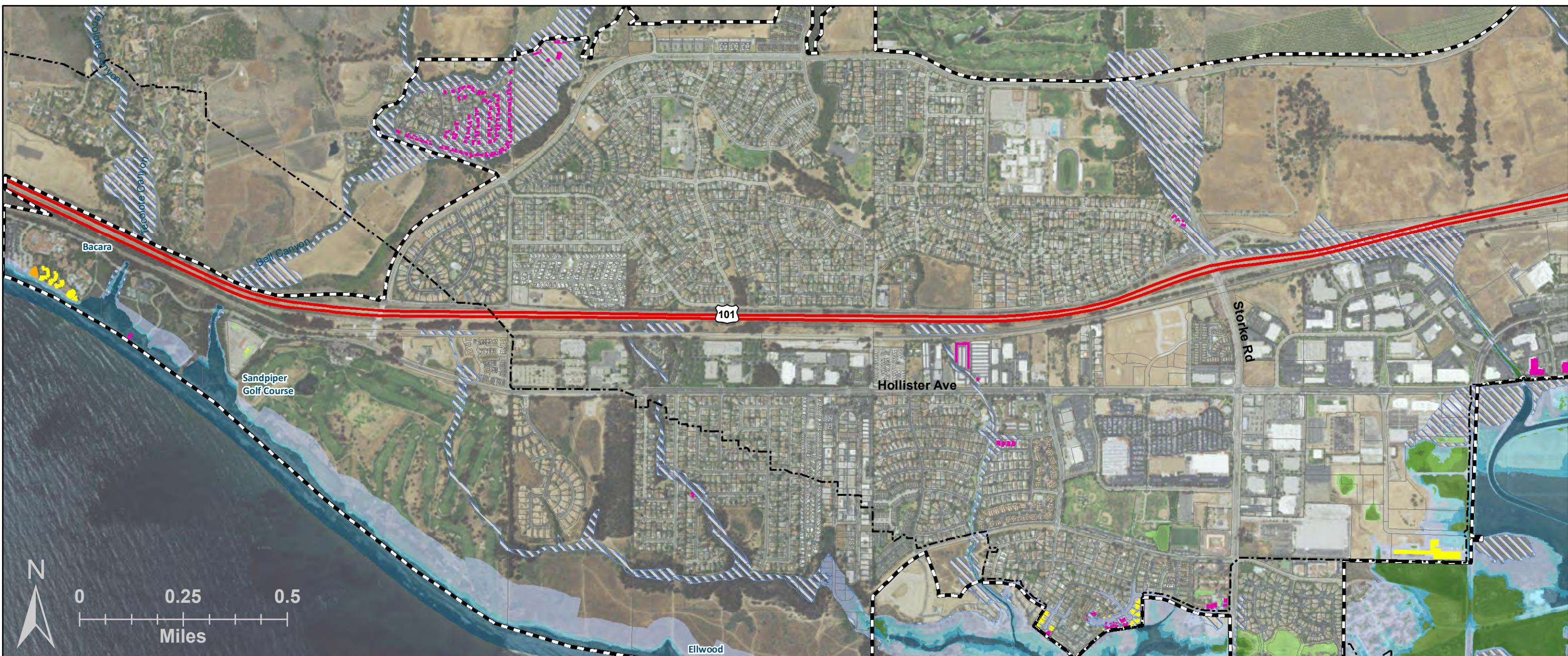
Recommendations:

- Conduct coastal confluence modeling to better assess future vulnerabilities associated with stream flood hazards exacerbated by sea level rise to provide projections of future flood extents and depths.
- Engage in regional inlet management discussions with the City of Santa Barbara and the County of Santa Barbara.
- Establish a repetitive loss policy to trigger eminent domain in combination with a Transfer of Development (TDR) Program. Once a property had multiple flood insurance claims the policy would take effect.
- Adjust building codes to allow for increased building heights by additional freeboard based on sea level rise projections for parcels projected to be impacted by flooding after 2060.



Land Use and Structures - Coastal Resources Area

Overview		Adaptation Strategies																					
Existing Conditions	Vulnerabilities—Flooding of Structures																						
<p>Description: This area includes Goleta's Pacific shoreline and only coastal resort (Bacara Resort and Spa), as well as open space resources such as the Ellwood Mesa Open Space/Sperling Preserve, which supports active and passive recreation, including public access and coastal-dependent recreational uses. The area's significant environmental values and resources are protected and being restored to a natural condition. Sandpiper Golf Club and the Ellwood On-shore Facility (EOF) are also located along the coast.</p> <p>Vulnerabilities: Coastal erosion directly impacts 6 buildings (139 rooms and hotel facilities) along the coastline on the Bacara Resort and Spa property and approximately 6 greens and their associated holes within the Sandpiper Golf Club property. Please refer to Figure B.</p> <p>Measures of Impact:</p> <ul style="list-style-type: none"> • Parcels by land use • Acres by land use (coastal erosion) 	<p>ERODED ACRES</p> <table border="1"> <thead> <tr> <th>Time Period</th> <th>Agriculture / Open Space Acreages</th> <th>Commercial / Institutional Acreages</th> <th>Total Eroded Acres</th> </tr> </thead> <tbody> <tr> <td>Coastal erosion - Existing conditions</td> <td>~25</td> <td>~25</td> <td>~50</td> </tr> <tr> <td>Coastal erosion - 2030</td> <td>~30</td> <td>~30</td> <td>~60</td> </tr> <tr> <td>Coastal erosion - 2060</td> <td>~40</td> <td>~35</td> <td>~75</td> </tr> <tr> <td>Coastal erosion - 2100</td> <td>~50</td> <td>~45</td> <td>~100</td> </tr> </tbody> </table>	Time Period	Agriculture / Open Space Acreages	Commercial / Institutional Acreages	Total Eroded Acres	Coastal erosion - Existing conditions	~25	~25	~50	Coastal erosion - 2030	~30	~30	~60	Coastal erosion - 2060	~40	~35	~75	Coastal erosion - 2100	~50	~45	~100	<p>Range of Strategies:</p> <p>Retreat - This can be accomplished by condemning existing buildings and relocating them further back into the property. The cost for retreating luxury hotel rooms ranges from \$239,100 to \$518,400 per room. Thus, the cost of moving/replacing these structures is approximately in the range of \$33 million to \$72 million for 139 rooms. Retreat and reconstruction for the Bacara Resort Beach House located at Haskell's Beach is estimated at approximately \$421,000.</p> <p>Accommodate - Retrofit foundations so cliff erosion can continue and buildings either be moved back from the edge once erosion gets within a set distance or remain on pile supported foundations.</p> <p>Protect – A “gray” approach would be to armor cliffs (i.e., seawall) to prevent coastal erosion. Coastal armoring is presently banned in the City General Plan policies. The “green” approach would be to nourish the adjacent beaches with sand and cobbles to reduce wave exposure and erosion.</p> <p>Secondary Impacts:</p> <p>Retreat strategies would present a few secondary impacts. The accommodation strategies may have some minor impacts to public access and aesthetics depending on the rates of erosion and/or relocation of structures. Gray protection options (currently not allowed in City General Plan/Local Coastal Plan policies) would result in a loss of beach over time, impacting ESHA, recreation, and requiring increasing maintenance costs to both the City and to Bacara Resort and Spa. Green protection strategies would have short to medium impact on ESHA and public access and relatively high long term maintenance costs.</p>	
Time Period	Agriculture / Open Space Acreages	Commercial / Institutional Acreages	Total Eroded Acres																				
Coastal erosion - Existing conditions	~25	~25	~50																				
Coastal erosion - 2030	~30	~30	~60																				
Coastal erosion - 2060	~40	~35	~75																				
Coastal erosion - 2100	~50	~45	~100																				
Fiscal Impacts	The Bacara Resort and Spa	<p>Findings and Recommendations</p> <p>Findings:</p> <ul style="list-style-type: none"> • Presently, the Bacara Resort Beach House is vulnerable to all of the coastal and creek hazards. • By 2060, erosion may impact or threaten 6 buildings with 139 guest rooms and a restaurant at the Bacara Resort. • Closure of these buildings may result in substantial losses to City ToT revenues equating to approximately \$2,935/day (\$88,058/month) during high season and approximately \$2,051/day (\$61,530/month) during low season. • Erosion affects the same 6 parcels across the entire City. • By 2060, Sandpiper Golf Club would be impacted and by 2100 probably would need to realign course. • Substantial increases in damages occur after 2 feet of sea level rise between 2060 and 2100. <p>Recommendations:</p> <ul style="list-style-type: none"> • Any future build out at Bacara in alignment with their approved CDP should designate relocation sites. • Consider revising building code to accommodate movable foundations and elevate building heights. • Require any abandonment or relocation to remove derelict or threatened structures. • Refer to Public Access Sector Profile for additional recommendations regarding beach access, trails, and Beach House facilities. • Refer to Oil and Gas Sector Profile for additional recommendations regarding 421 piers and other oil and gas facility recommendations. 	The Sandpiper Golf Club																				



**Figure B. Land Use, Structures and Coastal Hazards:
Coastal Resources Area**

Coastal Hazard Zones	
Surface Connected	Potentially Connected
Existing	
2030 (10.2")	
2060 (27.2")	
2100 (60.2")	
Existing FEMA 100-Year Flood	
Hazard Modeling by ESA 2015	

- City Boundary
 - Coastal Zone Bounds
 - Parcel Borders
 - Flooded Buildings
 - Current FEMA/Coastal Buildings
 - 2030 Buildings
 - 2060 Buildings
 - 2100 Buildings
- CITY OF GOLETA**
REVELL COASTAL
Surf. Sand. Sustainability.

Map Disclaimer: The data provided were collected from various sources and are not to be construed or used as "legal description". Although we strive to review all data received, we cannot verify the location of all spatial data. For this reason, Revell Coastal cannot accept responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Users of the information displayed in this map are strongly cautioned to verify all information.

Coastal Armoring

Overview			Measures of Impact			Fiscal Impacts		
<p>The coastline along the Coastal Resource Planning Sub-Area has remnants of a timber sheet pile seawall. This structure, related to historic oil and gas extraction, was built on the beach and backfilled to provide driving access to the host of oil piers that once lined this coastline.</p> <p>A sea wall/revetment-supported access road remains in place to protect an access road to the last two remaining active oil/water injection piers associated with the 421 Lease Piers below Sandpiper Golf Course. Following the February 2014 storm event, the Beach Hazards Removal Program permitted by the State Lands Commission (CSLC) and City was partially implemented and removed approximately 900 linear feet of these derelict armoring hazards.</p>			<p>To quantify the impact of coastal hazards and climate change on coastal armoring, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of structures • Cost of removal <p>For details on the locations of the coastal armoring structures, refer to Figure C.</p>			<p>Damages: Removal cost for the remaining 5,381 feet of coastal armoring ranges from approximately \$915,000 to \$1,075,000 (assuming a unit cost of \$170 to \$200 linear foot to remove).</p> <p>Fiscal Impact to the City: The City may be liable for its portion of the remnant structures (approximately \$243,440 - \$286,400). Other facility owners would be liable for their portion (e.g. 421 road sea wall equates to a range of approximately \$329,290 - \$387,400; Sandpiper equates to a range of approximately \$342,040 - \$402,400).</p> <p>Adaptation costs: Previous work completed during the March through April 2014 beach hazards removal activity was approximately \$225,000 based upon estimates provided by the CSLC and contractor.</p> <p>Public vs private: Existing seawalls along Ellwood Mesa are considered public property and the CSLC or the City will likely finance removal. The existing seawall protecting the Sandpiper Golf Course property is considered private property. Removal of any structure once it is below mean sea level would increase the cost.</p>		
Existing Conditions					Adaptation Strategies			
Historical		Present						
 <p>City of Goleta Shoreline 10/30/1930 Photo: Spense Collection at UCLA</p>		<p>Presently all of the coastal armoring in the City is exposed to coastal erosion and coastal flooding. This translates to all of the future vulnerabilities remaining the same across all time horizons.</p> <p>Coastal Erosion and Coastal Flooding</p> <ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of remnant timber seawall • 854 feet of remnant H beams • 5,381 feet of total armoring <p>Ownership</p> <ul style="list-style-type: none"> • 421 Road – 1,937 feet • Sandpiper Golf Club – 2,012 feet • CSLC/City – 1,432 feet 						
Vulnerabilities								
2030		2060		2100				
Coastal Erosion and Coastal Flooding		Coastal Erosion and Coastal Flooding		Coastal Erosion and Coastal Flooding				
<ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>		<ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>		<ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>				
						Recommendations	Existing Condition	
						<ul style="list-style-type: none"> • Improve regulation, mitigation, and adaptive management of existing armoring projects. • Allocate funds for the removal of derelict structures. • Develop a sand/recreational loss fee policy in the General Plan/LCP Safety Element. • Develop a public lands lease policy, which would require structures that extend beyond MHW to pay fees in the form of rent. These fees would pay for the removal of derelict structures and improve coastal public access or mitigate ESHA impacts. • Support adaptation measures, including insurance programs and regulations that require and/or incentivize private property owners to assume the risks of developing in hazardous areas. • Prohibit placement of backfill to shore up any remnant structures. 	 <p>Elwood Mesa Beach Photo: D. Revell</p>	



Figure C. Coastal Armoring and Coastal Hazards

Coastal Zone Boundary City Boundary



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Coastal Hazard Zones

	Surface Connected	Potentially Connected
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Existing

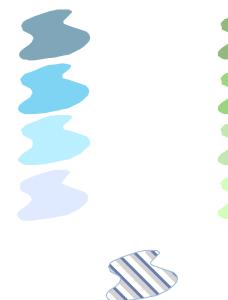
2030 (10.2")

2060 (27.2")

2100 (60.2")

Existing FEMA
100-Year Flood

Hazard Modeling by ESA 2015



Armoring Structure Type

- Revetment
- Timber Seawall
- Remnant H-Beams
- Revetment and Timber Seawall

			Fiscal Impacts				
Overview		Measures of Impact					
<p>Oil and gas development in the City of Goleta began in the 1920s with development of the Ellwood Marine terminal (located just east of the City's Coastal Resource Sub-Area). Production peaked between the 1930s and the 1950s. Production since the 1950s has largely shifted to offshore platforms permitted by the federal government. Unknown amounts of legacy wells and remnants for which little is known remain along the Goleta coastline.</p> <p>According to the California Division of Oil, Gas, and Geothermal Resources, there are 3 active wells and approximately 47 inactive and capped wells within the City boundaries, and 26 wells immediately offshore. Active oil and gas operations in the City include the legally non-conforming 4.5-acre Ellwood Oil and Gas Processing Facility (EOF), and two oil piers associated with the 421 Lease. Oil spills in 1969 and 2015 have coated City beaches in oil.</p>		<p>To quantify the impact of coastal hazards and climate change on oil and gas infrastructure, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Active sites • Inactive sites • Cost of removal • Oil spill cleanup costs. <p style="text-align: center;">Photo: A. Wells</p> 	<p>Damages: The cost of recapping a well (active or not) ranges from approximately \$100,000 to \$800,000 per well depending whether it is on or offshore. For 79 sites, the total cost ranges from approximately \$7.9 million to \$63.2 million. The cost of no action cleanup is considerable, and estimated to be similar to the recent Refugio Oil Spill that cost approximately \$257 million.</p> <p>Fiscal Impact to the City: The City does not have liability, but nevertheless may be responsible for some of the cleanup costs. Oil spilled on beaches would also have recreational, tourism, economic, and ESHA impacts not assessed in the fiscal impact.</p> <p>Adaptation costs: \$7.9 million for capping wells, with approximately \$100,000 to investigate petroleum releases. Potentially several times that amount to remediate the release at a legacy well.</p> <p>Clean up: \$257 million.</p> <p>Public vs. private: City may bear some liability if oil and gas companies or governmental agencies do not properly mitigate.</p>				
Existing Conditions			Adaptation Strategies				
Historical		Present	<p>Range of Strategies: Oil and gas infrastructure could be relocated, elevated, or protected in place. Adaptation to any of these oil and gas issues will be contentious. There may be a need to have a non-polarized regional forum focused on oil and gas response, remediation, and restoration. Such a partnership would require coordination with the California State Lands Commission and Santa Barbara County, as well as entities charged with oil spill response and clean up</p> <p>Retreat – Requires a phased removal to cap, abandon, decommission, investigate/remediate petroleum releases, and restore. Well casings and onshore support infrastructure may be re-exposed as erosion continues.</p> <p>Accommodate – For the Lease 421 piers, it is possible to extend the wells onto constructed platforms with access via boat.</p> <p>Protect – Armor cliffs to prevent coastal erosion in addition to nourishment of beaches to ensure sand coverage of wells.</p> <p>Secondary Impacts: Delays in any response could result in oil spills and nuisance hazards. Environmental and permitting require substantial time and high costs in that there are long lead times. Elevating would increase the exposure to wave impacts and have escalating maintenance costs. All options would have short-term habitat impacts to ESHAs.</p>				
Vulnerabilities			Additional Information				
2030	2060	2100	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0070C0; color: white; text-align: center;">Recommendations</th><th style="background-color: #0070C0; color: white; text-align: center;">Existing Condition</th></tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Formalize and participate in a regional Joint Powers Authority (JPA) with OSPER, CLSC, Coast Guard, County Energy Division, and the City. This JPA would form a round table for oil and gas responses and lessons learned. • Generate funds for rapid response to remove eroded wells. • Upon decommissioning of active sites, the removal of all shore protection, access roads, pipes, and other infrastructure should be required. • Develop a regional environmental and permit streamlining process for rapid remediation of legacy wells. • Note: The current data gap for this area is pipeline alignments and remaining oil volumes stored inside. </td><td>  </td></tr> </tbody> </table>	Recommendations	Existing Condition	<ul style="list-style-type: none"> • Formalize and participate in a regional Joint Powers Authority (JPA) with OSPER, CLSC, Coast Guard, County Energy Division, and the City. This JPA would form a round table for oil and gas responses and lessons learned. • Generate funds for rapid response to remove eroded wells. • Upon decommissioning of active sites, the removal of all shore protection, access roads, pipes, and other infrastructure should be required. • Develop a regional environmental and permit streamlining process for rapid remediation of legacy wells. • Note: The current data gap for this area is pipeline alignments and remaining oil volumes stored inside. 	
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<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding. The EOF displays potential impacts from coastal flood hazards.</p>	 <p>Goleta Coast 2015 Photo: City of Goleta</p>				



Figure D. Oil/Gas Wells and Coastal Hazards

Coastal Zone Boundary

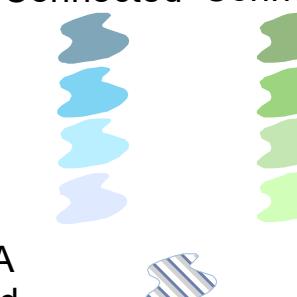
City Boundary



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Coastal Hazard Zones

Surface Connected	Potentially Connected
Existing	
2030 (10.2")	
2060 (27.2")	
2100 (60.2")	



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")
Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Impacted Oil and Gas Wells

- Existing Wells
- 2030 Wells
- 2060 Wells
- 2100 Wells
- Unflooded Wells
- ★ Indicates Active Well

Hazardous Materials

Overview			Measures of Impact	Fiscal Impacts
<p>There are two types of hazardous materials evaluated in this report: businesses that store hazardous materials and leaking underground fuel tanks (LUFTs). The type of chemical and the state (solid, liquid, or gas) determines the relative risk of dispersal to the City. Facilities located near the City have the potential of causing damages within the City and are included. Businesses using hazardous materials are required to file a Hazardous Material Business Plan (HMBP) with the Santa Barbara County Fire Protection Services Department. Hazardous chemicals are associated with dentist offices, medical supplies, laundromats, auto repair shops, etc. In 2015, there were 649 HMBPs filed within the City.</p> <p>LUFTs are often associated with gas stations, and contaminants can leak into the surrounding groundwater table and disperse or flow based on groundwater elevations. As of 2015, there are 24 LUFTs in various stages of remediation.</p>			<p>To quantify the impact of coastal hazards and climate change on hazardous materials, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Number of leaking underground fuel tanks • Number of (HMBPs) • Cost of remediation for a LUFT • Cost of remediation for a flooded LUFT <p>For details on the locations of the businesses storing hazardous materials and LUFTs, refer to Figure E.</p>	<p>Damages: The average cost to clean up a LUFT tank is \$125,000, assuming that the hazardous materials have not leaked into the groundwater table. The cost is considerably higher (approximately \$1.5 million per LUFT) if the hazardous materials have already leaked into the groundwater table.</p> <p>Fiscal Impact to the City: If these tanks are owned by private businesses, the current owners are liable. However, the City could become liable if private owners are unable to pay the costs. Since mitigation is far more economical before groundwater contamination becomes an issue, the City should focus on investigation and remediation of unidentified LUFT sites. For existing cases, expediting clean up would properly mitigate tanks before they are exposed to inundation that is associated with barrier beach flooding and sea level rise.</p> <p>Impacts by planning horizon: LUFTs should be mitigated by 2030.</p> <p>Adaptation costs: Total clean up/remediation costs range from \$750,000 (no groundwater leakage) to \$10.5 million or more (groundwater leakage).</p> <p>Clean up: Owners of properties with existing storage tanks should mitigate against leakage in a timely manner.</p> <p>Public vs. private: The costs are primarily private. While contained within a single parcel, the City should incentivize clean up so that LUFTs are remediated before contaminants extend beyond the parcel boundary, becoming a City liability.</p>
Existing Conditions			Adaptation Strategies	
Historical	Present		<p>The majority of the hazardous material impacts identified in the vulnerability assessment are largely avoidable.</p> <p>Range of Strategies: Hazardous storage plan strategies would range from a “do nothing” approach, to protection of businesses with HMBPs, to policy options that would accommodate levels of flooding without exposing the hazardous materials, to requiring all businesses with a HMBP to effectively retreat from the coastline.</p> <p>Secondary Impacts: The “do nothing” approach could have substantial clean up impacts, but there are relatively low cost options to store materials in a more flood-proof manner.</p> <p>Range of Strategies: Leaking underground tanks have limited adaptation options other than to remediate or adjust the timing and exposure of the contaminants to prolonged barrier beach flooding. Adaptation strategies that reduce the exposure of the contaminants would include inlet management, containment, and remediation.</p> <p>Secondary Impacts: Inlet management has several secondary impacts ranging from sediment accretion on wetlands to increased exposure for sensitive and endangered species in the neighboring Goleta Slough.</p>	
Vulnerabilities			Additional Information	
2030	2060	2100	Recommendations	Threshold
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 0 LUFTs • 8 HMBPs <p>Dominant flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1 LUFT • 12 HMBPs <p>Dominant flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p> <p>The business with the LUFT is Steelhead Recyclers.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5 LUFTs • 84 HMBPs <p>Flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p> <p>Businesses with LUFTs include Applied Magnetics, Bardex Corporation, Raytheon Systems, McLean Property, and Automated Business Forms.</p>	<ul style="list-style-type: none"> • Establish more stringent policies for timing associated with cleanup. The timing would be based upon projected exposure to flooding. • Cleanup LUFTs (some of these include sites associated with the Steelhead Recyclers, Applied Magnetics, Bardex Corporation, Raytheon Systems, McLean Property, and Automated Business Forms). • Strengthen policies regarding storage for hazardous materials that would require additional elevation and containment. • Clean up LUFTS prior to long-term flooding associated with barrier beach closure and elevated groundwater. 	<p>For LUFTs, establish a threshold between 2 and 5 feet based on the escalated cost and spread of contaminants into and surrounding the City boundaries.</p> <p>Disclaimer: LUFTs and HMBPs outside but near the City were not included in this analysis. Coastal confluence flooding in the future is unavailable and should be considered in a future update. The type and quantity of hazardous materials, state of matter, dispersal mechanism, and solubility in water was beyond the scale of this analysis.</p>

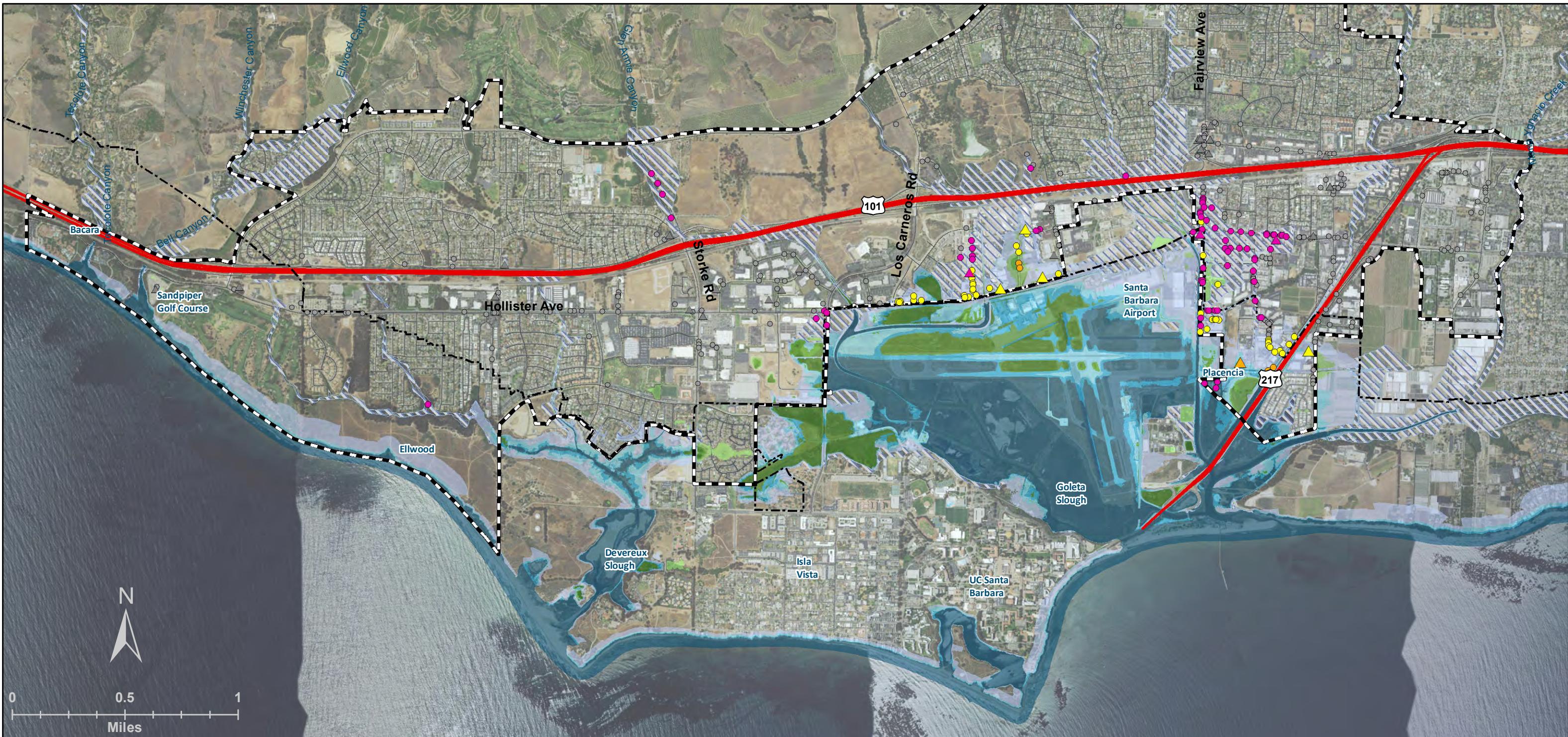


Figure E. Hazardous Materials, LUFT Sites and Coastal Hazards

Coastal Zone Boundary

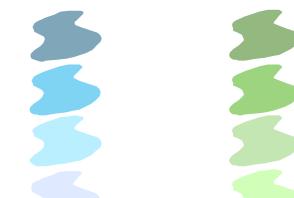
City Boundary



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Coastal Hazard Zones

	Surface Connected	Potentially Connected
Existing		
2030 (10.2")		
2060 (27.2")		
2100 (60.2")		



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood

Hazard Modeling by ESA 2015

HazMat Sites

- Existing HazMat Storage
- 2030 HazMat Storage
- 2060 HazMat Storage
- 2100 HazMat Storage
- Unflooded HazMat Storage

Leaking Underground Fuel Tanks (LUFT)

- Existing LUFT Sites
- 2030 LUFT Sites
- 2060 LUFT Sites
- 2100 LUFT Sites
- Unflooded LUFT Sites

Natural Resources

Overview		Measures of Impact		Fiscal Impacts					
<p>Habitat resources occur in each of the subareas including the western Coastal Resources Sub-Area, Storke Ranch wetlands, Phelps Road vernal pools, Rancho Goleta Lake, the southern portion of the Southwest Residential Sub-Area, and along streams. Two creeks, Bell Canyon and Tecolote Creek, drain to the ocean via coastal estuaries; the other creeks drain into either Devereux or Goleta Sloughs, just south of the City boundary.</p> <p>ESHAs require protection to sustain the habitat values. The map of ESHAs is adopted in the City's General Plan (Figure 4-1) and contains the following habitats: creek and riparian areas, wetlands, coastal dunes, lagoons, coastal bluff scrub, beaches, marine habitats, coastal sage scrub, chaparral, native woodlands, native grasslands, monarch butterfly sites, and nesting roosting sites for raptors.</p>		<p>To quantify the impact of coastal hazards and climate change on ESHAs, the following acreages have been identified by ESHA types:</p> <ul style="list-style-type: none"> • Acres of Beach and Shoreline Habitats • Acres of Monarch Butterfly/ Raptor Roosting • Acres of Native Grassland • Acres of Open Water • Acres of Riparian, Marsh or Wetland • Acres of Scrub • Acres of Unvegetated Open Creek Channel <p>For details on the locations of the impacted natural resources, refer to Figure F.</p>		<p>No fiscal impact analysis was conducted on this sector.</p>					
Existing and Future Vulnerabilities									
	Environmentally Sensitive Habitat Area	Existing Conditions	2030	2060	2100				
Coastal Erosion	Beach and Shoreline	16.96	16.96	16.96	16.96				
	Monarch Butterfly and/or Raptor Roosting Habitat	0.13	0.33	0.95	1.6				
	Native Grassland	0.04	0.09	0.33	3.79				
	Riparian/Marsh/Vernal	1.79	0.21	0.27	1.2				
	Scrub	28.81	26.21	28.37	32.47				
Coastal Flooding	Beach and Shoreline	19.94	19.94	19.94	19.94				
	Monarch Butterfly and/or Raptor Roosting Habitat	1.92	2.35	3.33	7.46				
	Native Grassland	0.04	0.09	0.33	3.79				
	Open Water	1.37	1.37	1.37	1.86				
	Riparian/Marsh/Vernal	22.47	27.1	34.74	46.66				
	Scrub	31.44	32.95	35.41	40.64				
	Unvegetated Open Creek Channel	1.67	1.97	2.61	4.75				
<p>* Impacts to ESHAs are reported in acres</p> <p>Note: The identified habitat acres in the table are currently in the modeled coastal hazard zones and are exposed to the identified coastal processes creating the coastal hazards.</p> <p>Disclaimer: The acreages are not based on any habitat evolution modeling which would indicate where the habitat might shift or evolve in response to changes in the physical processes. Habitats typically evolve by transgressing inland, shifting ranges, migrating up in elevation, or by accreting sediment.</p>									
 Tecolote Creek Photo: D. Revell		<p>Fiscal Impacts</p> <p>No fiscal impact analysis was conducted on this sector.</p> <p>Adaptation Strategies</p> <p>Range of Strategies: ESHAs could either be relocated or protected using soft protection schemes like sediment management or regulatory changes to enhance the ability of the habitats to migrate landward.</p> <p>Retreat – Policy options to increase landscape connectivity and support habitat migration include purchase of upland properties such as areas above Hollister Avenue, development of rolling easements, and transfer of development rights programs.</p> <p>Accommodate – Sediment management.</p> <p>Protect – Build horizontal levees and transition slopes, establish conservation easements or other development restrictions to protect habitat, and create ecological buffer zones that increase the size of existing buffers.</p> <p>Secondary Impacts: Sediment management impacts depend on the types of volumes, grain size, and mechanism to move the sediment and range from small temporary impacts to long-term habitat alterations.</p>		<p>Additional Information</p> <table border="1"> <thead> <tr> <th>Recommendations</th><th>Future Monitoring</th></tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Increase buffers for ESHAs. • Improve policy language to maintain riparian corridors and landscape connectivity. • Develop anticipatory policy language to support sensitive species in changing climate conditions. • Develop sediment management program regulations, which would support wetland accretion. • Collaborate regionally to support the use of horizontal levees, transition slopes, and inlet management. • Identify habitat and species triggers to implement adaptation strategies. • Support regional monitoring efforts. </td><td> <ul style="list-style-type: none"> • Support monitoring of specific climate variables that affect habitat location. • Stay current on climate science related to precipitation, wildfire, and temperature changes. • Understand relationship between habitats/elevation and duration of inundation. • Support monitoring of adaptation impacts on the overall health of ecosystems, including hydrology, sensitive species habitats, and biodiversity. • Support comprehensive monitoring programs as well as site-specific analyses to refine understanding and gauge effectiveness. • Establish permanent plots to detect long-term vegetation changes at the community level. • Create monitoring protocols specific to each species, habitat type, and management action. </td></tr> </tbody> </table>		Recommendations	Future Monitoring	<ul style="list-style-type: none"> • Increase buffers for ESHAs. • Improve policy language to maintain riparian corridors and landscape connectivity. • Develop anticipatory policy language to support sensitive species in changing climate conditions. • Develop sediment management program regulations, which would support wetland accretion. • Collaborate regionally to support the use of horizontal levees, transition slopes, and inlet management. • Identify habitat and species triggers to implement adaptation strategies. • Support regional monitoring efforts. 	<ul style="list-style-type: none"> • Support monitoring of specific climate variables that affect habitat location. • Stay current on climate science related to precipitation, wildfire, and temperature changes. • Understand relationship between habitats/elevation and duration of inundation. • Support monitoring of adaptation impacts on the overall health of ecosystems, including hydrology, sensitive species habitats, and biodiversity. • Support comprehensive monitoring programs as well as site-specific analyses to refine understanding and gauge effectiveness. • Establish permanent plots to detect long-term vegetation changes at the community level. • Create monitoring protocols specific to each species, habitat type, and management action.
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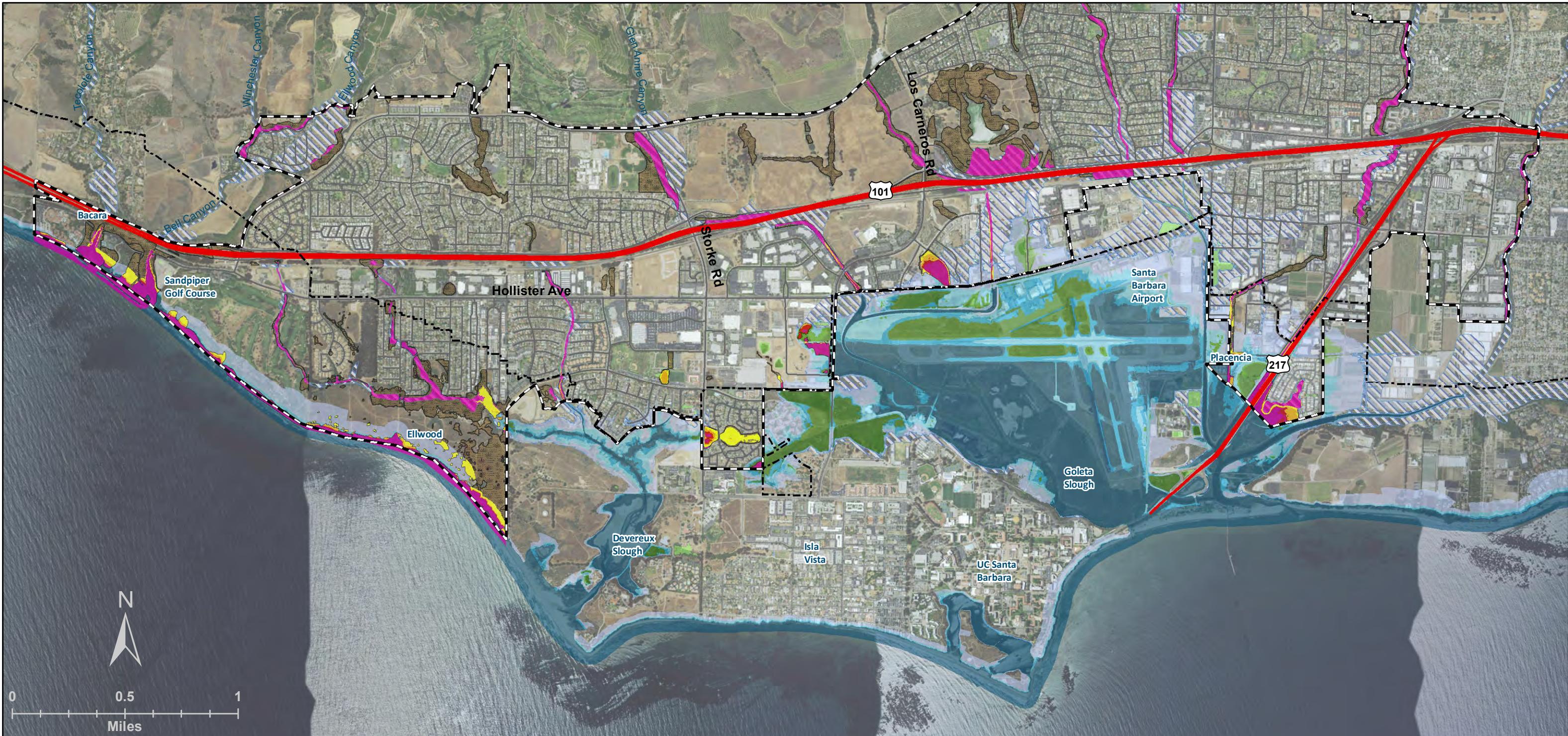


Figure F. Natural Resources and Coastal Hazards

Coastal Zone Boundary City Boundary

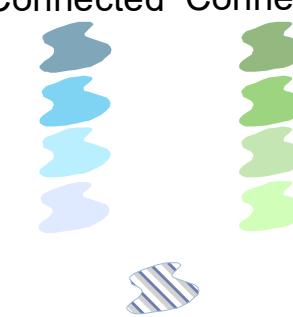


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Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")
Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Coastal Hazard Zones

Surface Connected Potentially Connected



Impacted Environmentally Sensitive Habitat

- Existing ESHA Flooding
- 2030 ESHA Flooding
- 2060 ESHA Flooding
- 2100 ESHA Flooding
- Unflooded ESHA

Overview			Measures of Impact	Fiscal Impacts
<p>Examples of passive coastal recreation in the City of Goleta include hiking, birdwatching, and beach combing primarily along the Ellwood Mesa Open Space/Sperling Preserve and Haskell's Beach in the Coastal Resource Sub-Area. The trail network includes a portion of the California Coastal Trail and the Juan Bautista de Anza Trail. Additionally, there are a number of unimproved access points (Access Points E and F) that provide coastal views and vertical access to the beach. The Haskell's Beach public access is maintained by and is designated as a condition of approval for the Bacara Resort and Spa. This access includes a visitor-serving Beach House.</p>			<p>To quantify the impact of coastal hazards and climate change on recreation and trails, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of trails • Number of interruptions in the trail network • Number of formal access <p>For details on the locations of impacts to public access, refer to Figure G.</p>	<p>Damages: 2,129 feet of coastal trails are impacted by erosion and will need to be moved and replaced to City standards, including Coastal Trail and De Anza Trail standards. Coastal flooding will lead to some temporary loss of recreation impacts, including 2,444 feet of trails.</p> <p>Fiscal Impact to the City: The City is responsible for maintaining these coastal trails. It is assumed that impacted trails will require active relocation to minimize impacts to natural resources, as opposed to opportunistic relocation by trail users. Based on recent plans to improve the Ellwood Mesa Coastal Trails, the cost of relocating was estimated at approximately \$170 per linear foot. For information on the Ellwood Mesa Coastal Trails and Habitat Restoration Project, refer to page 4-9.</p> <p>Impacts by planning horizon:</p> <ul style="list-style-type: none"> • Existing conditions: Replacement cost of 2,129 ft. of trails at \$170 per linear ft. equates to \$361,930. • 2030: Replacement cost of 3,684 ft. of trails at \$170 per linear ft. equates to \$626,280. • 2060: Replacement cost of 6,914 ft. of trails at \$170 per linear ft. equates to \$1,175,380. • 2100: Replacement cost of 11,443 ft. of trails at \$170 per linear ft. equates to \$1,945,310. <p>Clean up: There may be nominal clean-up costs associated with flooding.</p> <p>Public vs private: Most of costs will be borne by the City of Goleta with some costs by Bacara as per their permit conditions.</p> <p>Adaptation costs for the bathhouse:</p> <ul style="list-style-type: none"> • Retreat and rebuild - estimated \$421,000 to rebuild in a new location. • Elevate - \$140 to \$240/sq. ft. multiplied by 2,000 sq. ft. equates to \$280,000 to \$480,000. • Protect - \$5182 to \$6100/linear foot multiplied by 60 ft. equates to \$310,920 to \$366,000.
Existing Conditions				
Historical		Present		
<p>Historically, much of the open space in the Coastal Resource Area was owned by oil and gas development interests. As the oil and gas extraction dwindled, some remediation and cleanup was completed prior to the land being sold for development. Through the 1990s, public interest groups contested several development proposals until a transfer of development right agreement was reached and the proposed development was pulled away from the open space and moved inland to what is now known as the Bluffs at Sandpiper. Historic armoring (see coastal armoring) impacts lateral beach access during high tides.</p>		<p>The formal access and Bacara Beach House are currently exposed to all coastal hazards.</p> <p>Coastal Erosion</p> <ul style="list-style-type: none"> • 2,129 feet of trails • 12 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,444 feet of trails • 14 interruptions in the trails <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 7,272 feet of trails • 16 interruptions in the trails 		
Vulnerabilities				
2030	2060	2100		
<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 3,684 feet of trails • 23 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 431 feet of trails • 4 interruptions in the trails <p>Coastal erosion permanently interrupts the trail continuity. Coastal flooding temporarily interrupts the trail for a short time period that depends on elevation and duration of flood events.</p>		<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 6,914 feet of trails • 12 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 878 feet of trails • 6 interruptions in the trails <p>Coastal erosion permanently interrupts the trail, while coastal flooding only has a temporary impact. A decrease in trail interruptions represents a merging of small breaks into larger interruptions. Lateral beach access impaired during high tides due to historic armoring.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 11,443 feet of trails • 13 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,191 feet of trails • 8 interruptions in the trails <p>Coastal erosion permanently interrupts the trail, while coastal flooding only has a temporary impact. The increasing number of trail interruptions by 2100 show that new locations along the trail network are being impacted. Lateral beach access impaired during high tides due to historic armoring.</p>	<p>Range of Strategies: The trails and designated public access at Haskell's Beach could either be relocated or protected. Secondary Impacts: Relocation of trails would potentially affect some small portions of ESHA (scrub, grassland). A protection strategy (coastal armoring) would impact the beach and shoreline ESHA. As erosion continues, the 2 vertical access trails will become less passable without improvements and maintenance. Improvements to maintain vertical access from Ellwood to the beach include grading or natural steps built into the existing bluff trail. According to the Ellwood Mesa Coastal Trails and Habitat Restoration Project MND, the City would manage the relocation of the Coastal Trail if unsafe conditions exist along the bluffs. Removing coastal armoring will improve the lateral beach access, which is currently limited during high tides. The one formal public access at Haskell's Beach is currently vulnerable to all coastal and fluvial related hazards. The access itself can likely be either protected or retreated with some regrading or stairs.</p> <p>Range of Strategies: The Bacara Beach House adjacent to the Haskell's Beach access serves both public and resort visitors. One strategy would be to relocate the facility farther inland beyond the identified hazard zones; an accommodation strategy would elevate the facility so that the coastal processes could pass underneath, while a protection strategy would require construction of coastal armoring.</p> <p>Secondary Impacts: Secondary impacts associated with retreat and accommodation strategies are minimal. A protection strategy would impact ESHA (beach and dune and riparian wetlands) and lateral access along the beach. Costs would be expected to include substantial construction and maintenance over time, and ultimately result in the complete loss of the beach for which the bathhouse was built to provide amenities to beach goers and resort visitors.</p>
Additional Information				
Recommendations			Existing Condition	
<ul style="list-style-type: none"> • Remove coastal armoring to improve lateral beach access. • Develop policies, which generate revenue to maintain, create, and improve beach access at Haskell's Beach. • Coordinate with the Bacara Resort and Spa to identify a suitable site for Beach House relocation. • Restrict the type and intensity of development associated with the formal public access. 			<p>High Tide 10/29/2015 Photo C. Slaven</p> 	

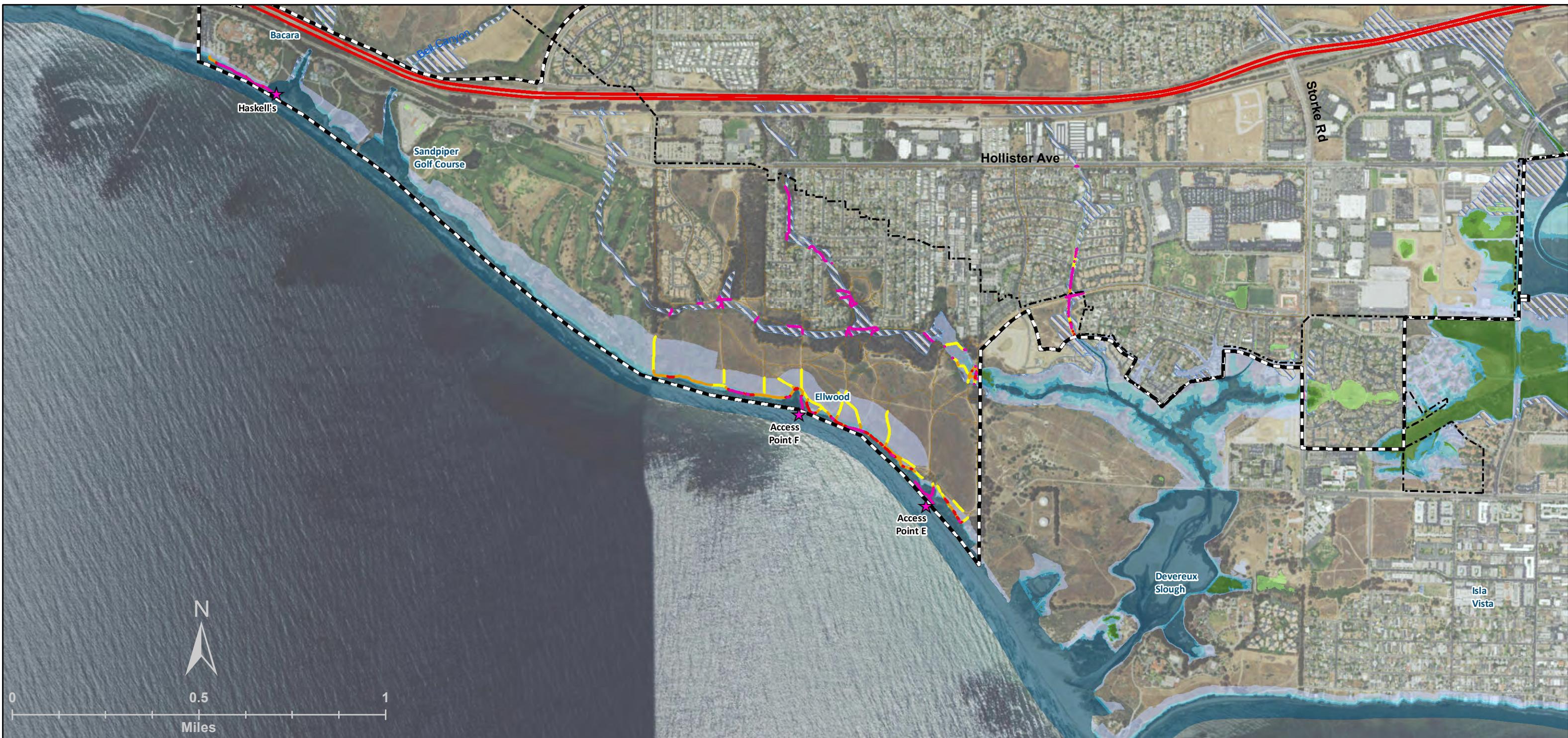


Figure G. Public Access and Coastal Hazards

Coastal Zone Boundary

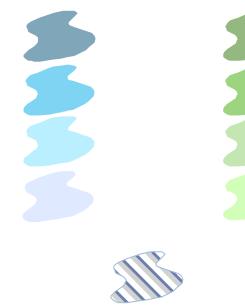
City Boundary



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Coastal Hazard Zones

Surface Connected	Potentially Connected
Existing	
2030 (10.2")	
2060 (27.2")	
2100 (60.2")	



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

★ Designated Public Access

Flooded Recreational Trails

- Existing Trails
- 2030 Trails
- 2060 Trails
- 2100 Trails

— Unflooded Trails

Transportation

Overview			Measures of Impact			Fiscal Impacts										
<p>Goleta is served by an existing network of roadways. US Highway 101 traverses the central spine of the entire east-west length of the City, providing regional access to Goleta. Santa Barbara Metropolitan Transit District (MTD) operates bus routes within Santa Barbara County. Specific bus routes have been developed to serve the UCSB campus. Mobility depends on a safe and efficient transportation system that facilitates the flow of traffic, while enhancing pedestrian safety, and providing for alternative modes of transportation. Hollister Avenue is a primary thoroughfare for both the City and the region, and bisects the Old Town area of the City.</p>			<p>To quantify the impact of coastal hazards and climate change on roads and public transportation, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of roads (including Hollister thoroughfare) • Number of interruptions • Number of bus stops <p>The City's street pavement network consists of 86 centerline miles equaling a total pavement area of approximately 16.2 million square feet.</p>			<p>Damages: No roads/bus stops are threatened by coastal erosion. However, some traffic will be interrupted by flooding. Some bus stops also will be underwater. These will require clean up following flood events.</p> <p>Fiscal Impact to the City: The City would likely bear the cost of clean-up and repair and some of the costs of adaptation. Flood damages across the City depend on the magnitude and extent of flooding (~\$500,000 for a minor flood (e.g., 2005) to \$4.5 million for a major flood (e.g., 1997-98 El Niño). Road damages and clean-up costs alone could range from \$30,000 to \$100,000 per mile depending on the type of road and amount of debris associated with the flooding.</p> <p>Adaptation Costs: Under an accommodation strategy, the City could add a thicker (~2 to 4 inches) layer of asphalt every ten years as part of routine resurfacing which would reduce road flooding. The costs are as follows:</p> <p>2030: ~\$500,000, 2060: ~\$2.2 million, 2100: ~\$12.5 million.</p> <p>Clean up: See Fiscal Impact to the City.</p> <p>Public vs. Private: Costs for repair for City infrastructure will be borne by the City and managed by the Public Works Department. Public transit costs and related repair will be borne by the MTD, which is operated under the County of Santa Barbara.</p>										
Existing Conditions																
Historical		Present				Adaptation Strategies										
<p>Creek flooding events have occurred episodically in the past with the worst flooding caused by the combination of high stream flow during high tides/ slough water levels. These impacts have caused substantial flood damages, particularly in the area around Old Town.</p> <p>Changes to the Goleta Slough inlet management has increased flooding and duration of inundation at the low lying area around the City's Placencia neighborhood and Robin Hill Road area. San Jose Creek was improved to convey a 100-year event. The culvert under Highway 101 on San Jose Creek is also being improved to pass a 25-year flow event. Both projects reduce Old Town creek flooding.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 959 feet of roads (including Hollister thoroughfare) • 5 interruptions • 48 bus stops <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 72,316 feet of roads (13.7 miles) • 71 interruptions • 123 bus stops <p>Most flooding occurs in the Placencia neighborhood, Hollister Ave north of the Santa Barbara Airport, and in the Robin Hill Road area (also north of the airport and Hollister Avenue).</p>				<p>Range of Strategies:</p> <p>Retreat – relocate or remove roads from the hazardous areas. This would require creation of a new cross town thoroughfare to replace Hollister Avenue.</p> <p>Accommodate – It is possible to elevate roads to accommodate higher flood water levels. This could be accomplished by elevating long segments of road on causeways. Another option would be to incrementally elevate the road surface during routine repaving by adding an additional 1-2 inch lift of asphalt. Inlet management may help reduce the duration of flood impacts.</p> <p>Protect – (Green) Contour additional elevations into a horizontal levee for areas in and around open spaces. (Gray) Construct levees and install pumps to flood proof the most road segments.</p> <p>Secondary Impacts:</p> <p>Retreat strategies may negatively impact traffic, ESHA, and other resources of the City, depending on the realignment. Accommodation strategies may create additional stormwater drainage issues. Protection strategies (green) could provide some room for habitat transgression for roads adjacent to wetlands. Gray protection strategies could negatively impact ESHA and wetland habitat transgression as well as escalating maintenance costs.</p>										
Vulnerabilities						Additional Information										
2030		2060		2100		<table border="1"> <thead> <tr> <th colspan="2">Recommendations</th><th colspan="2">Existing Condition</th></tr> </thead> <tbody> <tr> <td colspan="2"> <ul style="list-style-type: none"> • Elevate critical roads along Hollister Avenue, Fairview Avenue, and Los Carneros Road. • Amend Capital Improvement Plan to add additional inches to the lift in street resurfacing to gain elevation at the pace of sea level rise or greater. • Develop alternative bus routes. • Efforts to proactively reengineer existing routes will require collaboration amongst several land owners, private and public. Emergency services should be considered to ensure roadways are wide enough as responders depend on accessibility to any affected areas. • Note: Coastal confluence modeling would likely show an expansion of the extent and duration of future flooding. </td><td colspan="2">  </td></tr> </tbody> </table>			Recommendations		Existing Condition		<ul style="list-style-type: none"> • Elevate critical roads along Hollister Avenue, Fairview Avenue, and Los Carneros Road. • Amend Capital Improvement Plan to add additional inches to the lift in street resurfacing to gain elevation at the pace of sea level rise or greater. • Develop alternative bus routes. • Efforts to proactively reengineer existing routes will require collaboration amongst several land owners, private and public. Emergency services should be considered to ensure roadways are wide enough as responders depend on accessibility to any affected areas. • Note: Coastal confluence modeling would likely show an expansion of the extent and duration of future flooding. 			
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<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1,746 feet of roads • 9 interruptions • 97 bus stops <p>A few roadways including Los Carneros, Hollister, and Fairview serve as emergency evacuation routes. Beach closure of Goleta Slough mouth and severe storm events could flood these routes. Residents traveling by bike or bus have limited alternatives during flood events. During high tide storm events, emergency vehicles may be delayed in reaching some locations.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5,420 feet of roads • 12 interruptions • 111 bus stops <p>As Hollister Avenue is the major thoroughfare for the City, the only alternative route is Highway 101. There are no other viable alternative routes through the City in times of emergency. While temporary shut downs during high tides and storms could be tolerated, chronic flooding could render road segments along Fairview and Hollister Avenues frequently impassable.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 23,149 feet of roads (4.4 miles) • 24 interruptions • 246 bus stops <p>There are no other viable alternative routes through the City in times of emergency. While temporary shut downs during high tides and storms may be tolerable, routine tidal flooding could render portions of Hollister and Fairview Avenues impassable daily.</p>		<p>February 1998 flooding Photo: City of Goleta</p>										

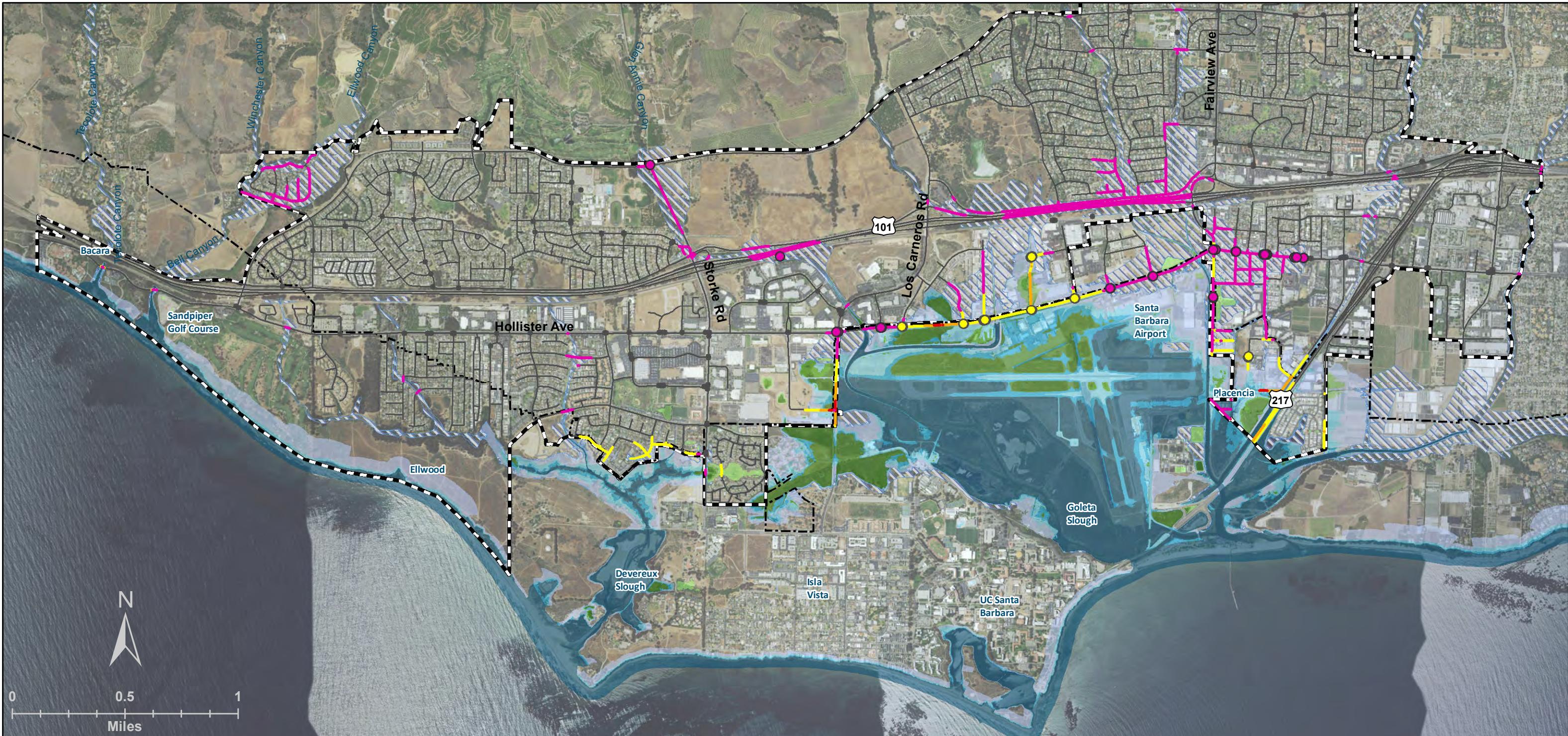


Figure H. Transportation and Coastal Hazards

Coastal Zone Boundary

City Boundary



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Coastal Hazard Zones

Surface Potentially
Connected Connected



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Flooded Roads and Bus Stops

- Existing Roads / Bus Stops
- 2030 Roads / Bus Stops
- 2060 Roads / Bus Stops
- 2100 Roads / Bus Stops
- Unflooded Roads / Bus Stops

Wastewater

Overview			Measures of Impact	Fiscal Impacts
<p>Two separate special districts, Goleta Sanitary District (GSD) and Goleta West Sanitary District (GWSD), provide wastewater collection, treatment, and disposal services to the City of Goleta and the larger Goleta Valley. GWSD serves the western portion of the City with a collection system only. The eastern portion of the City is served by GSD, which collects, treats, and disposes of all wastewater, including wastewater received from GWSD. The GSD wastewater treatment plant, located adjacent to the City and Santa Barbara Airport on William Moffett Place, has a capacity of 9.72 million gallons per day (MGD). For impacted locations, refer to Figure I.</p>			<p>Operate and maintain the wastewater collection system including approximately 62 miles of sewer lines and 2 pump stations. To quantify the impact of coastal hazards and climate change on wastewater infrastructure, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Number of pump stations • Length of pipe (feet) • Number of manholes <p>Failure in the system could be passed onto City rate payers.</p>	<p>Damages: The cost to retrofit each of the two lift stations would be \$150,000. Sealing manhole covers costs approximately \$150 each. Damages to the ocean outfall cleanout access vault at Goleta Beach could be caused by erosion, with the cost to relocate at \$75,000.</p> <p>Fiscal Impact to the City: The Sanitary Districts will finance these improvements and pass costs on to ratepayers.</p> <p>Impacts by planning horizon:</p> <ul style="list-style-type: none"> • 2030: 14 manhole covers • 2060: 29 manhole covers • 2100: 82 manhole covers <p>Adaptation costs:</p> <ul style="list-style-type: none"> • 2030: 14 manhole covers at \$150 per manhole will cost \$2,100. • 2060: 29 manhole covers at \$150 per manhole will cost \$4,350. • 2100: 82 manhole covers at \$150 per manhole will cost \$12,300. <p>Clean up: None, if retrofits are performed in a timely manner, otherwise cost could vary from \$20,000 to several hundred thousand dollars.</p> <p>Public vs. private: All the costs will be borne by the Sanitary Districts, which would eventually be passed on to rate payers.</p>
Existing Conditions			Adaptation Strategies	
Historical		Present	Additional Information	
<p>The wastewater treatment plant is built on what was once Mescalitan Island. The island was cut to fill the Goleta Slough and create the Santa Barbara Airport. The wastewater system has had no reported sewage spills or damages, even during the 1995, 1998, and 2005 flood events. During the 1995 tide gate experiment, there was no tidal inundation to the infrastructure although tides inundated Mesa Road and crossed under Los Carneros into the Storke Ranch development. A recent Mesa Road Realignment Project relocated about 1,700 feet and 6 manholes from the Storke Ranch wetlands to Mesa Road, improving maintenance access, conveyance capacity, and habitat at a project cost of \$9 million. Until 2014, Goleta Slough was managed for open tidal conditions utilizing mechanical breaching. This inlet management practice was stopped due to concerns for endangered species, and future management is in question.</p>		<p>There is no infrastructure within the City at risk from erosion.</p> <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1,535 feet of pipe • 6 manholes <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 63,416 feet of pipe • 204 manholes <p>The most vulnerable area is in the Old Town Sub-Area due to barrier beach flooding. During flood conditions, access to the GSD treatment plant could be completely isolated. Two pump stations and a clean out vault are in various hazard zones, outside of the Goleta boundaries.</p> <p>System failures from any hazards cause sewage spills.</p>	<p>Range of Strategies: A range of strategies includes retreat, inlet management to reduce the flood levels, elevating key vulnerable infrastructure to accommodate additional flood levels, and flood proofing retrofits to protect existing components.</p> <p>Retreat: Phased relocation of the ocean outfall cleanout access vault in the short-term and pump stations in the long-term. One substantial section of the wastewater conveyance network servicing the Southwest Residential Sub-Area runs through the UCSB North Campus Open Space (formerly Ocean Meadows Golf Course). As the restoration design is currently ongoing, the opportunity to relocate the wastewater infrastructure seems prudent since there would be cost savings associated with co-joining the two projects.</p> <p>Accommodate: Recognizing that the primary flood risk for this sector is from "closed" barrier beach flooding, inlet management and increasing the elevation of some of the key access roads to the GSD plant would provide better emergency access to valves and the treatment plant itself.</p> <p>Protect: Flood-proof retrofits to the two pump stations would provide a relatively low-cost option to accommodate several feet of sea level rise. Seal the manholes to minimize additional infiltration of brackish floodwaters and stormwater into the wastewater system.</p> <p>Secondary Impacts: Phased relocation may increase rates to cover initial costs but may reduce long-term maintenance costs. Inlet management has several secondary impacts from sediment accretion on wetlands to increased exposure for sensitive and endangered species in the Goleta Slough. Protect strategies may limit the ability for the habitats to advance landward.</p>	
Vulnerabilities		Additional Information		
2030	2060	2100	Recommendations	Existing Condition
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,885 feet of pipe exposed • 14 manholes exposed • GWSD stormwater drains to a conveyance system of 11.16 ft. <p>Vulnerabilities primarily occur in the Old Town Sub-Area. Portions of the system near the former Ocean Meadows Golf Course become increasingly vulnerable. Underground pipes exposed to flooding should not pose a risk although maintenance costs may rise.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 7,128 feet of pipe exposed • 29 manholes exposed • GWSD door to pump station 12.25 ft. <p>Vulnerabilities primarily occur in the Old Town Sub-Area, specifically in the Placencia neighborhood adjacent to Highway 217. Portions of the Central Planning Sub-Area, north of the Santa Barbara Airport, and the Southwest Residential Sub-Area, notably portions of Ellwood Shores, and Storke Ranch become increasingly vulnerable.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 22,945 feet of pipe exposed • 82 manholes exposed <p>Vulnerabilities primarily occur in the Old Town Sub-Area adjacent to Highway 217 and Fairview Avenue. Portions of the Central Planning Sub-Area, north of the Santa Barbara Airport, and the Southwest Residential Sub-Area, notably portions of Ellwood Shores, and Storke Ranch become increasingly vulnerable.</p>	<ul style="list-style-type: none"> • Add policy language to require relocation or avoidance of wastewater hazards to the extent possible. • Conduct advanced maintenance to keep lines clear. • Recommend flood proofing the pump stations through retrofits and installation of collars for the storm drain entrances at the pump stations. • Recommend relocation of the sewer line away from the Upper Devereux Slough/North Campus Open Space restoration area. • Recommend relocation of the pump vault at Goleta Beach. • Note: Coastal confluence modeling would likely show an expansion of the extents and duration of future flooding. 	<p>Lift stations retrofit: \$300,000</p> <ul style="list-style-type: none"> • GWSD facility • GSD Firestone Pump Station • Ocean Meadows/Upper Devereux Restoration, opportunity to relocate facility out of wetland during restoration project and avoid retrofit costs (estimated ~\$9 million based on Mesa Road relocation).

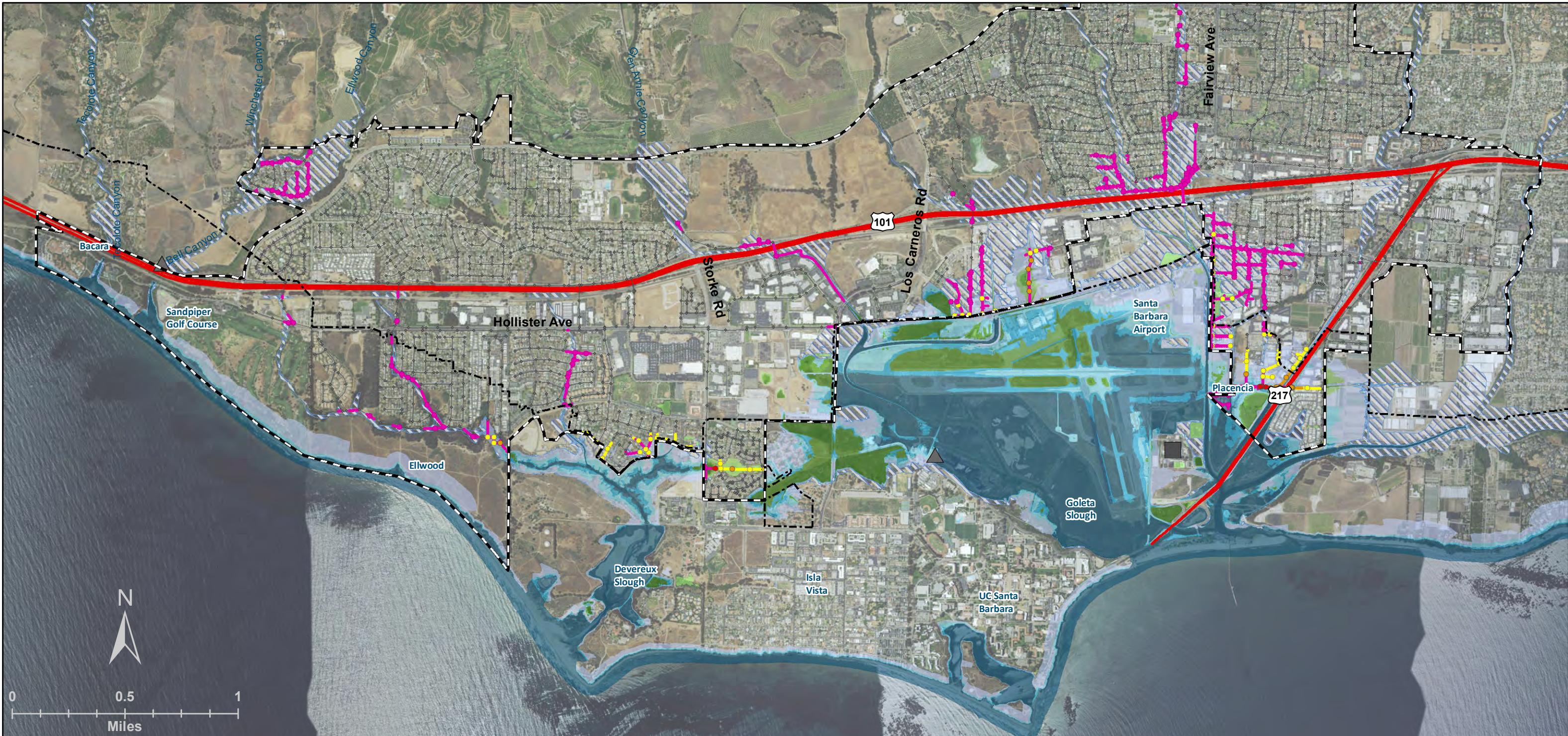


Figure I. Wastewater and Coastal Hazards

Coastal Zone Boundary

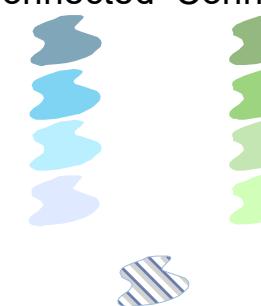
City Boundary



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Coastal Hazard Zones

Surface Connected
Potentially Connected



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood

Hazard Modeling by ESA 2015

Wastewater Infrastructure

- Existing Pipes/Manholes
- 2030 Pipes/Manholes
- 2060 Pipes/Manholes
- 2100 Pipes/Manholes
- Unflooded Pipes/Manholes
- ▲ Pump Station
- Treatment Plant

Water Supply

Overview			Measures of Impact			Fiscal Impacts			
<p>The Goleta Water District (GWD) provides water supply to the Cities of Goleta and Santa Barbara and unincorporated Santa Barbara County. The GWD service territory spans from the City of Santa Barbara to El Capitan State Park, which includes approximately 87,000 residents using 270 miles of pipe. The current water use in GWD is 13,143 acre-feet per year (AFY) based on average sales data from the years 2006 to 2010. Sources of potable drinking water include: Lake Cachuma, the California Water Project, and seven (7) wells that provide water from the Goleta Groundwater Basin and enable groundwater injection during wet years. Recycled water from the GWD has been available since 1995 and is used primarily for irrigation and restroom facilities.</p>			<p>Measures of Impact:</p> <ul style="list-style-type: none"> • Miles of pipe • Number of hydrants • Number of wells • Number of control valves <p>Note: Due to alignment confidentiality concerns by GWD, specific locations have not been mapped.</p> <p>Pipes are generally not overly susceptible to flood damages; however, the valves are critical to isolating leaks and managing the water supply. Access to maintain and repair valves when they are flooded increases maintenance costs.</p>			<p>No fiscal impact analysis was conducted on this Sector.</p>			
Existing Conditions						Adaptation Strategies			
Historical		Present		Secondary Impacts					
<p>GWD was formed in 1944 to take advantage of the water supply to be developed by the Federal Cachuma Project on the Santa Ynez River. GWD initially relied on local groundwater until the Cachuma Project began making deliveries in 1955.</p>		<p>Coastal Flooding from Sandbar Closure</p> <ul style="list-style-type: none"> • 1,044 feet of pipe • 3 valves <p>Creek Flooding (FEMA)</p> <ul style="list-style-type: none"> • 10.16 miles of pipe • 68 hydrants • 2 wells • 312 control valves <p>Saltwater intrusion was not included in this vulnerability analysis.</p>		<p>Encroachment would require relocation of distribution pipes as well as additional monitoring wells to be installed to ensure that downward percolation of saline water does not occur. Higher temperatures could increase evapotranspiration causing an increase in outside water use and crop irrigation. Increased wildfire frequency and severity may increase water demand for firefighting.</p>			Additional Information		
Vulnerabilities			<table border="1"> <thead> <tr> <th>Recommendations</th> <th>Existing Condition</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Continue to improve policies to promote water conservation and reclaimed water use. • Continue integrating climate projections on precipitation and temperature into water supply allocations. • Participate in regional water supply discussion, notably, GWD's updated Water Supply Management Plan, Infrastructure Improvement Plan, and Sustainability Plan. • Restrict development of new wells in sensitive habitat or vulnerable areas. • Monitor demand and supply for potential additional groundwater pumping – limiting extraction from shallow aquifers, to reduce saltwater intrusion potential. • Ensure that adequate long-term water supplies are available to serve additional new development. • Update policies to encourage use of gray water by discouraging septic systems and reducing volumes discharged through ocean outfalls. • Improve policies to reduce saltwater intrusion by limiting groundwater pumping and diversifying water supplies. </td> <td>  <p>Bradbury Dam forming "Lake" Cachuma Reservoir. Photo source: T. Robinson</p> </td></tr> </tbody> </table>			Recommendations	Existing Condition	<ul style="list-style-type: none"> • Continue to improve policies to promote water conservation and reclaimed water use. • Continue integrating climate projections on precipitation and temperature into water supply allocations. • Participate in regional water supply discussion, notably, GWD's updated Water Supply Management Plan, Infrastructure Improvement Plan, and Sustainability Plan. • Restrict development of new wells in sensitive habitat or vulnerable areas. • Monitor demand and supply for potential additional groundwater pumping – limiting extraction from shallow aquifers, to reduce saltwater intrusion potential. • Ensure that adequate long-term water supplies are available to serve additional new development. • Update policies to encourage use of gray water by discouraging septic systems and reducing volumes discharged through ocean outfalls. • Improve policies to reduce saltwater intrusion by limiting groundwater pumping and diversifying water supplies. 	 <p>Bradbury Dam forming "Lake" Cachuma Reservoir. Photo source: T. Robinson</p>
Recommendations	Existing Condition								
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2030	2060	2100							
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,154 feet of pipe • 3 hydrants • 8 valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 4,995 feet of pipe • 3 hydrants • 21 control valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 18,801 feet (3.56 miles) of pipe • 3 hydrants • 21 control valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>							

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Overview			Measures of Impact	Fiscal Impacts
Southern California Edison Company (SCE) provides electrical service to Goleta and to all of southern Santa Barbara County. Two SCE substations occur in the City: the Hollister Avenue substation and the Glen Annie substation. Sixteen kilovolt (kv) electrical distribution lines and a 64 kv main line also exist in the City. A “Peaking Station” occurs in western Goleta on Las Armas Road south of Highway 101. For a term of 30 years, the City of Goleta is allowing SCE the use of city streets and property to use and construct poles, wires, conduits, and other facilities necessary for the transmission and distribution of electricity within the City.	To quantify the impact of coastal hazards and climate change on electric utilities, the following measures of impacts have been identified: <ul style="list-style-type: none">• Length above ground• Length below ground Damages: Below ground lines are sealed and should be protected against coastal flooding. Above ground lines are not vulnerable to coastal flooding, but are vulnerable to high winds associated with coastal storms. Future projections of wind intensity were not considered in this assessment. Disruptions could cause a temporary loss of electrical power that would impact City services, local businesses, and residents.		Damages: Below ground lines are sealed and should be protected against coastal flooding. Above ground lines are not vulnerable to coastal flooding, but are vulnerable to high winds associated with coastal storms. Fiscal Impact to the City: SCE will bear the costs of repair. These costs will likely be passed on to ratepayers as evidenced with other similar events such as the recent PG&E natural gas explosions in the Bay Area. A temporary loss in electrical power would impact City services, local businesses, and residents. Adaptation Costs: These are the estimate costs of replacement. 2030: 322 ft. above ground power lines at \$10 per linear ft. will equate to \$3,220. 531 ft. below ground at \$30 per linear ft. will equate to \$15,930. 2060: 360 ft. above ground power lines at \$10 per linear ft. will equate to \$3,600. 671 ft. below ground at \$30 per linear ft. will equate to \$20,130. 2100: 637 ft. above ground power lines at \$10 per linear ft. will equate to \$6,370. 1636 ft. below ground at \$30 per linear ft. will equate to \$49,080. Clean up: There may be some cleanup costs from downed power lines. This cost will be borne by SCE. Public vs. private: Replacement/cleanup costs will be borne by SCE. The costs of electrical outages will be borne by residents, businesses, school districts, and the City.	
Existing Conditions		Adaptation Strategies		
Historical	Present	Additional Information		
There are a number of locational considerations associated with these facilities. Since these utility services are generally provided through service lines within City right of ways, management of City right of ways will need to anticipate the maintenance and development of utility lines. The potential development and expansion of the nearby natural gas resources at the storage facility near Goleta Beach will involve potential hazard considerations near the site and along the transmission lines serving the resource. Note: Due to alignment confidentiality concerns by SCE, specific locations have not been mapped.	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 300 feet above ground • 510 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5,383 feet above ground • 4,463 feet below ground <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 31,556 feet above ground (6.0 miles) • 35,069 feet below ground (6.6 miles) 	<p>Range of strategies: Potential to relocate, remove, or place lines underground.</p> <p>Retreat: Requires relocation or realigning power lines to less hazardous areas.</p> <p>Accommodate: Either underground lines to avoid wind hazards in non-flooded areas or elevate to accommodate flooding.</p> <p>Protect: Pole footings could be fortified so that the poles are more resilient to wind and flood hazards.</p> <p>Secondary impacts of Adaptation Strategies: Retreat and accommodate strategies would have short term habitat impacts along transmission corridors. Elevation of lines would have aesthetic impacts.</p>		
Vulnerabilities			Recommendations	Existing Condition
2030	2060	2100		
<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 322 feet above ground • 531 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 8,143 feet above ground (1.5 miles) • 5740 feet below ground (1.1 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 360 feet above ground • 671 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 12,659 feet above ground (2.4 miles) • 8,176 feet below ground (1.5 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 637 feet above ground • 1,636 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 28,784 feet above ground (5.5 miles) • 21,928 feet below ground (4.2 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<ul style="list-style-type: none"> • Strengthen policies to underground lines in non-flood prone areas. • Incentivize realignment of underground lines in flood prone areas. • Phase realignment based on projections of future flood risks. 	<p>Hollister Avenue</p>  <p>Photo: City of Goleta</p>

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ATTACHMENT A

CHAPTER 2.0 LAND USE ELEMENT (LU)

2.1 INTRODUCTION

General Plan Law Requirements [GP]

The Land Use Element is one of seven elements mandated by state planning law, at Section 65302 of the California Government Code. The Land Use Element is required to consist of a statement of policies and a land use plan map showing the spatial distribution, location, and extent of lands designated for housing, business, industry, open space, agriculture, and other categories of public and private uses of land. It must state standards for population density and building intensity for each of the land use categories. This element defines Goleta's planned long-range development pattern and physical character, as well as the extent and distribution of future growth in the city. Other elements of the plan further address the relationships between future development and environmental quality, safety hazards, and social and economic concerns.

Land Use Element Policies

- LU 1: Land Use Plan Map and General Policies
- LU 2: Residential Land Uses
- LU 3: Commercial Land Uses
- LU 4: Office and Industrial Uses
- LU 5: Public and Quasi-Public Land Uses
- LU 6: Park and Open Space Uses
- LU 7: Agriculture
- LU 8: Central Hollister Residential Development Area
- LU 9: Coastal-Dependent and -Related Uses (Key Pacific Shoreline Sites)
- LU 10: Energy-Related On- and Off-Shore Uses
- LU 11: Nonresidential Growth Management
- LU 12: Land Use In Goleta's Environs

Coastal Act Requirements [CP]

The California Coastal Act (Coastal Act), at Section 30250 of the Public Resources Code, provides that new development shall be located within or contiguous to existing developed areas in order to create a compact development pattern that avoids "leapfrogging" and achieves efficient use of existing public facilities such as streets and utilities. An exception is provided for hazardous industrial uses, which shall be located away from existing developed areas. Coastal-dependent and visitor-serving uses, including open space and recreation, are given priority over other types of uses at or near the Pacific shoreline. All development is required to accommodate the public's right of access to the sea and shoreline. All land uses and development must be protective of coastal resources, including marine and land habitats, scenic and visual resources, agricultural lands, and archaeological resources.

Existing Land Use Pattern: 2005 [GP/CP]

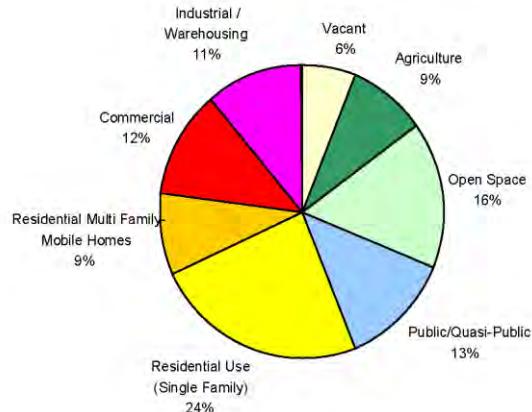
Goleta is a highly desirable place to live, work, or own a business because of the natural beauty of its location along the Pacific coast, the sunny Mediterranean climate, the scenic backdrop of the Santa Ynez Mountains, and the separation from but proximity to southern California's metropolitan areas. The city provides the many advantages of suburban living while enjoying the benefits provided by the more urban parts of the south coast and the adjacent University of California, Santa Barbara (UCSB). Land use decisions in Goleta are shaped by the community's desire to preserve and protect its natural resources, its livable neighborhoods, existing land use patterns, and quality of life. The nature and character of existing development and the desire for

a continued strong local economy, as well as concerns regarding infrastructure capacity, all influence planning for future land use.

The land use and development pattern observed in Goleta today is the result of transformation over the past 75 years of a rural landscape of ranches and agricultural lands into a prosperous suburban community. The community continues to derive an essential and valued character from the remaining agricultural and rural lands that are intermixed with its various neighborhoods. The city's neighborhoods are spread over the relatively flat coastal terrace between the foothills of the Santa Ynez Mountains to the north and the Pacific shoreline to the south on both sides of U.S. Highway 101 (US-101), the major traffic artery connecting Goleta with the nearby city of Santa Barbara to the east and westward through the Gaviota Coast to northern Santa Barbara County. For the most part, individual neighborhoods were developed as relatively large subdivision tracts of modest single-story ranch-style homes starting in the 1950s and continuing until the present day, with interruptions in development due to water supply limitations. Many of the original homes have been upgraded or expanded over time as housing values and prices have increased in the south coast area. Multifamily housing is concentrated in several areas near the Hollister Avenue corridor, from Goleta Old Town in the east to the Ellwood Beach-Matilda area in the west and adjacent to the Calle Real commercial district north of US-101.

Office and light industrial construction accelerated during the 1970s and 1980s, focused generally between Hollister Avenue and US-101 in a corridor extending from Fairview Avenue to Storke Road. This corridor includes most of the Goleta Valley's largest employers, with the notable exception of UCSB, which is located in an adjacent unincorporated area south of the city. Retail and commercial services are focused in three distinct areas of the city: the Goleta Valley's original commercial center, referred to as Goleta Old Town (Old Town); the Calle Real/Fairview Avenue shopping area; and the recently developed regional commercial center at Camino Real Marketplace in western Goleta. The city's only coastal resort, Bacara, was developed in the late 1990s at the city's western boundary. The last remnants in the city of the oil and gas industry, which was a prominent part of the early industrial history of the Goleta Valley, exist at the Venoco Ellwood Onshore Oil and Gas Processing Facility (EOF) and the nearby shoreline piers at State Lease 421 (S.L. 421) adjacent to the Sandpiper Golf Course. At the geographical center of Goleta lies a noncontiguous portion of the territory of the City of Santa Barbara. These lands are owned by the City of Santa Barbara and encompass the regional airport, with a passenger terminal for air

Distribution of Existing (2003) Land Uses



Source: Santa Barbara County Assessors Data, 2003



Goleta Old Town

carrier service, general aviation facilities, and vacant and developed lands north of Hollister Avenue for nonairport uses.

2.2 GUIDING PRINCIPLES AND GOALS [GP/CP]

The policies of this element are designed to balance the various concerns and needs of the city and its residents and will guide future change to fit the desired character of Goleta. The following guiding principles and goals, which are not in order of priority, provide the foundation for the land use plan. They incorporate many comments, ideas, and suggestions offered by participants at numerous public workshop meetings. All policies set forth in subsequent sections of this element have been established to be in conformity with the guiding principles and goals, and future actions of the City following adoption of the plan are required to be consistent.

1. Ensure that the amounts, locations, and characteristics of new development are determined in a manner that will preserve sensitive habitats and other natural resources.
2. Preserve open space within the city that is accessible to residential neighborhoods as well as a greenbelt around the city's northern, western, and southern boundaries.
3. Preserve agricultural lands to allow future potential for agricultural production, including a locally grown food supply, specialty agriculture, and floriculture.
4. Maintain economic prosperity with a sustainable economy that is not based on growth.
5. Manage the types, amounts, and timing of future growth based on maintenance of service levels and quality of life.
6. Maintain a balanced community, with an appropriate mix of residences, workplaces, and services.
7. Maintain an appropriate balance between job-generating development and housing supply.
8. Maintain a balance of housing types, densities, and sizes and ensure creation and maintenance of quality, livable residential environments.
9. Ensure that the locations, amounts, and timing of new development are consistent with resource and service constraints, including, but not limited to, transportation infrastructure, parks, water supply, sewer system capacity, and energy availability.
10. Ensure that all new development and changes to existing development are compatible with the character, scale, and design of the neighborhood.
11. Influence future land use changes in nearby areas outside Goleta to avoid, lessen, and/or mitigate impacts within the city.

2.3 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 Public Resources Code. The plan maps show the location of the California Coastal Zone boundary.

- 30220** Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

- 30221** Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.
- 30222** The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.
- 30223** Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.
- 30250**
- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
 - (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.
 - (c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated development or at selected points of attraction for visitors.
- 30255** Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

2.4 CITY POLICIES

Policy LU 1: Land Use Plan Map and General Policies [GP/CP]

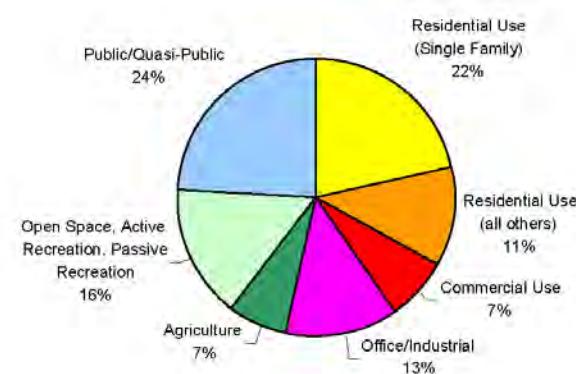
Objective: To maintain a land use pattern that provides continuity with the past and present use and development of the city and locates the various uses in a manner that is consistent with the fundamental goals and principles of the plan.

- LU 1.1** **Land Use Plan Map. [GP/CP]** The Land Use Plan map in Figure 2-1 is hereby adopted. The Land Use Plan map establishes the future distribution, extent, and geographic locations of the various land uses within Goleta. The standards applicable to each of the various use categories and sites are set forth in Policies LU 2 through LU 9.

LU 1.2 Residential Character. [GP/CP] The Land Use Plan map shall ensure that Goleta's land use pattern remains predominately residential and open, with the majority of nonresidential development concentrated along the primary transportation corridor—east and west along Hollister Avenue and US-101. The intent of the Land Use Plan is to protect and preserve residential neighborhoods by preventing intrusion of nonresidential uses that would be detrimental to the preservation of the existing character of the neighborhoods.

LU 1.3 Goleta Old Town. [GP] The City and the City of Goleta Redevelopment Agency shall continue to develop and implement programs to revitalize the Old Town area. When considering development proposals, lots designated for commercial or multifamily residential use that are less than 6,000 square feet shall be encouraged to be combined with any adjacent small lots to provide adequate parking and circulation, minimize driveway cuts on Hollister Avenue and other busy streets, and maximize design potential.

Distribution of Planned Land Use by Use Category



Source: City of Goleta 2006

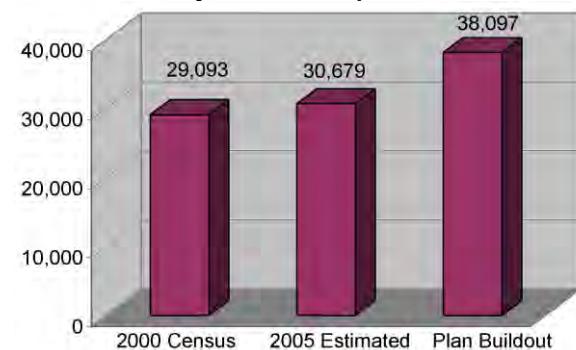
LU 1.4 Employment Centers. [GP] Existing developed office and industrial areas shall be preserved and protected to continue their role of providing employment opportunities for the community. A mix of industries and economic activities is encouraged in order to provide a wide range of employment opportunities and wage levels and to avoid over reliance on any one economic sector.

LU 1.5 Compatibility of Existing and New Industrial Areas with Adjacent Residential

Development. [GP/CP] The Zoning Code shall include performance standards that will mitigate the effects of industrial uses and development on nearby residential areas. These standards shall include, but are not limited to, the following subjects:

- Air pollution, both direct and indirect;
- Dust;
- Noise;
- Drainage and stormwater runoff;

City of Goleta Population



Sources: Population estimates for year 2000 are based on a combination of 2000 census data and estimates by the City. Population estimates for year 2005 are from the California Department of Finance. Plan buildout estimates are based on City projections.

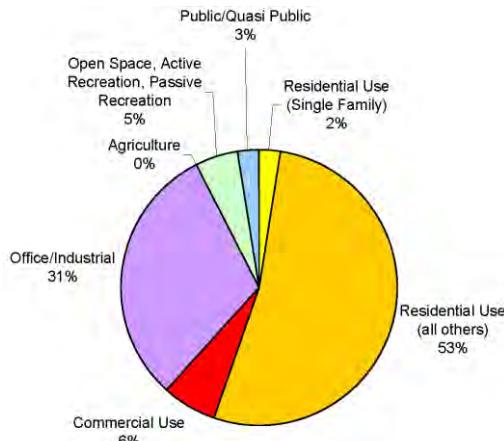
- e. Water pollution;
- f. Light pollution;
- g. Visual impacts; and
- h. Truck traffic.

Standards may include requirements for industrial uses and development to provide an adequate physical buffer or separation as well as fencing and screening to help lessen the effects on adjacent residential development. Performance standards shall be applicable to discretionary approvals pertaining to alteration or expansion of existing industrial uses and development as well as to new industrial uses and development.

- LU 1.6 Retail and Other Commercial Centers. [GP/CP]** The priority for commercial uses, including large regional commercial centers, shall be for the types that will meet local needs and those that provide goods and services not now available in the city. Goleta's retail areas shall be designed to serve as community focal points and shall include appropriate outdoor gathering places. Retail and other commercial centers shall provide high levels of maintenance and upkeep to assure their quality appearance. *(Amended by Reso. 08-30, 6/17/08)*
- LU 1.7 New Development and Protection of Environmental Resources. [GP/CP]** Approvals of all new development shall require adherence to high environmental standards and the preservation and protection of environmental resources, such as environmentally sensitive habitats, consistent with the standards set forth in the Conservation Element and the City's Zoning Code.
- LU 1.8 New Development and Neighborhood Compatibility. [GP/CP]** Approvals of all new development shall require compatibility with the character of existing development in the immediate area, including size, bulk, scale, and height. New development shall not substantially impair or block important viewsheds and scenic vistas, as set forth in the Visual and Historical Resources Element.
- LU 1.9 Quality Design in the Built Environment. [GP/CP]** The City shall encourage quality site, architectural, and landscape design in all new development proposals. Development proposals shall include coordinated site planning, circulation, and design. Public and/or common open spaces with quality visual environments shall be included to create attractive community gathering areas with a sense of place and scale. *(Amended by Reso. 08-30, 6/17/08)*
- LU 1.10 Multifamily Residential Development. [GP/CP]** The Medium- and High-Density Multifamily designations shall provide appropriate locations for multifamily dwellings as well as allow development standards that enable creativity and diversity in design while protecting health and safety. The use categories differ in terms of maximum permitted densities allowed, but each designation shall permit a range of housing types, including detached units, attached townhouses, and garden apartments. All multifamily developments shall be required to provide or ensure:

- a. Adequate open space and recreational facilities, such as parks, open spaces, or bike paths as an integral part of the development; community garden areas are encouraged.
- b. Appropriate amounts of outdoor space for the exclusive use of individual residential units.
- c. Appropriate pedestrian and bicyclist access to commercial or other activity centers and appropriate facilities to encourage use of public transit.
- d. Adequate services and facilities (such as sewer, water, and roadway capacity) concurrent with development.
- e. Adequate off-street parking.
- f. Appropriate access by emergency vehicles. *(Amended by Reso. 08-30, 6/17/08)*

Distribution of Vacant Land by Land Use Plan Category



Source: City of Goleta 2006

LU 1.11 Multiple-Use Development.

[GP/CP] New larger developments, including multifamily, commercial, retail, office, and industrial uses, shall be designed to incorporate features that enable a choice of various alternative modes of travel, such as transit, biking, and walking. Mixed-use development, where certain commercial and residential uses are provided in a single integrated development project, shall be allowed in appropriate areas, including, but not limited to, the Hollister corridor in Old Town.

LU 1.12 General. [GP/CP] The following general policies shall apply throughout the city:

- a. It shall be a permitted use for any hotel subject to the City's Transient Occupancy Tax to operate as hotel condominiums, time-shares, or under a fractional ownership model. Such hotels shall be regulated through measures including but not limited to owner-

Estimated Maximum General Plan Housing Buildout

Residential Units	Existing (2005) (Units)	Maximum Buildout (Units)	Change (Units)
Single Family	5,483	5,963	+ 480
Multi-Family	6,132	9,532	+ 3,400
Total	11,615	15,495	+ 3,880

Estimated Maximum General Plan Commercial and Industrial Buildout

Commercial/Industrial	Existing (2005) (Square Feet)	Maximum Buildout (Square Feet)	Change (Square Feet)
Commercial	2,575,000	3,279,000	+ 704,000
Industrial	9,544,000	10,921,000	+ 1,377,000
Total	12,119,000	14,200,000	+ 2,081,000

Source: City of Goleta 2006

Note: Housing unit totals are maximum buildout estimates allowed under the Land Use Plan to approximately 2030. These are not the same as housing unit totals in the Housing Element, which does not include all potential units for all mixed-use and redevelopment sites. Housing units on mixed-use and redevelopment sites in the Housing Element are related to the 2001–2009 RHNA period.

occupancy limitations, to ensure that these accommodations are available to the general public and to protect the City's transient occupancy tax base.

- b. Streets and other uses customarily found in public rights-of-way are permitted in each land use designation subject to appropriate review and mitigation of the potential environmental impacts of such facilities.
- c. Events or uses that tend toward privatization of public lands and rights-of-way are discouraged. *(Amended by Reso. 08-30, 6/17/08)*

LU 1.13 Adequate Infrastructure and Services. [GP/CP] For health, safety, and general welfare reasons, approvals of new development shall be subject to a finding that adequate infrastructure and services will be available to serve the proposed development in accordance with the Public Facilities and Transportation Elements. *(Amended by Reso. 08-30, 6/17/08)*

Policy LU 2: Residential Land Uses [GP/CP]

Objective: *To provide appropriate land areas for the residential needs of existing and future city residents consistent with the existing character of the city's neighborhoods.*

LU 2.1 Residential Land Use Categories. [GP/CP] The residential land use categories, permitted uses, and recommended standards for density and building intensity are shown in Table 2-1. The recommended planned residential densities and building intensities in residential neighborhoods have been established to be consistent with the density, intensity, and scale of existing development in order to reinforce the character of well-established neighborhoods. *(Amended by Reso. 08-30, 6/17/08)*

LU 2.2 Residential Use Densities. [GP/CP] All proposed residential projects shall be consistent with the recommended standards for density and building intensity set forth in this plan. The recommended densities described in the policies for the residential use categories and in Table 2-1 are maximum permitted densities but are not guaranteed. Density of development allowed on any site shall reflect site constraints, including:

- a. Environmentally sensitive habitat areas (ESHA).
- b. Areas prone to flooding and geologic, slope instability, or other natural hazards.
- c. Areas with stormwater drainage problems.
- d. Presence of other significant hazards or hazardous materials.
- e. Protection of significant public and private views.

- f. Exposure to exterior noise levels that exceed a Community Noise Exposure Level (CNEL) of 60 dBA (see related NE 1.2).
- g. Areas with archaeological or cultural resources.
- h. Deficiencies in the type or level of services necessary for urban development, such as transportation facilities (roadway and pedestrian), sewer and water service, and emergency service response time.
- i. Prevailing densities of adjacent developed residential areas. *(Amended by Reso. 08-30, 6/17/08)*

**TABLE 2-1
ALLOWABLE USES AND STANDARDS FOR RESIDENTIAL USE CATEGORIES**

Allowed Uses and Standards	Residential Use Categories				
	R-SF	R-P	R-MD	R-HD	R-MHP
Residential Uses					
One Single-Family Detached Dwelling per Lot	X	X	-	-	-
Single-Family Attached and Detached Dwellings	X	X	X	X	-
Multiunit Apartment Dwellings	-	X	X	X	-
Mobile Home Parks	-	-	-	-	X
Second (Accessory) Residential Units	X	X	-	-	-
Assisted-Living Residential Units	-	-	X	X	-
Other Uses					
Religious Institutions	X	X	X	X	-
Small-Scale Residential Care Facility	X	X	-	-	-
Small-Scale Day Care Center	X	X	X	X	X
Public and Quasi-public Uses	X	X	X	X	-
Accessory Uses					
Home Occupations	X	X	X	X	X
Standards for Density and Building Intensity					
<i>Recommended Standards for Permitted Density</i>					
Maximum Permitted Density (units/acres)	5 or less	5.01–13	20	30	15
Minimum Permitted Density (units/acres)	N/A	N/A	15	15	N/A
<i>Recommended Standards for Building Intensity</i>					
Structure Height (Inland Area)	25 feet	35 feet	35 feet	35 feet	25 feet
Structure Height (Coastal Zone)	25 feet	25 feet	25 feet	25 feet	25 feet
Maximum Lot Coverage Ratio	N/A	0.30	0.30	0.40	N/A
Notes:					
1. Use Categories: R-SF – Single-Family Residential; R-P – Planned Residential; R-MD – Medium-Density Residential; R-HD – High-Density Residential; R-MHP – Mobile Home Park.					
2. X indicates use is allowed in the use category; - indicates use not allowed.					
3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.					
4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.					
5. Central Hollister Housing Opportunity Sites in the R-MD land use designation (as identified in Housing Element Subpolicy HE11.6) shall provide for development of residential units at densities ranging from a minimum of 20 to a maximum of 25 units per acre.					
6. N/A = Not applicable.					
7. Accessory uses to the allowed uses in this table are regulated through zoning.					
<i>(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, Reso. 09-44, 8/18/10, and Reso. 19-21, 4/16/19)</i>					

LU 2.3 Residential Development Standards. [GP/CP] The following standards or criteria shall be applicable to residential development proposals:

- a. The privacy of existing residential uses in the immediate area shall be protected in the design of new or expanded structures.
- b. Solar access of residential uses shall be protected in the design of new or expanded structures.
- c. Proposals for construction of new or expanded homes shall be required to have a size, bulk, scale, and height that are compatible with the character of the immediate existing neighborhood.

LU 2.4**Single-Family Residential Use**

Category (R-SF). [GP/CP] The intent of this use category is to identify and protect appropriately located land areas for family living in low-density residential environments. Existing developed areas with this designation were generally subdivided at four units per acre or less and are characterized by a suburban atmosphere. This designation may be applied to provide a transition from the more intensely developed areas of the city to rural open spaces. The designation is also appropriate for areas that are subject to hazards or environmental constraints that limit the suitability of such areas for higher intensity uses. This designation is intended to provide for development of one single-family residence per lot at densities ranging from one or fewer to five units per acre. Assuming an average household size of 2.0 to 3.0 persons, this use category will allow population densities between 2.0 and 15.0 persons per acre.



Existing Single-Family Residential Use

LU 2.5**Planned Residential (R-P).**

[GP/CP] The intent of the Planned Residential designation is to allow flexibility and encourage innovation and diversity in design of residential developments. This is accomplished by allowing a wide range of densities and housing types while requiring provision of a substantial amount of open space and other common amenities within new developments. Clustering of residential units is encouraged where appropriate to provide efficient use of space while preserving natural, cultural, and scenic resources of a site. Planned residential areas may also function as a transition between business uses and single-family residential neighborhoods.



Existing Planned Residential Use at the Willow Springs Development

This designation permits single-family detached and attached dwellings, duplexes, apartments in multiunit structures, and accessory uses customarily associated with residences. This designation is intended to provide for development of residential units at densities ranging from 5.01 units per acre to 13.0 units per acre, with densities for individual parcels as shown on the map in Figure 2-1. Assuming an average household size of 2.0 to 3.0 persons, this use category will allow population densities between 10 persons per acre and 39 persons per acre.

- LU 2.6 Medium-Density Residential (R-MD). [GP/CP]** This use category permits multi-family housing and accessory uses customarily associated with residences. Development may also include attached and detached single-family dwellings and duplex structures. Medium-density areas may also function as a transition between business uses and single-family residential neighborhoods. This designation is intended to provide for development of residential units at densities of up to 20.0 units per acre. In order to achieve efficient use of a limited supply of land designated in this use category, the minimum density permitted shall be 15.0 units per acre, except where site-specific constraints are determined to limit development to fewer units. Central Hollister Housing Opportunity Sites as identified in Housing Element Subpolicy HE 11.6 shall provide for development of residential units at densities ranging from a minimum of 20 to a maximum of 25 units per acre in support of the achievement of affordable housing goals. Assuming an average household size of 2.0 to 3.0 persons, the range of population densities allowed in this use category is between 26.0 persons per acre and 60.0 persons per acre. (See related Policy LU 8 and Subpolicy HE 11.6) *(Amended by Reso. 09-44, 8/18/10)*

- LU 2.7 High-Density Residential (R-HD). [GP]** This category permits multifamily housing units and accessory uses customarily associated with residences. Such areas may also function as a transition between higher intensity business uses and medium-density multifamily housing and single-family residential neighborhoods. Housing for special needs populations may be approved at higher than the base density in this designation provided that the City finds that the impacts on traffic, public facilities and services, biological resources, air and water quality, visual resources, or other environmental resources would not be greater than the impacts associated with development at the base density. This designation is intended to provide for development of residential units at densities ranging from 20.01 units per acre to 30.0 units per acre. In order to achieve efficient use of a limited supply of land designated in this use category, the minimum density permitted shall be 15.0 units per acre, except where site-specific constraints are determined to limit development to fewer units. Assuming an average household size of 2.0 to 3.0 persons, this use category allows population densities between 40 persons per acre and 90 persons per acre. *(Amended by Reso. 08-30, 6/17/08)*

- LU 2.8 Mobile Home Park (R-MHP). [GP/CP]** This category shall permit planned mobile home parks where sites for placement of individual mobile home units may be unsubdivided and held in a common ownership or subdivided



Existing Mobile Home Park

and sold as separate lots to individual mobile home unit owners. The intent is that mobile home park sites be planned as a whole, with an adequate internal vehicular and pedestrian circulation system, adequate common and individual parking, common open space and recreation facilities, and other common amenities. Mobile homes usually provide a more-affordable housing alternative, and this designation is intended to preserve and protect existing mobile home parks in the city. The Mobile Home Park designation is intended to provide for development of residential units at densities ranging up to a maximum of 15.0 units per acre. Assuming an average household size of 2.0 to 3.0 persons, this use category allows population densities between 30.0 persons per acre and 45.0 persons per acre.

Policy LU 3: Commercial Land Uses [GP/CP]

Objective: *To provide lands in locations that are suitable, functional, attractive, and convenient for an appropriate mix and scale of residential- and business-serving commercial uses, including business and professional offices, retail trade, business services, and residential mixed uses.*

LU 3.1 Commercial Land Use Categories. [GP/CP] Table 2-2 shows the permitted uses and recommended standards for building intensity in each of the commercial land use designations. The commercial use categories are intended to provide appropriate locations for business uses that serve neighborhoods, the community, the region, and the traveling public while seeking to minimize traffic congestion, visual, and other impacts on surrounding residential areas. The intent of each use category is further described in the following sections. *(Amended by Reso. 08-30, 6/17/08)*

LU 3.2 Regional Commercial (C-R). [GP] This category is intended to provide for a wide range of retail commercial uses, including, but not limited to, larger scale commercial uses that serve the community, the region, and the traveling public. These uses are typically land-extensive. The Regional Commercial use designation provides for commercial uses that require large sites or attract large volumes of activity, such as “large box” retail uses, restaurants, high-volume retail businesses, and professional, personal, and financial services. In order to limit regional traffic impacts, lands designated in this category shall be limited to existing locations of “large-box” uses as of 2005, shown on the Land Use Plan map in Figure 2-1, and no additional areas shall be designated.

LU 3.3 Community Commercial (C-C). [GP] The Community Commercial category is intended to allow relatively small commercial centers that provide convenience goods and services to serve the everyday needs of the surrounding residential neighborhoods



Regional Commercial at the Camino Real Marketplace

TABLE 2-2
ALLOWABLE USES AND STANDARDS FOR COMMERCIAL USE CATEGORIES

Allowed Uses and Standards	Commercial Use Categories					
	C-R	C-C	C-OT	C-VS	C-I	C-G
Retail Trade						
Large-Scale Retail Establishments	X	X	-	-	-	-
General Merchandise	X	X	X	-	-	X
Food and Drug Stores	X	X	X	-	X	X
Apparel and Specialty Stores	X	X	X	-	-	X
Building/Landscape Materials and Equipment	X	X	X	-	-	X
Eating and Drinking Establishments	X	X	X	X	X	X
Other Retail Trade Establishments	X	X	X	X	-	X
Coastal-Related Commercial	X	X	X	X	-	-
Cannabis Storefront Retail	X	X	X	-	-	X
Services (Including Offices)						
Finance, Insurance, and Real Estate	X	X	X	-	-	X
Personal Services	X	X	X	-	-	X
Business Services	-	X	X	-	-	X
Information Technology Services	-	-	-	-	-	X
Professional Services	-	X	X	-	-	X
Medical and Health-Related Services	X	X	X	-	-	-
Educational Services	-	-	X	-	-	X
Entertainment and Recreation Services	X	X	X	X	-	-
Building and Construction Services	-	-	-	-	-	X
Other Services	X	X	X	X	X	X
Transient Lodging and Services						
Resorts	-	-	-	X	-	-
Hotels, Motels, Bed and Breakfast Inns	X	X	X	X	-	-
RV Parks	-	-	X	X	-	X
Other Visitor Services and Attractions	-	-	-	X	-	X
Auto-Related Uses						
Retail – Automotive Sales and Rentals	-	-	X	-	-	X
Auto Repair and Painting	-	-	-	-	-	X
Auto Wrecking Yard/Junk Yard	-	-	-	-	-	X
Auto Service (Gas) Station	X	-	X	-	X	X
Car Wash	-	X	X	-	X	X
Wholesale Trade and Storage						
General Wholesale Trade	-	-	-	-	-	X
Warehousing – General	-	-	-	-	-	X
Warehousing – Self-Storage	-	-	-	-	-	X
Outdoor Storage	-	-	-	-	-	X
Residential Uses						
Residential Units	-	X	X	-	-	-
One Caretaker Unit	X	X	X	X	-	X
Assisted-Living Residential Units	-	-	-	-	-	X
Other Uses						
Religious Institutions	-	X	X	-	-	X
Public and Quasi-public Uses	X	X	X	-	X	X
Wireless Communications/Telecommunications	X	X	X	X	X	X
Cannabis Microbusiness	-	-	-	-	-	X*
Standards for Density and Building Intensity						
<i>Recommended Standards for Density</i>						
Maximum Residential Density	N/A	12/acre	20/acre	N/A	N/A	20/acre
<i>Recommended Standards for Building Intensity</i>						
Structure Height	35 feet	35 feet	30 feet	35 feet	25 feet	35 feet
Maximum Lot Coverage Ratio	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Use Categories: C-R – Regional Commercial; C-C – Community Commercial; C-OT – Old Town Commercial; C-VS – Visitor Commercial; C-I – Intersection; Commercial; C-G – General Commercial.
 2. X indicates use is allowed in the use category; – indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. Wholesale trade is permitted within the C-R use category, provided that it is an integral part of a retail trade use.
 5. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 6. N/A = Not applicable.
 7. Accessory uses to the allowed uses in this table are regulated through zoning.
- * Cannabis microbusiness, as defined by Section 26070 of the California Business and Professions Code, is allowed on parcels designated C-G only where a cannabis business legally existed prior to June 16, 2009.

(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

while protecting the residential character of the area. Uses that may attract significant traffic volumes from outside the Goleta Valley are discouraged. Mixed-use, including residential, development at densities up to 12 units per acre may be permitted subject to approval of a conditional use permit in appropriate locations provided that it is compatible with adjacent uses, does not break up the continuity of commercial use at the sidewalk level, or is not within the airport approach zone as designated in the Safety Element. All community commercial development shall be designed to facilitate and promote pedestrian circulation in and to the area, as well as to link these areas to other activity centers. Noise levels and hours of operation may be regulated to avoid any potential conflict with adjacent residential uses. The size of any mixed-use developments shall be consistent with street and utility capacities. The Fairview Shopping Center and Calle Real Center are included in this designation.

LU 3.4 Old Town Commercial (C-OT). [GP] This designation is intended to permit a wide range of local- and community-serving retail and office uses. A major purpose is to enhance the physical and economic environment for existing businesses and uses of the Old Town commercial district, the historic center for the Goleta Valley situated along Hollister Avenue between Fairview Avenue and State Route 217 (SR-217). The following criteria and standards shall apply to lands designated Old Town Commercial:

- a. Management of this area shall emphasize improving and reinforcing the character of the area as a pedestrian-oriented retail business area with a mix of businesses and services.
- b. "Large box" uses shall not be permitted within this use designation.
- c. Visitor-serving commercial uses, including transient lodging, may be permitted by conditional use permit.
- d. Existing heavy commercial uses (including printing and auto services and repair) are permitted uses although significant expansion of these activities shall be allowed only by conditional use permit if the expansion is compatible with adjacent uses.
- e. Allowed uses include retail uses; professional and business office uses; public uses, including governmental administration activities; restaurants; entertainment; cultural activities; personal, financial, and small business services; and various other public and quasi-public uses. See Table 2-2 for a complete listing of permitted uses.



Old Town Commercial

- f. Any new development in the Old Town Commercial category shall include buildings, pedestrian plazas, design amenities, and facilities that are consistent with the Goleta Old Town Heritage District architecture and design guidelines.
- g. Continuity of retail and office uses is required at the street or sidewalk level. Residential and office uses may be allowed on the second floor of a structure or behind the portion of a building adjacent to the street, subject to approval of a conditional use permit.
- h. Residential uses may be approved only in conjunction with a permitted principal nonresidential use on the same site.
- i. New uses or design features (such as drive-through windows, excessive light and glare) that are incompatible with residential uses or pedestrian-oriented retail activities are prohibited.

LU 3.5 Intersection or Highway Commercial (C-I). [GP] This use category is intended to provide for a limited variety of commercial uses of low to moderate intensity located at major roadway intersections. Customers are anticipated to drive to these establishments. Uses are limited to various commercial and retail services oriented to the traveling public, including, but not limited to, gas stations, convenience markets, highway-oriented restaurants, and similar uses.

LU 3.6 Visitor Commercial (C-V). [GP/CP] This use category is intended to provide for a variety of commercial uses of low to moderate intensity often at or near scenic locations that may serve as destinations for visitors. Customers are anticipated to drive or be transported to these establishments by vehicles. Development in Visitor Commercial areas shall be designed in a manner that will limit encroachment into residential or resource areas. When located near the beach or other natural areas, public access to resource areas shall be required. Transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be permitted uses, regulated through measures including but not limited to owner-occupancy limitations, to assure these accommodations are available without limitation to the general public and protect the City's transient occupancy tax base. *(Amended by Reso. 08-30, 6/17/08)*

LU 3.7 General Commercial (C-G). [GP] The purpose of this category is to provide appropriate sites to accommodate a diverse set of commercial uses that do not need highly visible locations, such as wholesale trade and service commercial, or that may involve activities that reduce compatibility with other uses. Appropriate sites are in locations that may have limited suitability for other more retail-oriented uses. General commercial uses may serve as a buffer between industrial activities or major transportation corridors and residential areas. The following criteria and standards apply to lands within this designation:

- a. The permitted uses in this classification have similar characteristics to some industrial uses, and mixed-use developments that include residential uses, except for assisted living residential uses, are not allowed.
- b. While General Commercial uses do not usually generate high volumes of traffic, sites within this designation should be accessible from major arterials in order to minimize the need for traffic to pass through residential areas on local streets.
- c. Uses that require access by heavy vehicles shall be permitted only in locations where the street can support such heavy vehicle traffic and such uses would be compatible with adjacent uses.

- d. Heavy commercial uses that may cause noise, air emissions, hazardous materials, or excessive light and glare shall require approval of a conditional use permit.

Policy LU 4: Office and Industrial Uses [GP/CP]

Objective: *To provide lands in areas suitable for businesses that create diverse types of employment opportunities and related economic activities where impacts of these uses on the surrounding residential neighborhoods can be minimized and where traffic impacts can be adequately managed.*

LU 4.1 General Purpose. [GP/CP] Table 2-3 shows the various office and industrial land use designations, including permitted uses and recommended standards for building intensity for each category. The categories are intended to provide appropriate locations for a range of employment-creating economic activities, from those based on advanced technology to storage and warehousing, while seeking to minimize traffic congestion, visual, and other impacts on the surrounding residential areas. The intent of each office and industrial use category is further described in the following sections. *(Amended by Reso. 09-32, 5/19/09)*

LU 4.2 Business Park (I-BP). [GP/CP] This use designation is intended to identify lands for attractive, well-designed business parks that provide employment opportunities to the community and surrounding area. The intensity, design, and landscaping of development should be consistent with the character of existing development currently located in these areas. Uses in the Business Park designation may include a wide variety of research and development, light industrial, and office uses, as well as small-scale commercial uses that serve the needs of business park employees. In addition, lands designated with a Hotel Overlay may include transient lodging that emphasizes extended stays, as set forth in LU 1.12. Activities in business park areas shall be conducted primarily indoors, and outdoor storage, processing, manufacturing, and vehicle repair are prohibited.

Performance standards for Business Park uses shall ensure that:

- a. The scale and design of these uses are compatible with each other and with the existing character of the park and surrounding neighborhoods.
- b. Lighting from these uses will not interfere or conflict with adjacent nonindustrial properties.
- c. Signage will be controlled.
- d. Curb cuts will be minimized and sharing of access encouraged.



Business Park on Robin Hill Road

TABLE 2-3
ALLOWABLE USES AND STANDARDS FOR OFFICE AND INDUSTRIAL USE CATEGORIES

Allowed Uses and Standards	Office and Industrial Use Categories			
	I-BP	I-OI	I-S	I-G
Industrial (Manufacturing)				
General Manufacturing – No Noxious Impacts	X	–	X	X
General Manufacturing – Potential Noxious Impacts	–	–	–	X
Research and Development	X	X	–	X
Scientific and Similar Instruments	X	X	–	X
Bio-Medical Technology	X	X	–	X
Other Advanced Technology	X	X	–	X
Transportation and Utilities				
Transportation (other than right-of-way)	–	–	X	X
Wireless Communications/Telecommunications	X	X	X	X
Utilities	X	X	–	–
Retail Trade				
Building/Landscape Materials and Equipment	–	X	–	X
Eating and Drinking Establishments	X	X	–	–
Other Retail Trade Establishments	X	X	–	–
Cannabis Storefront Retail	–	–	–	X**
Services (Including Offices)				
Finance, Insurance, and Real Estate	X	X	–	–
Personal Services	X	X	–	–
Business Services	X	X	–	–
Information Technology Services	X	X	–	–
Professional Services	–	X	–	–
Medical and Health-Related Services	–	X	–	–
Educational Services	–	X	–	–
Entertainment and Recreation Services	–	X	–	–
Building and Construction Services	–	–	X	X
Other Services	–	–	X	X
Auto-Related Uses				
Automotive Sales and Rentals	–	–	X	X
Auto Repair and Painting	–	–	X	X
Auto Wrecking Yard/Junk Yard	–	–	X	X
Auto Service (Gas) Station	–	–	–	X
Wholesale Trade and Storage				
General Wholesale Trade	X***	–	X	X
Warehousing – General	X*	–	X	X
Warehousing – Self-Storage	–	–	X	X
Outdoor Storage	–	–	X	X
Residential Uses				
Residential Units	–	X	–	–
One Caretaker Unit Per Parcel	X	X	X	X
Assisted-Living Residential Units	–	X	–	–
Other Uses				
Public and Quasi-public Uses	X	X	X	X
Religious Institutions	–	X	–	–
Cannabis Microbusiness	–	–	X	X
Standards for Density and Building Intensity				
Recommended Standards for Density				
Maximum Residential Density	N/A	20units/acre	N/A	N/A
Recommended Standards for Building Intensity				
Structure Heights	35 feet	35 feet	35 feet	35 feet
Maximum Lot Coverage Ratio	0.35	0.40	N/A	N/A

Notes:

1. Use Categories: I-BP – Business Park; I-OI – Office and Institutional; I-S – Service Industrial; I-G – General Industrial.
 2. X indicates use is allowed in the use category; – indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 5. N/A = Not applicable.
 6. Accessory uses to the allowed uses in this table are regulated through zoning.
- * Warehousing is allowed on parcels designated Business Park (I-BP) if it is in association with a permitted use.
** Cannabis Storefront Retail is allowed on parcels designated General Industrial (I-G) where a medical marijuana dispensary legally existed prior to June 16, 2009.
*** General Wholesale Trade in Business Park (I-BP) is limited to Cannabis Distribution.
(Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

- e. Adequate and safe motorized and nonmotorized access to the site is provided, and transportation and circulation impacts, especially on residential areas, will be mitigated.
- f. Quality landscaping, including outdoor seating areas, will be provided to enhance the visual appeal of the area. *(Amended by Reso. 08-30, 6/17/08 and Reso. 09-32, 5/19/09)*

LU 4.3 Office and Institutional (I-OI).

[GP] This designation is intended to provide areas for existing and future office-based uses. Uses allowed include moderate-density business and professional offices, medical and medical-related uses, hospitals, research and development, services oriented primarily to employees (such as day care centers, restaurants, personal and professional services), and public and quasi-public uses. In addition, lands designated with a Hotel Overlay may include transient lodging and related uses.

Mixed-use developments with residential uses on the same site may be permitted at appropriate locations where the residential uses are compatible with adjacent uses and do not break up the continuity of office and institutional uses.



Goleta Valley Cottage Hospital

The Office and Institutional use category includes lands intended to support the needs of the Goleta Valley Cottage Hospital and related medical services. These lands, which are in the vicinity of Hollister Avenue and Patterson Avenue, are designated within a Hospital Overlay on the land use plan map (Figure 2-1). The following shall apply solely to lands within the Hospital Overlay:

- a. The recommended structure height set forth in Table 2-3 is increased from 35 feet to 55 feet for hospital buildings and to 45 feet for medical office buildings, provided however that no building shall exceed 3 stories in height. The heights of hospital and medical office buildings shall be the minimum height necessary to comply with applicable state hospital construction standards and/or technical requirements.
- b. The maximum recommended lot coverage ratio set forth in Table 2-3 is increased from 0.4 to 0.6 for hospitals and to 0.5 for medical office buildings. *(Amended by Reso. 08-30, 6/17/08 and Reso. 09-32, 5/19/09)*

LU 4.4 Service Industrial (I-S).

[GP/CP] This designation is applied to properties within the airport flight path where airport operations limit the range and density of activities that may be allowed. Densities shall not exceed 25 persons per acre to conform to the Airport Land Use Plan and airport operations, as well as to maintain acceptable levels of service on roadways serving these areas. Uses may occur in a less-

managed environment than in the Business Park category. Allowed uses include warehouses, storage, outdoor storage (including storage of vehicles and recreational vehicles), automotive sales and rentals, manufacturing, heavy commercial uses, and similar uses that may be compatible with airport operations. The processing or storage of flammable or hazardous materials shall be strictly controlled. Near the airport, heights of structures and landscaping shall be limited so as not to interfere with the airspace in the airport approach zone and clear zone.

- LU 4.5 General Industrial (I-G). [GP/CP]** This designation is intended to provide land areas for a wide range of manufacturing uses, including those with potential noxious impacts, and for similar heavy commercial uses. Uses in these areas may occur in a less managed environment than in the Business Park designation. The processing or storage of hazardous materials shall be strictly controlled and subject to necessary permits in accordance with state and federal law. Uses appropriate in this land use designation include but are not limited to general manufacturing, assembly and fabrication, heavy commercial uses, high-technology manufacturing, research and development, wineries, breweries, building and construction services, and public facilities.
- LU 4.6 South Kellogg Industrial Area. [GP]** The following requirement shall apply to the South Kellogg Industrial Area, which consists of about 14 parcels generally located between Highway 101 and Armitos Avenue (including APNs 071-041-029; 071-041-030; 071-041-031; 071-041-032; 071-041-033; 071-041-038; 071-041-039; 071-041-040; 071-041-041; 071-043-002; 071-090-074; 071-090-082; 071-090-083; and 071-090-047):
- a. **Inventory of Existing Businesses.** The number of businesses and types of uses existing as of 2006 in the subject area is uncertain, as is whether all uses and development have been properly authorized by permits. In association with the owners of these parcels, the City shall require a precise inventory that includes the following information for each separate business activity: (1) the name of the business and its owner; (2) its location on the site; (3) a description of the type of use; and (4) existing site improvements.
 - b. **Determination of Permit Status.** The City shall review permit records and make a determination as to uses and/or development that have been duly authorized by the appropriate type of permits.
 - c. **Cessation of Unpermitted Uses.** Uses determined to not have proper permit authorization and which are not allowed by the zoning code shall be terminated.
 - d. **Permit Applications.** Existing uses and development determined to not have proper permit authorization but which are allowed by the zoning code shall be required to submit the appropriate applications to the City.
 - e. **Mitigation of Adverse Impacts on the Adjacent Residential Area.** Approvals of any permits shall include conditions that require mitigation of adverse effects on the adjacent residential area.
 - f. **Time Frame.** The City shall review the status of compliance after 3 years. If substantial progress has not been demonstrated, the City may initiate more intense code enforcement efforts and/or a General Plan amendment process to consider redesignation of the subject area to "Planned Residential – 8 units/acre" or other appropriate land use category.

Policy LU 5: Public and Quasi-Public Land Uses [GP/CP]

Objective: To provide land areas for governmental administration and operations, schools, fire stations, and other public and institutional uses within the city.

- LU 5.1 General. [GP/CP]** Table 2-4 shows the permitted uses and recommended standards for building intensity for the Public and Quasi-Public land use category. *(Amended by Reso. 08-30, 6/17/08)*

- LU 5.2 Public and Quasi-Public Use (P-QP). [GP]** This designation is intended to identify existing and planned land areas for public facilities, such as, but not limited to, community centers, governmental administration, governmental operations, libraries, and public schools. The designation also allows quasi-public uses, such as private schools, religious institutions, lodges, social clubs, day care centers, and similar uses. Land within the rights-of-way for US-101 and SR-217 are also designated within this use category. Public and quasi-public uses are also permitted in various other land use categories in order to provide maximum flexibility in determining locations for future public facilities. The Public and Quasi-Public use category does not include public and private parks, recreation, or open space, which are accommodated in a separate use category.



Dos Pueblos High School

Policy LU 6: Park and Open Space Uses [GP/CP]

Objective: To provide land areas for public parks, recreation, and open space land uses and private recreational lands within the city and recognize the importance of their contribution to the overall quality of life in Goleta.

- LU 6.1 General. [GP/CP]** Table 2-4 shows the Park and Open Space use categories, including permitted uses and recommended standards for building intensity for each category. The two use categories are intended to identify appropriate locations for parks and other active recreational uses and for open space and passive recreation. The intent of each use category is further described in the following sections. *(Amended by Reso. 08-30, 6/17/08)*

- LU 6.2 Open Space/Passive Recreation. [GP/CP]** This use category is intended to identify and reserve areas with significant environmental values or resources, wildlife habitats, significant views, and other open space values. It may be used to designate both private and public open space areas. The category includes areas reserved for natural drainage courses that may be managed as part of the City's stormwater management program. The following criteria and standards shall apply to lands within this designation:

TABLE 2-4
ALLOWABLE USES AND STANDARDS FOR OTHER LAND USE CATEGORIES

Allowed Uses and Standards	Other Land Use Categories			
	AG	OS-PR	OS-AR	P-S
Residential Uses				
One Single-Family Detached Dwelling per Lot	X	-	-	-
Farmworker Residential Units	X	-	-	-
Second Residential Dwelling Unit	X	-	-	-
Caretaker Residential Unit	-	-	X	X
Agricultural Uses				
Orchards and Vineyards	X	-	-	-
Row Crop Production	X	-	-	-
Specialty Agriculture and Floriculture	X	-	-	-
Livestock Grazing	X	-	-	-
Small-Scale Confined Animal Operations	X	-	-	-
Small-Scale Agricultural Processing	X	-	-	-
Small-Scale Greenhouses	X	-	-	-
Sale of On-Site Agricultural Products	X	-	-	-
Other	X	-	-	-
Open Space and Outdoor Recreation				
Active Recreation	-	-	X	X
Open Space and Passive Recreation	-	X	X	X
Golf Course, including customary ancillary uses and structures	-	-	X	X
Nature Preserve	-	X	X	X
Public and Quasi-public Uses				
General Government Administration	-	-	-	X
Fire Stations	X	-	-	X
Schools (Public and Private)	-	-	-	-
Other Government Facilities	-	-	-	X
Other Uses				
Religious Institutions	-	-	-	X
Small-Scale Residential Care Facility	X	-	-	-
Small-Scale Day Care Center	-	-	-	X
Wireless Communications/Telecommunications	X	-	-	X
Recommended Standards for Building Intensity				
Structure Height	N/A	N/A	N/A	N/A
Maximum Lot Coverage Ratio	N/A	N/A	N/A	N/A

Notes:

1. Use Categories: AG: Agriculture; OS-PR: Open Space/Passive Recreation; OS-AR: Open Space/Active Recreation; P-S: Public and Quasi-public Uses.
 2. X indicates use is allowed in the use category; - indicates use not allowed.
 3. General Note: Some uses requiring approval of a conditional use permit are set forth in text policies, and others are specified in the zoning code.
 4. The standards for building intensity recommended by this General Plan pursuant to Government Code Section 65302(a) may be revised by a Resolution of the decision-making body of the City for specific projects based upon a finding of good cause.
 5. N/A = Not Applicable.
 6. Accessory uses to the allowed uses in this table are regulated through zoning.
- (Amended by Reso. 08-30, 6/17/08, Reso. 09-32, 5/19/09, and Reso. 19-21, 4/16/19)

- a. Open space lands are intended to maintain the land in a natural condition in order to protect and conserve sensitive habitats.
- b. Resource management activities, including, but not limited to, habitat restorations, are permitted.
- c. Minimal improvements to accommodate passive public use, such as trails, nature education, beach access, and public viewing areas, are permitted.
- d. Except for existing facilities, active recreational uses involving structures or improvements to the land shall not be permitted.
- e. Limited parking and public access improvements may be allowed provided that any adverse impacts on the associated resources are either avoided or mitigated.



Open Space and Passive Recreation at Lake Los Carneros Natural and Historic Preserve

LU 6.3

Open Space/Active Recreation. [GP/CP] This designation is intended to identify existing or planned areas for public parks and active recreational activities and facilities, such as playgrounds, picnic areas, tennis courts, ballparks, and sports fields. This use category is also intended to apply to significant private outdoor recreational facilities, such as golf courses and privately owned parks. Individual recreational areas may include a mix of passive and active recreational features or improvements. Appropriate caretaker facilities and residences may also be allowed if consistent with the character of the planned uses. The designation may also include storm drainage facilities.

Policy LU 7: Agriculture [GP]

Objective: *To preserve existing agricultural lands and reserve vacant lands suitable for agriculture to maintain the option of future agricultural uses, including local production of food commodities.*

LU 7.1

General. [GP] Table 2-4 shows the permitted uses and recommended standards for building intensity for the Agriculture land use category. Related standards for management of agricultural areas are set forth in Policy CE 11 in the Conservation Element. *(Amended by Reso. 08-30, 6/17/08)*

LU 7.2

Purpose. [GP] The Agriculture use designation shall identify land areas reserved for or used for agricultural production. The intent of this designation is to preserve lands used for agriculture, as well as lands with characteristics that make them suitable for agriculture, to meet the needs of present and future generations.

LU 7.3 Designation Criteria. [GP] Sites designated in the Agriculture land use category shall generally meet one or more of the following criteria:

- a. The site was zoned for agriculture by the County of Santa Barbara at the time of incorporation of the City of Goleta in 2002.
- b. The site is or has been used for agricultural production activities, and the site is devoid of structural improvements that prevent or limit the continued or resumed use of the land for agricultural purposes.
- c. The site has soils or other characteristics that make it suitable for production of agricultural commodities to meet local food supply or other needs and is devoid of structural improvements or other alterations that prevent or limit the use of the land for agricultural purposes.



Agriculture Uses at Fairview Gardens Farm

LU 7.4 Permitted Uses. [GP] The Agriculture designation allows for a wide range of agricultural uses, including, but not limited to, grazing, raising of livestock and poultry, orchards, vineyards, growing of food and fiber crops, nurseries, and other forms of horticulture. Structures customary and incidental to agricultural activities are permitted, including one primary dwelling unit; farmworker housing, limited to workers employed on-site; barns; storage sheds; fences; and similar improvements. Except for these structures and appropriate utility and access improvements, activities or structures that impair the productivity of soils shall not be allowed. Retail sale of produce and products produced on the site, products produced by wineries and other small-scale processing facilities, and agricultural products grown off-site are allowed subject to approval of a conditional use permit.

LU 7.5 City of Goleta Heritage Farmlands. [GP] The voters of the City of Goleta have, through the City of Goleta Heritage Farmlands Initiative (“Initiative”), established and adopted a Heritage Farmlands Policy in the City of Goleta General Plan. Section 3 of the Initiative: (1) reaffirmed and readopted General Plan goals and policies regarding agricultural lands; (2) reaffirmed and readopted the General Plan Land Use Map’s designations for lands designated “Agriculture,” which were ten (10) or more acres in size as of February 21, 2012; and (3) designated as “Agriculture” lands which were on the County of Santa Barbara Comprehensive Land Use Map and which were ten (10) or more acres in size as of February 21, 2012, and which were located within the City of Goleta’s Planning Area. The lands affected by the Initiative are “Heritage Farmlands.”

Until December 31, 2032, the General Plan provisions readopted and/or amended by Section 3 of the Initiative (“Initiative’s Plan Amendments”) may not be further amended or repealed except by a vote of the people or as follows:

- a. The City Council, following at least one public hearing, may amend the Initiative's Plan Amendments to comply with state law regarding the provision of housing for all economic segments of the community. Such amendment may be adopted only if the City Council makes each of the following findings based on substantial evidence:
 1. That the proposed development is necessary to comply with a state law imposing a mandatory housing obligation (e.g., the provision of low and very low income housing), and the area of land within the proposed development will not exceed the minimum necessary to comply with the mandatory housing obligation; and
 2. That there is no existing non-agricultural land available within the City of Goleta to accommodate development that will address the housing need identified in the analysis by which the City has determined that it is not in compliance with state.
- b. Upon request of an affected landowner, the City Council may, following at least one public hearing, amend the Initiative's Plan Amendments if the City Council does so pursuant to a finding, based on substantial evidence in the record, that the application of such Policy to any specific property for which a development application has been submitted constitutes an unconstitutional taking of the landowner's property; however, any such amendment shall be made only to the extent necessary to avoid such unconstitutional taking.
- c. The City Council may, following at least one public hearing, amend the Initiative's Plan Amendments to exempt land contemplated for construction of public schools or public parks. Such amendment may be adopted only if the City Council makes each of the following findings based on substantial evidence:
 1. The land is immediately adjacent to existing compatibly developed areas and there is evidence that the Fire Department, Police Department, Department of Public Works, the Community Services Department, and the applicable water and sewer districts with jurisdiction over such land have or will have adequate capacity to accommodate the proposed development and provide it with adequate public services; and
 2. That there is no existing non-agricultural or open space land available to accommodate the proposed development.
- d. The City Council may reorganize, reorder, and renumber the Initiative's Plan Amendments. *(Amended by Measure G, 11/06/12)*

Policy LU 8: Central Hollister Residential Development Area [GP]

Objective: To promote coordinated planning and development of designated medium-density residential sites in the Central Hollister area in order to create a quality, livable environment with appropriate design and amenities for future residents of this new residential neighborhood.

LU 8.1 Applicability. [GP] Twenty-four vacant parcels of land totaling 68.25 acres, situated largely within North Willow Springs and the Castilian Drive area, are designated for future medium-density residential development. This area lies between Hollister Avenue and the Union Pacific railroad tracks, extending from east of Los Carneros Way to Storke Road. These vacant lands, a portion of which is interspersed with

existing Business Park development, collectively include a large portion of the residential development capacity defined by this plan. *(Amended by Reso. 14-43, 7/15/14)*

LU 8.2 Purpose. [GP] The intent for this area is to enable new residential development on the existing vacant parcels along with provision of incidental and subordinate small-scale commercial uses that will serve the needs of existing employees and future residents in the immediate area. The nonresidential development should be clustered at a single site or a small number of individual sites west of Los Carneros Way. A related intent is to enable transit-oriented development along the city's primary transportation corridor so as to efficiently utilize existing infrastructure, reduce future increases in automobile travel, and support use of alternative, less-polluting modes of travel.

LU 8.3 Permitted Uses. [GP] The land area addressed by this policy shall be subject to a new Central Hollister Residential Overlay Zone, or district, that defines the scope, extent and character of neighborhood-serving nonresidential uses and development that may be permitted.

LU 8.4 Affordable Housing Development. [GP] The land area addressed by this policy, which was redesignated from nonresidential to residential use through adoption of this plan, is intended to accommodate a substantial portion of the future production of affordable housing units within the city. Properties designated 23 and 27 on Figure 10A-2 of the Housing Element shall be subject to an Affordable Housing Overlay Zone. *(Amended by Reso. 14-43, 7/15/14)*

LU 8.5 Coordinated Development Plan and Quality Design. [GP] In considering proposed projects within the Central Hollister Residential Development Area, emphasis shall be given to coordinated planning and design for the mixed-use area as a whole, including the parcels designated for Business Park uses. This may be accomplished by the creation of specific plans.

The provisions of specific plan and/or coordinated development projects shall:

- a. Ensure that the various uses are blended in a manner so that each use is compatible with the others on an individual site, as well as uses on adjacent sites.
- b. Ensure that any future residential development will not threaten the continued viability of the existing Business Park uses.
- c. Require that design and location of internal roadways and circulation be integrated with external circulation in a manner that improves overall safety and traffic flow.
- d. Provide for appropriate internal street, bicycle, and pedestrian circulation systems.
- e. Provide an adequate supply of parking within each development, with consideration of shared (or joint) parking between uses where peak parking demand is in the daytime and uses where peak demand is typically in the evening hours.
- f. Require that any future housing development create a living environment that is attractive, with high-quality architectural and landscape design.

- g. Provide for a mix of unit sizes (number of bedrooms) in residential projects.
- h. Ensure that future development will include ample open space, recreational facilities, and other amenities for employees and residents of the new housing.
(Amended by Reso. 14-43, 7/15/14)

LU 8.6 Performance Standards. [GP] Performance standards applicable to development within this area shall ensure that:

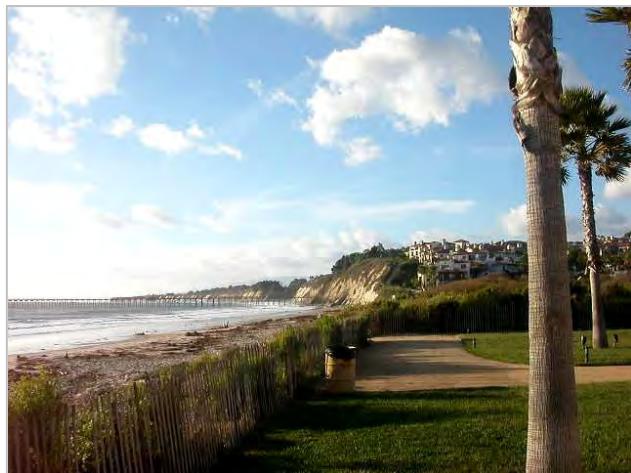
- a. The scale and design of uses are compatible with each other and reinforce the character and functions of other uses in the area and surrounding areas.
- b. The timing of new development will ensure a balance of housing and commercial uses.
- c. Lighting, noise, odors, and air pollutant emissions from commercial and Business Park uses will not interfere or conflict with residential uses.
- d. Signage will be controlled and limited to maintain an attractive living environment.
- e. Curb cuts for driveway access to individual properties will be minimized and sharing of access encouraged.
- f. Efficient and attractive pedestrian and bicycle connectivity will be provided between uses.
- g. Pedestrian-oriented outdoor spaces will be provided at strategic locations in the development.
- h. Adequate and safe motorized and nonmotorized access to each site is provided.

Policy LU 9: Coastal-Dependent and -Related Uses (Key Pacific Shoreline Sites) [GP/CP]

Objective: *To designate lands in appropriate locations near or on the shoreline for uses that are dependent upon coastal locations and cannot readily be provided at inland sites.*

LU 9.1 Site #1 – Coastal Resort Parcels (Visitor Commercial). [GP/CP]
The Land Use Plan map designates the lands that comprise the Bacara Resort as Visitor Commercial. This site is the only shoreline land in the City that is designated in this category or that is suitable for this type of use. The requirements applicable to this property are as follows:

- a. The site shall continue to be used for transient lodging, such as a hotel, and various facilities and services accessory to transient lodging, such as restaurants, retail shops, conferences and meetings, hotel-related events, recreational services, and other services that are dependent upon a coastal location, while ensuring the conservation and protection of coastal resources.
- b. Residential use shall be prohibited.



Coastal Resort Parcels at Haskell's Beach and the Bacara Resort

- c. All transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be limited to occupancy for no more than 30 consecutive days at any one time and shall be available for overnight stays by the general public.
- d. Transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall be a permitted use regulated by mechanisms such as owner-occupancy limits, to ensure that these accommodations are available to the general public.
- e. Approval of any proposal for transient lodging units such as hotels that are operated as hotel condominiums, time-shares, or under a fractional ownership model shall limit occupancy by owners of individual units to 30 or fewer consecutive days for any single stay and no more than 90 total days in any calendar year. All transient lodging units in above-mentioned forms of ownership shall be made available for transient occupancy use by the general public through the hotel reservation system at times when units are not occupied.
- f. Any expansion or alteration of existing development shall be required to maintain or expand the extent of existing coastal access facilities, including parking and vertical access to the beach. "Maintain or expand" is clarified to include flexibility, if at least one of the following is met:
 1. To provide better protection of coastal resources;
 2. To maximize public access; and/or
 3. If natural processes impede existing access.
- g. Any expansion or alteration of existing development shall be required to protect environmentally sensitive habitats and archaeological resources, including provision of the buffers set forth in the Conservation Element. *(Amended by Reso. 08-30, 6/17/08)*

LU 9.2

Site #2 – Coastal Recreation. [GP/CP] This parcel, occupied as of 2005 by the Venoco EOF, is designated in the Open Space/Active Recreation use category. The requirements applicable to this site are as follows (see Figure 2-2):

- a. The Recreation designation shall continue the nonconforming status of the existing use. The use was nonconforming at the time of incorporation of the City of Goleta. Its nonconforming status dates to the early 1990s when the property's zoning was changed by the County of Santa Barbara to the Recreation District as part of a plan to consolidate onshore oil and gas processing at the Las Flores Canyon site in the unincorporated area west of Goleta.
- b. The intent is that in the long-term use of the property for oil and gas processing shall be terminated. The processing of hazardous materials and the risks associated with air emissions make this location, which is adjacent to Bacara Resort and Sandpiper Golf Course and near Ellwood School and the residential neighborhoods of Santa Barbara Shores and Winchester Commons, unsuitable for oil and gas processing in the long term.
- c. Until such time as the oil and gas processing use is terminated, any modifications or alterations of the existing facilities shall be in accordance with the provisions of LU 10.1 and shall be designed to improve air quality, reduce environmental impacts and hazards, and improve safety for nearby lodging, recreational, and residential uses.
- d. Upon termination of the oil and gas processing use, the priority use for the site shall be coastal-dependent and coastal-related recreational uses that are

conducted primarily outdoors or limited to small-scale structures. Adequate on-site parking shall be provided to serve all recreational uses (see related Policy OS 2).

LU 9.3 **Site #3 – Coastal Recreation**

Parcels. [GP/CP] These parcels, which were occupied by the Sandpiper Golf Course as of 2005, are designated in the Open Space/Active Recreation use category. The requirements applicable to this site are as follows (see Figure 2-2):

- a. The Sandpiper site shall continue to be used for golf course and other related outdoor recreation purposes.
- b. The golf course shall be maintained as a public course and shall not be converted to a members-only course.
- c. Any future project that requires a discretionary approval by the City shall be subject to a condition that requires preference to be given to local residents in terms of fees and tee times during appropriate time periods each week.
- d. The size and design of any new buildings and structures, or expansions and alterations of existing buildings, shall be controlled so as to preserve the character of the property as open land and minimize impacts on views of the ocean and Channel Islands from Hollister Avenue and views of the Santa Ynez Mountains from within the property and from beach and water areas.
- e. Any new development or alteration of the existing facilities and golf course shall be required to maintain or expand the extent of existing coastal access facilities, including parking and vertical access to the beach. Lateral bluff-top access may also be considered and should connect with the bluff-top trail on Santa Barbara Shores Park, with a transition down the bluff to the SL 421 access road. The intent is to secure access easements, or offers to dedicate, that will provide for lateral access during all seasons and tide conditions. Conceptual locations for future coastal accessways are shown on Figure 3-1 in the Open Space Element (see also OS 1.7).
- f. Any commercial uses, including restaurants, shall be open to the general public.
- g. Views from Hollister Avenue to the ocean and islands shall be preserved. Perimeter walls and landscaping that would obstruct or impair coastal views shall not be permitted.
- h. Any rerouting or alteration of the golf course shall be designed in a manner that protects and enhances environmental resources, including adjacent monarch butterfly habitat areas, Devereux Creek, and other drainages, and that protects safety on the beach.



Coastal Recreation Parcels at Sandpiper Golf Course

(See related Policies OS 1 and OS 2.)

LU 9.4 Site #4 – Santa Barbara Shores Park and Sperling Preserve Parcels (Open Space/Passive Recreation). [GP/CP] This group of parcels, with a total of about 229 acres, is owned by the City. These lands are subject to deed restrictions that require the use of the property to be restricted in perpetuity to passive recreational activities and habitat protection. The criteria applicable to these parcels are as follows (see Figure 2-2):

- a. All future actions shall be consistent with the primary purposes of (1) preserving and enhancing the properties' sensitive habitats, including habitats for monarch butterflies, various raptors, and western snowy plovers, as well as vernal pools, riparian areas, native grasslands, coastal scrub, and other sensitive aquatic and terrestrial habitats and (2) preserving or improving the past level of access and use by the public.
- b. Any development of structures shall be limited to a public restroom facility to be located at the public parking lot at Hollister Avenue.
- c. An extensive coastal access trail system shall be maintained, as shown in Figure 3-2 of the Open Space Element. The trails shall include segments of the California Coastal Trail and the Juan Bautista de Anza Historic Trail.
- d. Any trail improvements shall be designed to maintain the natural, low-impact appearance of the existing informal trails; surfacing materials shall be limited to compacted fines or native soil materials without binders. The widths of trails shall be the minimum necessary to accommodate the planned types of users.
- e. A public coastal access parking lot, not to exceed 45 parking spaces, shall be maintained at Santa Barbara Shores Park, with vehicular access from Hollister Avenue.
- f. Any ornamental landscaping shall be limited to native species that will maintain the natural appearance of the area and that will not impair or obstruct scenic views from Hollister Avenue to the coastal bluffs, Pacific Ocean, and Channel Islands and preserve views from within the property to the Santa Ynez Mountains.

(See related Policy OS 5 and Figures 3-3 and 3-4.)

Policy LU 10: Energy-Related On- and Off-Shore Uses [GP/CP]

Objective: *To promote the discontinuation of onshore processing and transport facilities for oil and gas, the removal of unused or abandoned facilities, and the restoration of areas affected by existing or former oil and gas facilities within the city.*

LU 10.1 Oil and Gas Processing Facilities (Venoco Ellwood Onshore Oil and Gas Processing Facility). [GP/CP] As of 2005, the city had one existing oil and gas processing facility situated within its boundaries, the Venoco-owned EOF, which is a nonconforming use. The EOF and other oil and gas processing facilities generate emissions of air pollutants, pose safety hazards to nearby areas, create visual impacts, and create risks to marine and land resources associated with spills, leaks,

or pipeline ruptures. The following standards shall apply to oil and gas processing facilities:

- a. The City supports County policies regarding consolidation of oil and gas processing in the South Coast Consolidation Planning Area at Las Flores Canyon in the unincorporated area west of Goleta. No new oil and gas processing facilities shall be permitted within Goleta.
- b. The Venoco EOF site is an inappropriate location for processing of oil and gas because of the public safety and environmental hazards associated with this type of use and its close proximity to residential neighborhoods, Ellwood School, Bacara Resort, and environmentally sensitive habitat areas. The site is designated in the Open Space/Active Recreation use category on the Land Use Plan map and shall continue to be a nonconforming use.
- c. The EOF shall continue to be subject to the rights and limitations applicable to nonconforming uses under California law. No modifications or alterations of the facility or other actions shall be authorized that would result in the expansion of the permitted throughput capacity of the EOF. The existing maximum permitted capacity shall not be exceeded, except for very minor increases that may be incidental to actions designed to improve safety or reduce environmental impacts.
- d. Until the EOF use is terminated, the priority shall be to insure that the facility strictly meets or exceeds all applicable environmental and safety standards.



Venoco Ellwood Onshore Oil and Gas Processing Facility

LU 10.2 Decommissioning of the Venoco Ellwood Onshore Oil and Gas Processing Facility. [GP/CP] The following requirements shall apply to the cessation of operations and decommissioning of the facility:

- a. Within 12 months of cessation of operations, the existing owner/operator shall submit an Abandonment Plan application for City review and approval. The Abandonment Plan shall include a detailed description of all decommissioning work and site restoration, including, but not limited to, remediation of soil and groundwater contamination if required by the City or County Fire Department. Removal of all oil and gas facilities and debris from the site shall be required, except where such removal would result in greater adverse impacts than abandonment in place. Disposition of all materials shall be at a properly licensed disposal site and in compliance with any applicable requirements. The estimated cost of the decommissioning work shall be deposited to an escrow account no later than the time the Abandonment Plan is submitted to the City.

- b. An Abandonment Plan shall also be required as part of any request for expansion of production levels for oil or gas. This Abandonment Plan shall be subject to a requirement for the owner/operator to provide a sinking fund or other financial instrument or surety that would pay for the full costs of decommissioning, including any required soil or groundwater remediation.
- c. The owner/operator shall commence the decommissioning activities within 2 years of the cessation of operations and shall complete removal of all oil and gas facilities within 2 years following the start of the decommissioning project.
- d. Decommissioning shall include restoration of the EOF site to a natural condition or to a condition that is suitable for the uses and development that are allowed within the Open Space/Active Recreation use category designated for the property. Restoration shall include recontouring the site, if appropriate, and revegetation with suitable native plant material. The restoration plan shall be prepared by the owner/operator and shall be subject to review and approval by the City.

LU 10.3 Oil and Gas Transport and Storage Facilities. [GP/CP] Existing active oil and gas pipelines and storage facilities as of 2005 are associated with transporting oil and gas from Platform Holly and shoreline wells at S.L. 421 to the EOF and to Line 96, which transports oil from the EOF to the Ellwood Marine Terminal (EMT). Inactive and abandoned pipelines may exist at various locations within the city, particularly near the shoreline. The following shall apply to oil and gas transport and storage facilities within the city:

- a. New oil and gas pipelines and storage facilities, except for transmission and distribution facilities of a Public Utility Commission (PUC) regulated utility, shall not be approved within the city unless there is no feasible or less environmentally damaging alternative location for a proposed pipeline. Existing facilities shall be maintained and operated in a manner that assures safety, minimizes or avoids risks of leakage or rupture, and that avoids impacts to visual and recreation and scenic resources, including beaches. Alterations or replacement of existing pipelines or segments of pipelines shall be limited to the minimum necessary to ensure safety or prevent environmental damage.
- b. In the event that extended field development from Platform Holly is approved, the City supports the processing of oil and gas production at the South Coast Consolidation Planning Area at Las Flores Canyon. Any increase in throughput above currently permitted levels shall require a General Plan amendment and rezone of the EOF site to a use category and zoning district that allow oil and gas processing.
- c. Unused, inactive, or abandoned pipelines as of 2005, including the remnants of the Arco pipeline, shall be required to be decommissioned. An Abandonment Plan application shall be required to be submitted for City review and approval. Where such pipelines exist on property that is proposed for development or redevelopment, the Abandonment Plan application shall be submitted concurrent with the application for development of the property but shall be processed separately.
- d. Existing pipelines that were actively used as of 2005 shall be decommissioned as part of and concurrent with the decommissioning of the related oil and gas

facilities, such as the EOF, EMT, the S.L. 421 shoreline wells and piers, and Platform Holly.

- e. When onshore and offshore oil and gas pipelines are decommissioned, regardless of whether the pipeline was active or unused as of 2005, the pipeline and all related debris shall be removed. Exceptions may be granted for segments of onshore pipelines that are within city street rights-of-way or that traverse environmentally sensitive habitat areas, provided that the applicable pipeline segments are properly cleaned and treated prior to abandonment in place. Areas of ground disturbance shall be restored to pre-project conditions, including revegetation of the affected area. Where segments of pipelines that traverse environmentally sensitive habitats, including, but not limited to, wetlands, streams, or coastal dunes and beaches, are decommissioned and/or removed, all affected habitat areas shall be restored consistent with the character of the habitat.
- f. The existing owner/operator of a pipeline to be decommissioned shall be responsible for all costs related to the decommissioning. When a responsible owner/operator of an inactive or abandoned pipeline cannot be found, any successor in interest shall be the responsible party, including the owner of the real property on which the pipeline is situated.

LU 10.4

State Lands Commission Lease 421. [GP/CP] Two idle wells, one for oil production and one for wastewater injection, and related piers exist as of 2005 in state tidelands at the Pacific shoreline below the Sandpiper Golf Course property. These are the last two remaining shoreline oil wells in the state. Production has been idled since 1994 when the former owner/operator stopped operations following a pipeline rupture and oil spill. The location of the wells within the tidal zone results in a risk of discharge of oil into the seawater in the event of failure of the wells or their components. S.L. 421 is served by several onshore facilities, including pipelines and an access road protected by a riprap seawall at the base of the bluff. The current owner, Venoco, has an interest in recommissioning production at the idled oil well. The following policy applies to S.L. 421 and the related onshore facilities:

- a. The City's intent is that oil production not be recommenced at S.L. 421 because of the environmental hazards posed by the resumption of oil production and processing over coastal waters and the impacts to visual resources and recreation at the beach. Unless it is determined that there is a vested right to resume production at S.L. 421, the City supports termination of the lease by the State Lands Commission (SLC) and/or a quitclaim of the lease by the owner/operator.
- b. If resumption of production is considered for approval, on-pier processing of the oil at a site within the tidal zone should not be approved unless it is demonstrated that there is no feasible and less environmentally damaging alternative to processing on the pier. The development of new



processing facilities over the sea would result in an increased and unacceptable level of risk of environmental damage.

- c. Decommissioning and proper abandonment of S.L. 421 facilities, including the piers and riprap seawall, shall be required concurrent with decommissioning of the EOF or immediately upon termination of S.L. 421. An Abandonment Plan application shall be submitted by the owner/operator within 12 months following an action to terminate the lease. The owner/operator shall commence the decommissioning activities within 2 years of the action to terminate the lease. All work to remove S.L. 421 facilities shall be completed within 3 years after starting the decommissioning project.
- d. Decommissioning work shall include restoration of the site to its natural preproject conditions. Restoration plans shall be subject to review and approval by the City.

LU 10.5 Ellwood Marine Terminal. [GP] The onshore portion of the existing EMT is located just outside the city boundary on lands leased by Venoco from the University of California, Santa Barbara. The current lease expires in January 2016. The portion seaward of the mean high tide line is subject to a lease from the State Lands Commission and includes an undersea pipeline that extends to a mooring area for barges. The onshore component of the EMT is situated adjacent to the City-owned Ellwood Mesa Open Space Preserve. Oil is transported to the EMT from the EOF via the Line 96 pipeline.

- a. The City supports the termination of the lease between UCSB and Venoco at, or prior to, the present expiration date in January of 2016.
- b. Upon cessation of use, the EMT should be properly decommissioned, including removal of the onshore and offshore portions of the facility, except where such removal would result in greater adverse impacts than abandonment in place, and the site should be restored to a natural condition with appropriate revegetation.
- c. The City supports the cessation of transport of oil by barge or tanker. In the event of new production at Platform Holly from extended-reach drilling of new wells, the City supports the transport of the new oil and gas production by pipeline to the Las Flores Canyon area for processing.

LU 10.6 Oil and Gas Production Areas. [GP] As of 2005, all oil and gas transported by or processed at facilities within the city was produced from wells in offshore lease areas. These include leases within state waters administered by SLC, specifically State Leases 421, 3120, and 3242. Leases beyond the 3-mile boundary of the state within the waters of the outer continental shelf (OCS) are administered by the U.S. Minerals Management Service (MMS).

- a. The City shall oppose any new leases in the western Santa Barbara Channel for offshore oil and gas production within state waters and within the waters of the outer continental shelf.
- b. The City shall oppose the construction of any new oil and gas production or processing facilities in the waters offshore of Goleta.
- c. Upon cessation of production at Platform Holly, the City supports the timely quitclaim of all associated leases, permanent discontinuation of all oil and gas

production, and inclusion of all former lease areas into the California Coastal Sanctuary offshore of Goleta and the County of Santa Barbara.

- d. If oil and gas production from new offshore leases or facilities occurs, the new production shall not be processed at the EOF. Any such production should be transported by pipeline to the nearest consolidated processing facility as defined by the County of Santa Barbara's South Coast Consolidation Planning Area policies.

Policy LU 11: Growth Management [GP]

Objective: *To manage the timing of future growth based on maintenance of service levels and quality of life.* (Amended by Reso. 09-59, 11/17/09)

- LU 11.1 Pacing of Growth. [GP]** The City shall ensure that the timing of new development is consistent with resource and service constraints, including, but not limited to, transportation infrastructure, parks, water supply, sewer system capacity, and energy availability. (See also LU Guiding Principle and Goal #9; LU 1.13; TE 1.2; TE 13; TE 14; PF Guiding Principles and Goals #6, 7 and 9; PF 4; PF 7.1; PF 7.2; HE 3)

(Amended by Reso. 09-59, 11/17/09)

Policy LU 12: Land Use In Goleta's Environs [GP]

Objectives: *To identify possible areas for future service delivery and boundary expansion by the City. To influence the amount and character of land use change and development in nearby areas of the Goleta Valley that are not within the city but that may result in impacts inside the city and provide guidance with respect to mitigation of those impacts.*

- LU 12.1 City of Goleta Planning Area. [GP]** The City of Goleta Planning Area, shown on Figure 2-3, extends from the western sphere of influence (SOI) boundary of the City of Santa Barbara in the east to the westernmost boundary of the service area of the Goleta Water District at the El Capitan area to the west. The planning area is bounded by the Pacific Ocean on the south and Los Padres National Forest on the north. The planning area includes lands within Goleta; lands within the city of Santa Barbara, including the Santa Barbara Municipal Airport; lands within the UCSB campus subject to the jurisdiction of the University of California Board of Regents and the California Coastal Commission; and a wide array of lands in unincorporated Santa Barbara County, ranging from the densely developed community of Isla Vista to the scenic rural landscapes of the Gaviota Coast. The planning area also includes lands within the jurisdiction of a variety of special districts, including the Goleta Water District, the Goleta Sanitary District, the Goleta West Sanitary District, the Embarcadero Community Services District, the Isla Vista Recreation and Park District, the Santa Barbara County Fire Protection District, the Santa Barbara County Flood Control District, the Metropolitan Transit District, and others.

In addition to the specific guidelines or criteria set forth in subsequent sections of this policy, the following general guidelines shall apply to lands within the planning area that are outside the city boundary:

- a. Land use changes and service delivery changes within the planning area shown in Figure 2-3 are likely to have impacts on Goleta and on its residents and

businesses. Such changes could affect the ability of the City to fully or effectively achieve the various objectives and purposes set forth in this plan. Consequently, the City has a strong interest in reviewing and commenting on all proposals for change in the Planning Area.

- b. The City encourages the various entities with jurisdiction over lands within the Planning Area to refer all proposals for changes to the City for its review and comments. The changes of interest to the City include, but are not limited to, the following:
 1. Proposals for development of buildings or other structures.
 2. Proposals for subdivision of land, including lot line adjustments.
 3. Proposals for changes in zoning, including the map of zoning districts and text regulations applicable to the land.
 4. Proposed new plans or amendments to existing plans, including community or area plans, specific plans, the Long-Range Development Plan (LRDP) of UCSB, the Santa Barbara Airport Master Plan, resource-related plans, and other similar planning documents.
 5. Master plans and similar planning documents for services and facilities of special districts.
 6. Proposals for annexation of lands.
 7. Proposals for acquisition or disposition of real property.
 8. Proposals to extend or modify services and/or infrastructure facilities.
- c. The City encourages that proposals related to the foregoing items be referred to the City at the earliest possible time so that the City's comments may have a role in helping shape the proposal prior to its being considered for final action in formal hearings or other proceedings.
- d. The City encourages that the Lead Agencies pursuant to the California Environmental Quality Act (CEQA) for projects situated within the Planning Area include the City in their distributions of all CEQA notices for those projects, including, but not limited to, notices of preparation and notices of public scoping meetings.
- e. The City shall notify all agencies and governmental entities having jurisdiction within the Planning Area of all City projects or actions that could potentially affect the agency or entity. This shall include notifications regarding the items set forth in section b. above and other notifications as may be requested by the agency or entity.
- f. Additional rural lands should not be annexed to the Goleta Water District, Goleta Sanitary District, or the Goleta West Sanitary District.
- g. Creation of new private service systems for sewer and water in rural areas north and west of Goleta shall be opposed.

LU 12.2 City of Goleta Service Boundary/Potential Sphere of Influence. [GP] Figure 2-4 shows Goleta's probable ultimate physical boundaries and service area, including boundaries for potential future additions to Goleta's service area. The subject areas are likely to share an identity as part of the greater Goleta area and in some

instances are portions of neighborhoods that are split by present (2006) city boundaries. The following guidelines shall apply to lands within these areas:

- a. Planned Land Uses. Figure 2-4 shows the land uses planned by the City within the potential areas that may be added to Goleta's service area. These land use designations, which are described in Policies LU 2 through LU 7, indicate the City's intended land uses during the time that such lands remain under the land use control of the County, as well as following any future boundary changes to incorporate such lands within the City.
- b. Service Delivery. The City has determined that it has the ability to effectively and efficiently provide municipal-type services to the land areas depicted on the map in Figure 2-4. Further, the City is willing to extend its services to the subject areas, provided that there is interest by area residents in having the City as a primary service provider. In some instances, access to the subject areas is exclusively by streets from within Goleta. In these and other instances, it is likely to be more practical for the City of Goleta to provide services rather than other governmental entities. Urban services (such as sewerage systems) should not be extended outside the land areas that are designated for land uses and densities that necessitate such services.
- c. Sphere of Influence. The City may prepare a request to the Santa Barbara County Local Agency Formation Commission (LAFCo) for adoption (or amendment) of a SOI for the City of Goleta that includes all or portions of the lands identified in Figure 2-4. The environmental impact report prepared for this plan has evaluated the potential impacts of the subject area being incorporated into the SOI, including potential impacts of future land use and service changes.
- d. Future Boundary Changes. The City of Goleta places the highest importance on self-determination by the voters and property owners within the areas identified in Figure 2-4 as to the appropriate governmental organization for the areas. Since some of the areas are "inhabited," as defined in LAFCo law, any future boundary change would require approval by a majority of the voters within a subject territory. The City encourages property owners and residents within these areas that may be interested in consideration of a boundary change to advise the City at the appropriate time. The City will provide appropriate assistance to help evaluate the merits of possible changes in governmental organization.
- e. Development Proposals. Following adoption of an SOI for Goleta, the City encourages that any future proposals for urban-type development on lands within the SOI boundary be evaluated to determine if such development should only be considered following any appropriate change in governmental organization for the subject area. These determinations should involve participation by all affected parties, including the City, the County, the affected property owner(s), and any affected residents.

LU 12.3 Santa Barbara Municipal Airport. [GP] Future changes at the Santa Barbara Municipal Airport, which is located on noncontiguous territory of the City of Santa Barbara situated at the center of Goleta, are of great interest and concern to the City of Goleta and Goleta's residents. Any future changes at the airport should take into account the following:

- a. New facilities or changes to existing physical facilities, such as runways and passenger terminals, should not be approved unless the impacts of the projects on nearby areas within Goleta have been fully evaluated pursuant to CEQA, and any residual impacts following implementation of mitigations are determined to be minor or insignificant. Mitigation measures should be required that avoid or reduce impacts to the maximum extent practicable.
- b. If noise impacts are anticipated to occur as a result of planned changes to airport operations or facilities, appropriate noise mitigation measures shall be considered, including adjustments of flight paths, authorized types of aircraft, and hours of operation, as well as acoustical insulation of affected residential units.
- c. The Santa Barbara Municipal Airport is situated on lands that were historically a portion of the Goleta Slough and its associated streams and wetlands. Any new facilities or changes to existing physical facilities should avoid or minimize further fill or contamination of these sensitive coastal wetlands. Fill or alteration of existing wetlands or streams should be considered only in circumstances where there is no feasible alternative and should be the minimum necessary to accomplish the essential purpose.
- d. The new passenger terminal project, and other future changes, should be designed to provide sufficient on-site parking for all airport users so that no parking impacts would occur on streets or parcels of land within Goleta neighborhoods. The passenger terminal project should incorporate design features to promote use of buses, vanpools, and other alternative forms of transportation by air passengers to reduce or avoid parking impacts and traffic impact on Goleta's streets and neighborhoods.
- e. A Mitigation Agreement between the City of Santa Barbara and the City of Goleta should be developed and adopted to provide for monetary contributions by the City of Santa Barbara for its "fair share" of the costs of any road improvements within Goleta needed to serve planned future airport projects. The agreement should also address mitigation of other types of impacts by airport projects that would occur within Goleta's territory.
- f. Proposed changes in tenants or uses on airport property should be evaluated for impacts.
- g. Appropriate mechanisms should be created in airport governance to provide for participation by representatives appointed or selected by the City of Goleta.



Aerial Photograph of the Santa Barbara Municipal Airport

LU 12.4 City of Santa Barbara Lands North of Hollister Avenue. [GP] The following criteria should apply to future uses and development on lands owned by the City of Santa Barbara north of Hollister Avenue:

- a. Goleta encourages the City of Santa Barbara to consult with the City of Goleta when it considers development proposals on these lands.
- b. Development should be limited to uses that do not have high traffic-generation rates. Retail uses in general have very high traffic-generation rates.
- c. Provisions for mitigation of traffic impacts of development on these lands on streets and intersections within Goleta should be encompassed with the Mitigation Agreement identified in LU 12.3.
- d. Development of uses that will adversely affect revitalization efforts by the City of Goleta Redevelopment Agency in the Goleta Old Town Project Area should be avoided. Uses that would likely adversely affect Old Town revitalization include retail stores of all types, including, but not limited to, discount stores, "big box" retail, convenience retail, restaurants, and specialty retail. The City of Goleta supports uses such as an active park, recreational facilities oriented toward teens, and cultural or performance facilities.
- e. Development should be compatible with existing and planned uses on adjacent parcels within Goleta.
- f. Projects should be designed to minimize the appearance of bulk and size. Very large individual buildings should be avoided, and the mass of structures should be moderated by variations in roof and wall planes.
- g. An adequate quantity of parking spaces should be provided on-site.
- h. Development should incorporate facilities to serve pedestrians and transit riders.
- i. Any outdoor service and storage areas should be screened by fencing and appropriate landscape plantings.

LU 12.5 Future Growth of the University of California, Santa Barbara. [GP] Due to its size and location adjacent to Goleta, actions by UCSB affect the City and its neighborhoods, residents, and businesses. Access to UCSB from outside the campus and the community of Isla Vista occurs exclusively via streets and highways that pass through Goleta. An ongoing mechanism or procedure to provide for consultation between UCSB and Goleta should be established for the purpose of identifying and addressing issues of mutual interest or concern. The following concerns should be considered when future developments and/or revisions of the university's LRDP are proposed:

- a. Any future revisions to increase the cap on enrollment at UCSB and/or development associated with increases in faculty and staff should be consistent with the available and planned capacity of infrastructure that will be affected, including Goleta's streets and highways. Off-campus street and highway improvements needed to accommodate new development, including improvements within Goleta, should be provided concurrent with the construction of individual projects.
- b. A Mitigation Agreement between UCSB and the City should be developed and adopted to provide for monetary contributions by UCSB for its fair share of the

costs of road improvements needed to serve planned future university projects. The agreement should also address mitigation of other types of impacts that would occur within Goleta.

- c. Sufficient parking should be provided for university uses and facilities on campus so that parking impacts do not spill over into nearby community areas within Goleta.
- d. Any north- or west-campus projects adjacent to or near existing residential neighborhoods within Goleta should be designed to be similar in scale, height, and character to the existing neighborhood. Vehicular access to projects should emphasize routes that minimize impacts on neighborhood streets.
- e. The UCSB portion of the Ellwood-Devereux Open Space area, including the South Parcel, should be subject to deed restrictions or other equivalent mechanisms that limit its use in perpetuity to open space, passive recreation, and habitat management. Future improvements, including trails and habitat enhancements, shall be consistent with the provisions of the joint Ellwood-Devereux Coast Open Space and Habitat Management Plan.

LU 12.6 County Lands North of Cathedral Oaks Road. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County north of Cathedral Oaks Road:

- a. Low-intensity rural and agricultural uses are appropriate in this area; higher intensity uses allowed by conditional use permit, such as churches or greenhouses, are not appropriate in the foothill area north of the City.
- b. The urban-rural boundary line should not be extended to include any additional areas within the rural area.
- c. Preservation of scenic viewsheds is a high priority; development that would extend above the ridgelines should be avoided.
- d. Hillside development should be avoided; appropriate erosion and sediment control measures should be incorporated into all development proposals to avoid downstream impacts within Goleta.
- e. Any development should be designed to protect watersheds and water quality and should incorporate stormwater retention measures to avoid increases in stormwater flows in downstream areas of Goleta.
- f. The City supports the provision



*Glen Annie Golf Course Located in the
Unincorporated Area North of Cathedral Oaks
Road*

of trail connectors between the Goleta urban area and the foothills and the Los Padres National Forest area.

LU 12.7 County Lands East and South of Goleta. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County between Goleta and the boundary of the city of Santa Barbara and southward of Goleta toward UCSB and Isla Vista:

- a. New development in areas near the Goleta boundary should be of a scale, height, intensity, and design that will be compatible with the character of any adjacent residential neighborhoods within Goleta.
- b. Any impacts of development in the unincorporated area on streets and/or intersections within Goleta should be mitigated to the fullest extent feasible.
- c. A Traffic Mitigation Agreement between the County and the City should be developed and adopted by the two jurisdictions. The agreement should provide for payments by future project developers of appropriate traffic mitigation fees for each project's fair share of the costs of road improvements needed to address the impacts on streets and/or intersections in both jurisdictions. The agreement should further provide a mechanism to transfer the applicable amount of fees to the other jurisdiction based upon the impacts and street and/or intersection improvements required to mitigate impacts within its territory.
- d. New development in these unincorporated areas should be required to provide adequate on-site parking so as to avoid any parking impacts within Goleta's neighborhoods.
- e. The Ocean Meadows Golf Course should be retained as a permanent open space and recreation use. If a residential project is developed on a portion of the property, a deed restriction requiring the undeveloped portion to remain as open space in perpetuity should be required.
- f. Any future development within the Devereux Creek and Slough watershed and the Goleta Slough watershed should incorporate measures to protect water quality and wildlife corridors.
- g. The South Patterson Agricultural Area should be preserved; large-scale or high-intensity uses unrelated to agricultural use are a threat to the continued viability of this area for agricultural production and should not be approved.

LU 12.8 County Lands West of Goleta. [GP] The following criteria should apply to future uses and development on lands in the unincorporated area of Santa Barbara County westward of Goleta, including the Gaviota Coast:

- a. The City supports County policies and zoning that will retain rural uses and the low-intensity, undeveloped character of this segment of the coastal terrace and nearby foothill areas.
- b. The urban-rural boundary line should not be extended to include any additional areas.
- c. Development of residential estates and "ranchettes" should be minimized. Whenever possible, any development potential should be transferred to lands on

- the inland side of US-101 at locations where such development will not be visible from the freeway and coastal bluffs.
- d. Low-intensity rural and agricultural uses are appropriate in this area; higher intensity uses that are allowed subject to a conditional use permit, such as churches or greenhouses, should not be approved in this coastal area.
 - e. Preservation of scenic viewsheds is a high priority; development that would extend above the ridgelines should be avoided.
 - f. Hillside development should be avoided; appropriate erosion and sediment control measures should be incorporated into all development proposals. Any development should be designed to protect watersheds and water quality.
 - g. The City supports the provision of trail connectors between the Goleta urban area and the foothills and the Los Padres National Forest area.

2.5 IMPLEMENTATION ACTIONS [GP]

The following measures to implement this plan will need to be considered. Actions on these measures will be taken following plan adoption:

LU-IA-1 Preparation and Adoption of New Zoning Code and Map. A new zoning code to replace the County zoning code adopted by the City upon incorporation must be prepared and adopted by the City Council. The new Zoning Code and Zoning Map are required to implement the policies set forth in the Land Use and other elements of this plan. A single, unified zoning code that includes zoning regulations applicable to inland areas and the coastal zone is anticipated. The portion of the zoning code applicable to the coastal zone will be subject to certification by the California Coastal Commission.

Time period: 2006 to 2007

Responsible parties: Planning and Environmental Services Department, Planning Commission, and City Council.

LU-IA-2 Adoption of Sphere of Influence for Goleta. The Santa Barbara County LAFCo is required to adopt an SOI for Goleta pursuant to Section 56425 of the California Government Code. The Goleta SOI will be a plan that defines the probable future physical boundaries and service area of the city. The SOI defines an area within which future annexations to the city may be considered. The City may submit a request to LAFCo for adoption of an SOI that is consistent with this plan. Alternatively, if LAFCo adopts an SOI for the City that is coterminous with Goleta's existing boundaries at the conclusion of its municipal service review for the south coast area, the City will need to determine whether, based on this plan, it is appropriate to prepare and submit an SOI amendment request to LAFCo to include additional territory.

Time period: 2006 to 2007

Responsible parties: Planning and Environmental Services Department, City Council, and LAFCo (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-3 Traffic Mitigation Agreements with UCSB, City of Santa Barbara, and County of Santa Barbara. These agreements are intended to provide for payments in lieu of traffic mitigation fees or pass through of traffic mitigation fees paid by private developers from a jurisdiction where a project is located to those jurisdictions where the streets and intersections are affected by the project. With respect to the Goleta-UCSB agreement, the agreement should address future projects that are accommodated by the University's LRDP and by subsequent amendments to the LRDP.

Time period: 2006 to 2007

Responsible parties: Community Services Department and City Council (with assistance from PES) (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-4 Neighborhood Compatibility Ordinance/Program. This program may consist of two parts: design criteria and a neighborhood compatibility ordinance (NCO). The NCO may be included within the new zoning code and could include standards for residential districts pertaining to Floor Area Ratios, height, bulk and scale, coverage by impervious surfaces, off-street parking, and other standards that are appropriate to provide for compatibility of new development and remodels with existing development in the immediate neighborhood, ensure access to sunlight and air, protect scenic views, and maintain privacy.

Time period: 2006 to 2007

Responsible party: Planning and Environmental Services Department and City Council (*Renumbered per Reso. 09-59, 11/17/09*)

LU-IA-5 Transfer of Development Rights Ordinance/Program. This measure is intended to create a ordinance prescribing procedures for transfer of development rights from parcels within Goleta that may not be buildable due to policy limitations associated with habitat resources to receiving sites designated by the Land Use Plan map for residential use. In addition to the ordinance, the program would need to identify both sending and receiving sites and describe the procedures applicable to approval of individual density transfers. In order to facilitate regional planning goals, the program may include the consideration of areas outside the City's jurisdiction as sender and/or receiver sites.

Time period: 2008 to 2009

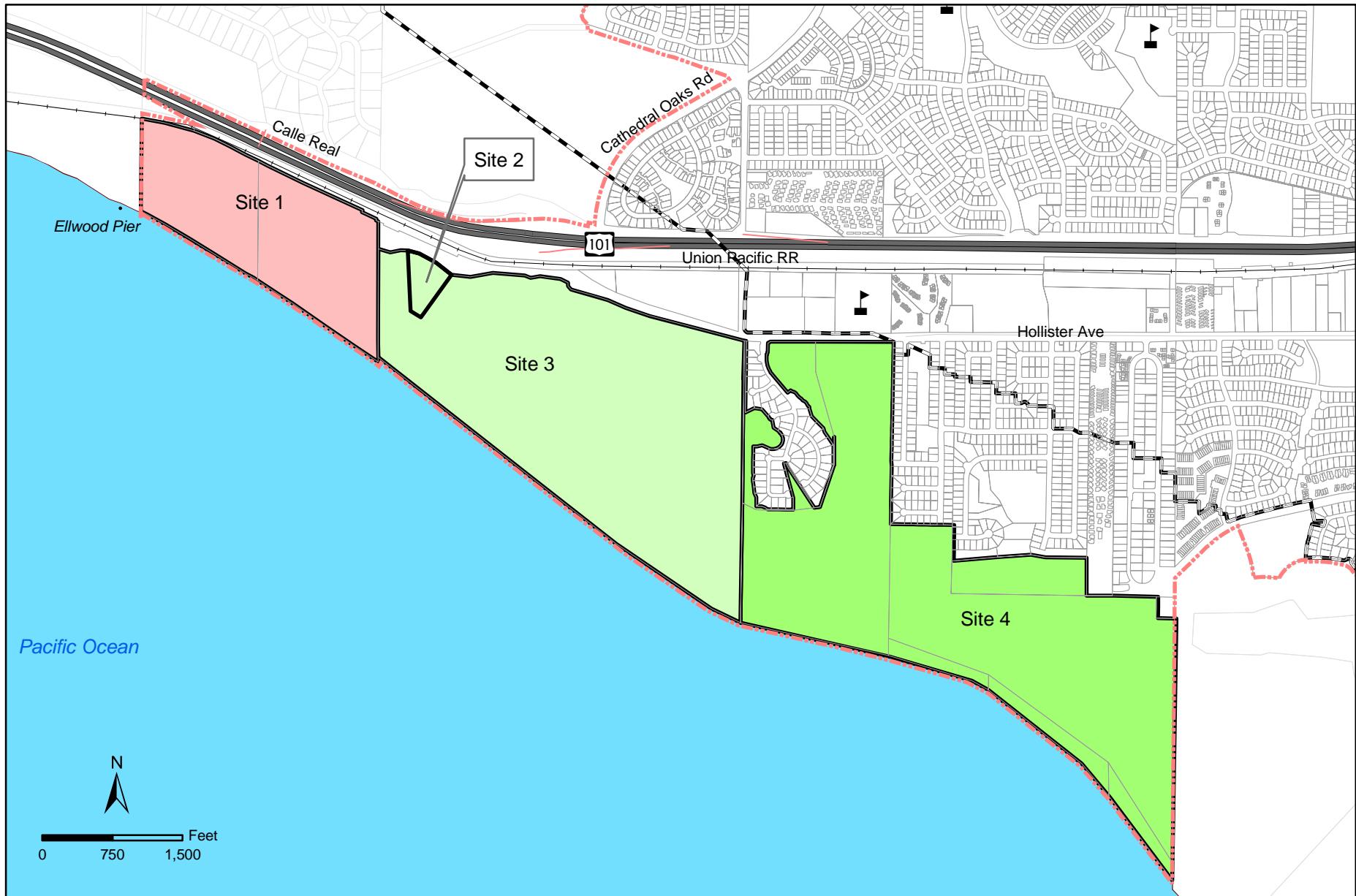
Responsible parties: Planning and Environmental Services Department and City Council (*Amended by Reso. 08-30, 6/17/08 and renumbered per Reso. 09-59, 11/17/09*)

LU-IA-6 South Kellogg Industrial Area Compliance Program. The City shall establish a systematic program to achieve land use compatibility between the South Kellogg Industrial Area and the adjacent residential area. The program shall include the components set forth in LU 4.6 and others as appropriate.

Time period: 2006 through 2009

Responsible parties: Property Owners and Businesses; Planning and Environmental Services Department; Neighborhood Services and Redevelopment Department (*Renumbered per Reso. 09-59, 11/17/09*)

ATTACHMENT B



Legend

Pacific Shoreline Sites

- [Box] Site 1 Bacara
- [Box] Site 2 Venoco
- [Box] Site 3 Sandpiper Golf Course
- [Box] Site 4 Santa Barbara Shores Park - Sperling Preserve

Land Use Categories

- [Red Box] Commercial Visitor-Serving
- [Light Green Box] Open Space / Active Recreation
- [Dark Green Box] Open Space / Passive Recreation

Other Features

- [Dashed Red Line] Goleta City Boundary
- [Solid Black Line] Coastal Zone
- [Flag icon] Schools

Figure 2-2
PACIFIC SHORELINE SITES

GENERAL PLAN/COASTAL LAND USE PLAN
September 2006



ATTACHMENT C

CHAPTER 3.0

OPEN SPACE ELEMENT: OPEN SPACE, RECREATION, AND COASTAL ACCESS (OS)

3.1 INTRODUCTION

General Plan Law Requirements [GP]

The Open Space Element is one of seven mandatory elements of a general plan as described in California Government Code (Government Code) Section 65302. The detailed requirements applicable to the Open Space Element are presented in Sections 65560 through 65570 of the Government Code. The intent of this law is to ensure that cities recognize that open space land is a limited and valuable resource that must be conserved wherever possible and to require

local plans that will accomplish the objectives of a comprehensive open space program. Open space land is defined by the law as any area of land that is essentially unimproved and designated for one or more of the following open space uses: (1) land for the preservation of natural resources; (2) land for the managed production of resources; (3) open space for outdoor recreation; (4) open space for public health and safety; and (5) protection of Native American cultural sites, including burial, historic or archaeological, sacred, or other cultural sites. State law requires that any public acquisition or disposition of any interest in open space land must be consistent with the Open Space Element. Similarly, approvals of building permits, subdivision maps, and open space zoning ordinances must also be consistent. Portions of the required subjects are addressed in the Visual and Historic Resources Element.

Open Space Element Policies

- OS 1: Lateral Shoreline Access
- OS 2: Vertical Access to the Shoreline
- OS 3: Coastal Access Routes, Parking, and Signage
- OS 4: Trails and Bikeways
- OS 5: Ellwood-Devereux Open Space Area
- OS 6: Public Park System Plan
- OS 7: Adoption of Open Space Plan Map
- OS 8: Protection of Native American and Paleontological Resources
- OS 9: Financing Public Parks, Open Space, and Recreation Facilities

Coastal Act Requirements [CP]

One fundamental purpose of the California Coastal Act (Coastal Act) is to maximize provision of public coastal access and recreation consistent with private property rights and protection of sensitive habitats and other coastal resources. The Coastal Act requires that development not interfere with the public right of access to the sea and shoreline and provides that public access must be incorporated in new development, with limited exceptions. The Coastal Act also addresses the need to regulate the time, place, and manner in which public access is provided. It specifies the need to protect shoreline land suitable for coastal recreation uses and gives priority to the use of such land for public recreational uses, including ocean-dependent and ocean-related uses, over other uses. The Coastal Act policies provide that, wherever feasible, public access and recreation facilities, including public parking lots, should be distributed throughout an area so as to prevent overcrowding or overuse of any single area. The Coastal Act further encourages the provision of lower-cost visitor and recreational facilities for the public.

Goleta's Open Space, Recreation, and Coastal Access Resources – 2005 [GP/CP]

An essential aspect of Goleta's character and livability is derived from the diverse open space and resource lands within and surrounding the community. These assets include: approximately

two miles of Pacific shoreline, beaches, and coastal bluffs; open coastal mesas; Goleta and Devereux Sloughs; agricultural lands, including citrus groves and vegetable crops as well as fallow lands; creeks, riparian areas, ponds, wetlands, and woodlands; diverse wildlife habitats, including eucalyptus groves comprising the largest complex of monarch aggregation sites in southern California; numerous public and private parks and open space areas, many of which include especially valued resource lands; lands with historic structures and landscapes; Lake Los Carneros and its surrounding open lands; and the scenic backdrops provided by the Santa Ynez Mountains, Pacific Ocean, and Channel Islands. Parks and open space not only serve to protect environmental resources, but they also provide accessible recreational venues for residents, including families, elderly persons, and disabled and low-income residents. Preservation of these resources is integral to maintaining the natural and historical qualities of the area for the benefit of present and future generations.

Existing Parks and Open Space

As of 2005, Goleta's 16 public parks, four private parks and open space areas, and 18 public open space areas comprise a total of 526 acres, which equates to about 17 acres per 1,000 residents. The three larger City-owned regional open space preserves—the Sperling Preserve, Santa Barbara Shores Park, and Lake Los Carneros Natural and Historical Preserve—collectively accounted for 363 acres of that total. Approximately 40 percent of Goleta's two miles of Pacific shoreline is now in City ownership. Together with the neighborhood open space areas, these preserves provide many opportunities for passive recreation activities and enjoyment of natural areas. Areas specifically developed for active recreational uses were less abundant in 2005, with about 3 acres of land per 1,000 residents, and additional active parks were an important need identified in the public workshop process that led to creation of this plan. The city's single recreation center, the Goleta Valley Community Center, is insufficient to fulfill all needs by community groups and residents. In addition, although the privately owned and managed Girsh Park provided much-needed facilities for active recreation, there was a shortage of public facilities for active recreation, such as sports fields and tennis courts, and a shortage of dedicated trails.



Stow Grove Park

Existing Coastal Access

Direct access to beach areas is limited due to Goleta's short 2-mile-long coastline and the presence of steep bluffs along the shoreline, except at the mouths of Bell and Tecolote Creeks. Existing public beach access is available at two locations—Ellwood Beach at the City-owned Santa Barbara Shores Park/Sperling Preserve and Haskell's Beach at the Bacara Resort property. Coastal access improvements as of 2005 included a dedicated 50-space, public coastal access parking lot at the Bacara access site and a City-owned 45-space lot at Santa Barbara Shores Park/Sperling Preserve. Additional onstreet parking is available on several streets in the Ellwood neighborhood for coastal access in the vicinity of the Coronado Preserve,

which is owned by the Land Trust for Santa Barbara County. Approximately 10 miles of public trails are provided at the 228-acre Santa Barbara Shores Park/Sperling Preserve properties. The only known outstanding offer to dedicate coastal access was at the Bacara site, which had not been accepted as of 2005.

3.2 GUIDING PRINCIPLES AND GOALS [GP/CP]

Parks and open space provide a highly valued and important component of the existing and future environment of Goleta. This element provides goals, policies, and actions intended to achieve the City's vision for open space, parks, and recreation facilities that are accessible to all members of the community. Community workshops held as part of the public process of creating this plan emphasized the present inadequate supply of active park and recreation facilities and a desire that this need be addressed by the General Plan. The following guiding principles and goals, which are not in order of priority, provide the foundation for the Open Space Element. All policies set forth in subsequent sections of this element have been established to conform to the guiding principles and goals, and future actions of the City following adoption of the plan are required to be consistent.

1. Provide and maintain, in coordination with other agencies, a system of parks, open spaces, and recreation facilities that are accessible to and will meet the needs of present and future users of all age groups.
2. Ensure that new parks and recreational services for the public are provided concurrent with new development.
3. Increase the amount of active parks, emphasizing those areas of the community that were relatively underserved as of 2005 and areas designated for future new residential development.
4. Manage, operate, and maintain park, recreation, and open space facilities (including trails) in a manner that is responsive to the site and adjacent neighborhoods and balances the needs of the community with available funding.
5. Preserve Goleta's existing open space areas, including its beaches and Pacific shoreline, sensitive habitat areas, and agricultural lands, and increase the amount of permanently protected open space as opportunities for acquisition arise.
6. Provide for convenient public access to Goleta's beach and shoreline areas and protect these areas for coastal-dependent and coastal-related recreation use.
7. Manage open space areas in a manner that provides for public access, passive and active recreational use, and enjoyment, consistent with protection of natural and scenic resource values.
8. Provide and maintain a system of trails that will connect major parks and open space areas with each other, neighborhoods, the regional trail system, and Los Padres National Forest.
9. Ensure the protection of areas associated with Native American culture, including burial sites, religious and ceremonial sites, archaeological or historical sites, and other cultural sites.

3.3 COASTAL ACT POLICIES [CP]

The Coastal Act policies 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 plan maps show the location of the California Coastal Zone boundary.

30210 In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

30212 (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

(b) For purposes of this section, "new development" does not include:

- (1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.
- (2) The demolition and reconstruction of a single-family residence; provided that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.
- (3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.
- (4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.
- (5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have adverse impact on lateral public access along the beach.

As used in this subdivision, "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

30212.5 Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the

impacts, social and otherwise, or overcrowding or overuse by the public of any single area.

- 30213** Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facilities located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

- 30214** (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
- (1) Topographic and geologic site characteristics.
 - (2) The capacity of the site to sustain use and at what level of intensity.
 - (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
 - (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.
- (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.



Bella Vista Open Space

3.4 CITY POLICIES

Policy OS 1: Lateral Shoreline Access [GP/CP]

Objective: To provide for the creation of continuous public lateral beach and bluff-top access along the entire Goleta shoreline and increase and enhance opportunities for enjoyment of beach, shoreline, and bluff-top areas, consistent with the natural shoreline character, private property rights, and public safety.

OS 1.1 Definition. [GP/CP] Lateral shoreline access is defined as the right of public access and use of areas generally along and parallel to the shoreline that have been secured for public use by the granting and recordation of access easements or by offers to dedicate such access. As used in this plan, such public access may be on the beach landward from the mean high tide line for a particular specified distance or to the base of the ocean bluffs. Beach areas seaward of the mean high tide line are considered by Article X of the Constitution of the State of California to be public tidelands and are administered by the California State Lands Commission. Lateral shoreline access may also include public access and use of areas along and generally parallel to the top of the ocean bluffs.

OS 1.2 Adoption of Coastal Access Plan Map. [GP/CP] The overall coastal access system plan, shown in Figure 3-1, is hereby adopted. The Coastal Access Plan map identifies Goleta's existing and proposed coastal access facilities, including lateral and vertical accessways, the California Coastal Trail and Juan Bautista de Anza National Historic Trail (Anza Trail) corridors, other trails, beach access locations, and public parking areas.

OS 1.3 Preservation of Existing Coastal Access and Recreation. [GP/CP]
Goleta's limited Pacific shoreline of approximately two miles provides a treasured and scarce recreational resource for residents of the city, region, and state. Existing public beaches, shoreline, parklands, trails, and coastal access facilities shall be protected and preserved and shall be expanded or enhanced where feasible (see related Policies LU 9 and OS 4).



Ellwood Coastal Trail

OS 1.4 Mitigation of Impacts to Lateral Coastal Access. [GP/CP] New development, including expansions and/or alterations of existing development, shall be sited and designed to avoid impacts to public access and recreation along the beach and shoreline. If there is no feasible alternative that can eliminate all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts shall be mitigated through the dedication of an access and/or trail easement where the project site encompasses an existing or planned coastal accessway, as shown on the map in Figure 3-1.

- OS 1.5 Existing and Planned Lateral Coastal Access. [GP/CP]** Existing and planned lateral beach and bluff-top accessways within Goleta are shown on the map in Figure 3-1. Lateral beach and shoreline public access and recreation shall be permitted uses in the Visitor-serving Commercial, Recreation, and Open Space land use categories, which are the land-use categories applicable to lands situated along Goleta's shoreline.
- OS 1.6 Dedication of Lateral Beach Accessways. [GP/CP]** Lateral beach access along the entire length of Goleta's shoreline shall be required. Access easements shall be a required condition for approval of coastal development permits for projects within the city, provided there is a clear nexus to project impacts and the required condition is roughly proportional to the extent of the impacts. The following criteria and standards shall apply to lateral accessways:
- a. The access easement, or offer to dedicate, shall apply to the beach area extending from the mean high tide line landward to the base of the ocean bluffs. Where there is no ocean bluff, the area shall extend to the nearest nonbeach natural feature, but generally shall not be less than 25 feet in width.
 - b. It shall be the intent of the City to accept all dedications or offers to dedicate for lateral beach access for areas located within the city boundaries. If the City is unable to accept the dedication of particular access easements, it shall have authority to designate another public entity or a private nonprofit organization such as a land trust to accept the easement, provided the entity is willing to operate and maintain the easement.
 - c. Mitigation measures that require dedication of public access and recreational opportunities shall be implemented prior to or concurrent with construction of the proposed development or initiation of the proposed use in instances where there is no physical development.
- OS 1.7 Lateral Bluff-Top Accessways. [GP/CP]** Lateral bluff-top access easements, or offers to dedicate easements, may be required as a condition of approval of coastal development permits for projects located on shoreline parcels, provided there is a clear nexus to project impacts and the required condition is roughly proportional to the extent of the impacts. The intent shall be to provide a trail along the entire shoreline of the city that is usable during all seasons and tide conditions, extending from the eastern boundary of the City-owned Sperling Preserve westward through the Bacara Resort site to the City's western boundary. Some segments of the trail, such as part of the alignment on the Sandpiper Golf Course property, may be located below the bluff but above the beach on an access road to State Lease 421.
- OS 1.8 Prescriptive Access Rights. [GP/CP]** Public prescriptive rights may exist in certain areas along the beach and shoreline within Goleta. Development shall not interfere with the public's right of access to the sea where such right has been acquired through historic use or legislative authorization. Where there is substantial evidence that such rights exist, these rights shall be protected through public acquisition measures or through conditions imposed on approvals of permits for new development.
- OS 1.9 Siting and Design of Lateral Accessways. [GP/CP]** Public accessways and trails shall be an allowed use in environmentally sensitive habitat areas (ESHAs). The

following criteria and standards shall apply to the siting and design of lateral accessways:

- a. Sensitive habitat areas shall be avoided to the extent practicable in circumstances where there are feasible alternative alignments of lateral accessways.
- b. Except as expressly provided for the Anza Trail (in Policy OS 4), all lateral accessways shall be designed to use native beach or soil materials and have no more than the minimum width needed to accommodate the intended type(s) of users.
- c. Lateral beach accessways shall be maintained in a natural condition free of structures and other constructed facilities and shall be limited to native sand supply.
- d. Lateral beach accessways shall be sited, designed, managed to avoid and/or protect marine mammal hauling grounds, seabird and shorebird nesting and roosting sites, sensitive rocky points and intertidal areas, and coastal dunes.
- e. New public beach facilities shall be limited to only those structures that provide or enhance public access and recreation activities. No structures shall be permitted on sandy beach areas.
- f. All lateral shoreline access and recreation improvements shall be designed to minimize any adverse impacts to visual resources and shall be compatible with maintenance of a natural appearance.
- g. Signs shall be designed to minimize impacts to scenic coastal resources and shall be limited to trail markers and regulatory and interpretative signs. Commercial signs are prohibited.

OS 1.10 Management of Public Lateral Access Areas. [GP/CP] The following criteria and standards shall apply to use and management of lateral shoreline access areas:

- a. Private commercial uses of public beach areas shall be limited to coastal-dependent recreational uses, including but not limited to surfing schools, ocean kayaking, and similar uses. All commercial uses of beach areas and other lateral accessways shall be subject to approval of a permit by the City. The number, size, duration, and other characteristics of commercial uses of beach areas may be limited in order to preserve opportunities for use and enjoyment of the beach area by the general public. For-profit commercial uses at the City-owned Santa Barbara Shores Park and Sperling Preserve (the Ellwood-Devereux Open Space and Habitat Management Plan [OSHMP] area) are prohibited (see related Policy OS 5).
- b. Temporary special events shall minimize impacts to public access and recreation along the shoreline. Coastal Development Permits shall be required for any temporary event that proposes to use a sandy beach area and involves a charge for admission or participation.
- c. Where sensitive habitat resources are present, limited or controlled methods of access and/or mitigation designed to eliminate or reduce impacts to ESHAs shall be implemented.

- d. The hours during which coastal access areas are available for public use shall be the maximum feasible while maintaining compatibility with nearby neighborhoods and land uses. The hours for public use shall be set forth in each individual coastal development permit. Unless specific hours are described within a permit, the access shall be deemed to be 24 hours per day and 7 days per week.
- e. In order to maximize public use and enjoyment, user fees for access to lateral beach and shoreline areas shall be prohibited. Activities and/or uses that would deter or obstruct public lateral access shall be prohibited.
- f. Overnight camping and use of motorized vehicles, except for public safety vehicles and vehicles associated with construction of access improvements and maintenance and restoration or enhancement activities, shall be prohibited in lateral shoreline access areas.

Policy OS 2: Vertical Access to the Shoreline [GP/CP]

Objective: *To provide for expanded and enhanced public vertical access to Goleta's shoreline by preserving existing accessways and establishing new vertical access opportunities at key locations so as to increase opportunities for public enjoyment of beach, bluff-top, and other shoreline areas, consistent with the natural shoreline character, private property rights, and public safety.*

OS 2.1 **Definition. [GP/CP]** “Vertical” accessways are defined as the right of public access and use of areas generally perpendicular to the beach and shoreline that provide access to beach and shoreline areas from public street rights-of-way or parking areas and that have been secured for public use by the granting and recordation of access easements or by offers to dedicate such access.

OS 2.2 **Planned Vertical Accessways. [GP/CP]** Existing and planned vertical accessways to the beach and bluff-top within Goleta are shown on Figure 3-1. Vertical beach and shoreline public access shall be a permitted use in the Visitor-serving Commercial, Recreation, and Open Space land use categories, which are the land-use plan map categories applicable to lands situated along Goleta’s shoreline.

OS 2.3 **Preservation of Existing Vertical Accessways. [GP/CP]** Vertical access to Goleta’s Pacific shoreline was limited to two locations as of 2005. These include access to Haskell’s Beach within the Bacara Resort property and access at the City-owned Santa Barbara Shores Park and Sperling Preserve properties. The latter includes numerous trails that provide access to the bluff tops, although access from the bluff top to Ellwood Beach is available at only two locations. Existing public vertical coastal access facilities shall be protected and preserved



Public Access to Haskell’s Beach

and shall be expanded or enhanced where feasible (see related Policies LU 9 and OS 4).

OS 2.4 Mitigation of Impacts to Vertical Coastal Access. [GP/CP] New development, including expansions and/or alterations of existing development, shall be sited and designed to avoid impacts to public vertical accessways to the shoreline unless a comparable, feasible alternative is provided. If there is no feasible alternative that can eliminate all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts shall be mitigated through the dedication of an access and/or trail easement in the general location where the project site encompasses an existing or planned coastal accessway, as shown generally on the map in Figure 3-1. (Amended by Reso. 08-30, 6/17/08)

OS 2.5 Dedication of Vertical Accessways. [GP/CP] Dedication of vertical access easements, or offers to dedicate, shall be a required condition of approval of coastal development permits for projects on shoreline sites within the city, provided there is a clear nexus to the project impacts and the required condition is roughly proportional to the extent of the impacts. The following criteria and standards shall apply to vertical accessways:

- a. The access easement, or offer to dedicate, shall apply to an area that includes the entire public accessway that extends from the public road or parking area to the shoreline.
- b. The width of the access easement should not be less than 25 feet and shall be centered on a pathway of at least 5 feet in width.
- c. It shall be the intent of the City to accept all dedications or offers to dedicate for vertical beach access for areas located within the city boundaries. If the City is unable to accept the dedication of particular access easements, it shall have authority to designate another public entity or a private nonprofit organization, such as a land trust, to accept the easement, provided the entity is willing to operate and maintain the easement.
- d. Mitigation measures that require dedication of public access and recreational opportunities shall be implemented prior to or concurrent with construction of the proposed development or initiation of the proposed use in instances where there is no physical development.
- e. The opening of access easements that are dedicated as a condition of approval of coastal development permits shall occur only after the City, or other public or nonprofit entity designated by the City, has accepted the offer of dedication and agreed to open, operate, and maintain the accessway.
- f. New offers to dedicate access easements shall include an interim deed restriction that: (1) states the terms and conditions of the permit do not authorize any interference with prescriptive rights prior to acceptance of the offer and (2) prohibits any development or obstruction in the easement area prior to acceptance of the offer.

OS 2.6 Prescriptive Vertical Access Rights. [GP/CP] Public prescriptive vertical access rights to the shoreline may exist in certain areas within Goleta. Development or uses shall not interfere with the public's right of access to the sea where such right has been acquired through historic use or legislative authorization. Where there is substantial evidence that such rights exist, these rights shall be protected through

public acquisition measures or through conditions imposed on approvals of permits for new development.

OS 2.7 Siting and Design of Vertical Accessways. [GP/CP] Public vertical accessways and trails shall be an allowed use in ESHAs. The following criteria and standards shall apply to the siting and design of all vertical accessways:

- a. Sensitive habitat areas shall be avoided to the extent practicable in circumstances where there are feasible alternative alignments of vertical accessways.
- b. Public access paths shall maintain a natural appearance and shall not be paved with impervious materials, except for segments that are intended to provide handicapped access or short segments to beach overlook points.
- c. No structures shall be permitted on bluff faces except for vertical beach accessways.
- d. Access to the beach shall be provided by natural trails or ramps down the face of the bluff rather than by concrete or wooden stairways. Railroad ties or a similar material may be used to provide stability to the access route and to reduce bluff erosion.
- e. Where vertical access to the beach area is not feasible or appropriate, vertical accessways may terminate at a beach overlook or vista point.

OS 2.8 Management of Vertical Accessways. [GP/CP] The following standards shall apply to management of vertical accessways:

- a. Where sensitive habitat resources are present, limited or controlled methods of access and/or mitigation designed to eliminate or reduce impacts to ESHAs shall be required.
- b. The hours during which vertical coastal access areas are available for public use shall be the maximum feasible while maintaining compatibility with nearby neighborhoods and land uses. The hours for public use shall be set forth in each individual coastal development permit. Unless specific hours are described within a permit, the access shall be deemed to be 24 hours per day, 7 days per week.
- c. In order to maximize public use and enjoyment, user fees for access to vertical beach and shoreline areas shall be prohibited. Activities and/or uses that would deter or obstruct public vertical access shall be prohibited.
- d. Private for-profit commercial use of vertical accessways shall be prohibited.



Existing Vertical Accessway to Haskell's Beach

- e. Camping or other use of vertical accessways for overnight accommodations shall be prohibited.
- f. Motorized vehicles shall be prohibited on vertical accessways.

Policy OS 3: Coastal Access Routes, Parking, and Signage [GP/CP]

Objective: *To provide an adequate supply of public coastal access parking in lots or areas that are appropriately distributed along Goleta's shoreline with convenient and linkages to regional transportation routes.*

OS 3.1 Coastal Access Highway Routes. [GP/CP] Coastal access highway routes are defined as public or private roadways or rights-of-way that link the local and regional highway network to vertical coastal access facilities, including public parking areas. These routes, shown on Figure 3-1, include the following:

- a. Hollister Avenue, from its interchange at U.S. Highway 101 (US-101) to the Bacara access road and to the Santa Barbara Shores Park parking lot, which connects to vertical accessways to the bluff-top and to Elwood Beach.
- b. Bacara access road to the public parking lot situated on the Bacara property and to the proposed future public parking and vertical accessway on the Venoco/Sandpiper site along Bell Creek to Haskell's Beach.
- c. Storke Road, from the US-101 interchange to Phelps Road and along Phelps Road to a proposed public coastal access parking lot on UCSB property, which provides access to the Ellwood-Devereux Open Space Area and the Sperling Preserve.
- d. Storke Road, continuing from the Phelps Road intersection southerly to the city boundary (which provides an access route to Coal Oil Point and Sands Beach on University of California, Santa Barbara [UCSB] property).

OS 3.2 Coastal Access Parking.

[GP/CP] Adequate public parking shall be provided and maintained to serve coastal access and recreation uses to the extent feasible. The following criteria and standards shall apply:

- a. Existing and planned public coastal access parking areas are shown on Figure 3-1.
- b. Existing public parking areas serving coastal recreation users shall not be displaced unless a comparable replacement parking area is provided.



Coastal Access Parking at Santa Barbara Shores Park

- c. New development shall be required to provide offstreet parking sufficient to serve the proposed uses in order to minimize impacts to public onstreet parking available for coastal access and recreation.
- d. New or expanded nonresidential development that may individually or cumulatively impact public shoreline access and recreation shall include parking areas that are designed to serve beach access during weekends as well the proposed uses on weekdays. In addition, vehicular access to the shoreline with a drop-off point for marine recreation equipment shall be required in appropriate locations, as shown on the map in Figure 3-1.

OS 3.3 Signage for Coastal Access. [GP/CP] Coastal access signage should be provided as follows:

- a. Distinctive logo signs or markers consistent with visual resources may be provided for the California Coastal Trail, the Coastal Bluff-Top Trail, and the Anza Trail.
- b. Coastal access signs shall be provided at appropriate locations within street and highway rights-of-way to direct visitors to coastal access sites, including signs at appropriate locations along the California Department of Transportation right-of-way for US-101.
- c. Coastal access signs shall be provided at entrances to public coastal access parking lots.

OS 3.4 Coastal Access Amenities. [GP/CP] The following amenities for users of coastal accessways may be provided at appropriate locations that minimize impacts on sensitive habitat and visual resources:

- a. Signage, including trail markers, interpretative signage, and other appropriate low-impact informational signs compatible with visual resources.
- b. Trash receptacles.
- c. Benches, picnic tables, or other seating.
- d. Bike racks or other devices for securing bicycles.
- e. Public restrooms.
- f. Other low-impact user amenities, provided that they are compatible with sensitive environmental habitats and visual resources.

Policy OS 4: Trails and Bikeways [GP/CP]

Objective: *To designate, preserve, and expand a public trail system that will provide recreation opportunities for multiple types of users in diverse and attractive environmental settings and that will connect various parks and neighborhoods with the regional trail network and to Los Padres National Forest.*

OS 4.1 Definition. [GP/CP] As set forth in this policy, trails are defined as foot paths where rights of public use are obtained through acquisition of access easements for trail purposes by a public agency or a nonprofit organization and are made available for

use by the general public. Some trail segments may be multiuse, and allow use by bicyclists and/or equestrians as well as pedestrians.

OS 4.2 Adoption of Trail Plan Map. [GP/CP] The overall trail system plan, shown in Figure 3-2, is hereby adopted. The Trail Plan map identifies the city's existing and proposed trail segments, which are intended to provide diverse recreational and aesthetic experiences serving the entire community, achieve connections to parks and major recreational facilities, link with trail systems of adjacent jurisdictions, and facilitate recreational corridors between the Santa Ynez Mountains (Los Padres National Forest) and the coast. The alignments for proposed trail segments are conceptual only. Sidewalks and bikeways are intended to be connecting links to or between trails. The Pedestrian System Plan Map and the Bikeways Plan Map are Figures 7-5 and 7-6 in the Transportation Element.

OS 4.3 California Coastal Trail. [GP/CP] The California Coastal Trail segment within Goleta, as shown on the maps in Figures 3-1 and 3-3, shall be planned as a part of a continuous lateral shoreline trail system traversing the entire length of the state's coastline, connecting with contiguous California Coastal Trail segments within the jurisdictions of the County and UCSB. The following criteria and standards shall apply to the California Coastal Trail:

- a. The trail shall be sited as close to the ocean as possible, while maintaining an appropriate setback for safety purposes from the edge of the coastal bluff.
- b. The trail shall be connected at appropriate intervals to existing and proposed local trail systems and to vertical access facilities.
- c. The trail shall be sited to maximize ocean views and scenic coastal vistas.
- d. The trail shall be planned primarily as a pedestrian trail, although certain segments, particularly within the City-owned Ellwood-Devereux Open Space Area, may be planned to accommodate the needs of bicyclists and/or equestrians.
- e. Segments of the trail located along the beach and shoreline that may not be passable at all times shall, where feasible, have an alternate landward or bluff-top route that will allow continuous passage during all seasons and tide conditions.
- f. The trail shall be sited and designed to minimize impacts to environmentally sensitive habitat areas to the extent feasible. The trail surface shall generally be limited to groomed and/or compacted native soil or sand material, except that segments intended for handicapped access or to beach overlooks (vista points) may be improved to a higher standard.



California Coastal Trail

The California Coastal Trail (CCT) is a continuous public right-of-way along the entire California coastline designed to foster appreciation and stewardship of the diverse scenic and natural resources of the California coast through a hiking, biking, and equestrian trail system. The CCT's projected length of 1,300 miles will be comprised of many different segments over varied terrain, reflecting the great diversity of California's coastal communities and providing opportunities for public access to beaches, scenic vistas, wildlife viewing areas, recreational or interpretive facilities and other points of interest.

- g. Trail easement dedication and installation of trail improvements shall be required as a condition of approval of all coastal development permits on properties located on the California Coastal Trail corridor, when dedication will mitigate impacts by the project on public access and/or recreation.

OS 4.4 Juan Bautista de Anza National Historic Trail. [GP/CP] The following criteria and standards apply to future improvements to the Anza Trail segment within Goleta:

- a. The planned corridor for the Anza Trail is shown on the maps in Figures 3-1 and 3-3.
- b. Within the City-owned Sperling Preserve and Santa Barbara Shores Park, the Anza Trail shall be planned for multiple user types, including pedestrians, bicyclists, and equestrians, as shown on the map in Figure 3-3.
- c. Within the City-owned open space property the Anza Trail shall generally be designed as follows:
 - 1) The equestrian path or tread may be separate from or combined with the main trail tread for pedestrians and bicyclists.
 - 2) The trail shall be designed to have the minimum width necessary to accommodate the multiple users. The surface may be native soil materials or imported compacted fines (such as decomposed granite) without stabilizer or binder.
- d. As it exits the public open space area, the future Anza Trail corridor extends along Hollister Avenue to the Bacara access road and along that road to the city's western boundary. Standards for improvements of this segment of the Anza Trail shall be flexible to respond to the amount of available space for trail improvements. Dedication of a public access easement for the trail shall be required as a condition of approval of all coastal development permits for properties located along the Anza Trail corridor.
- e. Connectivity of the Anza Trail in Goleta with segments within the jurisdictions of the County and UCSB shall be provided as indicated in the multi-jurisdictional Ellwood-Devereux OSHMP.

OS 4.5 Creekside Trails. [GP] Trails shall be sited to minimize damage to riparian areas while allowing some public access. To the extent feasible, trail corridors should be located outside riparian areas but provide occasional contact to streams to allow public access and enjoyment of the resources. Where feasible, public trail easements should be located within the boundaries of flood control easements. All trail construction should minimize removal of riparian vegetation and utilize natural features and/or lateral fencing to discourage public access to streamside areas not



Juan Bautista de Anza Trail

The Juan Bautista de Anza Trail extends from the Mexican border at Nogales, Arizona across Arizona and California to the San Francisco Bay Area. The trail recognizes the route of the 1775-76 Anza expedition to bring more than 240 settlers from Mexico through little-known territory to Alta California. The expedition, an integral part of Spanish foreign and colonial policy to extend its hold upon territories in the New World, brought the influence of the language, customs, traditions, and general expressions of Hispanic culture on the early development of California.

directly within the trail alignment. Any fences constructed along trail corridors should allow for wildlife movement. Where necessary to prevent disturbance of nesting birds, sections of trails may be closed on a seasonal basis. At such times, alternative trail segments should be provided, where feasible. In order to protect riparian resources, the number of creek crossings should be limited and maintenance should be conducted to minimize introduction and spread of invasive plants.

OS 4.6 Trail Connectors to Los Padres National Forest. [GP] The City shall encourage and help facilitate public trail access from the community to the rural foothills and mountainous areas of the Los Padres National Forest by providing connections from the urban areas within city boundaries to the following proposed trail segments:

- a. Ellwood Canyon Trail.
- b. Glen Annie Trail.
- c. San Jose Creek Trail.

OS 4.7 Acquisition/Dedication of Trails. [GP] The City shall create a system of interconnecting, useable public trails within designated trail corridors through a combination of mechanisms such as required dedications of easements, public purchase, land exchange, private donation and other voluntary means. Trail easement dedications shall be required as a condition of approval for development on property that contains a mapped trail corridor when the dedication will mitigate adverse impacts created by the project on public access and/or recreation. Development and the trail alignment shall be sited and designed to provide maximum privacy and safety for both residents and trail users. The corridors for proposed trail segments shown on Figure 3-2 are conceptual, and precise alignments shall be determined at the time of development approval.

Policy OS 5: Ellwood-Devereux Open Space Area [GP/CP]

Objective: *The portion of the Ellwood-Devereux Open Space Area within Goleta, which includes the City-owned Sperling Preserve and Santa Barbara Shores Park units, shall be managed to provide coastal access and passive, coastal-dependent recreational opportunities consistent with protection and enhancement of the site's environmentally sensitive habitat areas and other environmental and scenic resources.*

OS 5.1 Definition. [GP/CP] The provisions of this policy apply to the lands within the boundaries of the Ellwood-Devereux Coast OSHMP that are within the City's jurisdiction, as shown on Figures 3-3 and 3-4. These lands include the City-owned 137.6-acre Sperling Preserve, acquired in February 2005 by the City with the assistance of the Trust for Public Land; the 91.7-acre City-owned Santa Barbara Shores Park; other contiguous City-owned open space areas; and the 9.5-acre Coronado Preserve, owned and managed by the Land Trust for Santa Barbara County.

OS 5.2 Adoption of Open Space and Habitat Management Plan Maps. [GP/CP] The Open Space and Habitat Management Plan maps in Figures 3-3 and 3-4, which respectively designate coastal access and recreation areas and environmentally sensitive habitat areas that are to be protected and/or enhanced, are hereby adopted.

OS 5.3 Public Access and Recreation.

[GP/CP] The Ellwood-Devereux Open Space Area shall be managed to maintain the site's historical public access and recreation uses while managing accessways to protect natural resources such as the monarch butterfly groves, vernal pools, native grasslands, beaches, coastal bluffs, and other environmentally sensitive habitat areas. The planned trail and beach access system, shown on the map in Figure 3-3, is based on the locations of existing informal trails created by repeated public use, with some trail segments being closed to avoid impacts to environmentally sensitive areas, to eliminate hazardous segments, and/or to eliminate parallel redundant trail segments. Although some trail closures are proposed, the planned trail system will not reduce overall access or trail experiences in the public open space area, but will redirect users to alternate routes located in close proximity. The following standards shall apply to public access and recreation in the open space area:



Ellwood-Devereux Open Space Area

- a. The Anza Trail is one of two major planned east-west trails across the Ellwood Mesa. This trail extends from the eastern boundary with UCSB to the public access parking lot at Santa Barbara Shores Park adjacent to Hollister Avenue (see related OS 4.4).
- b. The California Coastal Trail segment within the Ellwood-Devereux Open Space Area, the other major east-west trail, is planned to have a bluff-top alignment (see related OS 4.3).
- c. The locations of additional planned trails are also shown on Figure 3-3. Although the trail system shall be planned primarily as footpaths for pedestrians, bicyclists and/or equestrians may also be accommodated on certain trail segments as shown in Figure 3-3. At least one trail from the Hollister parking lot to the bluff-top shall be designated for exclusive use by pedestrians.
- d. Except for the Anza Trail, trails shall generally be designed to utilize native soil materials with appropriate grooming and maintenance to provide for slightly crowned cross sections, defined trail edges, and proper drainage. Trail improvements shall be designed to maintain natural drainage patterns in order to avoid potential impacts to Devereux Creek and the associated eucalyptus groves that comprise the monarch butterfly aggregation sites. Trail improvements may include boardwalks and/or bridges across Devereux Creek in wet or eroded areas in the vicinity of the Ellwood Main grove
- e. Two accessways from the bluff top to Ellwood Beach (identified as accessways E and F) are planned, as shown on Figure 3-3. These beach accessways shall be planned to accommodate pedestrians only.
 - 1) Improvements to accessway E, which is a steeply sloped former roadway with a badly eroded asphalt surface, are limited to repairs to improve the

surface for the safety of users and to reduce further erosion of the bluff face and pathway.

- 2) Improvements to accessway F, which is a steep pathway down the face of the bluff, shall be designed to smooth the surface, improve drainage, and reduce erosion of the path and bluff face and are generally limited to minor grading and placement of landscape ties or a similar material to stabilize the pathway.
- f. A public access parking lot consisting of not less than 40 parking spaces shall be provided adjacent to Hollister Avenue, as shown in Figure 3-3. The following standards shall apply to public parking serving the open space area:
 - 1) The Hollister Avenue lot shall be paved with permeable materials to reduce stormwater runoff and prevent pollution of surface waters.
 - 2) Landscaping of the parking lot and Hollister Avenue street frontage shall maintain a natural appearance and shall be limited to drought-tolerant species. Landscaping shall not impair views of the coastal bluff-top, ocean, and Channel Islands from Hollister Avenue.
 - 3) Onstreet parking on streets within the Ellwood neighborhood shall be available as needed for public coastal access, subject to appropriate restrictions on the hours of availability and duration of such parking.
- g. A limited amount of facilities or amenities may be provided within the open space area to better accommodate users and manage accessways to protect natural resources. These may include the following:
 - 1) A potential public restroom facility to be located between the public parking lot and Hollister Avenue, which shall be designed to avoid impairing views of the ocean and the Channel Islands from Hollister Avenue.
 - 2) Low-profile signs to identify permitted uses, guide pedestrians, interpret resources, and advise users on resource protection regulations.
 - 3) Temporary or permanent barriers to establish protection for sensitive plants and animals and habitat restoration areas that are compatible with the natural appearance of the surroundings.
 - 4) Benches at a limited number of selected scenic locations.
 - 5) Trash receptacles, mutt-mitt dispensers, and other similar low-impact facilities.
- h. A signage program shall be prepared for the open space area. The overall intent or purposes of the sign program shall be to assist and inform visitors as to open space regulations, directions, and information. Signs shall be designed and located in a manner that is protective of environmental and visual resources and may include the following:
 - 1) A donor recognition sign.
 - 2) Trail markers identifying names, directions, and distances.
 - 3) Trail head signs.
 - 4) Interpretative signs.

- 5) Regulatory signs, including trail and open space rules, closures, and hazardous areas.
- 6) Habitat protection signs.

OS 5.4 Protection and Enhancement of Habitat Areas. [GP/CP] Within its boundaries, the Ellwood-Devereux Open Space Area encompasses a diverse array of sensitive aquatic and upland habitats, as shown on Figure 3-3. These habitats include beach and shoreline areas, dunes, rocky intertidal areas, coastal bluffs, monarch butterfly aggregation sites and associated eucalyptus groves, vernal pools, riparian areas along Devereux Creek and its tributaries, coastal sage and scrub areas, native grasslands, and raptor nesting and roosting areas. All environmentally sensitive habitat areas shall be managed and protected consistent with the policies and standards described in the Conservation Element of this plan. In addition, the following criteria and standards shall apply to the Ellwood-Devereux Open Space Area:

- a. Habitat management on City owned lands shall be implemented within a broad ecosystem context in which habitat management priorities will consider the role of the targeted habitats and the interrelationships with other habitats in the open space area. In addition to protection of existing habitats, management actions may include interventions to enhance or restore degraded habitat conditions. All management activities shall use an adaptive approach that includes monitoring and adjustments to ensure that self-sustaining habitats will be created that are not reliant on long-term human intervention.
- b. Priority habitat management activities include ensuring the long-term vitality of the eucalyptus groves and stability in the monarch butterfly population; restoration of native grasslands; enhancement of vernal pools and riparian habitats; and protection of special status species, including various raptors and the western snowy plover. Some examples of habitat management action areas are shown on Figure 3-4.
- c. Habitat management activities shall be designed to accommodate public access and use in or adjacent to habitat areas, where practicable, in a manner consistent with protection of the resource.
- d. In all habitat enhancement or restoration projects, genetic stock for seeds and plants from the Devereux Creek watershed shall be used, unless such use has been determined to be infeasible.

OS 5.5 Use and Management of the Open Space Area. [GP/CP] The following management policies shall apply to lands owned by the City within the Ellwood-Devereux Open Space area:

- a. An advisory committee may be established to provide advice and recommendations to the City regarding management of access, recreation uses, and habitat within the area. The committee may include residents of the adjacent neighborhoods as well as technical experts.
- b. Permitted uses include, but are not limited to, the following compatible passive and coastal-dependent recreation activities: hiking, bicycling on designated trails, horseback riding on designated trails, bird-watching, surfing, sunbathing and beach play, surf fishing as allowed by law, swimming, scuba diving and

snorkeling, kayaking, picnicking, playing of nonamplified musical instruments, kite flying, small educational tours, habitat restoration, scientific studies, and other uses as deemed appropriate by the City. Particular uses may require advance approval of a permit by the City.

- c. Prohibited uses include, but are not necessarily limited to, the following: fireworks; camping; plant or wildlife collecting unless approved by the City; amplified music; radio-controlled motorized equipment such as model airplanes and cars; organized competitive sporting events such as track and field and bicycle races; large-scale special events and public gatherings; model rockets; fires of any kind, including in pits or in camp stoves; and archery, BB guns, pellet guns, paint guns, and firearms of all types.
- d. All private for-profit commercial uses of the City-owned portion of the Ellwood-Devereux Open Space Area shall be prohibited, including but not limited to commercial equestrian operations.
- e. Beach grooming using mechanical equipment shall be prohibited.
- f. Any group activity that causes damage to vegetation or soil outside of designated trails shall be prohibited.
- g. Use of herbicides, insecticides, and similar toxic substances shall not be permitted unless other nonchemical methods of pest control have been attempted or determined to be infeasible.

OS 5.6 Multi-jurisdictional Open Space Area. [GP/CP] The Ellwood-Devereux Open Space area within Goleta is a part of a planned contiguous open space area of over 650 acres along or near the Pacific shoreline. This larger multi-jurisdictional open space area includes lands managed by the Land Trust for Santa Barbara County, UCSB, and the County of Santa Barbara. The City intends to cooperate with the Land Trust of Santa Barbara County, UCSB, and the County of Santa Barbara in assuring connectivity of trails and in formulating and implementing habitat management strategies where such management activities have effects that extend beyond the boundaries of individual jurisdictions.

Policy OS 6: Public Park System Plan [GP]

Objective: *To develop a well-maintained, interconnected system of multi-functional parks, recreation facilities and public open spaces that will meet the needs of existing and future residents and employees and that are attractive, safe, and accessible to all segments of the city's population, and supportive of established neighborhoods.*

OS 6.1 Definition. [GP] The following types of public parks and open space are defined by this plan: mini parks, neighborhood parks, neighborhood open space, community parks, regional open space, and special-use parks. The provisions set forth in subsequent sections of this policy define each of these categories and provide criteria and standards applicable to each category.

OS 6.2 Equitable Distribution of Park Facilities. [GP] To the extent feasible, park and recreation facilities shall be equitably distributed throughout the city to serve the various neighborhoods and all socioeconomic segments of the city's population. Particular emphasis shall be placed on provision of new park and recreation facilities

in areas that were underserved as of 2005 and in areas of the city that are designated for new residential use and development in the future. These areas include, but are not limited to, the Goleta Old Town (Old Town) and the Mid-Hollister areas. The distribution of existing and planned future public park and recreation facilities and public open space areas is shown on Figure 3-2, and information about each site is summarized in Table 3-1.

- OS 6.3 Mini or “Pocket” Parks. [GP]** A mini park is characterized by a relatively small size and specialized facilities that serve a small local area and/or specific segment of the population, such as children or senior citizens. The following standards shall apply to mini or pocket parks:

- a. The typical service area shall be a radius of 0.33 mile.
- b. The typical size shall be 1 acre or less.
- c. Mini parks should be located in close proximity to housing and/or other activity centers in the immediate neighborhood to provide accessibility and visibility.
- d. Typical facilities provided in mini parks may include children’s play areas and equipment, exercise and fitness areas, outdoor seating and picnic areas, and plazas.

OS 6.4 Neighborhood Parks. [GP]

Neighborhood parks provide the nearby residential neighborhood with active recreational activities for a variety of age groups. The following standards shall apply to neighborhood parks:

- a. The typical service area radius shall be 0.5 mile.
- b. The typical size shall be less than 10 acres.
- c. Neighborhood parks should be easily accessible to the surrounding neighborhood population through safe pedestrian and bicycle access. Neighborhood parks do not generally require onsite parking, although a limited amount of parking may be provided.



Nectarine Park



San Miguel Park

TABLE 3-1
EXISTING AND PLANNED PARKS AND OPEN SPACE AREAS

Assessor's Parcel Number	Map# ¹	Name	Park Type	Acres	Description
<i>Existing Parks and Open Space Areas</i>					
079-570-046	1	San Miguel	Neighborhood Park	2.71	0.52-acre lawn; timber play structure; picnic areas
079-600-061	1	San Miguel Open Space	Neighborhood Open Space	3.07	Creek with bridge crossing; picnic areas
079-600-060					
079-344-014	2	Winchester II	Neighborhood Park	1.20	0.7-acre lawn; swing set; softball backstop; play field; 2 picnic tables
079-371-005	3	Winchester I	Neighborhood Park	1.14	0.20-acre lawn; playground; merry-go-round; 2 picnic tables; footbridge
079-383-013	4	Winchester I Open Space	Neighborhood Open Space	2.22	Undeveloped
079-382-005	5	Brandon	Neighborhood Open Space	2.22	Undeveloped field
079-121-011	6	Evergreen Acres	Community Park	28.72	3.47-acre lawn; 2 tennis courts; 18-hole disc golf course; 1 bench; 3 foot-bridges; playing field; softball backstop; walkways; playground; 2 picnic tables; 1 portable restroom
079-121-012					
079-121-013					
079-560-008	7	Koarts Apartments	Neighborhood Open Space	6.60	Open field
079-560-009					
079-110-045	8	Koarts Apartments	Neighborhood Open Space	0.34	Undeveloped sloping hillside
077-391-011	9	Bella Vista III	Neighborhood Park	0.77	Undeveloped road shoulder
077-351-001	10	Bella Vista I & II	Neighborhood Park	3.50	2.87-acre lawn; playground; 2-foot-bridges; 8 picnic tables; walkway; bench
077-121-022	11	Glen Annie at Del Norte	Neighborhood Open Space	0.99	Undeveloped
077-121-023					
077-160-061	12	Lake Los Carneros Natural and Historical Preserve (Including Stow House)	Regional Open Space	139.99	22-acre lake; hiking paths; elevated boardwalk over lake; 3 benches; 2 portable toilets; George Adams picnic area with 3 tables; 1 bench, earth dam; Stow House Museum; Goleta Train Depot Railroad Museum
077-160-009	13	Stow Grove Park	Community Park	11.10	0.45-acre lawn; soccer field; ball diamond, volleyball courts; horseshoe pits; swing sets; reservation group BBQ areas; children's picnic tables; redwood groves
077-361-011	14	Stonebridge	Neighborhood Open Space	2.60	Parallels San Pedro Creek; undeveloped; hiking trail
077-331-017	15	Stow Tennis Courts	Community Park	2.68	0.74-acre lawn; 2 tennis courts; 1 bench
077-470-052	16	La Goleta	Neighborhood Open Space	6.13	Parallels Las Vegas Creek; undeveloped
077-470-051					
077-480-062					
077-480-064					
069-391-001	17	Oro Verde	Neighborhood Open Space	2.65	Undeveloped
069-380-001					
069-401-001					
069-380-011	18	Oro Verde	Neighborhood Open Space	4.70	Undeveloped
069-392-008					
069-362-001	19	Andamar	Neighborhood Park	2.45	1.0-acre lawn; play equipment; 1 picnic table
069-463-003					
069-322-011	20	Emerald Terrace Tennis Courts	Community Park	4.20	1.49-acre lawn; 2 handicap-accessible tennis courts; swings; 2 picnic tables; 4 benches
069-413-010					
069-142-038	21	San Jose Creek	Neighborhood Open Space	4.87	Parallels San Jose Creek; undeveloped
069-142-039					
069-153-001					
071-090-080	22	Armitos Park	Neighborhood Park	1.63	Parallels San Jose Creek; undeveloped

(continued on next page)

TABLE 3-1 (CONTINUED)

Assessor's Parcel Number	Map#¹	Name	Park Type	Acres	Description
071-130-009	23	Community Center	Community Center	9.84	Various adult and children's classes, Headstart, Rainbow Preschool, Boys & Girls Club, lawn with gazebo
071-061-023	24	Nectarine	Mini Park	0.13	Sandlot with toddler playground equipment and bench
073-060-050	25	Willow Springs Open Space (<i>private</i>)	Neighborhood Open Space	2.37	For protection of cultural resources
073-440-020 073-440-021	26	Girsh Park ² (<i>private</i>)	Community Park	24.90	Softball, soccer, and basketball facilities, grassy open space, community meeting room, play equipment, barbecue-picnic areas
073-195-023	27	Armstrong	Mini Park	0.46	0.2-acre lawn; swing set; 1 toddler picnic table; 1 picnic table; 2 benches
073-260-056 073-230-049 073-240-058 073-260-021	28	University Village	Neighborhood Park	3.16	1.74-acre lawn; footbridge over drainage ditch.
Lot 7, Ellwood Acres No.2	29	Mathilda	Mini Park	0.20	Play equipment; picnic table
079-210-051 079-210-024	30	Sperling Preserve	Regional Open Space	136.60	136.6 acres of open space; monarch butterfly habitat sites; extensive trails w/ beach access to Ellwood Beach
079-395-015 079-210-050 079-445-001 079-491-016 079-442-023	31	Campus Glen	Regional Open Space	6.31	Eucalyptus groves
079-210-045	32	Coronado Preserve ² (<i>private</i>)	Regional Open Space	6.83	Monarch butterfly informational markers; small circular theatre sitting area
079-322-001 079-332-014	33	Santa Barbara Shores (Small)	Neighborhood Open Space	4.83	0.15-acre lawn; playground; 1 picnic table
079-321-001 079-355-009	33	Santa Barbara Shores Open Space (Small)	Neighborhood Open Space	1.24	Eucalyptus groves
079-210-067	34	Santa Barbara Shores Park	Regional Open Space	91.7	91.7 acres of open space; coastal vista, trails; bluff top, shoreline, and public parking lot
NA	35	Haskell's Beach	Regional Open Space	NA	Pacific shoreline and beach
079-200-013	36	Haskell's Beach Access (<i>private</i>)	Regional Open Space	0.89	50 space public parking lot with beach access walkway
Planned New Parks and Open Spaces					
071-090-036 071-090-090	A	Expansion of Armitos Park	Neighborhood Park	8.0	Parallels San Jose Creek; undeveloped
071-190-035	B	Potential Active Recreation Park	Community Park	4.0–5.0	Active recreation park by State Route 217 (SR-217) and Old Drive-in Theatre
073-060-031 to 073-060-043	C	Willow Springs Park	Neighborhood Park	2.0–3.0	South of US-101, east of Los Carneros Road, and north of Camino Vista Road
073-330-028 073-330-029	D	Village at Los Carneros Park	Neighborhood Park	3.0–5.0	Castilian Dr. by proposed Village at Los Carneros Project adjacent to creek
073-450-005	E	Cabrillo Business Park Open Space	Neighborhood Open Space	15.8	Los Carneros Road. (by southeast corner of parcel)

¹ See Figure 3-2.

² Private parks are owned and maintained by nonprofit private entities.
(Amended by Reso. 12-46, 7/17/12 and Reso. 17-46, 10/17/17)

- d. Typical facilities provided in neighborhood parks include playgrounds and associated equipment, picnic tables, open undeveloped areas, lawns or grassy areas for field games, and benches.
- e. Neighborhood parks may be developed as a school park or community center park.

OS 6.5 Neighborhood Open Space. [GP] Neighborhood open space areas integrate natural features such as trees, riparian corridors, and varied undeveloped landscape with the adjacent neighborhoods. The following standards apply to neighborhood open space areas:

- a. Primary emphasis is placed on protection of the natural resource, with limited passive recreation activities such as trails. Accordingly, the locations of these facilities are based upon the presence of natural resources rather than accessibility to a service area.
- b. The typical size is variable and is based upon the physical extent of the natural resource area.
- c. Neighborhood open space areas should be made accessible to the surrounding neighborhood population through safe pedestrian and bicycle access, where feasible and appropriate. Onsite parking facilities are not appropriate in neighborhood open space areas.
- d. Typical facilities provided in neighborhood open space areas are limited to space for quiet or passive recreational activities. Structural or land improvements, other than dirt trails and resting areas, shall be avoided in these areas. Some neighborhood open space areas may integrate with a small neighborhood park (as described above), usually consisting of a small playground or similar active area. Restrooms and facilities for more intensive, active forms of recreation are not appropriate improvements in neighborhood open space areas.



Oro Verde Open Space

OS 6.6 Community Parks. [GP] Community parks include developed areas suited for intense active recreational activities, large natural areas suited for passive outdoor recreation, or a combination of both. These parks may contain special amenities, facilities, or features that attract people from throughout the surrounding community. The following standards apply to community parks:

- a. The typical service area radius shall be 1 to 2 miles.
- b. The typical size shall be 10 or more acres.
- c. Community parks should be easily accessible from the surrounding neighborhoods and by automobile from more distant neighborhoods. Since these

facilities are intended to serve areas beyond their immediate neighborhoods, onsite parking and restroom facilities may be provided.

- d. Multiple facilities for various types of users are typically provided in community parks, including both active and passive recreational facilities. Active facilities may include a range of formal and informal athletic fields (i.e., the play areas are less developed and generally not designed to support competitive play), tennis courts, play areas, developed picnic areas, and meeting and gathering spaces. Passive facilities may include areas for rest and relaxation with a mix of both improved areas (lawns and informal play areas) and unimproved natural areas.



Evergreen Open Space

OS 6.7 Regional Open Space. [GP] Regional open space areas are contiguous to or encompass significant natural resources and may include areas of historical, environmental, or ecological value. These areas may contain special amenities or features that attract people from throughout the city and the surrounding region. The following standards apply to regional open space areas:

- a. The typical service area shall be within a 0.5- to 1.0-hour drive.
- b. The typical size shall be appropriate for the protection of the associated natural or open space values.
- c. Regional open spaces should be easily accessible from the surrounding neighborhoods and easily accessible by automobile for visitors from more distant locations. Since these areas may attract people from distant locations, they may provide on-site parking and restroom facilities. Such services should be located on the periphery of the open space area and designed in a way to minimize any adverse impact on natural and visual resources. The capacity of such parking and restroom facilities shall be consistent with the character and carrying capacity of the open space area.



Santa Barbara Shores Park

- d. Typical facilities provided in regional open space areas are designed to be primarily passive in character, although historical and special purpose attractions may be included. The primary purpose of these areas is to protect their open space and natural values and passive recreation shall be managed in a way that does not conflict with these values, while still providing appropriate public access.

OS 6.8 Special Use Parks. [GP] Special use parks cover a broad range of parks and facilities oriented toward a single-purpose use or a small number of uses. Special use parks are facilities strategically located throughout the community. The following standards apply to special use parks:

- a. The typical service area is variable, depending upon the type of facilities provided.
- b. The typical size will depend on the specific facility space requirements.
- c. Special use parks should be accessible from the surrounding neighborhoods and by automobile for visitors from more distant locations. Since these areas may attract people from distant locations, such areas may require onsite restroom facilities, parking, and automobile access.
- d. Typical facilities are those appropriate and associated with uses such as golf courses; skateboard parks; tennis courts; ice rinks; zoos; areas that preserve buildings, sites, or features of historical significance; and community centers. Special use parks may also include public beach access points not included in another park type.



Goleta Valley Community Center

OS 6.9 Park Master Plan. [GP] The City will prepare a Park Master Plan for the system of municipal park facilities. This master plan may be used to determine resource development, expansion, maintenance, operation, or capital improvements appropriate for these city facilities and as a basis for pursuing funding opportunities. To match resource needs to individual park sites, the City may prepare a development and/or management plan for individual parks, particularly for the largest park sites.

OS 6.10 Design and Management of Public Parks and Open Space. [GP] The City should ensure that park, recreation, and open space facilities are designed and managed in a manner that is consistent with protection of the ecology of the natural systems at each park site and that will serve the needs of the intended user groups. The following criteria shall apply to the design and management of public parks and open space areas:

- a. Wherever feasible and appropriate, landscaping should emphasize native and drought-tolerant, noninvasive species that will reduce maintenance costs and water use and be supportive of wildlife habitats.
- b. To the extent feasible, the City shall maintain parks and open space areas without the use of herbicides, pesticides, chemical fertilizers, and other toxic substances. Herbicide use is restricted within 100 feet of the top-of-bank of any watercourse in parks and open space to those herbicides approved by the U.S. EPA for use in aquatic environments.
- c. The types of improvements and facilities at each site should be based on the recreation and leisure needs of the targeted user groups and the physical opportunities and constraints of the site.
- d. Improvements should provide for convenient access by pedestrians from the adjacent neighborhood areas.
- e. The design of improvements shall provide for maximum visibility of the park from public streets and incorporate measures to assure adequate security and safety for users.
- f. Provision of lighting shall be limited to the minimum needed for the types of uses planned in order to reduce light pollution and glare. Lights shall not be directed upward or into adjacent habitat.
- g. Adequate off-street parking to serve the intended uses shall be provided in order to minimize the burden placed on onstreet parking in the neighborhood.

OS 6.11 Planned New Parks and Open Space. [GP] The locations of planned new public parks and open space are shown on Figure 3-2 and described in Table 3-1. Specific improvements will be implemented as conditions require and when funding is available. These planned new public parks and open space include:

- a. Expansion of the Armitos Park. An approximately 4-acre neighborhood park located in the vicinity of Old San Jose Creek between Hollister Avenue and Armitos Avenue adjacent to the Armitos Park in Old Town.
- b. A park in the southern portion of Old Town. A 4- to 5-acre active recreation community park, potentially including sports fields, located on or in the vicinity of the former drive-in theater in Old Town between the Santa Barbara Airport and SR-217.
- c. Willow Springs Park. A 2- to 3-acre neighborhood park in the proposed Willow Springs North project located south of US-101, east of Los Carneros Road, and north of Camino Vista Road, on property totaling approximately 16.19 gross acres.
- d. Village at Los Carneros Park. A 3- to 5-acre neighborhood park in the proposed Village at Los Carneros project located south of US-101 and west of Los Carneros Road, on property totaling approximately 18 acres. The park should include active recreation facilities, such as fields suitable for organized sports.
- e. Cabrillo Business Park Open Space. An approximately 15-acre neighborhood open space located west of Santa Barbara Airport on an approximately 92-acre property bound by Hollister Avenue and Los Carneros Road.

Parks and open space in new developments shall be open to the general public and not limited to residents of individual development projects. *(Amended by Reso. 12-46, 7/17/12)*

- OS 6.12 Public Use of Private Facilities. [GP]** Private open space and recreational facilities shall be made accessible to the public whenever the associated development is granted concessions related to park impact fee reductions, open space dedication, or other similar benefits.

Policy OS 7: Adoption of Open Space Plan Map [GP]

Objective: *To designate, preserve, and protect significant open space resources including agricultural, ecological, recreational, and scenic lands in Goleta and surrounding areas for current and future generations.*

- OS 7.1 Definition. [GP]** Pursuant to Section 65560 of the California Government Code, open space land is defined as any area of land, parcel, or portion of a parcel that is essentially free of structures and similar improvements and that is designated by this plan to remain in an open and undeveloped status for the following public purposes:

- a. To preserve natural resources, including but not limited to, areas required for the preservation of plant and animal life, streams, lagoons, coastal beaches, and lands needed for watershed protection.
- b. To preserve lands for the managed production of resources, including but not limited to, agricultural lands, lands with soils suitable for agricultural production, streams and marshes important to maintain fishery resources, and areas required for the recharge of groundwater basins.
- c. To preserve lands for outdoor recreation, including but not limited to, areas with outstanding scenic, historic, and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and streams, including amenities/structures that support the public's use or enjoyment of beach areas and other such open space areas; and areas that serve as links between recreation lands, including utility easements and banks of streams.
- d. To protect health and safety, including but not limited to, lands that require special management or regulation because of hazardous or special conditions such as earthquake fault zones, flood plains, tsunami run-up areas, and others.
- e. To protect the places, features, and objects associated with Native American cemeteries, religious or ceremonial sites, archaeological or historical sites, or other cultural sites. *(Amended by Reso. 08-30, 6/17/08)*

- OS 7.2 Adoption of Open Space Plan Map. [GP]** Figure 3-5 designates land areas in Goleta that are planned for preservation as public and private open space.

- OS 7.3 Open Space for Preservation of Natural Resources. [GP]** Goleta's natural resource lands include sandy beaches and dunes; rocky intertidal areas; coastal lagoons; coastal bluffs; eucalyptus groves and monarch butterfly aggregation sites; native grasslands; streams and associated riparian areas; wetlands, lakes, and ponds; and habitats for various protected plant and animal species. Figure 3-5 designates all ESHAs as protected open space. The following standards shall apply to these areas:

- a. The designated natural resource areas shall be managed by the City in accord with the policies described in the Conservation Element.
- b. The City may require dedication of open space easements as a condition of approval of development on sites that have open space resources as shown in Figure 3-5.
- c. The City encourages the donation of easements or fee-simple interests in open space lands to the City or other appropriate nonprofit entity, such as a land trust.

OS 7.4

Open Space for Managed Production of Resources. [GP] Goleta's managed resource lands include lands actively used for agricultural production, vacant lands that were historically used and zoned for agriculture and that have soils suitable for agricultural production, watersheds appropriate for recharge of groundwater basins, and coastal streams and marshes important for the management of recreational and commercial fisheries. Figure 3-5 designates land areas that are to be preserved as open space for managed production of resources. The following standards shall apply to these areas:

- a. Lands designated for agricultural use by the Land Use Element include areas devoted to agricultural production as of 2005 and those lands that were zoned for agriculture at the time of incorporation of the City in February 2002. These lands, shown on the Land Use Plan map in Figure 2-1, shall be protected as open space to preserve the potential for future agricultural production. Although some of these lands were not actively used for agriculture, their historical use for agricultural activities and soil characteristics make them suitable for agricultural production in the long term.
- b. Agricultural lands shall be managed in accord with Land Use Element Policy LU 7 and with Conservation Element Policy CE 11. Conversion of lands designated for agriculture to urban or other nonagricultural uses shall not be permitted.
- c. Streams and their associated watershed lands shall be managed in accord with Conservation Element Policy CE 10.
- d. Open space easements or deed restrictions may be acquired by dedication, where feasible, or by donation or purchase.



Fairview Gardens

OS 7.5

Open Space for Outdoor Recreation. [GP] Lands designated in Figure 3-5 for outdoor recreation include Goleta's diverse City-owned parks and open space areas, as well as private lands that are devoted to active recreation. Private lands, such as Girsh Park and the Sandpiper Golf Course, may be available to the general public or may be for the exclusive use and enjoyment of residents or customers of particular

development projects. The following shall apply to lands designated for outdoor recreation:

- a. City-owned parks and recreation areas shall be managed in accord with the provisions of Policy OS 7.
- b. Lake Los Carneros Natural and Historic Preserve shall be managed primarily as a passive preserve, with low-intensity activities allowed near the Stow House, the historic farm buildings, and the historic Goleta Train Depot and South Coast Railroad Museum.
- c. Private lands for outdoor recreation, including but not limited to Girsh Park and Sandpiper Golf Course, shall be protected and preserved for the valuable contribution that they make to the supply of recreation services available to residents of Goleta and adjacent areas.
- d. The City should maximize the use of the existing park, recreation, and open space resources within the City by connecting them with an integrated system of trails and sidewalks.
- e. General locations for proposed or planned future park sites are shown in Figure 3-2.



Girsh Park

OS 7.6 Open Space for Protection of Public Health and Safety. [GP] Although lands that provide open space for public health and safety are not specifically designated on Figure 3-5, the following land areas that are subject to hazardous conditions shall be considered to be designated open space as if fully depicted on the map:

- a. Lands situated along streams identified on the latest edition of the Flood Insurance Rate Maps (FIRM) published by the Federal Emergency Management Agency (FEMA), or any successor agency, as falling within the area of inundation caused by a 100-year flood event.
- b. Lands along the Pacific shoreline and at the mouths of streams identified on the FIRM maps as subject to 100-year event coastal flooding hazards, including areas potentially inundated by high velocity wave action.
- c. Lands subject to wildland fire hazards or lands needed as a buffer between urban development and wildland fire hazard areas.
- d. Lands within 50 feet on each side of active earthquake fault zones.
- e. Land areas with slopes in excess of 25 percent.
- f. Lands subject to the safety hazards identified in items a through e above shall be managed in accord with the applicable policies and standards of the Safety Element of this plan.

- OS 7.7** **Ownership of Open Space Lands. [GP]** Open space lands include public lands owned by the City or other public entities, lands owned by nonprofit organizations such as the Land Trust for Santa Barbara County and the Girsh Park Foundation, as well as lands in private ownership. The Open Space Plan Map (Figure 3-5) and related provisions of this policy shall not be construed in such a manner as to render any privately owned legal parcel created prior to the date of this plan unusable in its entirety for any purpose allowed by the Land Use Element.
- OS 7.8** **Provision of Open Space in New Development. [GP]** A minimum open space area shall be required in new development situated in certain land use categories, as set forth in the applicable policies of the Land Use Element. These private open space areas shall be in addition to any public park and open space land that may be required to be dedicated pursuant to the Quimby Act or other state or local statutes. Although private open space areas may be reserved to protect resources or avoid development in areas subject to hazards, such reservations shall include lands usable for outdoor recreation activities, where feasible.
- OS 7.9** **Open Space or Greenbelt around Goleta. [GP]** The City supports the preservation of an open space area, or greenbelt, around the city's perimeter in existing unincorporated rural areas. To advance this purpose, the Land Use Element designates lands near Goleta's northern, southeastern, and western boundaries for low-intensity uses to provide a gradual transition between the city's urban edge and the surrounding open rural areas.

Policy OS 8: Protection of Native American and Paleontological Resources [GP/CP]

Objective: *To identify and protect prehistoric and historic cultural sites and resources from destruction or harmful alteration.*

- OS 8.1** **Definition. [GP/CP]** Cultural resources include Native American archaeological sites and areas of the natural landscape that have traditional cultural significance. Archaeological sites include prehistoric sites that represent the material remains of Native American societies and their activities and ethnohistoric sites that are Native American settlements occupied after the arrival of European settlers in California. Such archaeological sites may include villages, seasonal campsites, burial sites, stone tool quarry sites, hunting sites, traditional trails, and sites with rock carvings or paintings. Areas of traditional cultural significance include Native American sacred areas where religious ceremonies are practiced or which are central to their origins as a people, as well as areas traditionally used to gather plants for food, medicinal, or economic purposes.
- OS 8.2** **Inventory. [GP/CP]** The City shall coordinate with UCSB's Central Coast Information Center to identify archaeologically sensitive areas within city boundaries. To prevent artifact gathering and other forms of destruction, the exact location of sensitive sites may remain confidential.
- OS 8.3** **Preservation. [GP/CP]** The City shall protect and preserve cultural resources from destruction. The preferred method for preserving a recorded archeological site shall be by preservation in place to maintain the relationship between the artifacts and the archaeological context. Preservation in place may be accomplished by deed

restriction as a permanent conservation easement, avoidance through site planning and design, or incorporation of sites into other open spaces to prevent any future development or use that might otherwise adversely impact these resources.

- OS 8.4 Evaluation of Significance. [GP/CP]** For any development proposal identified as being located in an area of archaeological sensitivity, a Phase I cultural resources inventory shall be conducted by a professional archaeologist or other qualified expert. All sites determined through a Phase 1 investigation to potentially include cultural resources must undergo subsurface investigation to determine the extent, integrity, and significance of the site. Where Native American artifacts have been found or where oral traditions indicate the site was used by Native Americans in the past, research shall be conducted to determine the extent of the archaeological significance of the site.
- OS 8.5 Mitigation. [GP/CP]** If research and surface reconnaissance shows that the project area contains a resource of cultural significance that would be adversely impacted by proposed development and avoidance is infeasible, mitigation measures sensitive to the cultural beliefs of the affected population shall be required. Reasonable efforts to leave these resources in an undisturbed state through capping or covering resources with a soil layer prior to development shall be required. If data recovery through excavation is the only feasible mitigation, the City shall confer with the affected Native American nation or most-likely descendants, as well as agencies charged with the responsibility of preserving these resources and organizations having a professional or cultural interest, prior to the removal and disposition of any artifacts.
- OS 8.6 Monitoring and Discovery. [GP/CP]** On-site monitoring by a qualified archaeologist and appropriate Native American observer shall be required for all grading, excavation, and site preparation that involves earth moving operations on sites identified as archaeologically sensitive. If cultural resources of potential importance are uncovered during construction, the following shall occur:
- a. The grading or excavation shall cease and the City shall be notified.
 - b. A qualified archeologist shall prepare a report assessing the significance of the find and provide recommendations regarding appropriate disposition.
 - c. Disposition will be determined by the City in conjunction with the affected Native American nation.
- OS 8.7 Protection of Paleontological Resources. [GP/CP]** Should substantial paleontological resources be encountered during construction activities, all work that could further disturb the find shall be stopped and the City of Goleta shall be notified within 24 hours. The applicant shall retain a qualified consultant to prepare a report to the City that evaluates the significance of the find and, if warranted, identifies recovery measures. Upon review and approval of the report by the City, construction may continue after implementation of any identified recovery measures.

Policy OS 9: Financing Public Parks, Open Space, and Recreation Facilities [GP]

Objective: *To establish equitable methods that will generate sufficient financial resources to meet future needs for acquisition and improvement of public parks, recreation facilities, and open space areas.*

OS 9.1 Park and Open Space Standards and Fee Study. [GP] As of 2005, the City owned a total of 491 acres of park and open space lands, or 16 acres per 1,000 people. If private park facilities, such as Girsh Park, are included, the total acreage was 526 acres, or 17 acres per 1,000 people. The City shall undertake a study pursuant to AB 1600 (Chapter 927, stats. 1987, California Government Code Section 66000 et seq.) to: (1) establish specific service standards for parks, recreation, and open space facilities; (2) describe and quantify the costs of acquiring land for proposed new facilities and constructing proposed improvements to existing and new park, recreation, and open space facilities; (3) apportion the costs between those needed to address existing deficiencies and those needed to serve new development; and (4) establish an equitable method for determining each individual new development's proportionate share of the total costs attributable to new development. Separate requirements may be established for parks, recreation facilities, and open space.

OS 9.2 Mitigation of Impacts of New Development on Parks and Recreation Facilities. [GP] The following shall apply to approvals of new development projects:

- a. To ensure new development pays a proportionate share of the cost of acquisition and improvement of parks, recreation facilities, and open space, the City shall require a one-time impact fee to offset costs necessary to accommodate the development. These fees shall be used for acquiring and/or developing new or improving/rehabilitating existing park, recreation, or open space facilities.
- b. At its discretion, the City may allow any appropriate park and recreational facilities provided within a development to meet all or part of the mitigation requirement in lieu of payment of a portion of the impact fee only if they are open and accessible to the public.
- c. Within new subdivisions, where the City may allow dedications of land in lieu of payment of fees pursuant to California Government Code Section 66477 (Quimby Act), the land area to be dedicated shall be usable space for active recreation purposes.

OS 9.3 Alternatives to Impact Fees. [GP] In appropriate circumstances for larger development proposals, the City may consider using alternatives to impact fees for meeting park, recreation, and open space needs. These alternatives may include negotiated development agreements wherein the developer agrees to provide land and construct appropriate park, recreation, and open space facilities that will be dedicated to the City and made available for use by the general public. Any agreements may also include a funding mechanism for maintenance of the dedicated facilities.

OS 9.4 Other Funding Sources. [GP] The City shall consider other funding mechanisms for the acquisition of land and improvements to parks as well as recreation and open space facilities, including, but not limited to, the following:

- a. State, federal, local, and private grant sources.
- b. Special assessments, subject to the requirements of applicable law.
- c. Special taxes, subject to the requirements of applicable law.
- d. Special districts.
- e. Private gifts and donations.
- f. User fees.

OS 9.5 Park and Recreation Facilities of Other Public and Private Entities. [GP] To maximize the provision of park and recreation services with limited land and facilities, the City may consider joint use agreements with the Goleta Union School District and/or the Santa Barbara High School District to make existing or planned facilities available for use by the public during certain times when they are not needed for school activities. The City may also support joint use of existing and/or planned recreation facilities with the City of Santa Barbara and the County.

OS 9.6 Private Support. [GP] The City encourages and supports efforts to establish a foundation to support parks, trails, and public landscaping.

3.5 IMPLEMENTATION ACTIONS [GP]

OS-IA-1 Preparation and Adoption of New Zoning Code. A new zoning code to replace the County Zoning Code adopted by the City upon incorporation must be prepared and adopted by the City Council. The new zoning code shall include an open space overlay district and establish requirements for dedications or reservations of lands for parks, coastal access, trails, and open space. At a minimum, the open space overlay will include the following APNs: 079-554-023, 079-554-024, 079-554-025, 079-554-026, 079-554-027, 079-554-028, 079-554-029, 079-554-030, 079-554-031, 079-554-032, 079-554-039, 079-553-016, 079-553-015, 079-553-014, 079-553-013, 079-553-012, 079-553-011, and 079-553-010.

Time period: 2008 to 2009

Responsible parties: Planning and Environmental Services Department, Planning Agency, and City Council (*Amended by Reso. 08-30, 6/17/08*)

OS-IA-2 AB 1600 Fee Study for Park, Recreation, and Open Space Facilities. A study pursuant to AB 1600 must be prepared to identify the purpose and use of development fees before such fees are imposed. This study is intended to (1) establish specific service standards for parks, recreation, and open space facilities; (2) describe and quantify the costs of acquiring land for proposed new facilities and constructing proposed improvements to existing and new park, recreation, and open space facilities; (3) apportion the costs between those needed to address existing deficiencies and those needed to serve new development; and (4) establish an equitable method for determining each individual new development's proportionate share of the total costs attributable to new development.

Time period: 2006 to 2008

Responsible parties: Community Services Department, Planning & Environmental Services Department, Planning Agency, and City Council

- OS-IA-3 Feasibility Study for Open Space District/Acquisition Methods.** This study may analyze the feasibility of creating an open space district financed primarily through property tax revenues or special assessments to acquire, preserve, and maintain open space. Such a study may also analyze other acquisition methods including but not limited to fee simple ownership, bargain sale, eminent domain, right of first refusal, less-than-fee interest methods such as conservation easements, purchase of development rights, and low or no-cost preservation programs.

Time Period: 2008 to 2009

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

- OS-IA-4 Preparation of Park System Master Plan.** A Park Master Plan developed for the system of municipal park facilities would provide a framework to meet existing and future park and recreation service needs. Such a plan may be used to determine resource development, expansion, maintenance, operation, or capital improvements appropriate for these city facilities and as a basis for pursuing funding opportunities.

Time period: 2008 to 2009

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

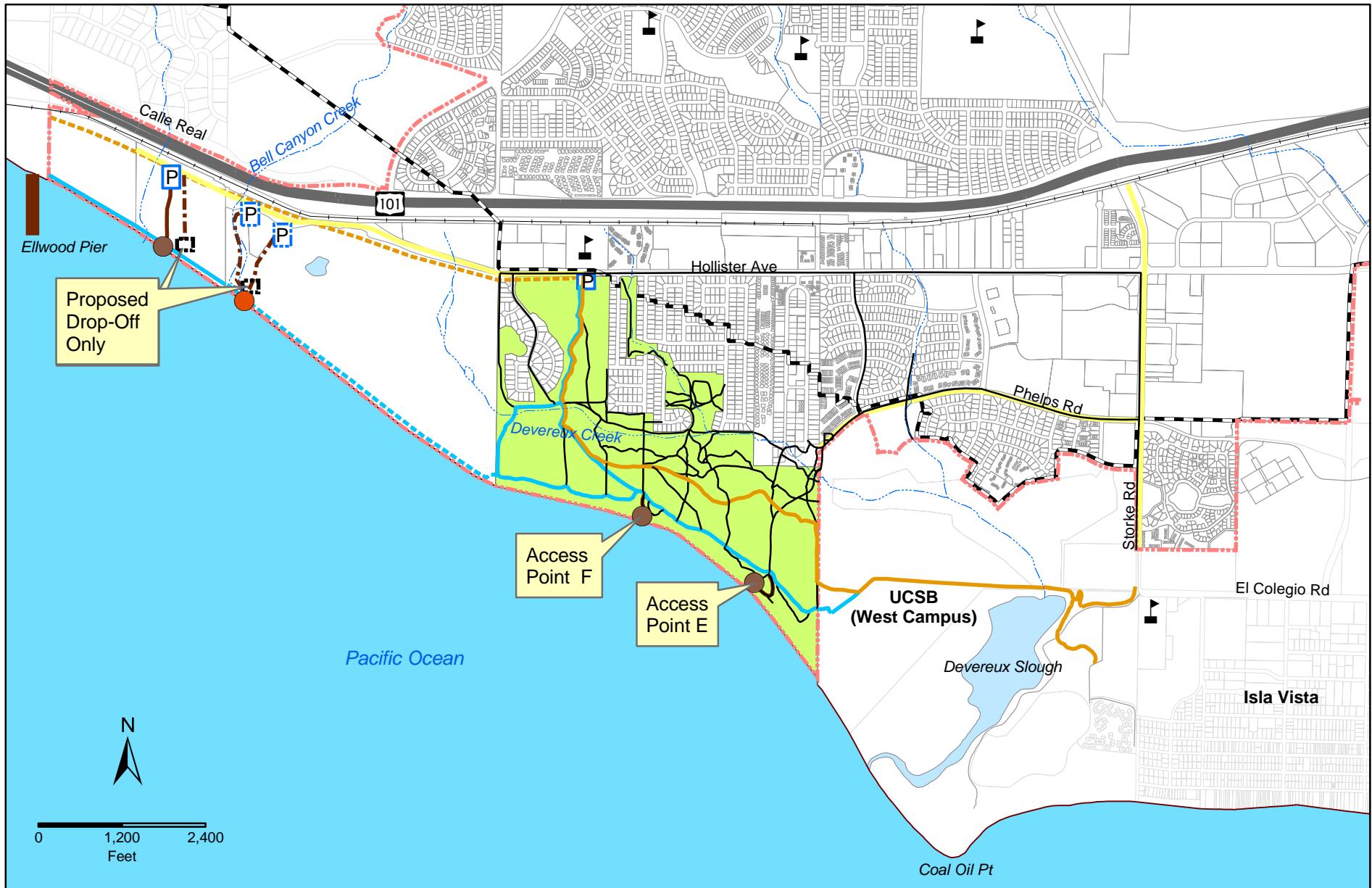
- OS-IA-5 Preparation of Individual Park Development and/or Management Plans.** A development and/or management plan for individual parks, particularly the largest park sites, may be prepared to match resource needs to individual park sites. Similar to the park master plan, these plans are intended to be used to determine resource development, expansion, maintenance, operation, or capital improvements as appropriate and as a basis for pursuing funding opportunities for individual parks.

Time period: Ongoing

Responsible parties: Community Services Department, Planning and Environmental Services Department, Planning Agency, and City Council

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ATTACHMENT D



**Figure 3-1
COASTAL ACCESS MAP**

GENERAL PLAN/COASTAL LAND USE PLAN
September 2006



ATTACHMENT E

RESOLUTION NO. 15-55

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLETA, CALIFORNIA, APPROVING THE CITY OF GOLETA COASTAL HAZARDS VULNERABILITY AND FISCAL IMPACT DRAFT REPORT

WHEREAS, the risk of coastal hazards is significant for people living on the south coast of the Santa Barbara County, including the City of Goleta, due to the potential loss of life, property damage, and potential loss of natural and cultural resources; and

WHEREAS, in consideration of coastal hazards risks, the City of Goleta retained consultant Revell Coastal, LLC to assist with the development of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report; and

WHEREAS, public outreach was coordinated via one public workshop on August 12, 2015, for the purpose of providing the public with information, receiving input on the development of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report, and establishing climate adaptation strategies and Local Coastal Program recommendations; and

WHEREAS, future implementation of the Coastal Hazards Vulnerability and Fiscal Impact Draft Report will protect life and safety, enhance community values, and sustain natural, cultural, visual, and recreational resources; and

WHEREAS, on December 1, 2015, the City Council considered the Coastal Hazards Vulnerability and Fiscal Impact Draft Report and oral and written testimony from interested persons.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GOLETA AS FOLLOWS:

SECTION 1. Recitals

The City Council hereby finds and determines the foregoing recitals, which are incorporated herein by reference, are true and correct.

SECTION 2. Approving of Coastal Hazards Vulnerability and Fiscal Impact Draft Report

The City Council has reviewed the Coastal Hazards Vulnerability and Fiscal Impact Draft Report, attached as Exhibit 1, and hereby finds that the Coastal Hazards Vulnerability and Fiscal Impact Draft Report adequately addresses the risk of coastal hazards and is consistent with the City's General Plan / Coastal Land Use Plan. The City Council hereby

approves the Coastal Hazards Vulnerability and Fiscal Impact Draft Report.

SECTION 3. Documents

The documents and other materials which constitute the record of proceedings upon which this decision is based are in the custody of the City Clerk, City of Goleta, 130 Cremona Drive, Suite B, Goleta, California, 93117.

SECTION 4. California Environmental Quality Act

Approving of the informational Coastal Hazards Vulnerability and Fiscal Impact Draft Report is not a project subject to CEQA.

SECTION 5. Certification

The City Clerk shall certify to the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED, APPROVED AND ADOPTED this 1st day of December, 2015.



PAULA PEROTTE, MAYOR

ATTEST:

DEBORAH S. LOPEZ
CITY CLERK

APPROVED AS TO FORM:

TIM W. GILES
CITY ATTORNEY

*Resolution No. 15-55
Coastal Hazards Vulnerability and Fiscal Impact Draft Report*

STATE OF CALIFORNIA)
COUNTY OF SANTA BARBARA) ss.
CITY OF GOLETA)

I, DEBORAH S. LOPEZ, City Clerk of the City of Goleta, California, DO HEREBY CERTIFY that the foregoing City Council Resolution No. 15-55 was duly adopted by the City Council of the City of Goleta at a regular meeting held on the 1st day of December, 2015, by the following vote of the Council:

AYES: MAYOR PEROTTE, MAYOR PRO TEMPORE FARR,
COUNCILMEMBERS ACEVES, BENNETT AND VALLEJO.

NOES: NONE

ABSENT: NONE

(SEAL)

DEBORAH LOPEZ
CITY CLERK

EXHIBIT 1

Coastal Hazards Vulnerability and Fiscal Impact Draft Report

Draft

2015 City of Goleta Coastal Hazards Vulnerability Assessment and Fiscal Impact Report



Prepared by:

City of Goleta
130 Cremona Drive, Suite B
Goleta, California 93117

With Assistance from:

Revell Coastal
125 Pearl Street
Santa Cruz, CA 95060



November 2015



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Acronyms/Abbreviations

BASH	Bird Air Strike Hazards
BEACON	Beach Erosion Authority for Clean Oceans and Nourishment
CCC's	California Coastal Commission's
CEC	California Energy Commission
CIP	Capital Improvement Program
City	City of Goleta
CoSMoS 3.0	Coastal Storm Modeling System of the USGS
EMHW	Extreme Monthly High Water level
ESHAs	Environmentally Sensitive Habitat Areas
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
GHADs	Geologic Hazard Abatement Districts
IPCC	Intergovernmental Panel on Climate Change
JPA	Joint Powers Authority
LCP	Local Coastal Program
LUFTs	Leaking Underground Fuel Tanks
NAVD	North American Vertical Datum 1988
NRC	National Research Council
PDO	Pacific Decadal Oscillation
SE	Safety Element
TDR	Transfer of Development Rights
TOT	Transient Occupancy Tax
UCLA	UC Los Angeles
UCSB	University of California, Santa Barbara
US-101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Executive Summary

ES.1 Purpose

The development of a coastal hazards vulnerability assessment is the process whereby a community collaboratively seeks to understand the threat of climate-induced coastal hazards, such as sea level rise. It identifies the community's values, determines whether these values are vulnerable to damage or loss from coastal hazards, and develops a course of action for protecting those values.

The **2015 City of Goleta Coastal Hazards Vulnerability Assessment and Fiscal Impact Report** (report) provides a science-based assessment that includes extensive field data gathering, compilation of existing data and information, and the participation of stakeholders such as citizens, business owners, local organizations, and community leaders.

The purpose of this report is to enhance community planning by identifying coastal hazards and associated vulnerabilities that are in balance with fiscal resources. This information will assist the City in making more informed decisions regarding land use and development standards from the project level (e.g., coastal development permits, land use permits) to the plan level (e.g., Old Town Revitalization Plan, Community Wildfire Protection Plan, etc.).

ES.2 Definitions

Planning Horizon: The planning horizon is the future time that forecasts of climate impacts are made and the time that an organization will look into the future when preparing a strategic plan.

Vulnerability Assessment and Sector Profiles:

A vulnerability assessment is the process of identifying, quantifying, and prioritizing (or ranking) the vulnerabilities in a system. There are a variety of vulnerable "sectors" within the City, ranging from building structures, oil and gas, coastal armoring, water supply, and transportation.

Fiscal Impact Analysis: A fiscal impact analysis estimates the financial impact on the City within a particular sector to the identified vulnerabilities.

Adaptation: Adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the vulnerabilities and reduce the fiscal impacts.

ES.3 Report Overview

Planning Background

This section describes the purpose of the report, the study area boundary of planning sub-areas, existing conditions, the planning process that was conducted as part of preparation for the report, and the connection with the California Coastal Commission's (CCC's) 2015 Sea Level Rise Policy Guidance Document.

Physical Setting

This section characterizes developed areas, natural resources, creeks, coastal and shoreline areas, and elevation. Further details are provided that elaborate on the unique geology and geomorphology of the Goleta shoreline, including cliff erosion rates and shoreline change rates. A summary of the substantial

shoreline alterations largely resulting from historic oil and gas development in combination with historic and current Goleta Slough inlet management practices is provided.

Climate Science

The differences between climate “cycles” and climate “change” is provided for background purposes. Projections of climate-induced impacts created by temperature and precipitation patterns, wildfire, extreme event flooding, and sea level rise is provided. Shoreline structures—including location, age, and condition of each structure—are described. Local geology and uplift are described. Five historic storm events are included in this section, with photos to visually demonstrate the local impacts of historic events that are likely to worsen over time. Federal Emergency Management Agency (FEMA) flood maps and statistics regarding repetitive flood-related losses are described. The regional context details how the Goleta-focused report relates to other regional and state climate and coastal hazards studies.

Vulnerability and Fiscal Impacts by Sector

Hazard projections and vulnerability assessment methodologies and assumptions used to model and map coastal hazards are presented for use in determining future levels of vulnerability for the various planning horizons (i.e., 2010, 2030, 2060, and 2100). The mapping of existing hazards has been based on a 2010 LiDAR topographic survey of the region. Flow pathways for flood hazards were mapped based on surface connections. In low-lying areas with unknown flow pathways, potentially connected hazardous areas are denoted as “potentially connected.” Study limitations and data gaps, such as the absence of creek modeling are discussed. Coastal creek flood hazards are presented and include the following:

- Wave run-up (momentum)
- Wave flooding (ponding)
- Barrier beach flooding
- Inundation (tidal)
- Long-term and storm-induced coastal erosion

Potential impacts on urban uses and natural resources are described, based on the five coastal process hazards as the foundation for the vulnerability assessment. Based on the characteristics of the City's coastline and watersheds and input from the City and public, Revell Coastal analyzed eleven sectors in the vulnerability assessment. The sector profiles are presented in Appendix A and are discussed in more detail throughout the report:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Water Supply
- J. Wastewater
- K. Utilities

The fiscal impact analysis resulting from future projected sea level rise and coastal storm vulnerabilities is described, starting with the methodology, assumptions, and limitations of the analysis. Ranges of cost estimates are detailed for potential losses to infrastructure, property, buildings, economic activity, and tax revenues; as well as cleanup costs.

Adaptation Strategies by Sector

An overview of the process used to identify the adaptation strategies is presented, followed by a discussion of the proposed strategies that are intended to address Goleta-specific hazards and vulnerable assets. The interplay of maladaptation, challenges, and secondary impacts is presented to provide further context in the decision-making process. The focus is on the areas of protection, accommodation, and retreat consistent with CCC policy guidance.

Implementation

Factors to consider in order to establish priorities are detailed and include project costs, grant availability, community support, regional participation, and likelihood of effectiveness. Specific focus is on planning and financing mechanisms that the City can employ as part of implementation.

Policy and Regulatory Recommendations

This section makes recommendations based on findings of the report toward informing General Plan and Local Coastal Program policies, regulations, and future capital improvement projects in the probable event that climate change and sea level rise affect the City of Goleta (City) community and environment.

Monitoring

A timeline for implementing strategies is included, and monitoring criteria is outlined to identify thresholds of impacts and to guide future implementation. Further optional studies are suggested for the City.

ES.4 Key Findings

The following are key findings identified as a result of analyses in this report:

- Existing hazards are primarily caused by the barrier beach closure of the Goleta Slough and existing FEMA creek flooding hazards.
- Three neighborhoods face flooding impacts: the Winchester Canyon neighborhood located north of Highway 101; the Aero Camino neighborhood located just south of the 101; and the Placencia neighborhood located in the southern portion of Old Town, east of Highway 217.
- Coastal erosion will likely accelerate above historic erosion rates along the Coastal Resources Area once the existing timber seawall becomes derelict over time or is removed.
- The Goleta Slough and Devereux Slough may physically connect with one another upon experiencing 5 feet or more of sea level rise by 2100.
- Climate change impacts on future creek flooding extents, including changes to precipitation and sea level rise, have not been modeled and therefore remain a significant data gap in the vulnerability assessment, especially considering the extent of existing creek flood hazards mapped by FEMA.

Vulnerabilities by Planning Horizon

The following is a summary of the resulting vulnerabilities organized by Planning Horizons for purposes of planning, implementation, monitoring, and adaptation:

2010 (Existing) Vulnerabilities

- The Bacara Resort and Spa Beach House, in addition to the coastal public access to Haskell's Beach, is vulnerable to all existing hazards, including: creek flooding, coastal erosion, and coastal flooding. The estimated replacement and relocation costs are approximately \$420,000.
- The two active Lease 421 oil wells are threatened by existing coastal hazards.
- The existing coastal armoring is severely outdated and derelict, and the structure will continue to erode and become a nuisance over time. The cost of removing this structure is approximately \$1 million. The City's financial liability is approximately 25 percent of this amount, or equates to approximately \$250,000.
- The City faces a serious potential threat from oil spills, both from active and inactive wells. The costs of mitigating these issues are high. The estimates range from \$7.9 million to \$63.2 million for capping and/or recapping the existing wells. The cost of an oil spill cleanup effort is significantly higher and equates to \$257 million, based on the recent 2015 Refugio oil spill costs.
- The low-lying Placencia neighborhood and nearby roads are already susceptible to substantial flooding during closed Goleta Slough conditions and creek flooding.
- FEMA has mapped 640 acres, or 12 percent, of the City in an existing 100-year creek flood hazard zone.

2030 Vulnerabilities

(<1 foot of sea level rise)

- Most hazards in Goleta over the next 30 years will be determined by the extent that the Goleta Slough is managed from both inlet (open versus closed) and sediment management.

- Barrier beach flood hazards primarily affect structures and land uses in the Old Town Area, specifically in the Palencia neighborhood, Aero Camino, and the neighborhoods between Fairview Avenue and Highway 217.
- The Goleta West Sanitary District Pump Station and the Goleta Sanitary District Firestone Pump Station could be affected by stormwater and coastal flooding (pending a closed Goleta Slough).
- The City could lose 3,684 feet of coastal trails at the Ellwood Mesa Open Space/Sperling Preserve from coastal erosion, which would cost over \$600,000 to restore.

2060 Vulnerabilities

(~2 feet of sea level rise)

- The Bacara Resort and Spa has six buildings that are potentially threatened by erosion around 2060. These buildings contain 139 guest rooms and one restaurant; the cost of replacing these structures is approximately \$50 million. Assuming that the 139 rooms are permanently closed and not replaced elsewhere on the property, this implies a loss of \$2,935 per day (or \$88,058 per 30-day month) in Transient Occupancy Tax (ToT) revenues during high season and \$2,051 per day/\$61,530 per 30-day month during low season.
- Although the City does not have direct liability for the Leaking Underground Fuel Tanks (LUFTs), these may become an issue by 2060 (approximately 2 to 3 feet of sea level rise). The costs of mitigating are relatively low (\$125,000) before hazardous materials leak into the groundwater. However, delays in requiring cleanup until after the sites have been flooded dramatically increase costs and impacts on the City to approximately \$1.5 million per tank.

2100 Vulnerabilities

(~5 feet of sea level rise)

- By 2100, there is the potential for Goleta Slough and Devereux Slough to connect, causing the Storke Ranch development to become increasingly vulnerable.
- By 2100, the Sandpiper Golf Club will likely need to modify up to six holes on the course because of coastal erosion.
- Damages to structures reach a threshold, with the largest flood damages to the light-manufacturing sector (\$9.3 million) in the Old Town Area.

Economic and Fiscal Impact Analysis Summary

The most serious economic and fiscal impacts facing the City are (by estimated dollar value of losses) the following:

- Oil spills may equate to \$257 million in remediation costs.
- Oil well costs include an estimated \$7.9 million to \$63.2 million for capping and/or recapping the existing wells.
- Costs related to LUFTs may be between \$750,000 and \$10.5 million, depending on whether the tanks are leaching due to long duration floodwaters.
- Cleanup costs from one storm flood event can cost between \$0.5 million and \$4.5 million, depending on the storm intensity, duration, flood depths, and flood extents.
- Longer term, the risk of flood damage to private and public property increases between 2060 and 2100 to an estimated \$14 million, with the majority being \$9.3 million within the light manufacturing sector in Old Town Area.
- The City could adapt the road elevations using a thicker layer of asphalt (approximately 4 to 6 inches) every 10 years as part of routine resurfacing,

which would reduce road flooding. The estimated costs are as follows:

- 2030: ~\$500,000
- 2060: ~\$2.2 million
- 2100: ~\$12.5 million
- To remove the derelict timber seawalls from the Coastal Resources Area, it is estimated that the City would be liable for approximately \$243,440–\$286,400. Other landowners would be liable for their portion (e.g., 421 road seawall equates to approximately \$329,290–\$387,400; Sandpiper equates to approximately \$342,040–\$402,400).

ES.5 Adaptation Strategies for Implementation

The following are considerations and a list of specific adaptation strategies that the City could implement to address the climate-induced hazards and related vulnerabilities:

- Recognizing the interrelated jurisdictional boundaries, it will be essential that the City participate in continuing regional dialogs related to oil spill response, coastal management, and climate change adaptation. Goleta cannot adapt to the identified vulnerabilities on its own because both of the major sloughs lie just outside the City's jurisdictional boundary. Goleta should cultivate and be engaged in regional partnerships such as Goleta Slough Management Committee and Beach Erosion Authority for Clean Oceans and Nourishment (BEACON).
- Inlet management remains key to reducing vulnerabilities. If managed for open tidal conditions, the number of vulnerable structures decreases from 129 structures to 14. This enables hybrid approaches with

structural elevation or acquisition to be cost-effective solutions.

- Coastal armoring removal and phased relocation of public access and trails will provide the best long-term protections for certain environmentally sensitive habitat areas (ESHAs) and coastal-dependent recreation in the City.

ES.6 Policy and Regulatory Recommendations

This vulnerability assessment is advisory and is not a regulatory or legal standard of review for actions that the City or the CCC may take under the California Coastal Act. This assessment provides the best available science, and is part of an ongoing process to understand and prepare for coastal hazards. The following represents the overall recommendations based on the analyses completed in this report:

- Adopt Hazard Zone Overlays based on the completed hazard mapping. The Hazard Zone Overlay would trigger the following:
 - Real estate disclosures for coastal and climate-induced hazards.
 - Triggers for a site-specific hazard report.
 - Building code revisions such as movable foundations.
 - Changes to building heights to accommodate additional freeboard elevation.
- The current cliff erosion setback policy contained in the General Plan/Local Coastal Land Use Plan: Safety Element Policy 2.1 takes a conservative approach to calculating any potential development setback. This should be improved to account for an acceleration of historic erosion rates from sea level rise and the derelict existing

coastal armoring. The policy should consider that there is a natural failure distance of cliff erosion that constitutes an "existing hazard." In Goleta that distance is about 15 to 25 feet and should be used as a trigger to develop and implement a phased relocation or other suitable adaptation strategy.

- Develop rolling easements along the oceanfront cliff edge for all public trails.
- Promote outreach and education by providing signage depicting historic flooding depths and elevations.
- Encourage a balanced approach for Goleta Slough management of water levels and sediment.
- Develop a Repetitive Loss Clause Program to allow properties to be downzoned over time to accommodate increased coastal flooding and related impacts.
- Participate in establishing a regional Joint Powers Authority (JPA) with California Office of Spill Prevention and Response, State Lands Commission, Coast Guard, County of Santa Barbara Energy Division, and the City. This JPA would form a round table for oil and gas responses and lessons learned.

ES.7 Monitoring

As appropriate, development projects, coastal development permits, Local Coastal Programs, and other planning updates should incorporate an adaptive management framework with regular monitoring, reassessments, and dynamic adjustment in order to account for uncertainty. Examples include monitoring the following:

- Physical environment to identify when the City is nearing thresholds for escalating impacts from coastal hazards.
- Beach profiles and elevations around coastal armoring structures to determine

impacts on elevations on the narrower beaches in front of the structures. These should be compared with adjacent control sites.

- Structural monitoring to identify when there is an impact on beach elevations (and thus ecology and ESHAs) and lateral access.
- Sea level rise trends from local tide stations.
- Inland extent of inundation and duration of flooding.
- Biological monitoring of sensitive and endangered species.
- Habitat monitoring to understand relationships between habitats/elevation and duration of inundation.
- Support monitoring of specific climate variables that affect habitat location.
- Current climate science related to precipitation, wildfire, and temperature.
- Hydrology data, including water levels in the sloughs and stream flows in the creeks.
- Pre- and post-storm monitoring: erosion extents, high water marks, and inland locations of flooding.

ES.8 Data Gaps for Next Steps

Next steps for the City include a variety of actions, including continued coordination with other relevant partners and research institutions, such as the University of California, Santa Barbara, based on the recommended adaptation strategies and implementation mechanisms contained in this report. The following are representative of a starting point for the City:

- Initiate a coastal confluence modeling effort. This project would consider climate impacts of sea level rise and precipitation on creek flood extents. This report's vulnerability assessment understates the

extents of this increasing flood risk because it currently relies on existing FEMA flood extents for a 100-year event.

- Analysis of habitat (i.e., ESHA) evolution and adaptive capacity.
- Mapping and removal plan for existing and potential relocation of oil and gas pipeline and related infrastructure locations.
- Mapping and removal plan for chemicals in LUFTs and dispersal mechanisms.

ES.9 Positive Findings

Although climate change and its related impacts present challenges for the future, it is not without hope. Some positive findings are as follows:

- School and emergency services are outside of the coastal hazards zones.
- Wildfire risk is projected to be reduced in the future, based on publicly available completed peer-reviewed climate modeling.
- The City has adequate time to implement these adaptation strategies.
- The City has relatively few structures threatened by erosion.
- The City's property tax base is reasonably safe.

ES.10 Sector Profile Results

Sector profiles that summarize the findings and recommendations that can be used in future decision-making are included in Appendix A. Each sector has its own profile, complete with a vulnerability map and 2-page description of findings for ease of communication.

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1. Planning Background

1.1 Introduction

The California Coastal Act requires local governments in the state's Coastal Zone to create and implement Local Coastal Programs (LCPs). Each LCP consists of a Coastal Land Use Plan (General Plan) and an Implementation Plan (Zoning Code). Using the California Coastal Act, the California Coastal Commission (CCC) and local governments managed coastal development, including addressing the challenges presented by coastal hazards like storms, flooding, and erosion. Sea level rise and the changing climate present new management challenges with the potential to significantly threaten many coastal resources. One of the CCC's priority goals is to coordinate with local governments, such as the City of Goleta (City), to complete a LCP in a manner that addresses sea level rise.

In order to address sea level rise and associated hazards in the City's LCP project, the City and its consultant prepared this **2015 City of Goleta Coastal Hazards Vulnerability and Fiscal Impact Report** (report). The purpose of this report is to provide technical analysis using climatic modeling and fiscal impact analysis to support the City's effort to incorporate a range of coastal and climate change hazards into the City's planning and regulatory processes. This information will assist the City in making more informed decisions regarding land use and development standards from the project level to the plan level.

1.2 Location

The City is located in Southern California on the South Coast of Santa Barbara County, approximately 100 miles northwest of Los Angeles and 10 miles west of the City of Santa Barbara. The City is situated along U.S. Highway 101 (US-101), the major coastal highway linking the northern and southern portions of the state. Goleta lies within a narrow coastal plain of exceptional natural beauty between the Santa Ynez Mountains and the Pacific Ocean. A portion of the City, including its 2-mile Pacific shoreline, is within the California Coastal Zone. Incorporated in February 2002, the City approved its General Plan on October 2, 2006, with the last amendment approval occurring in 2009.

The Coastal Zone and City boundaries are shown in Figure 1-1, *City of Goleta Overview*, along with neighboring jurisdictions. The adjacent jurisdictions include the following: City of Santa Barbara (Airport), County of Santa Barbara, and the University of California, Santa Barbara (UCSB). The Coastal Zone in Goleta can largely be separated into distinct landscapes. To the west, the Ellwood Mesa rises along the coast, with most of the Coastal Zone remaining rural open space in public ownership, converted from historic oil and gas development (Figure 1-1 and Photo 1-1). To the east and inland, the more residential and urbanized portions of the City are encompassed in the five watersheds that drain into the low-lying Goleta Slough.



Photo 1-1. 1930 Oblique of Ellwood Mesa (Photo: Spense Collection UCLA 10/30/30)

1.3 Existing Conditions

The Goleta coast is situated within the Santa Barbara Sandshed (watershed + littoral cell), which extends 145 miles from the Santa Maria River in the north and around Point Conception, where the north-south-trending U.S. West Coast takes an abrupt turn to a west-east-trending shoreline orientation into the Southern California Bight (Figure 1-1).

Point Conception in the northwest and the Channel Islands to the south create a narrow swell window that shelters much of the south-facing coast of Santa Barbara County from extreme wave events. Winds and wave heights vary seasonally. The focus of waves into the

Santa Barbara Channel drive an almost unidirectional longshore sediment transport from west to east in which beaches narrow during the winter and spring (November to April) and widen during the summer and fall (May to October). The sand found on the beaches of Goleta move along the coast of southern Santa Barbara and Ventura Counties to the Point Mugu submarine canyon in the south. Extensive coastal armoring along this south-facing coast reflects the recurrence of historic coastal hazards.

Because of the many creeks running from the mountains to the coast through the City, the CCC has appeal jurisdiction in many areas in addition to the typical Coastal Zone. The unique



Figure 1-1. City of Goleta Overview



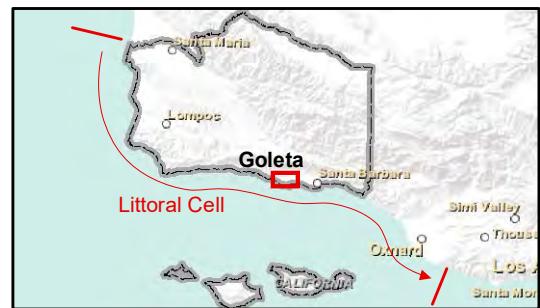
City Boundary



Coastal Zone Boundary



CITY OF
GOLETA



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Goleta Coastal Zone boundary is partially attributed to revisions in the California Coastal Act pertaining to the Devereux Lagoon and Goleta Slough areas, with approximately 170 acres being excluded and 245 acres added to the Coastal Zone. While Coastal Zone restrictions may not mean the end for urban growth in Southern California, sea level rise and other climate-related projections could lead to changes in land use and zoning regulations that require adaptability in new development. For instance, changes in building height restrictions and rolling easement language can allow for development to occur while anticipating future hazards, such as storm surges. Significant upwelling along the coast of Southern California provides nutrient-dense waters, contributing to unique and abundant marine biodiversity.

As climate change shifts temperature, precipitation, and vegetation ranges, species that previously inhabited this area may face increasing difficulty in finding suitable habitat. Species with restricted ranges are acutely sensitive to changes in abundance, distribution, and timing of growth or life stages and will require intervention to continue living in these altered biological systems. For marine species, ocean acidification is an additional stressor (Climate Change Indicators Report 2013).

Episodic, cool winter storms and hot, dry summers characterize the Mediterranean climate of this region. Precipitation is variable, but averages about 28 inches in the mountains and 15.7 inches across the coastal plains. Rainfall primarily occurs in the winter months, with actual rainfall amounts varying widely depending on tropical moisture in the subtropical Pacific. El Niño conditions can increase this subtropical moisture; many of the wettest years on record occurred during El Niño years.

1.4 Planning Sub-Areas

Coastal Resource Area

The City's coastline is located in this Coastal Zone area. This planning sub-area consists of beaches, mesa top grassland, eroding cliffs, and two wetlands. It also contains the Ellwood Mesa Sperling Preserve, the Coronado Butterfly Preserve, and the Ellwood On-Shore Facility. This area provides habitat for sensitive species, opportunities for recreation, coastal access, and the only coastal resort, the Bacara Resort and Spa.

Northwest Residential Area

This area enjoys scenic views of adjacent open spaces, creeks, the ocean, and agricultural lands. There is an elementary school, a high school, and a private school in the area, along with the Winchester neighborhood. There are also several parks and open space areas, such as Evergreen Park, Bella Vista Park, and Winchester Open Space.

Southwest Residential Area

The western portions of this area are partially in the Coastal Zone. The area borders the Ellwood Mesa Open Space area and subsequently has a variety of protected scenic views. The area as a whole primarily consists of residential areas and contains Girsh Park.

Old Town

Old Town, situated along the primary thoroughfare (Hollister Avenue), is the historic center of the City and characterizes the small-town character of the City. It consists of commercial, industrial, light manufacturing, residential, and open space areas. The industrial area and a mobile home park are within the Coastal Zone. Like the Central Area, it borders the City of Santa Barbara's airport property.

1.5 Goleta Local Coastal Program

In 2014, the City initiated the LCP. The intent of this report is to meet Steps 1–4 of the CCC policy guidance (Figure 1-2).



Figure 1-2. California Coastal Commission Guidance for Including Sea Level Rise into Local Coastal Programs (Source: CCC 2015)

1.6 The Planning Process

LCP Stakeholder Meeting

The City hosted an LCP stakeholder meeting on February 11, 2015. This meeting was targeted at property owners and related community

members that have an interest in land use and natural resources within the Coastal Zone.

California Coastal Commission Staff Consultation

The City has been in consultation with the CCC throughout 2015 regarding the City's draft Coastal Land Use Plan and related elements. Several of the elements (Safety and

Conservation) contain sea level rise, coastal hazards, and climate adaptation policy language. The elements have been drafted and reviewed by the CCC's technical staff, including its Coastal Engineer, Lesley Ewing. Upon adoption of this report, the final draft policies will be submitted to the CCC for consideration.

Coastal Hazards Public Workshop

As part of the development of the report, City staff has engaged the public, decision-makers, and various City departments. On August 12, 2015, a public workshop was held to provide an overview of the draft report results and related adaptation strategies. Staff sought and received input on the coastal hazards areas that would be most impacted and what possible adaptation strategies could be effectively applied and at the most appropriate time. The community desired a separation of sectors (e.g., coastal armoring, water supply, oil and gas) to better summarize the most relevant issues.

City Departmental Briefing

On August 12, 2015, a City departmental meeting was held with both directors and staff in attendance to review the draft report results. The City sought and received input regarding strategies and findings as they related to each of the departments' prioritization of strategies. It was determined that flooding and emergency management was the highest priority to City staff.

Planning Commission and City Council Briefings

Planning Commission briefings occurred on February 23, April 13, June 22, and October 12, 2015. City Council briefings occurred on February 17 and September 15, 2015. The

presentations provided the opportunity for an in-depth overview of the sea level rise/coastal hazards, hazard mapping, vulnerability assessment, fiscal impact analysis, and possible climate adaptation strategies for the City. Some of the discussion focused on the CCC's adopted 2015 Sea Level Rise Policy Guidance and the need to incorporate those results and steps into the LCP to garner CCC support.

1.7 2015 California Coastal Commission Sea Level Rise Policy Guidance

In August 2015, the CCC adopted the Sea Level Rise Policy Guidance to aid jurisdictions in preparing for sea level rise in LCPs, Coastal Development Permit, and regional strategies. The document outlines specific issues that policymakers and developers may face as a result of sea level rise, such as extreme events, challenges to public access, vulnerability and environmental justice issues, and consistency with the California Coastal Act. The policy guidance document also lays out the recommended planning steps to incorporate sea level rise into the legal context and planning strategies to reduce vulnerabilities and inform adaptation planning (Figure 1-2).

The policy guidance has a strong emphasis on incorporating coastal hazards and sea level rise into LCP planning and using soft or green adaptation strategies. The following are specific steps that are outlined in the document:

Step 1. Establish the Projected Sea Level Rise Ranges

Consistent with the CCC policy guidance, the City is evaluating a worst-case scenario: the 60.2 inches by 2100 scenario projected by the National Research Council (NRC) for South of Cape Mendocino. With regional subsidence and uplift taken into consideration, Goleta can expect between 0.04 and 10.2 inches of sea level rise by 2030, between 2.8 and 27.2 inches by 2060, and between 10.6 and 60.2 inches by 2100 (Table 1-1). The City has selected 2010, 2030, 2060, and 2100 as the most relevant planning horizons because these time horizons align with the City's future General Plan buildout (2030) as well as consistency with the County of Santa Barbara and UCSB's time horizons and availability of coastal hazards modeling results. 2010 represents the most recently flown LIDAR for the Santa Barbara coastline and therefore is the baseline for this analysis.

**Table 1-1. Sea Level Rise Scenarios by Planning Horizon without Vertical Land Motion
(adapted from NRC 2012)**

Year	Low SLR	Medium SLR	High SLR*
2030	0.04 inches	3.5 inches	10.2 inches
2060	2.8 inches	11.8 inches	27.2 inches
2100	10.6 inches	30.7 inches	60.2 inches

Step 2. Identify Potential Impacts from Sea Level Rise

Based on the 2015 Santa Barbara County South Coast Modeling and Vulnerability Assessment Report, the potential hazards for the City include dune erosion, cliff erosion, coastal flooding, wave run-up, tidal inundation, and storm erosion. Given the boundaries and setting of the City, the two most dominant hazards are

1) the flooding associated with a closed lagoon and 2) coastal erosion. It should also be noted that the influence of sea level rise on creek flood extents is unknown. We based our initial analysis on the existing Federal Emergency Management Agency (FEMA) flood maps and recommend future work to accomplish modeling of the climate impacts on coastal creek flood extents.

Step 3. Assess the Risks and Vulnerabilities to Coastal Resources and Development

The following sectors were determined to experience some form of existing or future risk and related vulnerability to sea level rise (e.g., dune erosion and/or coastal flooding):

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities

Step 4. Identify Adaptation Measures and LCP Policy Options

Consistent with the CCC policy guidance, the City has included adaptation measures such as a repetitive loss clause program, setback requirements, real estate disclosures, phased removal, and hazard overlays. Results from this

report will be used to further refine these policies. The City is also actively seeking ways to generate financial incentives and generate revenues to support risk reduction and removal of nuisance structures.

Step 5. Draft New LCP for Certification with the California Coastal Commission

Following additional public outreach and the resulting revisions, the City will incorporate these adaptation strategies, via policy and regulatory language, into the Draft LCP for submittal and final plan certification by the CCC.

Step 6. Implement, Monitor, and Revise as Necessary

The science and models can be further refined, necessitating an updated report. As adaptation measures become increasingly common, certain strategies may stand out against others as being more feasible to implement with minimal economic costs and legal issues.

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2. Physical Setting

2.1 Geology

Complicated tectonics shape Goleta's coastline with varying levels of uplift and subsidence. This faulting results in a diverse backshore with uplifted marine terraces of varying thicknesses underlain by the Monterey Formation, which is a calcareous deposit subject to minor landslides (Minor et al. 2009). The majority of the Coastal Resources Area cliffs are composed of Monterey Formation with steeply dipping cliffs. This geologic unit is relatively steep and not as conducive to catastrophic rotational landslide failures seen elsewhere in Santa Barbara County (e.g., the Mesa). Several creeks at Bell Canyon and Tecolote Creek have incised these marine terraces. Offshore, the Monterey Formation remains the dominant geology off of the Ellwood Mesa; however, just east of the City, multiple submarine landslides have been mapped at the mouth of many of the creek drainages, whereby highlighting the risk of a localized tsunami hazard generated from nearby submarine landslides.

The faulting is also responsible for the two major sloughs adjacent to the City boundary. Both Devereux and Goleta Sloughs lie outside the City boundary but clearly fall within the City's Sphere of Influence, as City policies could influence water, sediment, and habitat resources in these systems. These wetland systems also pose flood hazard risks and affect water and sediment transport across the landscape. Sea level rise will affect the beach elevations, which would in turn affect the extents of inland flood extent.

2.2 Geomorphology

Geomorphological information for the study area was collected through a combination of 1) field data collection completed by Dr. David Revell and funded for this specific LCP update, 2) review of existing scientific literature; and 3) consultation with Steve Campbell, P.G. and other local experts, including Dr. Larry Gurrilla and Dr. Edward Keller.

Beach sediments in the region are primarily composed of bedrock platforms of the underlying Monterey Shale Formation with a base layer of cobbles and a thin veneer of beach sand. Cobbles and bedrock are often seasonally exposed in the wintertime. Sand comes primarily from stream delivery of watershed-derived sediments and some cliff erosion. Beaches and shoreline position have oscillated through time, but generally show a relatively stable width and position.

Beach elevations are a result of sea level, tides, and waves. These elevations also vary seasonally. During the late summer and fall, beach berm crest elevations and toe of cliff elevations are around 10 to 11 feet North American Vertical Datum 1988 (NAVD). These field-surveyed elevations are consistent with other beach profile surveys collected by the U.S. Geological Survey (USGS), Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), and Coastal Frontiers. Field-surveyed measurements of the geomorphology have identified that toe elevations are slightly lower in front of the remnant shoreline armoring than on natural beaches.

Beach slopes, which affect wave run-up, were also measured and show a range between 0.07 and 0.12, moderate beach slopes. These slopes

are consistent with other field-surveyed beach profiles by USGS, BEACON, and Coastal Frontiers. No bedrock platform slopes, which underlie the beaches, were exposed at the time of the field survey; therefore, measurements of these platform slopes remain uncertain.

Bar-built estuaries such as those found near the inlets to Tecolote Creek and the beach berm crest in front of these creek mouths largely control Bell Canyon Creek. Cobbles comprise the majority of the beaches fronting these lagoons (Photo 1-2). During the dry season and low wave energy time period (typically summer and fall), the beach will naturally close the estuary, which results in a bathtub-like filling of the lagoon. During the rainy season (typically winter and spring), the creek will naturally breach the beach and flow into the ocean, lowering the estuary water levels. As the flood extents are related to the elevation of the beach berm crest, any climate-related changes to either sediment supply or increase in wave run-up elevations will alter the beach berm crest elevations and potentially increase the flood depths and spatial extents. Changes in these flood extents will largely depend on management actions of the Goleta Slough that are largely outside the jurisdictional control of the City.



Photo 2-1. Cobble and Sand Beach Fronting the Bell Canyon Creek (Photo: D. Revell)

Cliff heights vary along the City coastline and range from 60 to 100 feet NAVD88, according to

the field study. In general, the highest cliffs are at the west end of the Ellwood Mesa where the Bacara Resort and Spa is located and shorten as one moves east toward the Devereux Slough.

The size of the landslides in the sea cliffs largely depends on the height of the cliff and dip (angle of internal bedding) of the rock unit. Along the cliffs in the City, the dip generally ranges from 55 to 75 degrees, although there are some slopes as shallow as 45 degrees. As the cliffs are relatively steep, the large rotational landslides seen along Hope Ranch and More Mesa, located in Santa Barbara County, are not as likely in the City of Goleta.

Cliff erosion rates are often reported in “average annual retreat”; however, cliffs rarely fail in an average sense. Instead, characteristic behavior includes a cliff failure of some distance with the material from the failure accumulating at the base of the cliff. However, many of the calculations for setbacks require reporting of “average annual rates” of erosion. These have been updated from previous studies and are broken out into “cliff erosion rates” and “shoreline erosion rates.” Future land use policy should consider that there is a natural failure width that constitutes an “existing hazard.” In Goleta that distance is about 15 to 25 feet.

2.3 Cliff Erosion Rates

Historic long-term cliff erosion rates were calculated along the Coastal Resources Area along the Ellwood Mesa. These rates were based on multiple shorelines, including those from USGS (Hapke and Reid 2007), and updated with a 2010 cliff edge derived from recent LIDAR data. Linear regression rates of erosion rates were calculated between 1933 and 2010 and were found to range between 0 inches per year and 11.4 inches per year. Caution must be taken when using these rates as the toe or base of the sea cliffs in this area is largely protected by the remnants of oil and gas infrastructure, namely a timber seawall that was backfilled and has protected the toe of the cliffs from wave

attack. This timber wall is in relatively poor condition, as documented in the Beach Hazards section in the General Plan and other field mapping conducted for the LCP. Therefore, it is likely to fail in the next decade (Photo 2-2). Once the timber wall and artificial fill are eroded, then the erosion rates of the cliff will likely increase to a more normal background rate. This background rate is anticipated to accelerate over time as sea level rise increases the duration of wave attack at the toe and the cliff face. Modeling currently in process as part of the Santa Barbara County Coastal Resilience Project should assess the accelerated rate of cliff retreat.

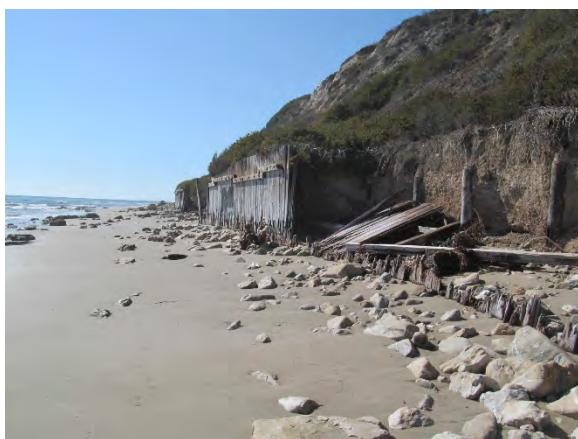


Photo 2-2. Condition of 1930s-Era Coastal Armoring along Goleta Coastline

2.4 Shoreline Change Rates

Multiple historic shoreline change rates were calculated along the Coastal Resources Area, using historic aerial photo analysis to document changes in beach widths. Overall, the beaches along this area showed oscillations through time with no overall trend in narrowing and no strong trend of erosion in any of the shoreline reference features (Revell and Griggs 2006, Revell 2007, Barnard et al. 2009).

For the time period between 1929 and 2005, the back of the beach shoreline changed between 2.7 inches/year of erosion and

11.4 inches of accretion. The mean sea level shoreline demonstrated additional variability, as one would expect, with ranges from 9 inches/year of erosion to 6.3 inches/year of accretion. After including shoreline position information from the 1871 topographic sheet, the Mean Sea Level shoreline showed accretion of between 0.7 and 8.3 inches per year. These patterns of shoreline changes are consistent with findings along much of the Santa Barbara Channel beaches. In summary, beaches oscillate based on occurrences of large erosional wave events, sediment deposition following flood events, and periods of accretion during extended periods of time with reduced wave energy (Revell and Griggs 2006, Revell 2007, Barnard et al. 2009).

2.5 Human Alterations to the Shoreline

Historic Uses

The coastline along the City experienced substantial alterations largely resulting from historic oil and gas development dating back to the 1920s. Most notably are the remnants of an old timber sheet pile wall that was built on the beach and backfilled to provide driving access to the host of oil piers that once lined this coastline.

Survey work measuring the back of beach toe elevations in front of the remnant seawalls constructed during previous oil industry activities showed that these elevations were slightly lower than the elevations of unarmored sections of coast. The armored back of beach elevations were consistently around 9.5 to 10 feet NAVD, which is 0.5 to 1.5 feet lower than the unarmored beaches along the City's shoreline. These are consistent with impacts of structures that interact with wave run-up more frequently and disrupt the normal wave run-up depositional process (i.e., active erosion).

The poor condition and advanced age of these structures indicate that failure is imminent and that once these walls fail and the road fill is eroded, cliff erosion rates will escalate beyond historic levels of erosion that are calculated and reported in average annual erosion rate methods above. The actual timing of the failure of these structures and the erosion of the road fill will depend on the sequence of large storm events and the availability of continued sediment supply from up-coast sources.

The management implication of these human alterations' influence on historic erosion trends is that additional setbacks may be required should additional bluff top development be considered. The countywide modeling work will consider the acceleration of erosion rates from sea level rise and attempt to document a natural rate of erosion. Presently the City's Coastal Bluff setback requires using 1.3 feet/year of erosion, which is greater than that documented in the historic shoreline change analysis. Therefore, setback policies remain a conservative estimate of future coastal erosion impacts.

Inlet Management

Presently, all of the sloughs and lagoons within the City form at the mouth of Tecolote and Bell Canyon Creeks. During the summer, reduced wave energy and stream flow cause the sand bars to close and remain closed for many months. This is the natural functioning of these unique bar built estuary ecosystems, which typically breach once substantial precipitation causes them to open. Regionally, however, inlet management of Goleta Slough has changed. For much of the last 30 years the inlet has been mechanically reopened within 2 weeks of closure by the Santa Barbara County Flood Control District to reduce localized flooding, maintain dissolved oxygen levels in the Slough, reduce Bird Air Strike Hazards (BASH), and to minimize viable mosquito breeding habitat (Photo 2-3). In 2012, however, the U.S. Fish and Wildlife Service (USFWS) stopped this inlet opening management practice over concerns

for endangered species, notably the Southern Steelhead trout, and the Tidewater Goby. Ongoing studies and consultation with resource agencies and the City of Santa Barbara Airport leave this inlet management question presently unresolved.



Photo 2-3. Goleta Slough Inlet Breaching, 2014
(Photo: Patrick Bermond, City of Santa Barbara)

3. Climate Science

3.1 Climate Cycles

Climate change is not to be confused with climate cycles, which also operate independently of human-induced climate change. Some of these climate cycles occur at long time periods and are related to the orbit of the earth around the sun, the tilt of the earth on its axis, and precession (subtle shift) of the earth's orbit. These Milankovitch cycles occur at approximately 41,000, 120,000, and 400,000 years and are responsible for the Ice Ages observed in the geologic record.

Some of these climate cycles are shorter; the most commonly known cycle is the El Niño/La Niña cycle, which is related to changes in equatorial trade winds and shifts in ocean temperatures across the Pacific Ocean. An El Niño brings warmer water to the Eastern Pacific, and this shift in ocean temperatures elevates sea level rise by about a foot above predicted tides in the Santa Barbara Channel. These warmer ocean temperatures can increase evaporation, resulting in more atmospheric moisture and often substantially more precipitation. The 1982–1983 and 1997–1998 El Niños have caused both river and coastal flood damages across the Santa Barbara County region. The January 1983 wave event is considered to be the largest storm recorded in the Santa Barbara Channel.

One other climate cycle that impacts the Goleta area is the Pacific Decadal Oscillation (PDO), which is an approximately 25–30-year cycle that changes the distribution of sea surface temperatures across the Pacific. Its effects were first noticed by fishery researchers in Washington (Mantua et al. 1997). The result of this ocean temperature shift is largely a shift in

the jet stream. During the warm phase, the jet stream changes the storm track toward the south, affecting both the wave direction (increase in wave energy into the Santa Barbara Channel) and precipitation. At present, the index has been on the cool side, which tends to lead to less precipitation in Goleta. One other implication of the PDO is that the rate of sea level rise is reduced in the Eastern Pacific (off the U.S. West Coast). Recent PDO research indicates that a shift in the PDO would likely result in much more rapid rise in sea levels off the U.S. West Coast than has been seen in the last three decades (Bromirski et al. 2011).

3.2 Climate Change

Human-induced climate change is a consequence of increased greenhouse gas emissions from the burning of fossil fuels that accumulate in the atmosphere and insulate the earth from outgoing long-wave radiation. As this atmospheric emissions blanket gets thicker, more heat is trapped in the earth's atmosphere, warming the earth and triggering a series of climate changes related to different feedback mechanisms. Once set in motion, many of the climate change feedbacks take centuries to millennium to stabilize.

Globally, sea levels are rising as a result of two factors related to increasing temperature caused by human-induced climate change. The first factor is the thermal expansion of the oceans. As ocean temperatures warm, the water in the ocean expands and occupies more volume, resulting in a sea level rise. The second factor contributing to eustatic (global) sea level rise is the additional volume of water added to the oceans from the melting of mountain glaciers and ice sheets. It is predicted that if all of the ice were to melt on earth, ocean levels

would rise by approximately 220 feet above present-day levels. The rate at which it rises will largely depend on the feedback loop between the melting of the ice, which changes the land cover from a reflective ice surface, and the open ocean water, which absorbs more of the sun's energy and increases the rate of ice melt.

3.3 Climate-induced Impacts

Temperature

Temperature increase, one of the primary impacts of climate change, is caused by the increase in greenhouse gases in the atmosphere, which traps more heat. Temperature changes can cause health risks associated with increases in extreme heat days, increase the length of warm period heat waves, increase the length of droughts, and force existing habitats and species to move to more suitable, cooler habitats.

Rainfall patterns will change and vary regionally, with winter and spring rainfall in the

northern U.S. expected to rise and rainfall in the Southwest, including California, to decrease, particularly in the spring. Even as overall precipitation in the Southwest is projected to decrease, the number of heavy rainfall events is anticipated to increase (Walsh et al. 2014).

Future temperature projections for the Goleta Valley show that average annual temperatures are expected to rise by between 2.2° and 3.2°F by 2030, 3.9° and 4.9°F by 2060, and 4.5° and 5.3°F by 2100 (Figure 3-1). The projected increase in temperature in the Goleta Valley would not be uniform throughout the year. The wintertime (January) and summertime (August) temperatures are projected to rise at different rates than the average annual changes. January temperatures are projected to rise between 1.9° and 2.1°F by 2030, 3.4° and 3.7°F by 2060, and 3.6° and 5.9°F by 2100. In contrast, August temperatures are projected to rise between 2.1° and 3.4°F by 2030, 3.4° and 5.5°F by 2060, and 6.3° and 8.1° by 2100. In summary, temperature projections show an increase in temperature throughout the year with the summer (August) showing the greatest increase up to 8.1° by 2100.

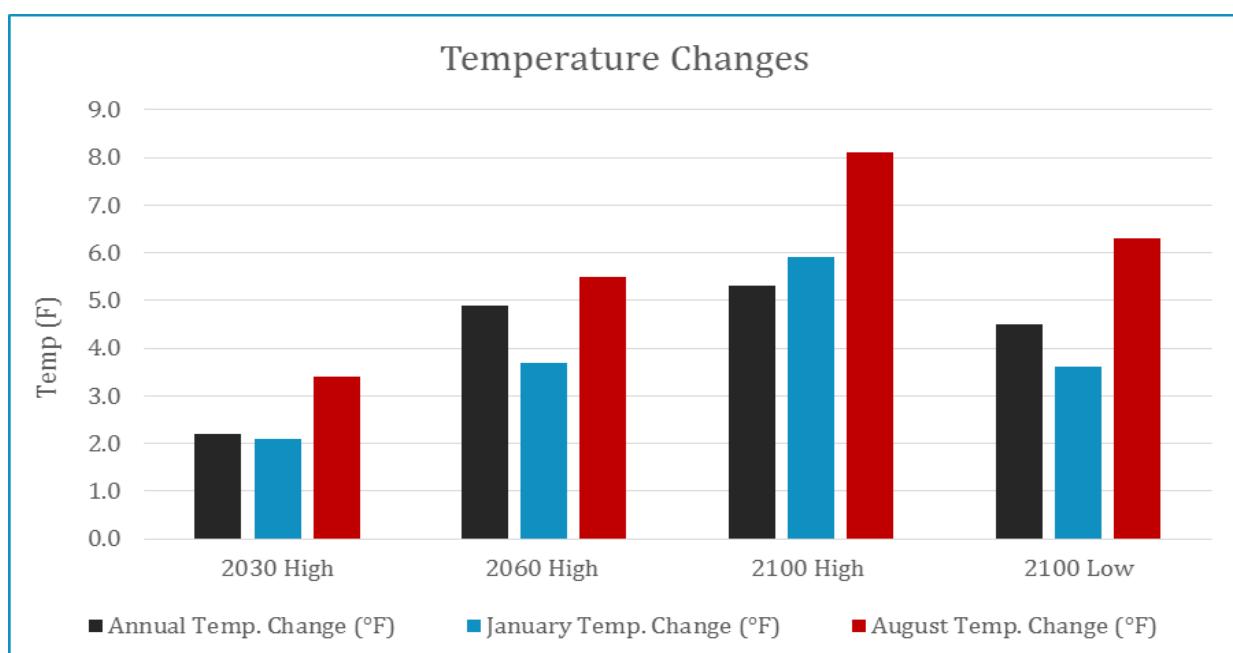


Figure 3-1. Projected Temperature Changes in Goleta (Source: Cayan et al. 2009)

Extreme heat in Goleta is defined as a day between April and October that temperatures are above 79°F (Figure 3-2). The historical average for the time period from 1961 to 1990 was 4 days between April and October with an average length of the extreme heat waves of 1 day. By 2030 models project between 17 (low scenario) and 25 (high scenario) days per year with the duration of the heat waves increasing

up to 6 consecutive days a year. By 2060, a projection of extreme heat days ranges from 27 to 42 days between April and October with an estimated increase in the length of heat waves up to 7 consecutive days. By 2100, projections of extreme heat waves increase up to between 35 and 87 days between April and October with further increase in the length of the heat waves up to 20 consecutive days.

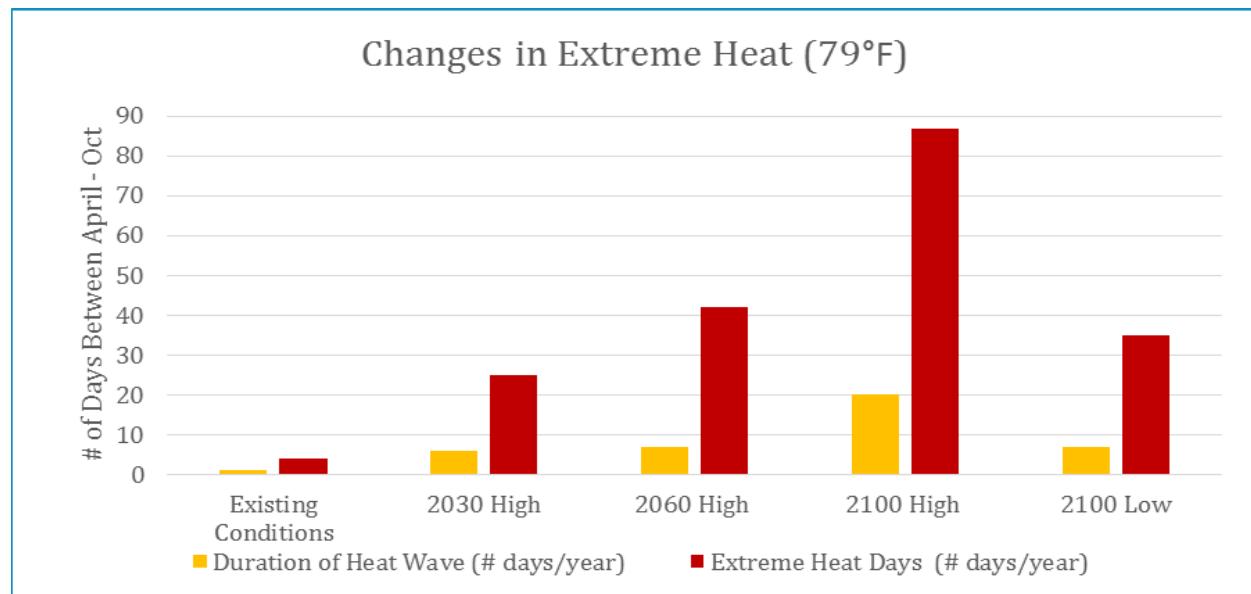


Figure 3-2. Projected Extreme Heat and Duration of Heat Waves (Source: Cayan et al. 2009)

Precipitation and Wildfire

Another climate change impact will likely be in precipitation; the amount of moisture in the atmosphere can either increase or decrease based on the amount of temperature changes affecting evaporation and changes in humidity. Precipitation and temperature also affect the wildfire risk. Increased precipitation increases plant growth, thereby adding more fuel, and increases in extreme heat can reduce vegetative growth (Figure 3-3). Changes in both precipitation and wildfire are relative to percent changes from the time period between 1961 and 1990.

However, the precipitation variable (and thus the changes in wildfires that are dependent on precipitation) is one of the least certain of the climate change impacts. Models can vary

widely, and this is an area of active research. Results in this section come from modeling completed in 2009. Ongoing active research at Scripps Institution of Oceanography and UCSB continue to investigate these two climate change variables and are expected to be available as part of the Coastal Ecosystem Vulnerability Assessment, funded by California Sea Grant and expected to be available by the end of 2016.

Precipitation in the Goleta Valley is projected to experience a long-term decline through 2100. By 2030, the precipitation projections range from an increase of 1.6 percent to a decrease in 5.6 percent. By 2060, precipitation is projected to decline between 12.8 percent and 24.0 percent. By 2100, the precipitation is projected to decline between 6.7 percent and 24.0 percent. In general, the pattern is for declining

amounts of annual precipitation, longer droughts, and more extreme events.

One positive climate change projection is that wildfires in the Goleta Valley are projected to experience a long-term decline from the historic period of 1961 and 1990. By 2030, wildfire is projected to decrease between 10 percent and 15 percent. By 2060, the wildfires are projected

to decline between 20 percent and 25 percent, and finally by 2100 the wildfires are projected to decline by 20 percent to 30 percent. While this finding is a bit counterintuitive, the decline in precipitation is likely to reduce the amount of vegetative growth, which reduces the fuel load available for wildfires.

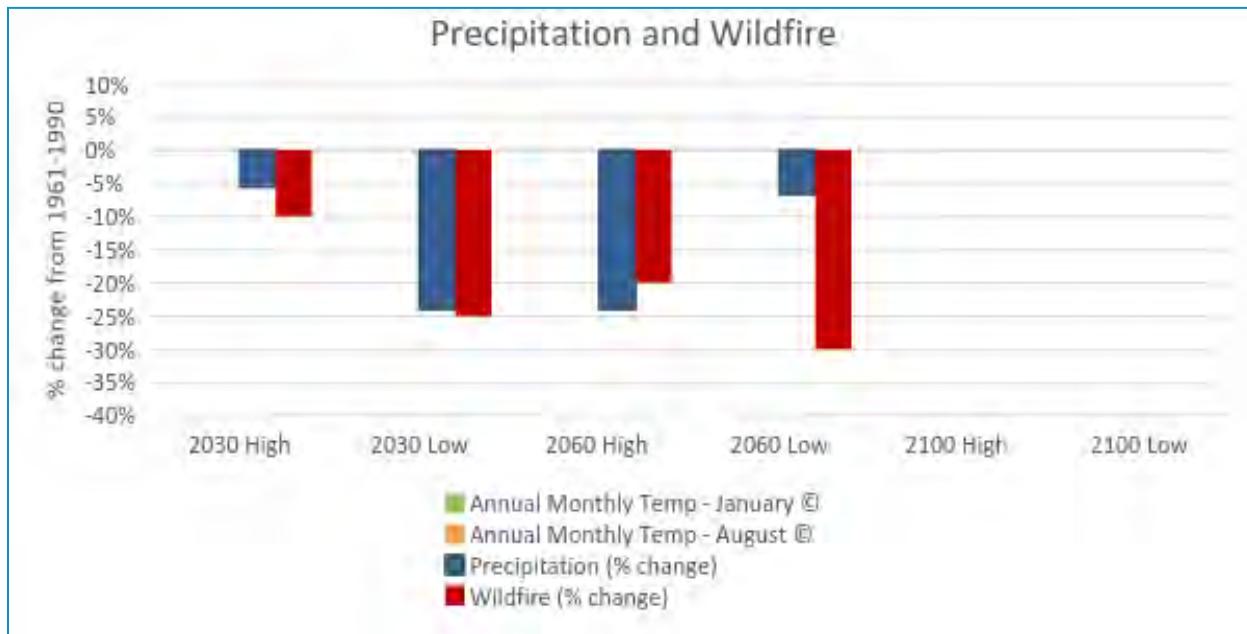


Figure 3-3. Precipitation and Wildfire

Sea Level Rise

Sea level rise can increase flood risks in low-lying coastal areas and areas bordering rivers. A 5-foot increase in water levels caused by sea level rise, storms, and tides is estimated to affect 499,822 people, 644,143 acres, 209,737 homes, and \$105.2 billion of property value in coastal areas (Climate Central 2014).

The time scales for sea level rise are related to complex interactions between the atmosphere and the oceans and the lag times associated with the stabilization of greenhouse gases in the atmosphere with the dissolution of those gases into the ocean. The Intergovernmental Panel on Climate Change (IPCC) has published scientific evidence that demonstrates that, due to the greenhouse gases already released into the

atmosphere, the sea levels will be rising for the next several thousand years. Given this long-term perspective, it is not a question of if sea level rise will happen, but when it will happen.

Sea level rise scenarios used in this analysis were selected consistent with the CCC's 2015 Sea Level Rise Policy Guidance (CCC 2015) and consistent with the science published by the National Research Council (NRC 2012) for areas south of Cape Mendocino (where the faulting and vertical land motion change) (Table 1-1). One specific difference in the Goleta Valley is the use of local vertical movement measurements that have been documented by geology researchers at UCSB (Gurrolla et al. 2014).

Relative Sea Level Rise

Sea level rise is not the same everywhere around the world. Because of local differences in tectonic uplift; subsidence caused by oil, gas, and groundwater extraction; and saltwater intrusion, the land itself is moving vertically. The difference between the local land motion and the global rise of sea level gives the relative sea level rise that will determine the magnitude of local sea level rise impacts. Vertical land motion in some studies would identify this

relative rate from local tide gages. However, the nearest Santa Barbara Tide Gage, which reports the local sea level rise rate at a rate of approximately 0.73 (+/-1.2) millimeters per year, has a sporadic historical record (Figure 3-4). Since the tide gage was installed in the mid-1970s, nearly every major El Niño has broken the gage and consequently left a 7- to 10-year data gap, rendering the relative sea level rise calculations from the tide gage suspect.

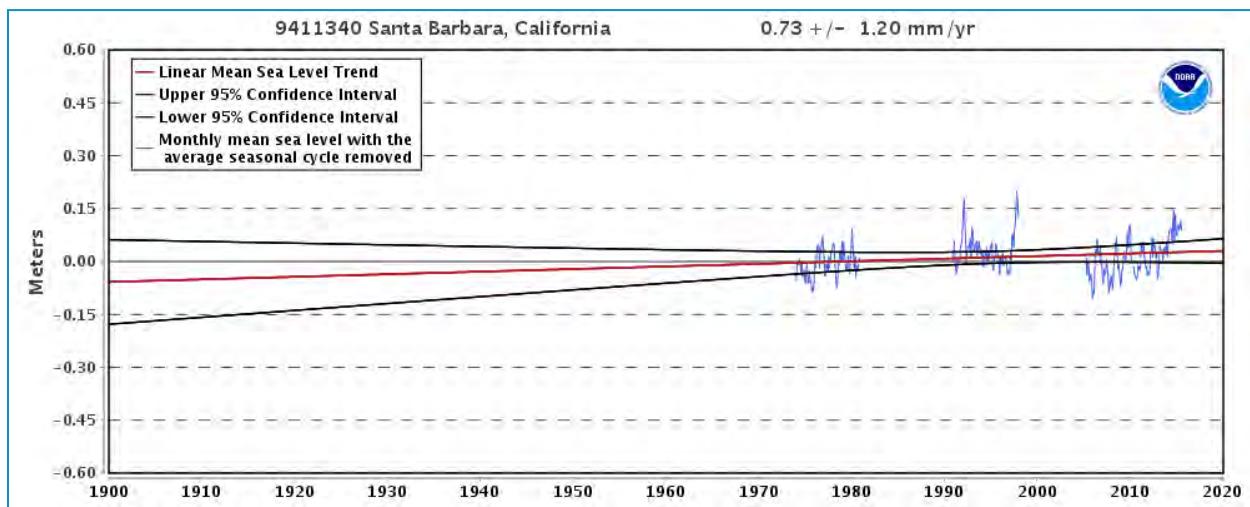


Figure 3-4. Tide Record and Sea Level Rise Trend from the Santa Barbara Tide Gage (NOAA Station 9411340)

Locally along the Goleta coastline, there are differences within the City due to the complex faulting in and around the City. Along the western portion of the City, specifically along the Ellwood Mesa, the land is uplifting at approximately 1.6 millimeters per year, based on radiocarbon dating of shells found in the marine terraces (Gurrola et al. 2014). This relative rate decreases the overall impact of sea level rise and coastal erosion hazards (Table 3-1).

Table 3-1. Goleta Specific Values, Including 1.6 Millimeters per year Uplift along Ellwood Mesa

Year	Low SLR	Medium SLR	High SLR*
2030	-1.3 inches	2.2 inches	8.5 inches
2060	-0.3 inches	8.7 inches	24.1 inches
2100	4.9 inches	25.0 inches	54.5 inches

In contrast, along the Goleta Slough, the land is subsiding at a rate of approximately 1.5 millimeters per year. This equates to the relative rate of local sea level rise being greater than that of the global rate (Table 3-2).

Table 3-2. Goleta Specific Values, Including 1.5 Millimeter per Year Subsidence at Devereux and Goleta Slough

Year	Low SLR	Medium SLR	High SLR*
2030	1.2 inches	4.7 inches	11.4 inches
2060	5.8 inches	14.8 inches	30.2 inches
2100	15.9 inches	36.0 inches	65.5 inches

3.4 Future Climate Projections: Scientific Overview

Substantial research in California is currently underway to effectively downscale climate change models and to project various human-induced climate change impacts at a local scale. By analyzing the outputs of these downscaled models, the City can better understand the range of likely climate impacts specific to Goleta. Several of the key climate change impacts are likely to include increased temperature, decreased precipitation, increased wildfire, and sea level rise.

For each of these impacts, downscaled global climate model results are summarized based on a medium high future emissions scenario ("business as usual") and a medium low scenario ("substantial reduction in global greenhouse gas emissions") to provide a range of future projections specific to Goleta. All of this research is summarized from available climate data acquired from climate impacts studies funded by the California Energy Commission (CEC). For more detail in any specific parameter, please see the cited information. In addition, new climate models are being developed and results should be available in the future. These should be reviewed and incorporated into the City's vulnerability/adaptation process as appropriate. The climate model results presented below are a summary of the climate change impacts from statewide-downscaled

models completed in 2009 and available publicly from Cal Adapt.

3.5 Other Regional Scientific Initiatives

Currently, there are a wide variety of scientific investigations studying and modeling the impact of climate change and downscaled global models on the regional Goleta Valley. The studies discussed below demonstrate the most promise and focused applicability to the City of Goleta.

2009 Coastal Regional Sediment Management Plan for Santa Barbara

In 2009, BEACON completed an update of the Coastal Regional Sediment Management Plan, which identified what is known about sand supplied to the coast between Point Conception and Point Mugu, including new understanding of erosion hot spots and shoreline armoring. Recommendations from this plan include new ways to manage sediment, including development of an opportunistic sand placement program, sand rights policies, and changes in regional governance structure, which would support better use of coastal sediments.

2014 Adopted UC Santa Barbara's Long Range Development Plan

The UCSB Long Range Development Plan supports development of UCSB property, while carefully considering consistency with the California Coastal Act. The plan provides policies incorporating climate change/adaptation and associated impacts along the shoreline, such as loss of critical ecosystem areas, interruption of shoreline

processes, loss of public access, and degradation of scenic resources.

2015 Santa Barbara County South Coast Coastal Resiliency Phase 1 Project Modeling (by ESA)

This modeling effort projects the impacts of coastal erosion and coastal flooding for the south coast of Santa Barbara County, extending from Jalama Beach County Park to Rincon Point. A technical methods report presents technical documentation of the methods used to map erosion and coastal flood hazards under various future climate scenarios. The climate-change-exacerbated coastal hazard modeling considered sea level rise, wave climate, and precipitation. This study and model outputs provide the hazard identification to support the City's vulnerability assessment.

Ongoing Goleta Slough Management Committee

The Goleta Slough Management Committee's purpose is to work cooperatively with regulatory agencies, property owners, and public interest groups to provide for a healthy Goleta Slough, considering the Slough's ecosystem and recognizing a mixture of land uses. Between 2011 and 2015, the committee completed a sea level rise vulnerability and adaptation plan for the Goleta Slough. The work was funded by the California Coastal Conservancy and included some habitat evolution modeling. It also evaluated at-risk regional infrastructure, such as the Santa Barbara Airport, and considered the implications of inlet mouth management into the future.

2015 Goleta Slough Inlet Management Study

This study modeled the impact of different sea level rise and management scenarios on the function of the Goleta Slough Inlet. The goal of the project was to primarily look at the impact of management changes, restoration, and storage volume on the opening and closing dynamics of the Goleta Slough. The study found that an increase in volume of the slough (a.k.a. tidal prism) is an expected result of sea level rise. This could create tidal wetlands in areas that are currently blocked from tidal action, resulting in a more frequent open lagoon mouth. This increase in lagoon volume could reduce the need for mechanical breaching and provide an increase in ecosystem services provided by the wetlands. Lesser amounts of sea level rise (around 1 foot) would result in more frequent closed conditions, while high sea level rise (3 to 5 feet) may maintain an open inlet for much of the year.

2015 The Nature Conservancy's Coastal Resiliency Mapping Tool

The Coastal Resiliency Mapping Tool by The Nature Conservancy has been developed for geographies around the world to visualize the extent and magnitude of sea level rise and coastal hazards. The web mapping application (maps.coastalresilience.org/California) provides an interactive visualization tool. Extensive work on a web mapping application was included as part of the City of Goleta's Coastal Hazard Mapping and Vulnerability Assessment Public Workshop on August 12, 2015. This tool allows users to explore the risks of different scenarios of coastal hazards—such as sea level rise, storm surges, and inland flooding—at a variety of spatial scales.

2016 Coastal Ecosystem Vulnerability Assessment

Consistent with the CCC's emphasis on crafting regional approaches to sea level rise, the Santa Barbara Coastal Ecosystem Vulnerability Assessment coordinates efforts among researchers from Scripps, UCSB, and others to address impacts on ecological resources within Santa Barbara County. The specific ecosystem-based approach is focusing on wetlands and beaches and watersheds to better understand the regional habitat vulnerability. This project was initially estimated for completion in time to be included in this study, but delays by the researchers indicate that it will likely be the end of 2016 before research results are made available.

2016 FEMA Pacific Coastal Flood Mapping

FEMA is currently updating the Pacific Coastal flood maps for FEMA Region IX. The California Coastal Analysis and Mapping Project is conducting updates to the coastal flood hazard mapping with best improved science, coastal engineering, and regional understanding. Specific to the Southern California Bight (the area between Point Conception and the U.S.-Mexico border), the project incorporates regional wave transformation modeling and new run-up methods and will be revising the effective flood insurance rate maps for coastal flood hazard zones. This will include revised VE (wave velocity), AE (ponded water), and X (minimal flooding) zones. The anticipated completion date is 2018.

2016 CoSMoS 3.0

The Coastal Storm Modeling System of the USGS (CoSMoS 3.0) is focusing coastal hazard modeling on the area between Point Conception and the U.S.-Mexico border. The hope is to provide region-specific, consistent information

on coastal storm and sea level rise scenarios. The model uses downscaled global climate models and considers factors such as long-term coastal shoreline change, stream inputs, dynamically downscaled winds, and varying sea level rise scenarios to produce hazard projections, accounting for various planning horizons and risk tolerance. It is intended to support policy and planning through usage in vulnerability assessments, hazard mitigation plans, and LCPs and by providing data for other shoreline change or hazard models within the region. The anticipated deliverable is summer/fall 2016.

Ongoing Ocean Meadows Restoration

This restoration project aspires to remove the former Ocean Meadows golf course and restore the upper portion of the Devereux Slough by excavating substantial fill from the former golf course and restoring the south parcel (adjacent to the Ellwood Mesa). This project is focused on restoring the Ellwood-Devereux coastal wetland not only to serve as contiguous habitat and public recreational space, but also to provide additional ecosystem services, such as flood and storm surge protection.

3.6 Coastal Hazards

Historic Storm Impacts

Coastal and creek flood hazards have historically occurred across Goleta. Significant wave events in 1943, 1982–83, 1997–98, 2002, 2007, and 2014 have demonstrated that the coast is a dynamic and hazardous environment (Photo 3-1). The 1982–83 event is considered the largest wave event in the Santa Barbara channel, with waves reported to be 24 feet at 22 seconds (Seymour 1996).



Photo 3-1. Goleta Beach Wave Overtopping during the 1997–1998 El Nino (Photo: M. Morey)

In addition, creek flooding combined with high tides has caused substantial flood damages, particularly in the area around Old Town Goleta (Photo 3-2). During the flood of 1861–62, the overgrazed hillsides burned by fire shed sediment and raised the elevation of Goleta Slough in places up to 14 feet; this forever changed the navigability of the slough. Finally, the change in Goleta Slough inlet management has resulted in increasing flooding and duration of inundation at the low-lying areas around the Placencia neighborhood (Photo 3-3).



Photo 3-2. The Santa Barbara Airport, 1969 (Photo: Santa Barbara Historical Society)



Photo 3-3. Flooding in the Placencia Neighborhood 2014 (Photo: T. Feyram)

FEMA repetitive loss data shows that there are 5 parcels that have multiple claims against the National Flood Insurance Program. These parcels are located in Old Town; the San Jose Creek Channel Improvement Project will likely better protect some of them in the short-term.

Existing Coastal Hazards

Coastal erosion and coastal flooding are caused by large storm waves coupled with high tides. These types of coastal processes cause vulnerabilities in the western Coastal Resource Area. Current coastal erosion could cause a cliff failure between 15 and 20 feet, given the local geology. FEMA is currently remapping the Pacific Coast flood maps with final results expected in 2018. Given the current mapped 1 percent run-up elevations of the FEMA VE zone (velocity/wave run-up) at 9–12 feet (annual beach elevations range from 9 to 11 feet), it should be anticipated that the insurance rate maps would increase in elevation for existing conditions.

Given the unique City limits and Coastal Zone boundary, Goleta has an additional flood risk resulting from beach closure of the Goleta and Devereux Slough during the low wave energy summer and fall months. This closed inlet forms a natural dam that can back up water and cause flooding even during the dry summers or drought conditions (Photo 3-4).



Photo 3-4. Barrier Beach Flooding Caused by a Sandbar across Goleta Slough Inlet, February 18, 2014 (Photo: A. Bermond)

Existing Creek Flooding

Historic flooding is known to occur around the City (Photo 3-5). Existing creek flood hazards have been mapped by FEMA as part of the National Flood Insurance Program. This program requires very specific technical analysis of watershed characteristics, topography, channel morphology, hydrology, and hydraulic modeling to map the extent of existing watershed-related flood hazards. These maps, representing existing 100-year flood hazards (1 percent annual chance of flooding) are known as the Flood Insurance Rate Maps (FIRMs) and determine the flood extents and flood elevations across the landscape. The effective date of the existing FIRM map for Goleta was December 12, 2012 (Maps # 06083C1341G, 06083C1342G, 06083C1361G, and 06083C1362G). The City has invested in the San Jose Creek Channel Improvement Project, which is altering the existing channel configuration to increase the flood conveyance capacity. Once completed, this channel improvement will reduce the flood risk through portions of Old Town Goleta (Figure 3-5). At the time of publication, the FEMA flood maps have not been officially updated. However, to best represent the City's creek flood risk, the flood modeling results associated with the channel improvement were acquired from Bengal Engineering and merged with the existing FEMA map. This combined

map was used in the vulnerability assessment to identify existing vulnerabilities.



Photo 3-5. Intersection of Fairview and Hollister during the 1997–1998 El Niño Flooding

Currently, there are 640 acres (about one square mile) within the FEMA-designated 100-year floodplain within Goleta. This is approximately 12 percent of the entire area of the City. Base flood elevations based on a 1 percent annual recurrence probability for creek hazards range from 10 to 40+ feet across the City. Table 3-3 below shows the range of FEMA-modeled creek flood hazard zones. The City has only five parcels that have repetitive loss claims with the National Flood Insurance Program. These parcels all flooded from creek hazards in the 1995 flood, with others during the 1998 El Niño, and a February 2000 stream flood event. All of these parcels are all located in Old Town.

Table 3-3. Base Flood Elevations from the FEMA Maps for Creeks in Goleta City Limits

Drainage	Base Flood Elevation (NAVD88)
San Jose Creek/Goleta Slough	13–17+ feet
Devereux Creek/Upper Devereux Slough	17–20 feet
Bell Canyon/Tecolote Creek	10–22 feet
Storke Ranch	14–15 feet



Figure 3-5. Existing FEMA 100 Year Flood Hazard

City Boundary

Coastal Zone Boundary

Existing FEMA 100-Year Flood



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4. Vulnerabilities and Fiscal Impacts by Sector

4.1 Introduction

This report used several primary data sources:

- Coastal hazards modeling analysis results (ESA 2015).
- FEMA effective flood maps (FEMA 2010).
- Spatial and locational data available from the City, County of Santa Barbara, Environmental Systems Research Institute (ESRI), and The Nature Conservancy (TNC 2015) (and Figure 4-1).

Projections of future climate change impacts came from a variety of sources including: Cal Adapt, UC Los Angeles (UCLA), UCSB, and Scripps Institution of Oceanography.

Projections of future coastal hazards and sea level rise were modeled as part of a separate project completed during the Santa Barbara County South Coast Coastal Resiliency Project Phase 1 (ESA 2015). Substantial research in California is currently underway to effectively downscale climate change models and to project various human-induced climate change impacts at a local scale.

4.2 Vulnerability Assessment Methodology

The modeling work for the 2015 Santa Barbara County South Coast Coastal Resiliency Phase 1 Project included modeling of the following coastal processes:

- **Coastal King Tide Flooding:** Based on an expected monthly recurrence.
- **High Tide Coastal Flooding:** Based on the largest El Niño storm on record (January 1983), this included storm surge and large waves with sea level rise.
- **Barrier Beach Flooding:** Based on beach elevations that control water levels in the lagoons.
- **Wave Impacts:** Wave impacts similar to the historic January 1983 storm with sea level rise.
- **Short-Term Coastal Erosion:** Short-term coastal erosion based on a 1 percent annual chance storm wave event.
- **Long-Term Coastal Erosion:** Long-term coastal changes caused by erosion related to sea level rise and historic trends in erosion.

Coastal Erosion

Erosion was modeled for the respective backshore types—dune-backed or cliff-backed shorelines. The coastal dune erosion hazard modeling considered a short-term response based on the erosion from a 100-year storm wave event. For long-term dune erosion, two components—erosion from sea level rise and erosion caused by historic trends in shoreline change (as a proxy for sediment supply)—were combined and mapped separately. In modeling for both types of dune erosion, inland extents were projected using a geometric model of dune erosion originally proposed by Komar et al. (1999) and applied with different slopes to make the model more applicable to sea level rise (Revell et al. 2011). This method is consistent with the FEMA Pacific Coast Flood Guidelines for storm-induced erosion (FEMA 2005).

Cliff erosion was modeled using a model that accelerates historic erosion rates based on the increase in duration of wave attack at various elevations on the cliff. In addition, an erosion factor of safety was included and represented in the standard deviation of the historic erosion rates for each the geologic unit then multiplied by the planning horizon.

Coastal Storm Flooding

The coastal storm flood modeling was consistent with FEMA's Pacific Coastal Flood Guidelines (FEMA 2005). The high tide coastal storm flood modeling was integrated with the coastal erosion hazard zones. Every 10 years, erosion projections were made and the coastal storm flood model considered areas that were eroded during this time period and thus exposed to wave flooding through enhanced hydraulic connectivity. For the coastal storm flooding, the storm of record was used—a large historic storm event that occurred during the strong El Nino winter of 1982–1983 on January 27, 1983, during which wave heights

reached 25 feet at 22 seconds (Seymour 1996, ESA PWA 2012, ESA 2015).

Barrier Beach Flooding

The barrier beach flooding was modeled based on beach geomorphic characteristics interpreting the barrier beach crest elevation. Seasonally, the beaches close all of the lagoons and estuaries along the Goleta Coast. During the closed mouth time, the lagoons fill up to the berm crest elevations from a combination of waves overtopping the beach and freshwater flows from the watersheds. Just before rains usually happen, the barrier beach flooding reaches its maximum height. The four lagoon systems affecting the City are Tecolote Creek, Bell Canyon, Devereux Slough, and Goleta Slough, which were modeled using beach berm crest elevations of 12 feet NAVD for Tecolote Creek, Bell Canyon, and Devereux Slough and 11 feet NAVD for Goleta Slough (based on reduced wave exposure at Goleta Beach).

Coastal Wave Impact

Wave impact modeling assessed the inland extent of wave velocity and inland extents of flooding using the method of Hunt (1959) and supported in the Shore Protection Manual (USACE 1984). This method calculated the dynamic water surface profile, the nearshore depth limited wave, the wave run-up elevation, and inland extent at the end of each representative profile. This hazard represents a future FEMA velocity wave impact zone (a.k.a. V-Zone).

Coastal Inundation

Tidal inundation modeling represents the Extreme Monthly High Water level (EMHW) or what areas are projected to get wet once a month. This modeling is similar to a king tide. This monthly elevation was averaged from maximum monthly water levels at the Santa Barbara Tide Gage (EMHW = 6.53 feet NAVD88)



Figure 4-1. Existing and Future Coastal Hazards

Flood Hazard Zones

Surface Connected
Potentially Connected

Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA 100-Year Flood
Hazard Modeling by ESA 2015

City Boundary Coastal Zone Boundary



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and then applied to each of the sea level rise scenarios.

Combined Hazards

For each planning horizon, projected hazards were combined into a single layer using a process called “spatial aggregation” (ESA PWA 2012). This layer represents the overlap in all of the hazard zones and shows how many of the various sea level rise and wave condition scenarios impact specific areas. For example, an area mapped under three scenarios indicates that the area was hazardous during that planning horizon for all scenarios.

The localized coastal hazard modeling methodology relies on a detailed parcel-level backshore characterization that includes backshore type, geology, and local geomorphology (i.e., elevations, beach slopes). The backshore characterization was analyzed at approximate 100-yard spacing and then statistically represented at an approximate 500-yard alongshore distance. Calculations of wave run-up and tides are combined into a total water level elevation, which then drives coastal erosion and shoreline response models (Pacific Institute 2009, Revell et al. 2011). Climate change impacts—assessed using a series of sea level rise, wave climate, and precipitation scenarios—projected potential future coastal erosion and flooding hazards (ESA PWA 2012). Projected impacts were evaluated at four planning horizons: existing (2010), 2030, 2060, and 2100. All hazards were mapped on the California Coastal LIDAR Digital Elevation model (available from the National Oceanic and Atmospheric Administration Digital Coast website).

Modeling Assumptions

As with all modeling, assumptions had to be made to complete the work. Below are some of the more important modeling assumptions made in the ESA PWA 2015 work.

Coastal Erosion and Flood Hazard Projections Do Not Consider Existing Coastal Armoring

The coastal hazard projections did not consider the influence of the existing water outfall structures and coastal armoring on changes to coastal erosion and coastal flood hazard projections.

Projections of Potential Erosion Do Not Account for Uncertainties in the Duration of a Future Storm

The erosion projections assume that the coast would respond to the combination of high tides and large waves inducing wave run-up. Instead of predicting future storm-specific characteristics (waves, tides, and duration), the potential erosion projection assumes that the coast would erode under a maximum high tide and storm wave event with undefined duration.

Modeling Does Not Consider Future Changes to Precipitation and Runoff from the Watersheds with the Joint Occurrence of River and Coastal Flooding

The coastal confluence flood modeling has not been completed for the City, so the influence of changes in precipitation and higher water levels from sea level rise in Goleta Slough on the overall extent of river flooding has not been analyzed.

Mapping of these flood hazards using existing topography and geomorphic interpretation of the top of the beach (i.e., the beach berm crest) elevations show that Devereux Slough and Goleta Slough may become a singular wetland system and the resulting waters could flood portions of Old Town Goleta, Central Area, and the Southwest Residential Areas. Refer to Figures 4-1 and 4-2).

For purposes of analysis, the City's General Plan/Coastal Land Use Plan land uses were categorized into five typical land use types for ease of communicating climate-induced impacts and related vulnerabilities: 1) residential, 2) industrial, 3) commercial, 4) infrastructure, and 5) agriculture/open space. An example of agriculture/open space includes those areas such as the Ellwood Mesa Open Space/Sperling Preserve and the Sandpiper Golf Club. The Bacara Resort and Spa is categorized under commercial. Other land uses ranging from industrial, infrastructure, and residential are located within Old Town.

4.3 Economic and Fiscal Impact Analysis Methodology

The economic and fiscal impact analysis prepared for this project is designed to identify the potential costs of adaptation, mitigation, and increased public safety and health services that the City would be responsible for in the case of a storm being exacerbated by sea level rise or due to coastal erosion. This analysis will also include the potential loss in (Transient Occupancy Tax) revenues from the Bacara Resort and Spa. The analysis contained in this report also considered other economic and tax revenue losses for the City, but concluded that these losses would be both minimal/temporary as well as difficult to quantify accurately.

This study identified existing land, buildings, and infrastructure (roads, trails, water/power lines, etc.) within the erosion and flood zones for 2030, 2060 and 2100. It also identified the potential for hazardous waste or oil spills/leakages and estimated the cost of mitigation. In order to estimate the costs of replacement or mitigation, this analysis relied on various sources discussed in more detail below.

For land and structures subject to property tax (generally land/structures not owned by a governmental entity), this report used the County of Santa Barbara Parcel Database, which contains detailed information on the size of the parcel (in square feet) as well as the size of the structure (also in square feet). In California, Proposition 13 caps any increase in the assessed value of the land/structure at 2 percent a year, until the parcel is resold.

The cost of infrastructure replacement was estimated based on interviews with experts/engineers. Where this information was not available, reasonable metrics (e.g., the cost of replacing overhead power lines) were found from reputable sources, generally in Southern California.

Changes in Tax Revenues

The primary changes in tax revenues from the City could come from a number of different sources. First, the City would experience a loss in property tax revenues if property is lost to erosion or flooding. Although it was anticipated that estimating this loss in property taxes would be substantial, this study did not find any private parcels in the erosion hazard zone aside from the Bacara Resort and Spa and the Sandpiper Golf Club (discussed below). There are, however, a number of structures within the flood hazard zone. The operating assumption is that these structures and property will be repaired and that the assessed value will not fall, nor will property tax revenues.

The Bacara Resort and Spa provides a significant contribution to the City in the form of Transient Occupancy Tax (ToT) revenues. Information was obtained from the Bacara Resort and Spa on the average revenue per room and the average occupancy rate in high and low season. Six buildings, including 139 rooms and a restaurant, at the Bacara Resort and Spa are within the 2060 erosion zone. Therefore, it is likely that these buildings will either be lost or relocated within the next 50

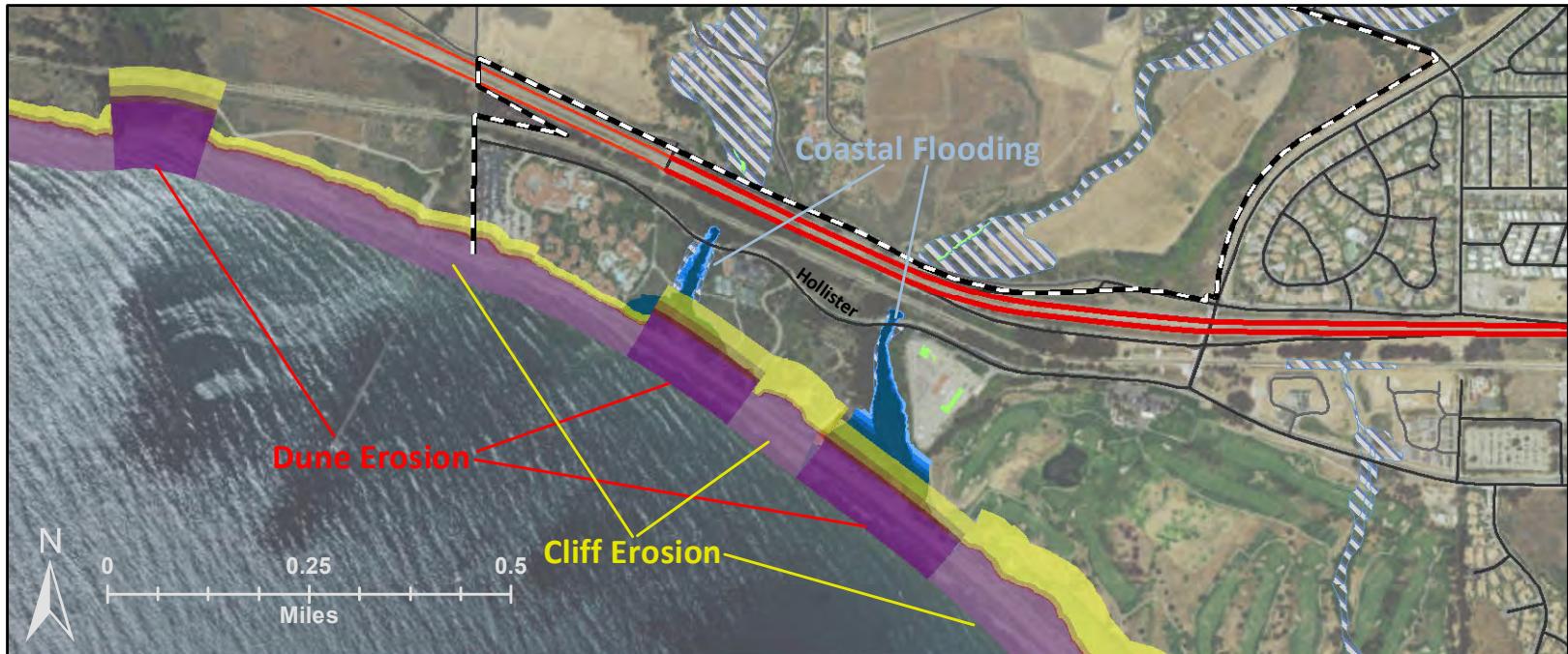
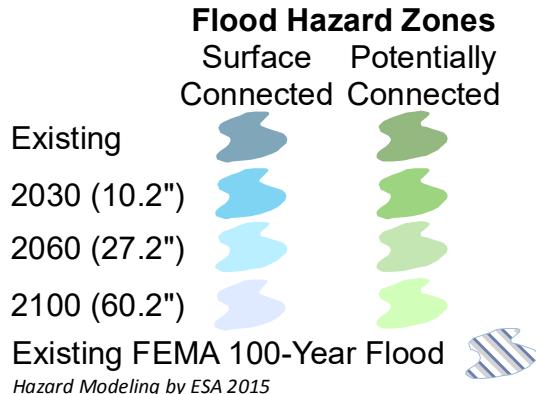


Figure 4-2. Flood and Erosion Hazard Zones

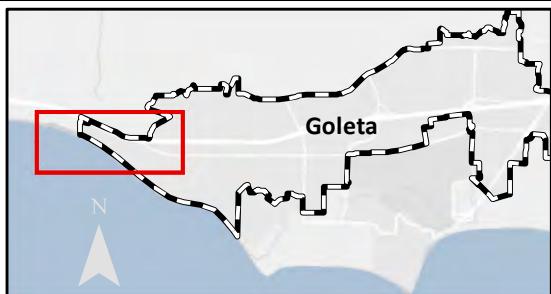


Cliff Erosion Hazard Zones

- Existing
- 2030
- 2060
- 2100

Dune Erosion Hazard Zones

- Existing
- 2030
- 2060
- 2100



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years. The loss of ToTs was estimated from these 139 rooms during high and low season per day and per month. It is uncertain when, or how long, these buildings would be closed.

Metrics

Table 4-1 below summarizes the metrics used to estimate various losses in this report. As discussed above, this study obtained these values in three main ways:

1. The County Parcel Data was updated to accurately reflect the market value of the parcel/structures and the replacement value of the structure in the City.
2. City officials and experts from the private sector (Bacara, utility districts, etc.) were

interviewed to obtain accurate estimates of adaptation costs.

3. Standard metrics from reliable sources were used to estimate other costs (e.g., cost of replacing aboveground power lines).

The timing of these adaptation costs by parcel was identified using GIS analyses based on the timing of impacts mapped in the flood and erosion zones. In some cases it was necessary to make judgment calls. For example, the 2060 erosion map shows a thin gap between the buildings and the bluff (<25 feet), and it was determined that around this timeframe the buildings would need to be relocated.

Table 4-1. Fiscal Impact Analysis Metrics

Item	Cost/Value	cost basis
LUFTs—no groundwater intrusion	\$125,000	Per tank
LUFTs—groundwater intrusion	\$1,500,000	Per tank
2005 Goleta flood costs	\$500,000	Goleta
1998 Goleta flood costs in 2015 dollars	\$4–5,000,000	1998 flood adjusted
Capping oil well on land	\$100,000	Per well
Capping oil well in water	\$800,000	Per well
Oil spill costs	\$257,000,000	Total cost
Trails	\$170	Per linear foot
Road improvement	\$135	Per linear foot
Coastal armoring	\$170–\$200	Per linear foot
Manhole cover retrofits	\$150	Per manhole
Wastewater lift station	\$150,000	Per lift
Property tax parcel	Updated using HPI	Sale price
Buildings/structures	Size of building	\$/square foot
Flood damages to buildings	Current market value	Depth damage curves
Aboveground power lines	\$10	Per linear foot
Belowground power lines	\$30	Per linear foot
Bacara Resort Buildings	\$0	Per room
Bacara Boathouse	\$419	Per boathouse
Bacara ToTs—low season	\$42	Per room
Bacara occupancy rate—high season	83%	
Bacara occupancy rate—low season	58%	
Bacara average revenue per room	\$353	Per room

Adaptation Costs

Table 4-2 below contains the estimates of the adaptation costs for the City as well as other public and private agents. The table identifies who has responsibility/liability for each cost. In some cases (e.g., leaking underground fuel tanks [LUFTs]), the liability falls on the owners, but the City may nevertheless have to assume liability if the owner fails to mitigate (e.g., the operating entity is bankrupt). In other cases, the City is liable (e.g., flood costs), but it may be able

to obtain funds from other sources for emergency flood cleanup (e.g., FEMA or a state agency). In some cases (e.g., 2100 and the Sandpiper Golf Club), it was not possible to estimate costs, but these costs would be significant. The table estimates costs for a one-time event (e.g., a major coastal flood) within the planning horizons of 2030, 2060, and 2100. The total potential adaptation costs are \$370 million (not discounted by time horizon). However, the most significant cost is the potential cleanup cost of an oil spill.

Table 4-2. Estimated Adaptation Costs

Category	Item	City Responsibility	Event-Driven Costs	2030 Cost	2060 Cost	2100 Cost
Hazardous materials	LUFTs—no leaching	City potentially responsible			\$125,000	\$625,000
Hazardous materials	LUFTs—with leaching	City potentially responsible			\$1,500,000	\$7,500,000
Oil and gas—coastal storm	Capping wells—in water	City potentially responsible	\$63,200,000			
Oil and gas—coastal storm	Capping wells—on land	City potentially responsible	\$7,900,000			
Oil and gas—coastal storm	Oil spill	City potentially responsible	\$257,000,000			
Wastewater	Manhole covers	Sanitary Districts responsible		\$2,100	\$4,350	\$12,300
Wastewater	Two lift station retrofits	Sanitary Districts responsible	\$300,000			
Recreation trails	Eroded trails	City responsible		\$626,280	\$1,175,380	\$1,945,310
Roads	Flooding	City partially responsible		\$--	\$--	\$--
Southern California Edison utilities	Aboveground lines	Southern California Edison responsible		\$3,220	\$3,600	\$6,370
Southern California Edison utilities	Belowground lines	Southern California Edison responsible		\$15,930	\$20,130	\$49,080
Stormwater	Manhole covers	City responsible		\$4,350		
Flood cleanup	2005 Flood	City partially responsible	\$500,000			
Flood cleanup	1998 Flood	City partially responsible	\$4,500,000			
Coastal armoring	Seawall removal cost already completed	City partially responsible	\$225,000			

Category	Item	City Responsibility	Event-Driven Costs	2030 Cost	2060 Cost	2100 Cost
Coastal armoring	Seawall construction	City partially responsible	\$264,920			
Land use	Property flood costs	Private owners responsible		\$1,000,000	\$1,500,000	\$14,000,000
Land use	Bacara Bath House	Bacara responsible		\$421,000		
Land use	Bacara 6 buildings	Bacara responsible			\$52,500,000	
Bacara ToTs	High season	Loss to City			\$88,058/month	
Bacara ToTs	Low season	Loss to City			\$61,530/month	
Total by Time Horizon			\$333,889,920	\$2,072,880	\$59,828,460	\$24,138,060

Finally, Table 4-3 presents the likely, partial, and possible liabilities for the City at various time horizons. For flood cleanup costs, our analysis assumes one 1998-level flood and one 2005-level flood. If the City experiences more of these types of floods, especially a costly flood similar to the 1998 flood, the costs could be much higher. The second row in Table 4-3 estimates costs that the City is

likely to be partially responsible for (i.e., road improvement costs as well as the costs of seawall removal and new construction.) The third row in Table 4-3 presents the *potential* liability for the City. This analysis assumes that the City could be liable for up to 20% of the costs of cleaning up an oil spill. The City also faces a serious potential liability in the 2060 and 2100 planning horizons for LUFTs.

Table 4-3. Estimated City Liability for Vulnerabilities

City Responsibility	Event-Driven Clean-Up Costs	2030 Cost	2060 Cost	2100 Cost	Total (Undiscounted)
City responsible	\$500,000	\$630,630	\$1,175,380	\$1,945,310	\$4,251,320
City partially responsible	\$4,750,000	\$471,052	\$2,193,387	\$12,490,707	\$19,905,146
City potentially responsible	\$264,900,000	--	\$1,625,000	\$8,125,000	\$274,650,000

This analysis examined the economic losses associated with increased erosion and storm events caused by sea level rise. Although forecasting future events is always fraught with uncertainty, it makes sense for the City to start planning now for these events. In some cases, relatively inexpensive preventative measures, such as mitigating hazardous waste in underground storage tanks or sealing manhole covers, could save the City millions of dollars.

The analysis indicates that, in dollar terms, the most serious issues facing the City are (in order): 1) oil spills, 2) LUFTs, and 3) flood cleanup costs. In terms of private and public property, the City has limited exposure until 2060, when parts of the Bacara Resort and Spa become threatened. Longer term, the risk of flood damage to private and public property increases between 2060 and 2100.

4.4 Sector Profile Results

The results of the vulnerability assessment and fiscal impact analysis are summarized in Appendix A. Further details on the fiscal impact results are provided below and are categorized by Sector Profile for consistency:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities

Land and Structures: Old Town Area

Since the rate of housing inflation in Goleta has exceeded 2 percent for many years, the original sales price of the parcel—land and structure(s)—is adjusted to reflect current market conditions using a housing price index created from local housing sales data. The replacement cost of the structure was estimated per square foot using FEMA's Hazard Guidance files (2006).

Flood damages to structures were estimated by applying the U.S. Army Corps of Engineers (USACE) depth damage curves, which estimate damages as a percent of the total value of the structure. USACE's method also allows one to estimate the average damage to the contents of the structure (e.g., furniture, appliances).

The study team spoke with officials from the City about flooding costs. The costs of cleanup vary considerably depending on the extent of the flooding, the winds associated with the storm, and other factors. These costs generally include the costs of removing debris from downed trees, power lines, etc. Since costs vary widely, this study used the actual costs from two recent significant flood events in Goleta in 1998 and 2005. The 1998 El Niño event was an extreme event, while the flooding that occurred in 2005 was a relatively small flood event. Road damages and cleanup costs alone could range from \$30,000 to \$100,000 per mile, depending on the type of road and amount of debris associated with the flooding.

Land and Structures: Coastal Resources Area

Bacara Resort and Spa

The most significant property examined was the Bacara Resort and Spa, which has a Bath House plus six additional buildings (including a restaurant and 139 hotel rooms) within the coastal hazards zones. This analysis indicates that these buildings may have to be abandoned and/or moved by 2060 because of coastal erosion; the Bath House is presently exposed to all of the hazards. One can estimate the cost of replacing these buildings using standard industry metrics (see HVS Consultants 2014). The potential loss in ToTs revenues was estimated based on data provided by the Bacara Resort and Spa on average room occupancy in high and low season and the average yield per room. The ToT rate for the City of Goleta is 12 percent. However, the City has an arrangement with Santa Barbara County in which the County receives 40 percent of ToT revenues.

Sandpiper Golf Club

The Sandpiper Golf Club and the neighboring Ellwood Mesa Open Space/Sperling Preserve

will also experience a small amount of shoreline erosion. However, the golf course will not be seriously affected until 2100, when some reconfiguration of the course (cost not estimated here) would be necessary.

Ellwood Mesa Open Space/Sperling Preserve

The Ellwood Mesa Open Space/Sperling Preserve will also lose some land. The primary loss here would be to coastal trails. This analysis estimated the cost of replacing these trails based on estimates of the cost of the Ellwood Coastal Trails Restoration Project (Santa Barbara Trails Council 2015).

Coastal Armoring

Cost estimates for removing the timber seawall were obtained from Cushman Contracting Corporation (www.cushmancontracting.com), based on an estimated cost of \$150,000–\$175,000 to remove 900 linear feet of timber wall from the California State Lands Commission Beach Hazards Removal Project completed in 2014. An approximate range for removal would be \$170–\$200 per linear foot.

Oil and Gas

A number of oil wells exist onshore and offshore of the City. While most of these wells no longer operate, these wells can still represent a danger if they are damaged by coastal erosion or flooding. Nearby Summerland is currently facing similar issues and trying to resolve slow leakage from old poorly capped wells. Data was obtained from the City on the cost of capping or recapping wells and the cost of a potential oil spill cleanup based on the recent costs for the Refugio Oil Spill.

Hazardous Materials

Several LUFTs, mostly consisting of current or abandoned gas stations, that contain hazardous materials that could leak were identified. Not only could increased erosion and coastal flooding exacerbate the risk of these tanks leaking, but increased exposure to high ground waters could also spread the contaminants much more widely. This study compiled data from the U.S. Environmental Protection Authority and other sources on the mitigation costs for LUFTs. These costs vary depending upon whether the hazardous materials have leached into the groundwater or onto adjacent properties.

Natural Resources

Habitat resources occur in each of the subareas, including the western Coastal Resources Sub-Area, Storke Ranch wetlands, Phelps Road vernal pools, Rancho Goleta Lake, the southern portion of the Southwest Residential Sub-Area, and along streams. Two creeks, Bell Canyon Creek and Tecolote Creek, drain to the ocean via coastal estuaries; the other creeks drain into either Devereux or Goleta Sloughs, just south of the City boundary. There are also a lot of important considerations that fall outside of the realm of municipal budgets. For example, fiscal impacts of development on adjacent jurisdictions, local businesses, and natural resources are not accounted for in most fiscal impact models. Therefore, no fiscal impact analysis was conducted on this sector.

Public Access

The Ellwood Mesa Open Space/Sperling Preserve contains a number of hiking trails. Some of these trails are quite close to the coast and lie within the projected coastal erosion hazard zones. Data from the Ellwood Coastal Trails Restoration Project Conceptual Funding Plan (Santa Barbara Trails Council 2015) was used to estimate the cost of trail replacement

per linear foot. There would also be some loss in recreation from flooding. However, the City does not have any data on current usage and assumed that hikers could substitute other trails/activities during flood events.

Transportation

Although a number of roads in Goleta are subject to flooding, none of the roads are in the erosion hazard zone. Consequently, data on the costs of clearing debris and other hazards was collected. However, potential costs related to increased traffic or commuting times were not estimated. Since the affected roads are minor, secondary roads, these costs should not be significant unless the flooding persisted for many days.

Wastewater

Wastewater infrastructure is operated and maintained by the Goleta Sanitary District and the Goleta West Sanitary District. This study identified two lift stations that were vulnerable (discussed later), as well as a number of manhole covers that need to be retrofitted. This study also examined the City's stormwater system and determined that there are no issues related to flooding/erosion, although severe floods would overload the stormwater system.

Water Supply

The revenue environment has remained stable and is supported by rate adjustments needed to address the costs of providing ongoing water service to Goleta Water District customers. In addition to a 2015 rate increase, relatively dry weather resulted in an increase in water consumption by 6.9 percent compared to consumption in 2013. When consumption reduction methods are implemented during various drought stages, Goleta Water District will consider implementing an accompanying rate change to maintain fiscal health, in full compliance with state law. This rate

adjustment, combined with possible use of Goleta Water District reserves, would mitigate the financial impact of reduced water sales and revenues. Moreover, the rate adjustment would provide a conservation incentive to customers through price signals during shortage conditions (2010 Urban Water Management Plan Update).

Utilities

A number of power lines, both above- and belowground are in the erosion and flooding hazard zones. For lines lost because of erosion, this study estimated the cost of replacement based on standard industry metrics provided by Southern California Edison and others. For above- and belowground lines, it was determined that coastal flooding was not an issue. However, aboveground power lines may be vulnerable to strong winds associated with coastal storms. Future wind hazards were not analyzed as part of this vulnerability study.

5. Adaptation Strategies by Sector

5.1 Introduction

Adaptation to climate change involves a range of small and large adjustments in natural or human systems that occur in response to already experienced or expected climate changes and their impacts. Adaptation planning involves a wide range of policy and programmatic measures that can be taken in advance of the potential impacts, or reactively, depending on the degree of preparedness and the willingness to tolerate risk. Good adaptation planning should improve community resilience to natural disasters.

Adaptation measures that reduce the ability of people and communities to deal with and respond to climate change over time are called maladaptation. An example of this is the levee system for the City of New Orleans. While the levees provided short-term adaptation and allowed communities to remain in areas below sea level, they actually increased the long-term vulnerability—both by providing a false sense of security and underestimating the impact that storm events could cause.

This is the first focused endeavor by the City to identify possible responses to the identified vulnerabilities through adaptation strategies based on preparedness, avoidance, and/or protection from the risks projected to occur over time. Good adaptation stems from a solid understanding of the City's specific risks and the physical processes responsible for causing the risk, now and in the future.

5.2 Adaptation Planning

Adaptation planning requires considering each vulnerable sector and taking effective and timely action to alleviate the range of consequences. One adaptation measure may reduce the risk to one sector but cause issues in another sector or lead to unintended secondary consequences. Good adaptation planning considers these secondary impacts and how the different adaptation measures that could be used to alleviate vulnerability in one sector interact with the other measures in developing a sustainable community adaptation strategy.

Risks can be addressed by reducing vulnerability or exposure. First, the City has to choose what level of risk it is willing to tolerate. Increasing infrastructure resilience, transferring the risk, negating the risk through technological change or retreat, or revising policies can accomplish this.

As not all issues can or should be addressed at once, it is important that risks be prioritized to maximize the use of the City's resources while avoiding a costly emergency response. Many of these adaptation strategies take substantial time to implement. As a result, advanced planning and fundraising is key. Factors to consider when prioritizing projects include: public health and safety, available funding sources, legal mandates, planning consistency, capacity and level of service, cost-benefit relationship, and public support. Risks that present the most serious consequences and are

projected to occur first should raise a project's level of priority. (See Figure 5-1.)

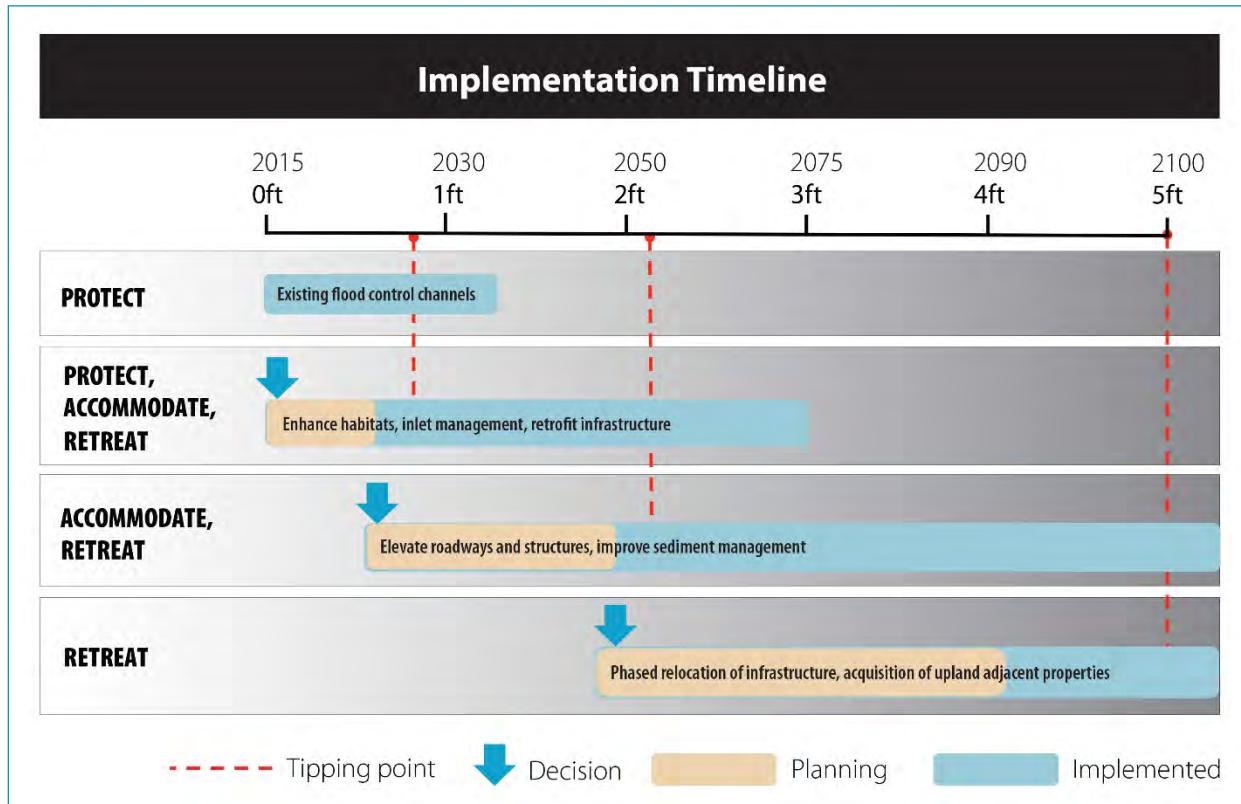


Figure 5-1. Implementation Timeline and Sea Level Rise Accommodation

This report should increase the City's understanding of the vulnerabilities associated with coastal hazards and is supporting the education of the community to encourage decision-makers to consider these impacts without creating further vulnerabilities or liabilities. As this is the beginning of the City's process of developing its adaptation response, many early initiatives are exploratory in nature and aim to identify appropriate changes or actions to respond to the impacts of concern.

Reviewing current City programs associated with risk reduction is the first step to identify immediate adjustments to alleviate or eliminate risks. Where adjustments to current practices will not sufficiently address the risks, then more substantial actions will be identified and should be implemented.

Of utmost importance to the successful implementation of an adaptation strategy is communicating the issues and proposed responses to the community. Studies repeatedly show that a knowledgeable community that understands how to respond to extreme events is far more resilient to the impacts. An informed community is also more likely to implement its own programs and decisions that reflect its members' knowledge of the projected changes and enable them to contribute to developing a prosperous, livable, and affordable City in the face of climate change.

5.3 Maladaptation

M maladaptation is a trait that is (or has become) more harmful than helpful, in contrast with an adaptation, which is more helpful than harmful.

One of the most significant concerns with maladaptation is that it reduces incentives to adapt while simultaneously diminishes the capacity to adapt in the future. Maladaptation occurs when efforts intended to “protect” communities and resources result in increased vulnerability, often realized indirectly or too late after a direction has been set. For instance, previously unaffected areas can become more prone to climate-induced hazards if the system that is being altered is not sufficiently understood. Likewise, if too much focus is placed on one time period—either the future or the present—effects on the other can be ignored, resulting in an increased likelihood of impacts from climate-induced hazards. Avoiding maladaptation is critical to a successful climate adaptation strategy. To do so, the City must first be able to make informed decisions based on an accurate vulnerability assessment, and to determine its own level of tolerance. Flexibility and a precautionary approach are key to avoiding maladaptation in the adaptation planning process.

5.4 Challenges

Adaptation planning does come with its challenges. A single jurisdiction like Goleta cannot adapt to climate changes on its own. A successful process requires regional dialog and partnerships to identify, fund, and implement solutions. Challenges range from acquiring the necessary funding for adaptation strategies, communicating the need for adaptation to elected officials and local departments, and gaining commitment and support from federal government agencies to address the realities of local adaptation challenges. Lack of resources and limited bridges between local, state, and federal agencies make it difficult for cities to make significant gains in adaptation.

When identifying appropriate adaptation responses, the City should consider taking a precautionary approach by using the following seven principles:

1. Strategy should not increase greenhouse gas emissions.
2. Strategy should support the protective role of ecosystems and their sustaining physical processes.
3. Strategy should avoid disproportionately burdening the most vulnerable.
4. Strategy should avoid high-cost strategies unless holistic economic work (including ecosystem services, recreation, and damages) demonstrates a strong net benefit over time.
5. Strategy should incentivize adaptation (e.g., reward early actors).
6. Strategy should increase flexibility and not lock the community into a single long-term solution.
7. Strategy should reduce decision-making time horizons to better incorporate new science.

5.5 Secondary Impacts

Almost all adaptation strategies have secondary impacts associated with them. Some of these are minor issues, such as short-term habitat impacts following removal of oil and gas infrastructure or undergrounding of overhead power lines. Others can be quite confounding and expensive, such as the burial of beaches under rocks following construction of revetments, or a retrofit to a critical infrastructure component.

Many communities have relied on setbacks in an effort to reduce hazard risk, and some are currently experimenting with establishing setback lines that are based on modeled predictions of where the new coastline will be. Setbacks alone could be considered maladaptive because they eventually lead to structures being at risk. Therefore, it is important to have elements of retreat, such as movable foundations or locations for transfer of development. Further, triggers for action, such

as relocation, should take the place or work in conjunction with regulatory setback policies.

Sediment management is another option to combat erosion by building wider beaches and higher sand dunes or increasing wetland accretion. However, sediment management can be costly, and ongoing sand supplies for large projects can become scarce. Research investigations by USGS and UC Santa Cruz were unsuccessful at locating substantial offshore sand deposits that would support large nourishment projects along the Goleta coast (Barnard et al. 2009). Secondary impacts from sediment management vary depending on the volume, frequency, and method of placing, but they can substantially degrade sandy beach ecosystems, limiting recreational use and suffocating rocky intertidal habitats.

Shoreline protective devices (e.g., coastal armoring, flood control levees) can also adversely affect a wide range of other coastal resources and uses that the California Coastal Act protects. They often impede or degrade public access and recreation along the shoreline by occupying beach area or tidelands and by reducing shoreline sand supply. Protecting the back of the beach ultimately leads to the loss of the beach as sea level rise and coastal erosion continue on adjacent unarmored sections. Shoreline protection structures therefore raise serious concerns regarding consistency with the public access and recreation policies of the California Coastal Act. Such structures can also fill coastal waters or tidelands and harm marine resources and biological productivity, which is in conflict with California Coastal Act Sections 30230, 30231, and 30233. They often degrade the scenic qualities of coastal areas and alter natural landforms, which is in conflict with Section 30251. Finally, by halting disrupting landscape connectivity, structures can prevent the inland migration of intertidal and beach species during large wave events. This disruption will prevent intertidal habitats, saltmarshes, beaches, and other low-lying

habitats from advancing landward as sea levels rise over the long-term.

5.6 Protect, Accommodate, and Retreat

Adaptation generally falls into three main categories: protect, accommodate, and retreat.

The Protection Approach

Protection strategies employ some sort of engineered structure or other measure to defend development (or other resources) in its current location without changes to the development itself. Protection strategies can be further divided into "hard" and "soft" defensive measures. A gray (hard) approach would be to engineer a seawall or revetment, while a green approach may be to nourish beaches or build sand dunes. Although the California Coastal Act clearly provides for potential protection strategies for "existing development," it also directs that new development be sited and designed to not require future protection that may alter a natural shoreline. It is important to note that most protection strategies are costly to construct, require increasing maintenance costs, and have secondary consequences to recreation, habitat, and natural defenses. Many of these are forms of maladaptation, especially if applied as a long-term solution.

The Accommodation Approach

Accommodation strategies employ methods that modify existing or design new developments or infrastructure to decrease hazard risks and therefore increase the resiliency of development to the impacts of sea level rise. On an individual project scale, these accommodation strategies include actions such as elevating structures, performing retrofits, or using materials to increase the strength of

development such as to handle additional wave impacts; building structures that can easily be moved and relocated; or using additional setback distances to account for acceleration of erosion. On a community-scale, accommodation strategies include many of the land use designations, zoning ordinances, or other measures that require the above types of actions, as well as strategies such as clustering development in less vulnerable areas or requiring mitigation actions to provide for protection of natural areas.

The Retreat Approach

Retreat strategies relocate or remove existing development out of hazard areas and limit the construction of new development in vulnerable areas. These strategies include creating land use designations and zoning ordinances that encourage building in less hazardous areas or gradually removing and relocating existing development. Acquisition and buy-out programs, transfer of development rights programs, and removal of structures where the right to protection was waived (i.e., via permit condition) are examples of strategies designed to encourage retreat.

The Hybrid Approach

For purposes of implementing the California Coastal Act, no single category or even specific strategy should be considered the “best” option as a rule. Different types of strategies will be appropriate in different locations and for different hazard management and resource protection goals. The effectiveness of different adaptation strategies will vary across both spatial and temporal scales. In many cases, a hybrid approach that uses strategies from multiple categories will be necessary, and the suite of strategies chosen may need to change over time. Nonetheless, it is useful to think about the general categories of adaptation strategies to help frame the discussion around

adaptation and the consideration of land use planning and regulatory options in the City.

The Do Nothing Approach

There are a number of options for how to address the risks and impacts associated with sea level rise. Choosing to “do nothing” or following a policy of “non-intervention” may be considered an adaptive response. However, in most cases, the strategies for addressing sea level rise hazards will require proactive planning to balance protection of coastal resources with development.

5.7 Sector Profile Results

Adaptation strategies have been identified based on the specific risks and vulnerabilities identified in the vulnerability results and the applicable California Coastal Act requirements. Adaptation strategies typically involve policy modifications for land use plans and regulatory permit conditions that focus on avoidance or minimization of risks and the protection of coastal resources.

Adaptation strategies may include requiring proposed projects to anticipate longer-term impacts in design, considering how much critical infrastructure will be able to withstand the increasing exposure without being put in danger, or rezoning hazardous areas as open space. Other adaptation strategies may build adaptive capacity into the plan so that future changes in hazard risks can be effectively incorporated into long-term resource protection. In most cases, especially for LCP land use and implementation plans, multiple adaptation strategies will need to be employed. This section provides an overview of the three general categories of adaptation planning measures, ranging from soft “nature based” or “green” measures to “hard” or “gray” engineering measures.

The recommended adaptation strategies are summarized in Appendix A. Further details on the individual strategies are provided below.

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Wastewater
- J. Water Supply
- K. Utilities.

Retreat (Relocation/Removal)

Retreat refers to the gradual removal or relocation of structures away from unstable erosion-prone areas. Retreat allows shore migration and mitigates coastal hazards by limiting, altering, or removing development in hazardous areas. This measure can be implemented in a number of ways through policy option. Retreat can be phased in combination with some of the other land use measures described below.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, Water Supply, Public Access, Natural Resources, Coastal Armoring, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Northeast Residential, Northeast Community Center, and Old Town Area

Transfer of Development Rights Program

This program involves transferring development rights from parcels near hazardous areas, such as the coast, to parcels that are further away from the hazard and can therefore accommodate development better, such as a more inland location. Often there is an incentive for this relocation such as increased density or relaxation of building heights. This strategy can be used to incentivize and encourage private property development away from hazardous areas.

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Fee Simple Acquisition

Simple acquisition is the purchase of vacant or developed land in order to prevent or remove property from the danger of coastal hazards such as erosion or flooding. One such example of this adaptation strategy is to purchase properties at risk and to demolish structures and restore habitats and physical processes, as has been done in Pacifica, California. A hybridized version of this adaptation strategy may be a public acquisition program in which an entity purchases the hazardous property and then leases the land back to the previous landowner with the deed restriction and understanding that when the structure or parcel is damaged that the lease may expire.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Rolling Easements

The term “rolling easement” refers to a policy or policies intended to allow coastal lands and habitats, including beaches and wetlands, to migrate landward over time as the mean high tide line and public trust boundary moves inland with sea level rise. Such policies often restrict the use of shoreline protective structures, limit new development, and encourage the removal of structures that are seaward (or become seaward over time) of a designated boundary. This boundary may be designated based on such variables as the mean high tide line, dune vegetation line, or other dynamic line or legal requirement. In some cases, implementation of this can be through a permit condition (such as the “no future seawall” limitation) or purchased at a substantial discount (such as purchasing the land between the MHW boundary and the dune vegetation line or MHW boundary plus 5 feet so the policy can adjust with sea level rise).

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Public Access, Natural Resources, and Coastal Armoring

Applicability to Goleta Sub-Areas: Coastal Resources Area, Central Area, Central Resource Area, and Old Town Area

Conservation Easements

A conservation easement is a legally enforceable agreement attached to the property deed between a landowner and a government agency or a non-profit organization that restricts development or certain uses “for perpetuity,” but allows the landowner to retain ownership of the land. The allowable uses for

this easement could be structured to allow flooding or erosion processes to occur.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resource

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Structural Adaptation

Structural adaptation is the modification of the design, construction, and placement of structures sited in or near coastal hazardous areas to improve their durability and/or facilitate their eventual retreat, relocation, or removal. This is often done through the elevation of structures, specific site placement, and innovative foundation construction. These can be implemented through revisions to the Building Code.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Water Supply, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Central Resource Area, and Old Town Area

Habitat Adaptation

Also called “living shorelines,” habitat adaptation reduces vulnerabilities by supporting the physical processes that support habitat creation. The maintenance of these physical processes allows habitats to evolve and is compatible with anticipated climate changes to environmental parameters. This measure and related policies are intended to maintain landscape connectivity, which can provide habitats room to transgress and evolve. For a more active adaptation approach, salt-tolerant vegetation could be planted and sediment (e.g.,

dunes or mud) added to the system to mimic natural sedimentary processes. Examples include sediment management, oyster reefs, and horizontal levees.

Applicability to Goleta Sectors: Land Use and Structures, Water Supply, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, Central Resource Area, and Old Town Area

Real Estate Disclosures for Coastal Hazards

This strategy requires that upon any real estate transaction, buyers of properties in the coastal hazards zones are made aware of the potential hazards to their property. This disclosure informs buyers that they may face such hazards as erosion, coastal flooding, inundation, wildfire, or flooding as a result of climate-induced impacts, such as sea level rise. It is important to note that a disclosure for creek flooding already exists if a property is required to carry flood insurance

Applicability to Goleta Sectors: Land Use Structures, Oil and Gas, and Hazardous Materials

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Zoning and Building Code Revisions

This approach involves agencies incorporating flexibility into building codes to help adapt to changes in climate. This includes limiting development in flood-prone areas, increasing building heights, using movable foundations, or requiring materials and foundations that are resistant to hazards such as fires or extreme wind. Updating height restrictions by freeboard

elevation, which would allow buildings to be raised for flood protection purposes, and revising the grading ordinance to reflect sea level rise projections are two examples.

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Coastal Hazard Zoning Overlays

This measure identifies areas that are vulnerable to a set of specific hazards. Within each hazard zone, there can be a restriction on the types of development (e.g., residential), a basis for setback lines, or triggers for site-specific technical analyses or studies (e.g., geologic report triggers, slope stability analysis).

Applicability to Goleta Sectors: Land Use and Structures

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Northwest Residential, Central Area, Central Resource Area, Northeast Residential, Northeast Community Center, and Old Town Area

Downzoning for Coastal Hazards

Downzoning is the process by which an area of land is rezoned to a usage that is less dense and less developed than its previous usage. This is typically done to limit sprawl and overgrowth of cities; however, it can also be applied in cases where hazards are present in order to lessen the amount of damage during a flood or similar event. One example is the downzoning of the

Ellwood Onshore Facility, which was downzoned upon City incorporation in 2006 from industrial to open space, and is now legally non-conforming. The site is to be remediated and restored following termination of oil and gas activities.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Inlet Management

This measure is most applicable to flooding hazards associated with the seasonal beach closure of the Goleta Slough and Devereux Slough inlet, which results in a bathtub-like filling of the estuaries or sloughs. Inlet management can take many forms, including 1) mechanical breaching by dozer, 2) pre-grading or lowering the beach elevations, 3) performing restoration activities to increase storage volumes and promote tidal scour of the inlet, and 4) more engineered options with siphons and pump systems.

Applicability to Goleta Sectors: Land Use and Structures, Oil and Gas, Hazardous Materials, Water Supply, Public Access, Natural Resources, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Sediment Management

Sediment is nature's natural defense resource. This form of management uses different types of sediment to mitigate the impacts of rising seas. This form of soft protection either augments or alters where sediment accumulates. By replenishing or mimicking natural buffers or elevating land, habitats are less vulnerable to flooding, king tides, and

erosion. In the Goleta Slough, several debris basins are actively managed, which alters where sediment would naturally accrete or deposit. Examples include dynamic cobble berms, mud placement into salt marshes, and beach or dune nourishment. Implementation can occur at a variety of scales, including changes in dredged sediment disposal, opportunistic sand placement from upland sources, or offshore mining from the seafloor.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, Natural Resources, Coastal Armoring, Transportation, Wastewater, and Utilities

Applicability to Goleta Sub-Areas: Coastal Resources Area, Southwest Residential Area, Central Area, and Old Town Area

Passive Beach Dewatering

Passive beach dewatering involves the use of tubes placed in the beach, which help to lower the beach groundwater and increase natural sediment accretion. It works on the premise that when waves run up a dry beach, the ocean water will be deposited on the beach as the water infiltrates. During dropping tides this deposition does not work because the beach is saturated, so the sand is picked up off the beach and carried offshore. By drying the beach, natural deposition is increased. This has never been tried in California and thus is a rather scientifically uncertain approach, but it has been successful in other international locations. The characteristics for successful experiments elsewhere have included a high tide range, mixed sand grain sizes, and high sediment transport. Goleta has all of these. As a low cost adaptation option, it may be worth experimenting and monitoring in the near future.

Applicability to Goleta Sectors: Land Use and Structures, Public Access, and Natural Resources

Applicability to Goleta Sub-Areas: Coastal Resources Area

Seawalls or Revetments

A seawall or revetment is a structure separating land and water areas, primarily designed to prevent erosion and other damages caused by wave action. A seawall is usually a vertical structure made of wood or concrete, while a revetment is a pile of rock built at a stable angle with enough weight of the armor stone to withstand erosive wave forces. The City General Plan/Coastal Land Use already precludes future coastal armoring for new development.

Applicability to Goleta Sectors: Not Applicable

Groins

Groins are structures built perpendicular to the beach with the objective of capturing or retaining sand. Sand capture occurs as sand is transported alongshore by the waves. When the sediment being transported alongshore encounters the groin, the currents and sediment

are diverted offshore into deeper water where the currents slow down, depositing much of their sediment load. Existing groins in the Santa Barbara channel have been shown to cause down-coast erosion.

Applicability to Goleta Sectors: Not Applicable

Artificial Reefs/Submergent Breakwaters

The artificial reef (submerged breakwater) is a variation of the common shore-parallel emergent breakwater in which the structure crest is below the surface. The artificial reefs can cause waves to break offshore, dissipating the wave energy. While they have some benefits because of their low aesthetic impact, enhanced water exchange, and recreational benefits (e.g., fishing, surfing, diving), they become less effective when the water over the crest deepens. Unfortunately, this is a result of storm wave events and sea level rise.

Applicability to Goleta Sectors: Not Applicable

6. Implementation

6.1 Planning Implementation

City of Goleta Local Coastal Program

The City's LCP has an important role to play in adaptation planning. The Land Use Plan lays out the policy framework for addressing climate change, whereas the Implementation Plan provides site-specific regulatory implementation language. The policies, along with implementing language, can influence the level of consequence from climate change impacts.

2002 California State Lands Commission Beach Hazard Cleanup/Mitigation Plan

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. Additionally City funding is required to expedite the planned removal of the existing seawalls and related debris. Portions of the steel-reinforced wooden seawall along the eastern frontage of the Sandpiper Golf Club (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. This requirement does not apply to the rock revetment that protects the access

road to the State Lease 421 Piers, until these wells are properly abandoned and the pier structures are removed.

2012 City of Goleta Community Wildfire Protection Plan

In addition to gathering background information to develop an understanding of the City's fire history, the initial data collection work effort included an evaluation of City policy considerations and management approaches, sensitive environmental resource areas, infrastructure locations, and critical data gaps. The Community Wildfire Protection Plan includes a hazard assessment, risk assessment, and fire hazard mitigation plan. The City approved this plan as a programmatic plan in March 2012. This plan did include discussion of climate-related impacts.

2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

The 2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan was prepared with input from County residents and responsible officials, and with the support of the State of California Governor's Office of Emergency Services and FEMA. This plan will guide the County toward greater disaster resistance in harmony with the character and needs of the County and its communities. It is the County's intent that this plan will be used as a tool for stakeholders to increase awareness of local hazards and risks, while at the same time providing information about options and resources available to reduce those risks.

City of Goleta Capital Improvement Program

The Capital Improvement Program (CIP) allows the City to identify the needs of the community and to prepare a long-term funding strategy to meet those needs. The CIP includes any project that involves needed repairs or improvements to existing infrastructure (streets, parks, city facilities, etc.) and the acquisition or construction of new infrastructure. The City inherited a list of CIPs from the County upon incorporation. This included a portion of the transportation improvement projects identified in the County's Goleta Transportation Improvement Program. It is intended to address infrastructure needs associated with both existing and future development identified in the General Plan. The CIP does not have any discussion of climate change impacts.

6.2 Financing Implementation

FEMA's Hazard Mitigation Assistance

As there is overlap between LCP planning and Local Hazard Mitigation planning, FEMA's Hazard Mitigation Assistance grant programs provide significant opportunities to reduce or eliminate potential losses to the City's assets through hazard mitigation planning and project grant funding. Currently, there are three programs: the Hazard Mitigation Grant Program, Pre-Disaster Mitigation, and Flood Mitigation Assistance.

Geologic Hazard Abatement Districts

Geologic Hazard Abatement Districts (GHADs) provide a potential means for future renovations or improvements to flood control

structures, including future alterations that may be necessary because of sea level rise. By accumulating a funding reserve for future maintenance and rehabilitation, a GHAD can provide the financial resources necessary for potential future expansion of flood control structures. Further, because of the relative safety of GHAD revenues (GHADs are typically financed through the collection of supplemental tax assessments), GHADs can borrow from lenders or issue bonds with very attractive credit terms.

Infrastructure Financing Districts

California has recently passed a bill allowing cities and other entities to create enhanced infrastructure financing districts; this allows incremental property tax revenues to be devoted to a specified purpose such as a fund for cleanup, or infrastructure adaptation costs. With the passage of Assembly Bill 313 and Senate Bill 628, the requirements for establishing these districts has been streamlined.

Innovative Structured Fees

Certain structured fees could be established to generate revenues for 1) covering the necessary planning of, technical studies for, design of, and implementation of adaptation strategies or 2) developing an emergency cleanup fund to be able to respond quickly and opportunistically following disasters. Disasters, through a different lens, are opportunities to implement changes. A good example is the Beach Hazard Removal Project, which was activated shortly after the March 2014 storm when the sand on the beach had been removed, naturally exposing many of the legacy oil and gas infrastructure hazards.

Sand Mitigation Fees and Ecosystem Damage Fees

There are two structured fees that the CCC currently uses to address the impacts of coastal armoring—sand mitigation fees and a relatively new ecosystem damage fee. The sand mitigation fee is a fee intended to mitigate for the loss of sand supply and the loss of recreational beaches in front of coastal armoring structures. The ecosystem damage fee is intended to provide mitigation funds to restore the damages to the coastal habitats from the development. These could be to restore rocky intertidal habitat, sandy beach and dune habitat, or wetland habitats.

Rental Surcharge Fees

A new type of fee would be a rental surcharge fee for property owners with armoring and coastal structures that occupy a portion of the public trust beach below MHW. For these structures, there would be an annual lease or rent for the ability to have a structure occupy the public trust resource (i.e., beaches). This rent would increase each time the tidal epoch was updated and MHW moved farther landward as more of the structure occupied more of the beach.

Increase Taxes

The City could also use more traditional mechanisms such as raising the sales tax and devoting a portion to these costs. Since the City recently raised ToTs to 12 percent, an additional increase in ToTs may be more difficult.

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7. Policy and Regulatory Recommendations

7.1 Introduction

The City is recommending updating or adding the following policy and regulatory language into the LCP. Where applicable, the corresponding California Coastal Act Sections have been referenced. Note: The actual implementation of these policies and regulations may vary based on a variety of factors, including applicable policies and location- or project-specific factors that may affect feasibility.

7.2 Minimize Coastal Hazards through Planning and Development Standards¹

The City should adopt the mapped Coastal Flood Hazard Zones.

The City should adopt the Coastal Flood Hazard Zones as displayed in this report as part of the LCP. Updating land uses and zoning requirements to minimize risks from sea level

rise in the identified coastal flood hazard zones can better prepare the City for such hazards. The Coastal Flood Hazard Zones would trigger the following:

- Real Estate disclosures for coastal and climate-induced hazards.
- Triggers for a site-specific hazard report.
- Building code revisions, such as movable foundations.
- Changes to building heights to accommodate additional freeboard elevation.

The City should develop a Repetitive Loss Clause Program for properties within the Coastal Flood Hazard Zones.

The City should develop a Repetitive Loss Clause Program as part of the LCP that would assist in the process of properties being rezoned over time to accommodate increased coastal flooding and related impacts. An example of this would be possibly rezoning the Placencia neighborhood. If a building has been severely damaged or repeatedly flooded, the City can designate the property as "substantially damaged" or a "repetitive loss property." The policyholder is then required to rebuild it in a flood-safe way, which usually means elevating or moving the structure. Through the Flood Insurance Reform Act of

¹ The applicable CCC Sections are: 30253, 30235; 30001, 30001.5.

2004 (FIRA 2004), Congress directed FEMA to develop a program to reduce future flood losses. The Severe Repetitive Loss Grant Program makes funding available for a variety of flood mitigation activities. Under this program, FEMA provides funds to state and local governments to make offers of assistance to National Flood Insurance Program-insured severe repetitive loss residential property owners for mitigation projects that reduce future flood losses through:

- Acquisition or relocation of at-risk structures and conversion of the property to open space;
- Elevation of existing structures; or
- Dry flood proofing of historic properties.

The City should require new development to avoid coastal flood hazards in the Local Coastal Program.

In order to minimize the adverse effects of sea level rise, flooding, and storms, it is important to carefully consider decisions regarding areas vulnerable to flooding, inundation, and erosion. The City should avoid permitting any significant new structures or infrastructure that will require new coastal armoring or flood protection from sea level rise, coastal flooding, or coastal erosion during the expected life of the structure. This should include careful long-term consideration of extending routine maintenance of existing levees or other protective measures. In some instances it may be better to rezone or acquire properties that are in hazardous areas. If the City permits development that will require new protection during the expected life of the new project, the City should require that the project proponent:

- Minimizes risks through siting, design and engineering.
- Requires viable funding sources for building, monitoring, and maintaining the new sea level rise protections. This should include a performance bond to repair,

maintain, or remove the structures if they become public nuisances.

- Requires that any new development must consider how risk changes over time requires that actions to reduce risk in the short-term do not increase risk in the long-term (no maladaptation).
- Designs protection in a manner that maximizes conservation of natural resources and public access.

The City should require redevelopment strategies contained in the Goleta Old Town Revitalization Plan and Local Coastal Program to reflect sea level rise/coastal flood hazards.

This will require modifying the applicable building codes to enable structures to withstand higher water levels within the City's Coastal Flood Hazard Zones, including the portion within Old Town. For example, development and redevelopment in the City's Coastal Flood Hazard Zones may require additional setbacks, increased base floor elevations, limited first floor habitable space, innovative stormwater management systems, special flood protection measures, mitigation measures for unavoidable impacts, relocation and removal triggers and methodologies, etc. This may require a change in the maximum building height.

The City should update setback regulations in the Local Coastal Program.

The current cliff erosion setback policy contained in the existing Safety Element (SE) Policy 2.1 takes a conservative approach to calculating any potential development setback. This should be improved to account for an acceleration of historic erosion rates from sea level rise and the derelict existing coastal

armoring. The policy should consider that there is a natural failure distance of cliff erosion that constitutes an “existing hazard.” In Goleta that distance is about 15 to 25 feet and should be used as a trigger to develop and implement a retreat or other suitable adaptation strategy. Additionally, a more appropriate setback would entail a minimum forecast period of 100 years and include consideration of accelerated sea level rise and the size of an erosion event failure distances appropriate for the backshore type and failure mechanism. Variations to this standard could be tiered based on the type and size of proposed development. Some variances may be warranted on some parcels since strict application of setbacks may preclude redevelopment in some cases and trigger takings claims.

The City should incorporate sea level rise into calculations of the Geologic Setback Line.

The City should update geotechnical report requirements for establishing the Geologic Setback Line (bluff setback) to include consideration of bluff failure mechanisms, accelerated retreat due to sea level rise in addition to historic bluff retreat data, future increase in storm or El Niño events, and any known site-specific conditions. Consider approving significant new foundation work only when it is located inland of the setback line for new development, or when it changes the type of foundation to one that is conducive for relocating structures when they become threatened from erosion, and only when it will not interfere with coastal processes in the future.

The City should provide policy and regulatory triggers for relocation and removal of structures in the Local Coastal Program.

The LCP would contain policies for phased removal of existing development (i.e., the

Bacara Resort and Spa and Sandpiper Golf Club). These policies should be implemented in the Implementation Plan (i.e., Zoning Code) through a variety implementation mechanisms, such as rolling easements and incentive programs, based on defined triggers. The boundary for said triggers could be based on such variables as the mean high tide line, proximity to the cliff edge, other dynamic line, or legal requirement. These triggers should allow enough time to identify appropriate actions and to plan and implement said actions. The regulatory triggers for relocation or removal of the structure would be determined by changing site conditions, such as when erosion is within a certain distance of the foundation, monthly high tides are within a distance of the finished floor elevation, building officials prohibit occupancy, or wetland buffer area decreases to a certain width.

The City should develop and adopt a Transfer of Development Rights Program within the Local Coastal Program.

The LCP should establish policies to implement a Transfer of Development Rights (TDR) program to restrict development in areas vulnerable to sea level rise and allow for transfer of development rights to parcels with less vulnerability to hazards. A TDR program can encourage the relocation of development away from at-risk locations, and it may be used in combination with a buy-out program. A TDR program could also be used to promote other smart planning principles such as infill development and mixed uses.

The City should protect critical infrastructure contained in the Capital Improvement Program.

The CIP should contain special considerations for critical infrastructure and facilities (e.g., City bridges, roadways) affected by coastal flood hazards. The City should establish measures

that require continued function of critical infrastructure, or the basic facilities, service, networks, and systems needed for the functioning of a community. Repair and maintenance, elevation or spot-repair of key components, or fortification of structures where consistent with the California Coastal Act may be implemented through Coastal Development Permits. An additional section should be added to the CIP that identifies the remaining expected life of the infrastructure and how and where any relocation may occur.

The City should retrofit existing transportation infrastructure as necessary and consistent with the Capital Improvement Program.

In instances where relocation is not an option, the City should repair damage and/or retrofit existing structures to better withstand sea level rise impacts. For example, use stronger materials, elevate bridges or sections of roadways, and build larger retention capacity or additional drainage systems to address flooding concerns. Additionally, the City should provide alternate routes, as possible, to allow for access to and along the coast in instances in which sections of roadways may become temporarily impassible as a result of coastal hazards. The City should improve the communication of alternate route information to residents and visitors alike.

7.3 Maximize Protection of Public Access, Recreation, and Sensitive Coastal Resources

The City should protect public recreation resources consistent with the Ellwood-Devereux Coast Open Space and Habitat Management Plan.

Recognizing that sea level rise will cause the public trust boundary to move inland, new shoreline protective devices should not result in the further loss or encroachment on public trust lands. Therefore, the City should allow dune erosion of Access Points E and F and inward migration of public trails (i.e., use of non-permanent materials).

The City should plan for retrofitting or relocating sections of the California Coastal Trail.

This can be accomplished through the use of boardwalks, bridges, and/or other design features to maintain continuity of the California Coastal Trail in sections that are vulnerable to coastal hazards. Some sections will need to be relocated over time. The LCP should identify vulnerable sections of the California Coastal Trail and establish a phased approach to relocate sections of the trail in such a way that is consistent with provisions of the Coastal Act and requires that the trail remains within sight, sound, or smell of the sea.

The City should protect Public Access at Haskell's Beach.

As Haskell's Beach is the only designated Coastal Public Access for the City, the City should design and implement natural (i.e., soft) solutions for protection of public access. The City could establish a program to minimize loss of beach area through an opportunistic beach and cobble nourishment program, or other actions.

The City should develop an opportunistic sand placement program.

Consistent with the initial recommendation in the Coastal Regional Sediment Management Plan, the City should participate in the BEACON regional opportunistic sand management activities and use opportunistic sediment to improve beach and wetland resiliency. This should not be considered an effective long-term erosion mitigation strategy because of the limited volumes of sediment. We assume that the volumes of available opportunistic sand are small; however, there may be future opportunities to obtain larger volumes of sand, which would be incorporated into a larger nourishment alternative.

The City should implement the adopted Community Wildfire Protection Plan.

The purpose of the Community Wildfire Protection Plan is to enhance community wildfire protection by identifying fire hazard treatments, which are in balance with sustainable ecological management and fiscal resources. The fuel management prescriptions for each of Goleta's Vegetation Management Units were developed to guide treatments to achieve a less hazardous fuel profile. Future updates of the Community Wildfire Protection Plan should include updates of climate change

projections for precipitation, wildfire, and temperature.

The City should complete and adopt the Monarch Butterfly Inventory and Habitat Management Plan.

The purpose of the Butterfly Habitat Management Plan is to identify low impact habitat improvement strategies to protect long-term monarch butterfly population viability. Fuel treatments in areas near human developments are critical measures in the wildfire protection strategy for both residences and butterfly aggregations and habitat. Trees along grove edges buffer aggregation sites from wind and weather; therefore, it is important to maintain adequate tree density within these edges. Larger trees are not the primary fuel of concern in the spread potential of wildfire; rather, the understory vegetation, dead-downed trees, and fuels creating fire ladders pose the greatest hazard and threat. Future updates of the Monarch Butterfly Inventory and Habitat Management Plan should include updates of climate change projections for precipitation, wildfire, and temperature and implications for species habitat concerns

7.4 Maximize Agency Coordination and Public Participation²

The City should continue to build education and community awareness about coastal hazards.

The City should invest in efforts to raise awareness of the limitations of flood insurance and disaster relief and the costs associated with

² The applicable CCC Chapter 5 policies; Sections 30006, 30320, 30339, 30500, 30503, and 30711.

response and recovery efforts associated with various anticipated sea level rise impacts, some of which have been identified in this report. Given the high costs estimated to manage the hazards resulting from coastal erosion, we recommend public outreach and citizen initiatives to document the extents of floods and real estate disclosures to educate property owners on the risks of coastal hazards. Additionally, the City will educate the residents, tourists, etc. by providing signage that effectively depicts previous flood depths and elevations.

The City should continue to coordinate with surrounding jurisdictions, the Goleta Slough Management Committee, and the Beach Erosion Authority for Clean Oceans and Nourishment.

Given the limited ability of the City to resolve slough-related hazards and adapt to the impacts of climate change along with the multitude of coastal management, sea level rise planning, research, and guidance efforts occurring in Santa Barbara County, it is critical for the City to continue to share information, coordinate efforts, and collaborate where feasible to leverage existing work efforts. Specifically with the Goleta Slough, continued involvement with the Goleta Slough Management Committee is important to improving consistency. For adaptation issues along the wave exposed Goleta coast, continued involvement with BEACON remains important for sea level rise and related coastal hazards adaptation planning. Both the Goleta Slough Management Committee and BEACON include multiple jurisdictions, so there is the ability to share lessons learned, cooperate on funding applications, and coordinate on multi-agency reviews and decision-making. Finally, the City should encourage a balanced approach for Goleta Slough Mouth management of water and sediment management.

The City should continue to participate in the Santa Barbara County Local Multi-Hazard Mitigation Plan.

The purpose of the Santa Barbara County's Multi-Hazard Mitigation Plan is to significantly reduce deaths, injuries, and other disaster losses attributed to natural- and human-caused hazards. This plan can continue to be used as a tool for all stakeholders to increase public awareness of local hazards and risks, while at the same time providing information about options and resources available to reduce those risks. Additionally, the plan will provide continued Inter-Jurisdictional Coordination of Mitigation-Related Programming to support funding proposals for mitigation initiatives. The City may wish to develop its own Local Hazard Mitigation Plan, which would make it eligible for direct implementation and disaster preparedness funds.

The City should continue to coordinate with surrounding jurisdictions and entities responsible for oil and gas response activities.

Oil and gas issues are contentious and expensive. An oil spill poses one of the most significant potential fiscal impacts to the City. Recent experiences from the Refugio Oil Spill and the Summerland Leaking legacy wells highlight the shortcomings and regulatory hurdles that interfere with responding quickly to an oil spill. The City should instigate and support an oil and gas roundtable that would discuss oil and gas response and share lessons learned. Such a forum would include the State Lands Commission, the Office of Oil Spill Prevention and Response, the Coastal Guard, and regional jurisdictions. Such a forum could establish itself as a Joint Powers Authority and seek to cooperate on a regional environmental document to streamline permitting for a rapid response of legacy wells.

8. Monitoring

8.1 Introduction

The importance of monitoring is critical in order to develop the appropriate feedback loop to incorporate the results of the coastal hazards vulnerability assessment and fiscal impact analysis in order to assist decision-makers. Upon certification of the City's LCP, adaptation strategies will be implemented through the certified implementing ordinances and related processes and actions (e.g., local review of CDPs, proactive action plans). Additionally, an important component of successful adaptation is to secure funds for implementation, regularly monitor progress and results, and update any policies and approaches as needed. Sea level rise projections should be re-evaluated and updated as necessary. Therefore, the City is recommending the following:

- Monitor physical environment to identify when the City is nearing thresholds.
- Study beach profiles to understand variability in sand supply and erosion.
- Monitor beach elevations around coastal armoring structures to determine impacts on elevations on the narrower beaches in front of the structures. Compare with elevations at adjacent unarmored control sites.
- Conduct structural monitoring to identify when there is an impact on beach elevations (and thus ecology and ESHA) and lateral access.
- Monitor sea level rise trends from local tide stations.
- Monitor inland extent of inundation and duration of flooding at key locations (e.g., Placencia neighborhood).

- Conduct biological monitoring of sensitive and endangered species.
- Conduct habitat monitoring to understand relationships between habitats/elevation and duration of inundation.
- Support monitoring of specific climate variables that affect habitat location.
- Stay current on climate science related to precipitation, wildfire, and temperature.
- Monitor hydrology data, including water levels in the sloughs and stream flows in the creeks.
- Monitor pre-and post-storm monitoring—erosion extents, high water marks, and inland locations of flooding.

8.2 Optional Studies

Based upon input from Revell Coastal, the City is recommending the following optional studies to further expand the City's knowledge base as well as better inform future decision-making. They are as follows:

- Model future creek flooding that incorporates climate impacts to precipitation and sea level rise.
- Estimate economic and engineering cost estimates for select adaptation strategies.
- Analyze and map the social vulnerabilities and related environmental justice issues.
- Conduct hydrodynamic urban flood models to identify the flow pathways leading to flooding.

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9. Conclusion

The City's economy and quality of life are intrinsically linked to the coastline, environmental sensitive habitats, public access, and recreational opportunities. Because of the City's unique geographic location, geomorphology, and dependence on coastal resources, the City is particularly valuable to the effects of climate-induced coastal hazards and their associated impacts, ranging from coastal flooding to dune/cliff erosion. This report assesses the City's vulnerability to current and future sea level rise and presents recommendations that will reduce the level of risk. This information will assist the City in making more informed decisions regarding land use and development standards from the project level (e.g., coastal development permits, land use permits) to the plan level (e.g., Old Town Revitalization Plan, Community Wildfire Protection Plan, etc.).

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This report was prepared by the following individuals:

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11. Acknowledgments

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Appendix A.

Sector Profile Results

This appendix contains sector profiles that summarize the findings and recommendations that can be used in future decision-making. Each sector has its own profile, complete with a vulnerability map and 2-page description of findings for ease of communication. The vulnerability maps contain a combination of the existing FEMA creek flood maps and the projected future coastal hazards. The only exception will be Water Supply and Utilities, due to confidentiality of infrastructure locations of such, they are without maps. They are as follows:

- A. Land Use and Structures: Old Town Area
- B. Land Use and Structures: Coastal Resources Area
- C. Coastal Armoring
- D. Oil and Gas
- E. Hazardous Materials
- F. Natural Resources
- G. Public Access
- H. Transportation
- I. Water Supply
- J. Wastewater
- K. Utilities

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Land Use and Structures - Old Town Area

Land Use and Structures: Overview

There are 5 land use categories that occur within the Old Town Area which includes Old Town and portions of the surrounding City, including: (1) residential, (2) industrial, (3) commercial, (4) infrastructure, and (5) recreation/open space.

Existing Conditions

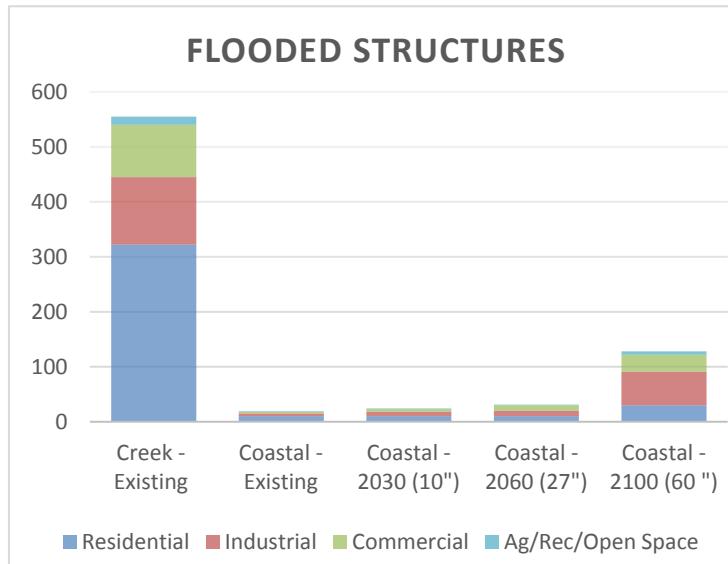
Description: Old Town is recognized as a unique asset and historic center of Goleta. Future development and redevelopment actions are required to respect the current diversity of uses while maintaining Old Town's unique character.

Vulnerabilities: Land use and structures are primarily subject to existing creek flooding and coastal flooding associated with a closed Goleta Slough Mouth. This barrier beach flooding mainly impacts structures and land uses in the Palencia neighborhood, Aero Camino, Storke Ranch, and the neighborhoods between Fairview Ave and Highway 217. For details on the locations of the impacted neighborhoods, refer to Figure A.

Measures of Impact:

- Parcels by land use
- Structures by land use (flooding)
- Square footage of structures by land use (adaptation)

Vulnerabilities: Flooding of Structures



Fiscal Impacts

Damages:

Caused primarily by barrier beach flooding. Residential damages are relatively small in comparison to those of the light-manufacturing sector located within Old Town, which by the year 2100 includes 50 industrial businesses that may contain specialized equipment with replacement costs higher than estimated by FEMA.

Damages	2010	2030	2060	2100
Residential	\$0.2 M	\$0.3 M	\$0.4 M	\$1.4 M
Industrial	\$0.2 M	\$0.5 M	\$0.7 M	\$10.0 M
Commercial	\$0.1 M	\$0.2 M	\$0.4 M	\$2.6 M
Total	\$0.6 M	\$1.0 M	\$1.5 M	\$14.0 M

Cleanup costs: could range between \$0.5 million and \$4.5 million depending on the magnitude and extent of the flooding.

Cost to Elevate	2010	2030	2060	2100
Residential	\$1.9 M	\$1.9 M	\$1.9 M	\$9.6 M
Industrial	\$1.2 M	\$30.0 M	\$31.0 M	\$130.0 M
Commercial	\$0.7 M	\$2.7 M	\$3.9 M	\$48.5 M
Total	\$3.8M	\$35.0 M	\$37.0M	\$188.4 M

Adaptation Strategies

Range of Strategies: Includes "No Action" and clean up, policy, and regulations, as well as retreat, accommodate, and protection strategies as defined by the California Coastal Commission.

Retreat - Includes policy and/or regulatory options (e.g., downzoning, transfer of development, FEMA repetitive loss clause, and rolling easements) as well as purchase of the vulnerable properties.

Accommodate - Includes elevating structures and inlet management. The reduction in vulnerabilities associated with inlet management supports some hybrid approaches, but management of the Goleta Slough inlet is outside the City's authority.

Elevating - In the short term (approximately 2030) elevating buildings less than 1 foot to avoid flood cleanup costs at a cost of approximately \$3.8 million makes more economical sense considering damages and cleanup costs from a large flood event (approximately \$5.1 million). Over the medium and long term time horizons (2060, 2100), elevating structures more than 2 feet appears to be maladaptive. **By 2100, estimated damages and cleanup costs could be approximately \$18.5 million following a major storm event versus the cost to elevate all of the vulnerable structures at an estimate cost of approximately \$188.4 million.**

Inlet Management - With inlet management, the number of structures exposed by 2100 drops from 129 to 14. Furthermore, inlet management with elevation of at risk structures equates to about \$5.1 million; whereas inlet management with purchase of at risk parcels would cost an estimated \$3.6 million in 2015 dollars.

Protect - The construction of levees to prevent flooding within the most vulnerable neighborhoods is a "gray" protection approach, whereas a "green" protection approach would consist of contoured transitional slopes to accommodate flooding.

Secondary Impacts: Retreat and elevation strategies have few secondary impacts. Inlet management could impact ESHA and listed species. Gray protection options would result in a loss of ESHA wetlands over time. Green protection strategies may benefit wetlands by increasing wetland transition slopes.

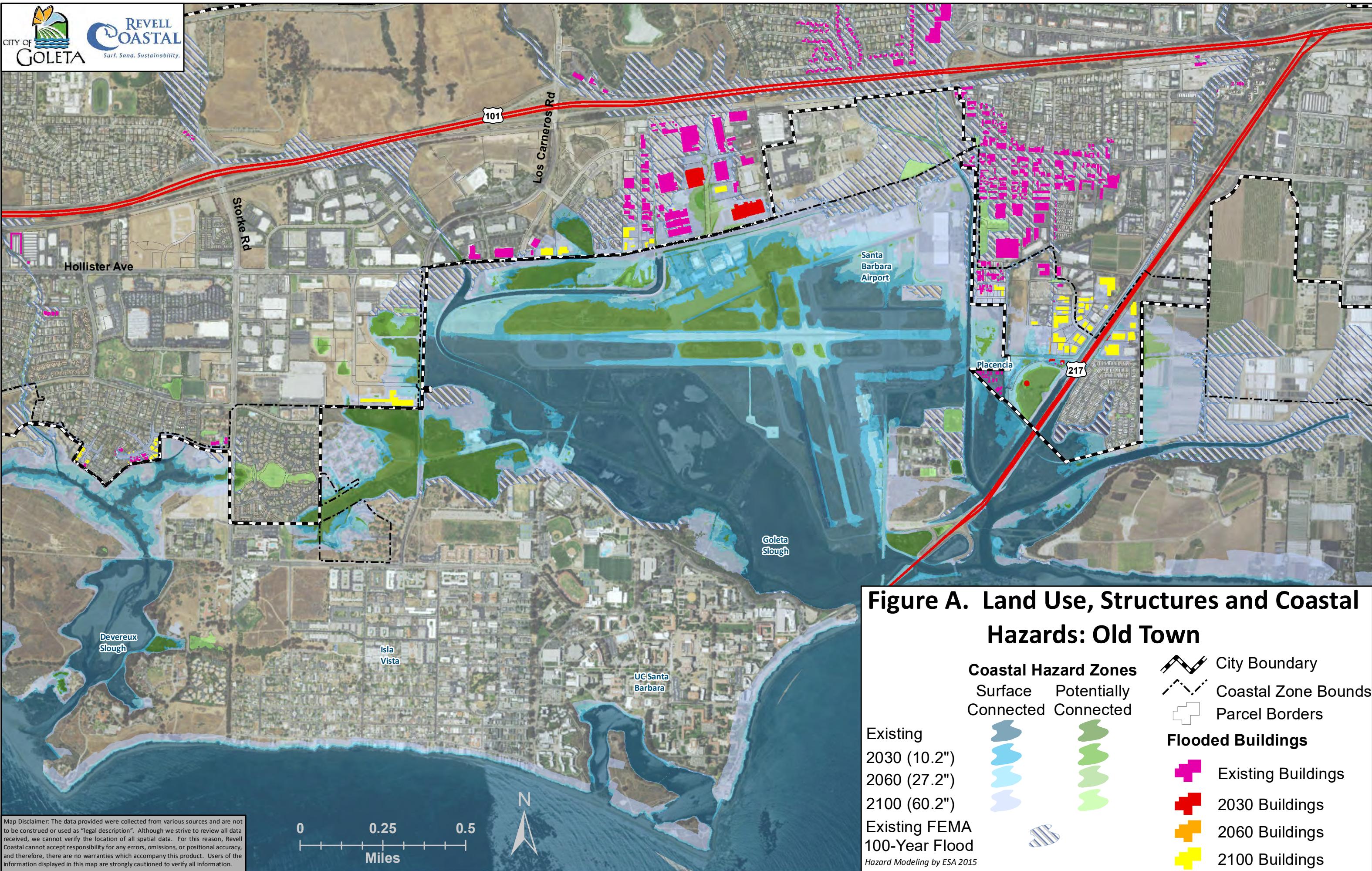
Findings and Recommendations

Findings:

- Existing creek hazards (FEMA) are the highest hazard in the City. Coastal flooding will be exacerbated by SLR, however future climate impacts on creek flooding not available.
- Coastal flooding damages to structures in Goleta could increase dramatically by 416% between the time horizons of 2060 and 2100.
- Adaptation costs to elevate and accommodate coastal flooding by 2100 (\$175 million) exceed damages (\$14 million) and cleanup (approximately \$5 million) by an order of magnitude.
- The Storke Ranch neighborhood becomes exposed around 2100, when Goleta and Devereux Sloughs come together.
- Coastal flooding impacts the light manufacturing sector the greatest between 2 and 5 feet of SLR during the time period of 2060 to 2100.

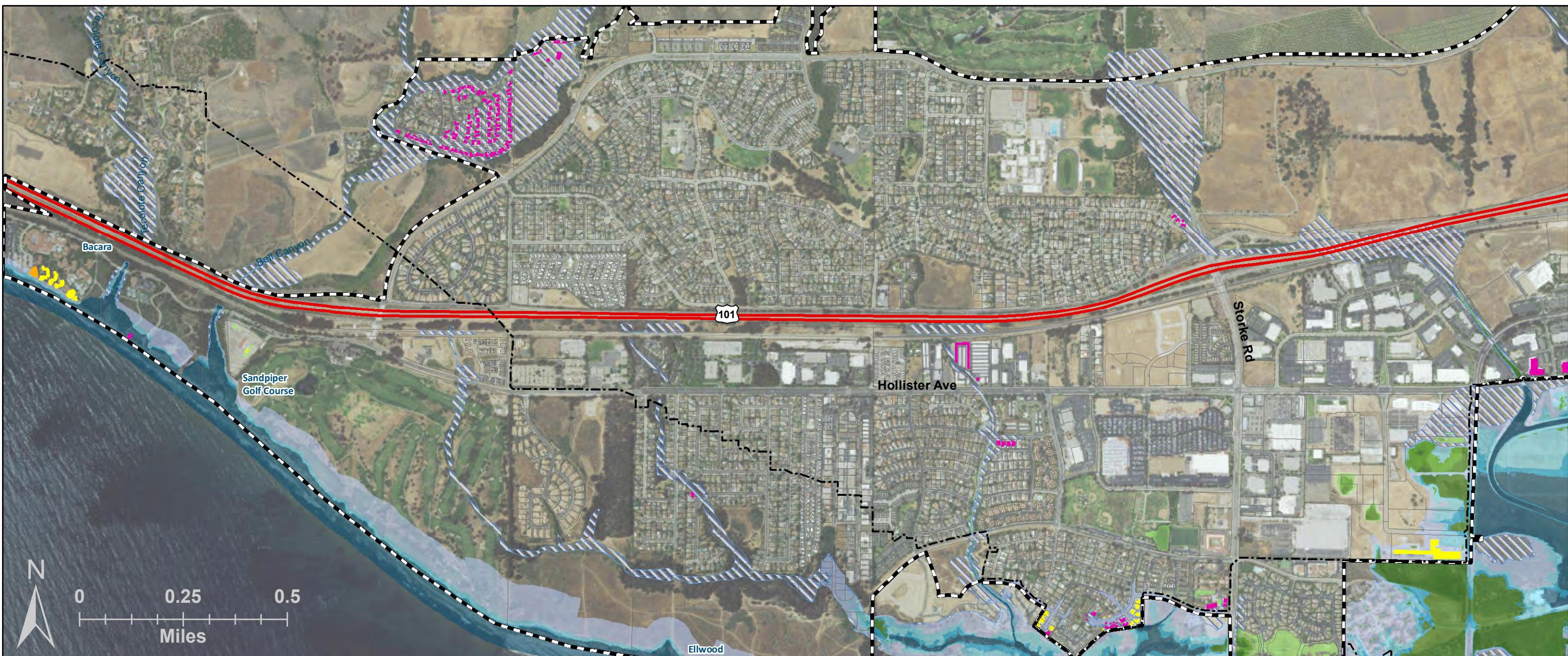
Recommendations:

- Conduct coastal confluence modeling to better assess future vulnerabilities associated with stream flood hazards exacerbated by sea level rise to provide projections of future flood extents and depths.
- Engage in regional inlet management discussions with the City of Santa Barbara and the County of Santa Barbara.
- Establish a repetitive loss policy to trigger eminent domain in combination with a Transfer of Development (TDR) Program. Once a property had multiple flood insurance claims the policy would take effect.
- Adjust building codes to allow for increased building heights by additional freeboard based on sea level rise projections for parcels projected to be impacted by flooding after 2060.



Land Use and Structures - Coastal Resources Area

Overview		Adaptation Strategies																					
Existing Conditions	Vulnerabilities—Flooding of Structures																						
<p>Description: This area includes Goleta's Pacific shoreline and only coastal resort (Bacara Resort and Spa), as well as open space resources such as the Ellwood Mesa Open Space/Sperling Preserve, which supports active and passive recreation, including public access and coastal-dependent recreational uses. The area's significant environmental values and resources are protected and being restored to a natural condition. Sandpiper Golf Club and the Ellwood On-shore Facility (EOF) are also located along the coast.</p> <p>Vulnerabilities: Coastal erosion directly impacts 6 buildings (139 rooms and hotel facilities) along the coastline on the Bacara Resort and Spa property and approximately 6 greens and their associated holes within the Sandpiper Golf Club property. Please refer to Figure B.</p> <p>Measures of Impact:</p> <ul style="list-style-type: none"> • Parcels by land use • Acres by land use (coastal erosion) 	<p>ERODED ACRES</p> <table border="1"> <thead> <tr> <th>Time Period</th> <th>Agriculture / Open Space Acreages</th> <th>Commercial / Institutional Acreages</th> <th>Total Eroded Acres</th> </tr> </thead> <tbody> <tr> <td>Coastal erosion - Existing conditions</td> <td>~25</td> <td>~25</td> <td>~50</td> </tr> <tr> <td>Coastal erosion - 2030</td> <td>~25</td> <td>~25</td> <td>~50</td> </tr> <tr> <td>Coastal erosion - 2060</td> <td>~25</td> <td>~25</td> <td>~50</td> </tr> <tr> <td>Coastal erosion - 2100</td> <td>~25</td> <td>~25</td> <td>~100</td> </tr> </tbody> </table>	Time Period	Agriculture / Open Space Acreages	Commercial / Institutional Acreages	Total Eroded Acres	Coastal erosion - Existing conditions	~25	~25	~50	Coastal erosion - 2030	~25	~25	~50	Coastal erosion - 2060	~25	~25	~50	Coastal erosion - 2100	~25	~25	~100	<p>Range of Strategies:</p> <p>Retreat - This can be accomplished by condemning existing buildings and relocating them further back into the property. The cost for retreating luxury hotel rooms ranges from \$239,100 to \$518,400 per room. Thus, the cost of moving/replacing these structures is approximately in the range of \$33 million to \$72 million for 139 rooms. Retreat and reconstruction for the Bacara Resort Beach House located at Haskell's Beach is estimated at approximately \$421,000.</p> <p>Accommodate - Retrofit foundations so cliff erosion can continue and buildings either be moved back from the edge once erosion gets within a set distance or remain on pile supported foundations.</p> <p>Protect – A “gray” approach would be to armor cliffs (i.e., seawall) to prevent coastal erosion. Coastal armoring is presently banned in the City General Plan policies. The “green” approach would be to nourish the adjacent beaches with sand and cobbles to reduce wave exposure and erosion.</p> <p>Secondary Impacts:</p> <p>Retreat strategies would present a few secondary impacts. The accommodation strategies may have some minor impacts to public access and aesthetics depending on the rates of erosion and/or relocation of structures. Gray protection options (currently not allowed in City General Plan/Local Coastal Plan policies) would result in a loss of beach over time, impacting ESHA, recreation, and requiring increasing maintenance costs to both the City and to Bacara Resort and Spa. Green protection strategies would have short to medium impact on ESHA and public access and relatively high long term maintenance costs.</p>	
Time Period	Agriculture / Open Space Acreages	Commercial / Institutional Acreages	Total Eroded Acres																				
Coastal erosion - Existing conditions	~25	~25	~50																				
Coastal erosion - 2030	~25	~25	~50																				
Coastal erosion - 2060	~25	~25	~50																				
Coastal erosion - 2100	~25	~25	~100																				
Fiscal Impacts	The Bacara Resort and Spa	<p>Findings and Recommendations</p> <p>Findings:</p> <ul style="list-style-type: none"> • Presently, the Bacara Resort Beach House is vulnerable to all of the coastal and creek hazards. • By 2060, erosion may impact or threaten 6 buildings with 139 guest rooms and a restaurant at the Bacara Resort. • Closure of these buildings may result in substantial losses to City ToT revenues equating to approximately \$2,935/day (\$88,058/month) during high season and approximately \$2,051/day (\$61,530/month) during low season. • Erosion affects the same 6 parcels across the entire City. • By 2060, Sandpiper Golf Club would be impacted and by 2100 probably would need to realign course. • Substantial increases in damages occur after 2 feet of sea level rise between 2060 and 2100. <p>Recommendations:</p> <ul style="list-style-type: none"> • Any future build out at Bacara in alignment with their approved CDP should designate relocation sites. • Consider revising building code to accommodate movable foundations and elevate building heights. • Require any abandonment or relocation to remove derelict or threatened structures. • Refer to Public Access Sector Profile for additional recommendations regarding beach access, trails, and Beach House facilities. • Refer to Oil and Gas Sector Profile for additional recommendations regarding 421 piers and other oil and gas facility recommendations. 	The Sandpiper Golf Club																				



**Figure B. Land Use, Structures and Coastal Hazards:
Coastal Resources Area**

Coastal Hazard Zones	
Surface Connected	Potentially Connected
Existing	
2030 (10.2")	
2060 (27.2")	
2100 (60.2")	
Existing FEMA 100-Year Flood	
Hazard Modeling by ESA 2015	

- City Boundary
 - Coastal Zone Bounds
 - Parcel Borders
 - Flooded Buildings
 - Current FEMA/Coastal Buildings
 - 2030 Buildings
 - 2060 Buildings
 - 2100 Buildings
- CITY OF GOLETA**
REVELL COASTAL
Surf. Sand. Sustainability.

Map Disclaimer: The data provided were collected from various sources and are not to be construed or used as "legal description". Although we strive to review all data received, we cannot verify the location of all spatial data. For this reason, Revell Coastal cannot accept responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Users of the information displayed in this map are strongly cautioned to verify all information.

Coastal Armoring

Overview			Measures of Impact			Fiscal Impacts		
<p>The coastline along the Coastal Resource Planning Sub-Area has remnants of a timber sheet pile seawall. This structure, related to historic oil and gas extraction, was built on the beach and backfilled to provide driving access to the host of oil piers that once lined this coastline.</p> <p>A sea wall/revetment-supported access road remains in place to protect an access road to the last two remaining active oil/water injection piers associated with the 421 Lease Piers below Sandpiper Golf Course. Following the February 2014 storm event, the Beach Hazards Removal Program permitted by the State Lands Commission (CSLC) and City was partially implemented and removed approximately 900 linear feet of these derelict armoring hazards.</p>			<p>To quantify the impact of coastal hazards and climate change on coastal armoring, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of structures • Cost of removal <p>For details on the locations of the coastal armoring structures, refer to Figure C.</p>			<p>Damages: Removal cost for the remaining 5,381 feet of coastal armoring ranges from approximately \$915,000 to \$1,075,000 (assuming a unit cost of \$170 to \$200 linear foot to remove).</p> <p>Fiscal Impact to the City: The City may be liable for its portion of the remnant structures (approximately \$243,440 - \$286,400). Other facility owners would be liable for their portion (e.g. 421 road sea wall equates to a range of approximately \$329,290 - \$387,400; Sandpiper equates to a range of approximately \$342,040 - \$402,400).</p> <p>Adaptation costs: Previous work completed during the March through April 2014 beach hazards removal activity was approximately \$225,000 based upon estimates provided by the CSLC and contractor.</p> <p>Public vs private: Existing seawalls along Ellwood Mesa are considered public property and the CSLC or the City will likely finance removal. The existing seawall protecting the Sandpiper Golf Course property is considered private property. Removal of any structure once it is below mean sea level would increase the cost.</p>		
Existing Conditions					Adaptation Strategies			
Historical		Present						
 <p>City of Goleta Shoreline 10/30/1930 Photo: Spense Collection at UCLA</p>		<p>Presently all of the coastal armoring in the City is exposed to coastal erosion and coastal flooding. This translates to all of the future vulnerabilities remaining the same across all time horizons.</p> <p>Coastal Erosion and Coastal Flooding</p> <ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of remnant timber seawall • 854 feet of remnant H beams • 5,381 feet of total armoring <p>Ownership</p> <ul style="list-style-type: none"> • 421 Road – 1,937 feet • Sandpiper Golf Club – 2,012 feet • CSLC/City – 1,432 feet 						
Vulnerabilities								
2030		2060		2100		Additional Information		
<p>Coastal Erosion and Coastal Flooding</p> <ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>		<p>Coastal Erosion and Coastal Flooding</p> <ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>		<p>Coastal Erosion and Coastal Flooding</p> <ul style="list-style-type: none"> • 1,613 feet of revetment • 2,914 feet of timber seawall • 4,527 feet of total armoring <p>Sea level rise will result in continued failure of coastal armoring and escalating erosion.</p>		<p>Recommendations</p> <ul style="list-style-type: none"> • Improve regulation, mitigation, and adaptive management of existing armoring projects. • Allocate funds for the removal of derelict structures. • Develop a sand/recreational loss fee policy in the General Plan/LCP Safety Element. • Develop a public lands lease policy, which would require structures that extend beyond MHW to pay fees in the form of rent. These fees would pay for the removal of derelict structures and improve coastal public access or mitigate ESHA impacts. • Support adaptation measures, including insurance programs and regulations that require and/or incentivize private property owners to assume the risks of developing in hazardous areas. • Prohibit placement of backfill to shore up any remnant structures. 		Existing Condition
						 <p>Elwood Mesa Beach Photo: D. Revell</p>		



Figure C. Coastal Armoring and Coastal Hazards

Coastal Zone Boundary City Boundary



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Coastal Hazard Zones

Surface
Connected
Potentially
Connected

Existing		
2030 (10.2")		
2060 (27.2")		
2100 (60.2")		
Existing FEMA 100-Year Flood		

Hazard Modeling by ESA 2015

Armoring Structure Type

- Revetment
- Timber Seawall
- Remnant H-Beams
- Revetment and Timber Seawall

			Fiscal Impacts
Overview	Measures of Impact		
<p>Oil and gas development in the City of Goleta began in the 1920s with development of the Ellwood Marine terminal (located just east of the City's Coastal Resource Sub-Area). Production peaked between the 1930s and the 1950s. Production since the 1950s has largely shifted to offshore platforms permitted by the federal government. Unknown amounts of legacy wells and remnants for which little is known remain along the Goleta coastline.</p> <p>According to the California Division of Oil, Gas, and Geothermal Resources, there are 3 active wells and approximately 47 inactive and capped wells within the City boundaries, and 26 wells immediately offshore. Active oil and gas operations in the City include the legally non-conforming 4.5-acre Ellwood Oil and Gas Processing Facility (EOF), and two oil piers associated with the 421 Lease. Oil spills in 1969 and 2015 have coated City beaches in oil.</p>	<p>To quantify the impact of coastal hazards and climate change on oil and gas infrastructure, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Active sites • Inactive sites • Cost of removal • Oil spill cleanup costs. <p>Photo: A. Wells</p> 		
Existing Conditions			Adaptation Strategies
Historical	Present		
 <p>Goleta Coast circa 1938 Photo: State Lands Archives</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 3 active sites (421 Lease and associated piers) • 27 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 active sites (421 Lease and associated piers) • 36 inactive sites <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>There also remain unknown amounts of below ground infrastructure. In nearby Summerland, unmarked legacy wells were discovered leaking oil and have yet to be resolved. A similar situation could occur within the City of Goleta. For details on the locations of the wells, refer to Figure D.</p>	<p>Range of Strategies: Oil and gas infrastructure could be relocated, elevated, or protected in place. Adaptation to any of these oil and gas issues will be contentious. There may be a need to have a non-polarized regional forum focused on oil and gas response, remediation, and restoration. Such a partnership would require coordination with the California State Lands Commission and Santa Barbara County, as well as entities charged with oil spill response and clean up</p> <p>Retreat – Requires a phased removal to cap, abandon, decommission, investigate/remediate petroleum releases, and restore. Well casings and onshore support infrastructure may be re-exposed as erosion continues.</p> <p>Accommodate – For the Lease 421 piers, it is possible to extend the wells onto constructed platforms with access via boat.</p> <p>Protect – Armor cliffs to prevent coastal erosion in addition to nourishment of beaches to ensure sand coverage of wells.</p> <p>Secondary Impacts: Delays in any response could result in oil spills and nuisance hazards. Environmental and permitting require substantial time and high costs in that there are long lead times. Elevating would increase the exposure to wave impacts and have escalating maintenance costs. All options would have short-term habitat impacts to ESHAs.</p>	
Vulnerabilities			Additional Information
2030	2060	2100	
<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 35 inactive sites <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2 inactive sites <p>Potential exists for oil spills of active wells. Inactive and unknown legacy wells may erode, leak, or become exposed and result in beach hazards. Soils previously affected by petroleum releases may become exposed by erosion or mobilized by coastal flooding. The EOF displays potential impacts from coastal flood hazards.</p>	<p>Recommendations</p> <ul style="list-style-type: none"> • Formalize and participate in a regional Joint Powers Authority (JPA) with OSPER, CLSC, Coast Guard, County Energy Division, and the City. This JPA would form a round table for oil and gas responses and lessons learned. • Generate funds for rapid response to remove eroded wells. • Upon decommissioning of active sites, the removal of all shore protection, access roads, pipes, and other infrastructure should be required. • Develop a regional environmental and permit streamlining process for rapid remediation of legacy wells. • Note: The current data gap for this area is pipeline alignments and remaining oil volumes stored inside.  <p>Goleta Coast 2015 Photo: City of Goleta</p>



Figure D. Oil/Gas Wells and Coastal Hazards

Coastal Zone Boundary

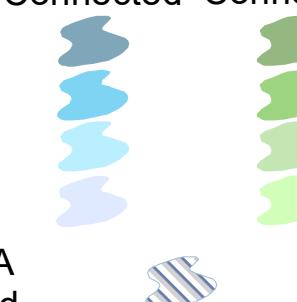
City Boundary



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Coastal Hazard Zones

Surface Connected	Potentially Connected
Existing	
2030 (10.2")	
2060 (27.2")	
2100 (60.2")	



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")
Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Impacted Oil and Gas Wells

- Existing Wells
- 2030 Wells
- 2060 Wells
- 2100 Wells
- Unflooded Wells
- ★ Indicates Active Well

Hazardous Materials

Overview			Measures of Impact	Fiscal Impacts
<p>There are two types of hazardous materials evaluated in this report: businesses that store hazardous materials and leaking underground fuel tanks (LUFTs). The type of chemical and the state (solid, liquid, or gas) determines the relative risk of dispersal to the City. Facilities located near the City have the potential of causing damages within the City and are included. Businesses using hazardous materials are required to file a Hazardous Material Business Plan (HMBP) with the Santa Barbara County Fire Protection Services Department. Hazardous chemicals are associated with dentist offices, medical supplies, laundromats, auto repair shops, etc. In 2015, there were 649 HMBPs filed within the City.</p> <p>LUFTs are often associated with gas stations, and contaminants can leak into the surrounding groundwater table and disperse or flow based on groundwater elevations. As of 2015, there are 24 LUFTs in various stages of remediation.</p>			<p>To quantify the impact of coastal hazards and climate change on hazardous materials, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Number of leaking underground fuel tanks • Number of (HMBPs) • Cost of remediation for a LUFT • Cost of remediation for a flooded LUFT <p>For details on the locations of the businesses storing hazardous materials and LUFTs, refer to Figure E.</p>	<p>Damages: The average cost to clean up a LUFT tank is \$125,000, assuming that the hazardous materials have not leaked into the groundwater table. The cost is considerably higher (approximately \$1.5 million per LUFT) if the hazardous materials have already leaked into the groundwater table.</p> <p>Fiscal Impact to the City: If these tanks are owned by private businesses, the current owners are liable. However, the City could become liable if private owners are unable to pay the costs. Since mitigation is far more economical before groundwater contamination becomes an issue, the City should focus on investigation and remediation of unidentified LUFT sites. For existing cases, expediting clean up would properly mitigate tanks before they are exposed to inundation that is associated with barrier beach flooding and sea level rise.</p> <p>Impacts by planning horizon: LUFTs should be mitigated by 2030.</p> <p>Adaptation costs: Total clean up/remediation costs range from \$750,000 (no groundwater leakage) to \$10.5 million or more (groundwater leakage).</p> <p>Clean up: Owners of properties with existing storage tanks should mitigate against leakage in a timely manner.</p> <p>Public vs. private: The costs are primarily private. While contained within a single parcel, the City should incentivize clean up so that LUFTs are remediated before contaminants extend beyond the parcel boundary, becoming a City liability.</p>
Existing Conditions			Adaptation Strategies	
Historical	Present		<p>The majority of the hazardous material impacts identified in the vulnerability assessment are largely avoidable.</p> <p>Range of Strategies: Hazardous storage plan strategies would range from a “do nothing” approach, to protection of businesses with HMBPs, to policy options that would accommodate levels of flooding without exposing the hazardous materials, to requiring all businesses with a HMBP to effectively retreat from the coastline.</p> <p>Secondary Impacts: The “do nothing” approach could have substantial clean up impacts, but there are relatively low cost options to store materials in a more flood-proof manner.</p> <p>Range of Strategies: Leaking underground tanks have limited adaptation options other than to remediate or adjust the timing and exposure of the contaminants to prolonged barrier beach flooding. Adaptation strategies that reduce the exposure of the contaminants would include inlet management, containment, and remediation.</p> <p>Secondary Impacts: Inlet management has several secondary impacts ranging from sediment accretion on wetlands to increased exposure for sensitive and endangered species in the neighboring Goleta Slough.</p>	
Vulnerabilities			Additional Information	
2030	2060	2100	Recommendations	Threshold
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 0 LUFTs • 8 HMBPs <p>Dominant flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1 LUFT • 12 HMBPs <p>Dominant flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p> <p>The business with the LUFT is Steelhead Recyclers.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5 LUFTs • 84 HMBPs <p>Flood hazards result from barrier beach closure. The joint probability of creek flooding and high lagoon water levels was not assessed.</p> <p>Businesses with LUFTs include Applied Magnetics, Bardex Corporation, Raytheon Systems, McLean Property, and Automated Business Forms.</p>	<ul style="list-style-type: none"> • Establish more stringent policies for timing associated with cleanup. The timing would be based upon projected exposure to flooding. • Cleanup LUFTs (some of these include sites associated with the Steelhead Recyclers, Applied Magnetics, Bardex Corporation, Raytheon Systems, McLean Property, and Automated Business Forms). • Strengthen policies regarding storage for hazardous materials that would require additional elevation and containment. • Clean up LUFTS prior to long-term flooding associated with barrier beach closure and elevated groundwater. 	<p>For LUFTs, establish a threshold between 2 and 5 feet based on the escalated cost and spread of contaminants into and surrounding the City boundaries.</p> <p>Disclaimer: LUFTs and HMBPs outside but near the City were not included in this analysis. Coastal confluence flooding in the future is unavailable and should be considered in a future update. The type and quantity of hazardous materials, state of matter, dispersal mechanism, and solubility in water was beyond the scale of this analysis.</p>

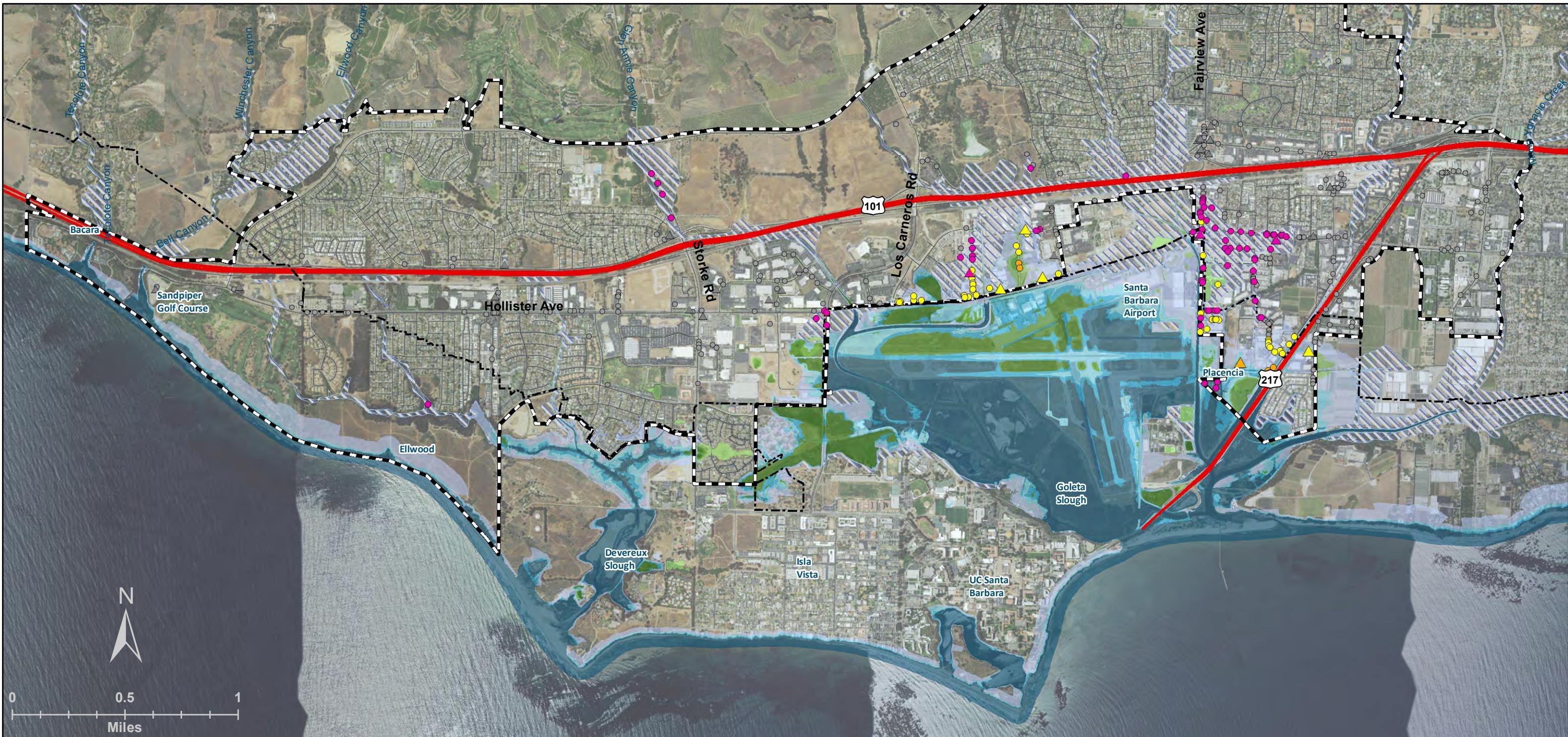


Figure E. Hazardous Materials, LUFT Sites and Coastal Hazards

Coastal Zone Boundary

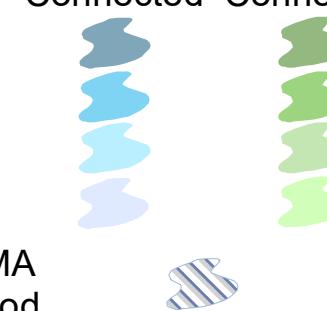
City Boundary



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Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015



Coastal Hazard Zones

Surface Connected Potentially Connected

HazMat Sites

- Existing HazMat Storage
- 2030 HazMat Storage
- 2060 HazMat Storage
- 2100 HazMat Storage
- Unflooded HazMat Storage

Leaking Underground Fuel Tanks (LUFT)

- ▲ Existing LUFT Sites
- ▲ 2030 LUFT Sites
- ▲ 2060 LUFT Sites
- ▲ 2100 LUFT Sites
- ▲ Unflooded LUFT Sites

Natural Resources

Overview		Measures of Impact		Fiscal Impacts					
<p>Habitat resources occur in each of the subareas including the western Coastal Resources Sub-Area, Storke Ranch wetlands, Phelps Road vernal pools, Rancho Goleta Lake, the southern portion of the Southwest Residential Sub-Area, and along streams. Two creeks, Bell Canyon and Tecolote Creek, drain to the ocean via coastal estuaries; the other creeks drain into either Devereux or Goleta Sloughs, just south of the City boundary.</p> <p>ESHAs require protection to sustain the habitat values. The map of ESHAs is adopted in the City's General Plan (Figure 4-1) and contains the following habitats: creek and riparian areas, wetlands, coastal dunes, lagoons, coastal bluff scrub, beaches, marine habitats, coastal sage scrub, chaparral, native woodlands, native grasslands, monarch butterfly sites, and nesting roosting sites for raptors.</p>		<p>To quantify the impact of coastal hazards and climate change on ESHAs, the following acreages have been identified by ESHA types:</p> <ul style="list-style-type: none"> • Acres of Beach and Shoreline Habitats • Acres of Monarch Butterfly/ Raptor Roosting • Acres of Native Grassland • Acres of Open Water • Acres of Riparian, Marsh or Wetland • Acres of Scrub • Acres of Unvegetated Open Creek Channel <p>For details on the locations of the impacted natural resources, refer to Figure F.</p>		<p>No fiscal impact analysis was conducted on this sector.</p>					
Existing and Future Vulnerabilities									
	Environmentally Sensitive Habitat Area	Existing Conditions	2030	2060	2100				
Coastal Erosion	Beach and Shoreline	16.96	16.96	16.96	16.96				
	Monarch Butterfly and/or Raptor Roosting Habitat	0.13	0.33	0.95	1.6				
	Native Grassland	0.04	0.09	0.33	3.79				
	Riparian/Marsh/Vernal	1.79	0.21	0.27	1.2				
	Scrub	28.81	26.21	28.37	32.47				
Coastal Flooding	Beach and Shoreline	19.94	19.94	19.94	19.94				
	Monarch Butterfly and/or Raptor Roosting Habitat	1.92	2.35	3.33	7.46				
	Native Grassland	0.04	0.09	0.33	3.79				
	Open Water	1.37	1.37	1.37	1.86				
	Riparian/Marsh/Vernal	22.47	27.1	34.74	46.66				
	Scrub	31.44	32.95	35.41	40.64				
	Unvegetated Open Creek Channel	1.67	1.97	2.61	4.75				
<p>* Impacts to ESHAs are reported in acres</p> <p>Note: The identified habitat acres in the table are currently in the modeled coastal hazard zones and are exposed to the identified coastal processes creating the coastal hazards.</p> <p>Disclaimer: The acreages are not based on any habitat evolution modeling which would indicate where the habitat might shift or evolve in response to changes in the physical processes. Habitats typically evolve by transgressing inland, shifting ranges, migrating up in elevation, or by accreting sediment.</p>									
 Tecolote Creek Photo: D. Revell		<p>Fiscal Impacts</p> <p>No fiscal impact analysis was conducted on this sector.</p> <p>Adaptation Strategies</p> <p>Range of Strategies: ESHAs could either be relocated or protected using soft protection schemes like sediment management or regulatory changes to enhance the ability of the habitats to migrate landward.</p> <p>Retreat – Policy options to increase landscape connectivity and support habitat migration include purchase of upland properties such as areas above Hollister Avenue, development of rolling easements, and transfer of development rights programs.</p> <p>Accommodate – Sediment management.</p> <p>Protect – Build horizontal levees and transition slopes, establish conservation easements or other development restrictions to protect habitat, and create ecological buffer zones that increase the size of existing buffers.</p> <p>Secondary Impacts: Sediment management impacts depend on the types of volumes, grain size, and mechanism to move the sediment and range from small temporary impacts to long-term habitat alterations.</p>		<p>Additional Information</p> <table border="1"> <thead> <tr> <th>Recommendations</th><th>Future Monitoring</th></tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Increase buffers for ESHAs. • Improve policy language to maintain riparian corridors and landscape connectivity. • Develop anticipatory policy language to support sensitive species in changing climate conditions. • Develop sediment management program regulations, which would support wetland accretion. • Collaborate regionally to support the use of horizontal levees, transition slopes, and inlet management. • Identify habitat and species triggers to implement adaptation strategies. • Support regional monitoring efforts. </td><td> <ul style="list-style-type: none"> • Support monitoring of specific climate variables that affect habitat location. • Stay current on climate science related to precipitation, wildfire, and temperature changes. • Understand relationship between habitats/elevation and duration of inundation. • Support monitoring of adaptation impacts on the overall health of ecosystems, including hydrology, sensitive species habitats, and biodiversity. • Support comprehensive monitoring programs as well as site-specific analyses to refine understanding and gauge effectiveness. • Establish permanent plots to detect long-term vegetation changes at the community level. • Create monitoring protocols specific to each species, habitat type, and management action. </td></tr> </tbody> </table>		Recommendations	Future Monitoring	<ul style="list-style-type: none"> • Increase buffers for ESHAs. • Improve policy language to maintain riparian corridors and landscape connectivity. • Develop anticipatory policy language to support sensitive species in changing climate conditions. • Develop sediment management program regulations, which would support wetland accretion. • Collaborate regionally to support the use of horizontal levees, transition slopes, and inlet management. • Identify habitat and species triggers to implement adaptation strategies. • Support regional monitoring efforts. 	<ul style="list-style-type: none"> • Support monitoring of specific climate variables that affect habitat location. • Stay current on climate science related to precipitation, wildfire, and temperature changes. • Understand relationship between habitats/elevation and duration of inundation. • Support monitoring of adaptation impacts on the overall health of ecosystems, including hydrology, sensitive species habitats, and biodiversity. • Support comprehensive monitoring programs as well as site-specific analyses to refine understanding and gauge effectiveness. • Establish permanent plots to detect long-term vegetation changes at the community level. • Create monitoring protocols specific to each species, habitat type, and management action.
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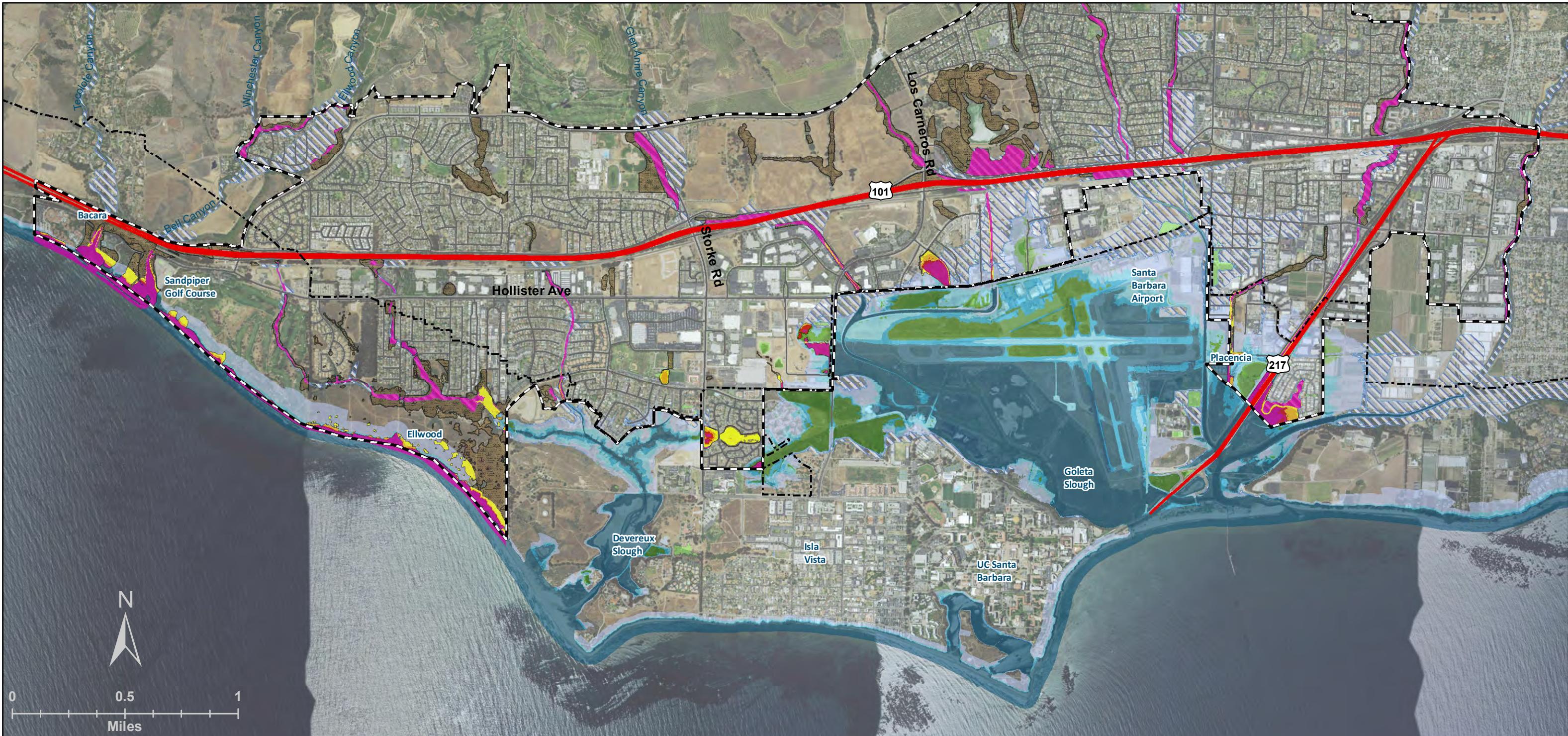


Figure F. Natural Resources and Coastal Hazards

Coastal Zone Boundary City Boundary

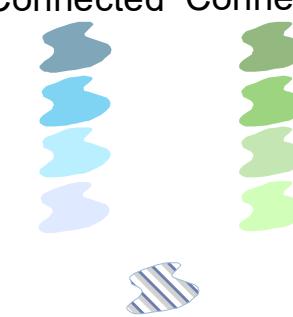


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Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")
Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Coastal Hazard Zones

Surface Connected Potentially Connected



Impacted Environmentally Sensitive Habitat

- Existing ESHA Flooding
- 2030 ESHA Flooding
- 2060 ESHA Flooding
- 2100 ESHA Flooding
- Unflooded ESHA

Overview			Measures of Impact	Fiscal Impacts
<p>Examples of passive coastal recreation in the City of Goleta include hiking, birdwatching, and beach combing primarily along the Ellwood Mesa Open Space/Sperling Preserve and Haskell's Beach in the Coastal Resource Sub-Area. The trail network includes a portion of the California Coastal Trail and the Juan Bautista de Anza Trail. Additionally, there are a number of unimproved access points (Access Points E and F) that provide coastal views and vertical access to the beach. The Haskell's Beach public access is maintained by and is designated as a condition of approval for the Bacara Resort and Spa. This access includes a visitor-serving Beach House.</p>			<p>To quantify the impact of coastal hazards and climate change on recreation and trails, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of trails • Number of interruptions in the trail network • Number of formal access <p>For details on the locations of impacts to public access, refer to Figure G.</p>	<p>Damages: 2,129 feet of coastal trails are impacted by erosion and will need to be moved and replaced to City standards, including Coastal Trail and De Anza Trail standards. Coastal flooding will lead to some temporary loss of recreation impacts, including 2,444 feet of trails.</p> <p>Fiscal Impact to the City: The City is responsible for maintaining these coastal trails. It is assumed that impacted trails will require active relocation to minimize impacts to natural resources, as opposed to opportunistic relocation by trail users. Based on recent plans to improve the Ellwood Mesa Coastal Trails, the cost of relocating was estimated at approximately \$170 per linear foot. For information on the Ellwood Mesa Coastal Trails and Habitat Restoration Project, refer to page 4-9.</p> <p>Impacts by planning horizon:</p> <ul style="list-style-type: none"> • Existing conditions: Replacement cost of 2,129 ft. of trails at \$170 per linear ft. equates to \$361,930. • 2030: Replacement cost of 3,684 ft. of trails at \$170 per linear ft. equates to \$626,280. • 2060: Replacement cost of 6,914 ft. of trails at \$170 per linear ft. equates to \$1,175,380. • 2100: Replacement cost of 11,443 ft. of trails at \$170 per linear ft. equates to \$1,945,310. <p>Clean up: There may be nominal clean-up costs associated with flooding.</p> <p>Public vs private: Most of costs will be borne by the City of Goleta with some costs by Bacara as per their permit conditions.</p> <p>Adaptation costs for the bathhouse:</p> <ul style="list-style-type: none"> • Retreat and rebuild - estimated \$421,000 to rebuild in a new location. • Elevate - \$140 to \$240/sq. ft. multiplied by 2,000 sq. ft. equates to \$280,000 to \$480,000. • Protect - \$5182 to \$6100/linear foot multiplied by 60 ft. equates to \$310,920 to \$366,000.
Existing Conditions				
Historical		Present		
<p>Historically, much of the open space in the Coastal Resource Area was owned by oil and gas development interests. As the oil and gas extraction dwindled, some remediation and cleanup was completed prior to the land being sold for development. Through the 1990s, public interest groups contested several development proposals until a transfer of development right agreement was reached and the proposed development was pulled away from the open space and moved inland to what is now known as the Bluffs at Sandpiper. Historic armoring (see coastal armoring) impacts lateral beach access during high tides.</p>		<p>The formal access and Bacara Beach House are currently exposed to all coastal hazards.</p> <p>Coastal Erosion</p> <ul style="list-style-type: none"> • 2,129 feet of trails • 12 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,444 feet of trails • 14 interruptions in the trails <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 7,272 feet of trails • 16 interruptions in the trails 		
Vulnerabilities				
2030	2060	2100		
<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 3,684 feet of trails • 23 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 431 feet of trails • 4 interruptions in the trails <p>Coastal erosion permanently interrupts the trail continuity. Coastal flooding temporarily interrupts the trail for a short time period that depends on elevation and duration of flood events.</p>		<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 6,914 feet of trails • 12 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 878 feet of trails • 6 interruptions in the trails <p>Coastal erosion permanently interrupts the trail, while coastal flooding only has a temporary impact. A decrease in trail interruptions represents a merging of small breaks into larger interruptions. Lateral beach access impaired during high tides due to historic armoring.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 11,443 feet of trails • 13 interruptions in the trails <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,191 feet of trails • 8 interruptions in the trails <p>Coastal erosion permanently interrupts the trail, while coastal flooding only has a temporary impact. The increasing number of trail interruptions by 2100 show that new locations along the trail network are being impacted. Lateral beach access impaired during high tides due to historic armoring.</p>	<p>Range of Strategies: The trails and designated public access at Haskell's Beach could either be relocated or protected. Secondary Impacts: Relocation of trails would potentially affect some small portions of ESHA (scrub, grassland). A protection strategy (coastal armoring) would impact the beach and shoreline ESHA. As erosion continues, the 2 vertical access trails will become less passable without improvements and maintenance. Improvements to maintain vertical access from Ellwood to the beach include grading or natural steps built into the existing bluff trail. According to the Ellwood Mesa Coastal Trails and Habitat Restoration Project MND, the City would manage the relocation of the Coastal Trail if unsafe conditions exist along the bluffs. Removing coastal armoring will improve the lateral beach access, which is currently limited during high tides. The one formal public access at Haskell's Beach is currently vulnerable to all coastal and fluvial related hazards. The access itself can likely be either protected or retreated with some regrading or stairs.</p> <p>Range of Strategies: The Bacara Beach House adjacent to the Haskell's Beach access serves both public and resort visitors. One strategy would be to relocate the facility farther inland beyond the identified hazard zones; an accommodation strategy would elevate the facility so that the coastal processes could pass underneath, while a protection strategy would require construction of coastal armoring.</p> <p>Secondary Impacts: Secondary impacts associated with retreat and accommodation strategies are minimal. A protection strategy would impact ESHA (beach and dune and riparian wetlands) and lateral access along the beach. Costs would be expected to include substantial construction and maintenance over time, and ultimately result in the complete loss of the beach for which the bathhouse was built to provide amenities to beach goers and resort visitors.</p>
Additional Information				
Recommendations			Existing Condition	
<ul style="list-style-type: none"> • Remove coastal armoring to improve lateral beach access. • Develop policies, which generate revenue to maintain, create, and improve beach access at Haskell's Beach. • Coordinate with the Bacara Resort and Spa to identify a suitable site for Beach House relocation. • Restrict the type and intensity of development associated with the formal public access. 			<p>High Tide 10/29/2015 Photo C. Slaven</p> 	

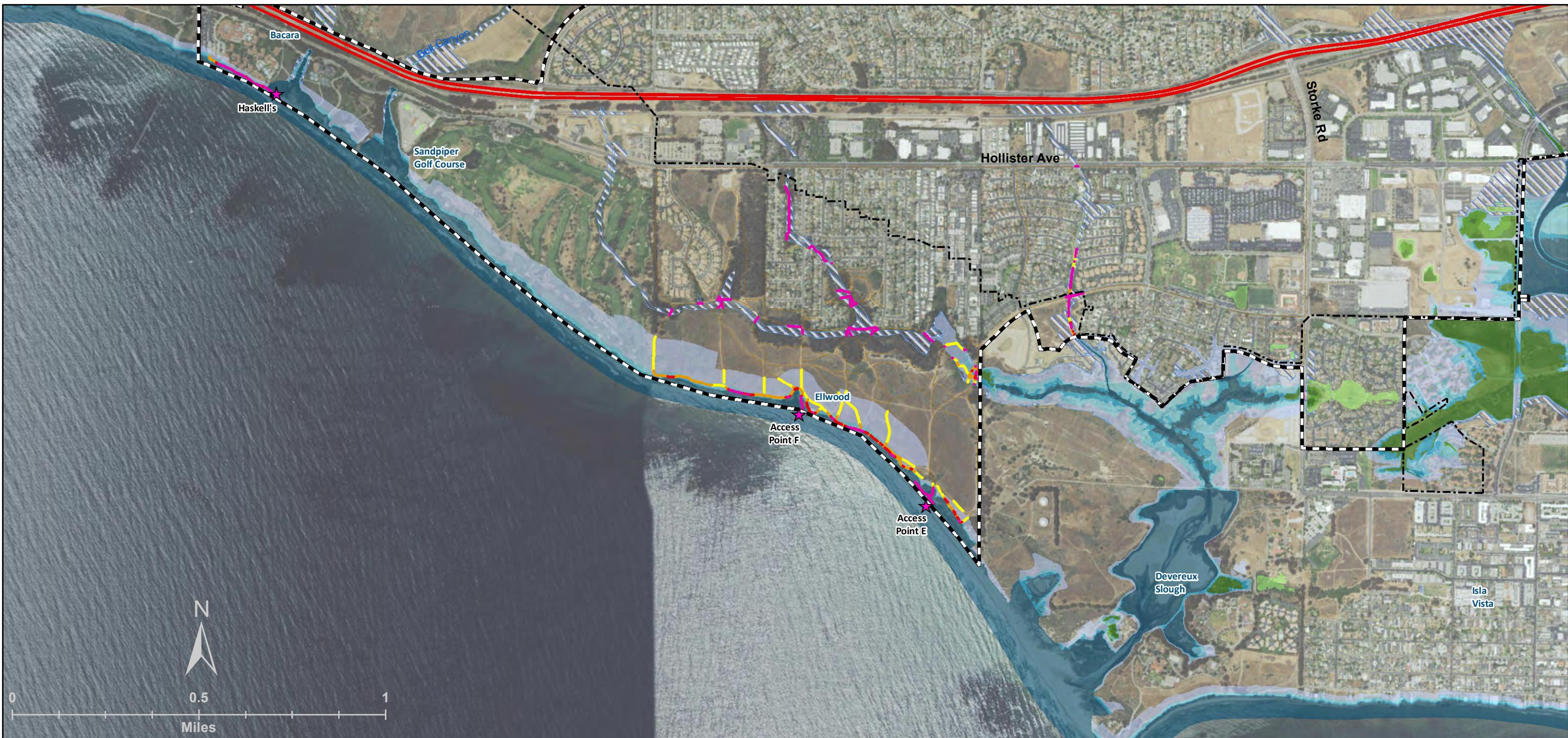


Figure G. Public Access and Coastal Hazards

Coastal Zone Boundary

City Boundary



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Coastal Hazard Zones

	Surface Connected	Potentially Connected
Existing		
2030 (10.2")		
2060 (27.2")		
2100 (60.2")		

★ Designated Public Access

Flooded Recreational Trails

- Existing Trails

- 2030 Trails

- 2060 Trails

- 2100 Trails

- Unflooded Trails

Transportation

Overview			Measures of Impact			Fiscal Impacts										
<p>Goleta is served by an existing network of roadways. US Highway 101 traverses the central spine of the entire east-west length of the City, providing regional access to Goleta. Santa Barbara Metropolitan Transit District (MTD) operates bus routes within Santa Barbara County. Specific bus routes have been developed to serve the UCSB campus. Mobility depends on a safe and efficient transportation system that facilitates the flow of traffic, while enhancing pedestrian safety, and providing for alternative modes of transportation. Hollister Avenue is a primary thoroughfare for both the City and the region, and bisects the Old Town area of the City.</p>			<p>To quantify the impact of coastal hazards and climate change on roads and public transportation, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Length of roads (including Hollister thoroughfare) • Number of interruptions • Number of bus stops <p>The City's street pavement network consists of 86 centerline miles equaling a total pavement area of approximately 16.2 million square feet.</p>			<p>Damages: No roads/bus stops are threatened by coastal erosion. However, some traffic will be interrupted by flooding. Some bus stops also will be underwater. These will require clean up following flood events.</p> <p>Fiscal Impact to the City: The City would likely bear the cost of clean-up and repair and some of the costs of adaptation. Flood damages across the City depend on the magnitude and extent of flooding (~\$500,000 for a minor flood (e.g., 2005) to \$4.5 million for a major flood (e.g., 1997-98 El Niño). Road damages and clean-up costs alone could range from \$30,000 to \$100,000 per mile depending on the type of road and amount of debris associated with the flooding.</p> <p>Adaptation Costs: Under an accommodation strategy, the City could add a thicker (~2 to 4 inches) layer of asphalt every ten years as part of routine resurfacing which would reduce road flooding. The costs are as follows:</p> <p>2030: ~\$500,000, 2060: ~\$2.2 million, 2100: ~\$12.5 million.</p> <p>Clean up: See Fiscal Impact to the City.</p> <p>Public vs. Private: Costs for repair for City infrastructure will be borne by the City and managed by the Public Works Department. Public transit costs and related repair will be borne by the MTD, which is operated under the County of Santa Barbara.</p>										
Existing Conditions																
Historical		Present				Adaptation Strategies										
<p>Creek flooding events have occurred episodically in the past with the worst flooding caused by the combination of high stream flow during high tides/ slough water levels. These impacts have caused substantial flood damages, particularly in the area around Old Town.</p> <p>Changes to the Goleta Slough inlet management has increased flooding and duration of inundation at the low lying area around the City's Placencia neighborhood and Robin Hill Road area. San Jose Creek was improved to convey a 100-year event. The culvert under Highway 101 on San Jose Creek is also being improved to pass a 25-year flow event. Both projects reduce Old Town creek flooding.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 959 feet of roads (including Hollister thoroughfare) • 5 interruptions • 48 bus stops <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 72,316 feet of roads (13.7 miles) • 71 interruptions • 123 bus stops <p>Most flooding occurs in the Placencia neighborhood, Hollister Ave north of the Santa Barbara Airport, and in the Robin Hill Road area (also north of the airport and Hollister Avenue).</p>				<p>Range of Strategies:</p> <p>Retreat – relocate or remove roads from the hazardous areas. This would require creation of a new cross town thoroughfare to replace Hollister Avenue.</p> <p>Accommodate – It is possible to elevate roads to accommodate higher flood water levels. This could be accomplished by elevating long segments of road on causeways. Another option would be to incrementally elevate the road surface during routine repaving by adding an additional 1-2 inch lift of asphalt. Inlet management may help reduce the duration of flood impacts.</p> <p>Protect – (Green) Contour additional elevations into a horizontal levee for areas in and around open spaces. (Gray) Construct levees and install pumps to flood proof the most road segments.</p> <p>Secondary Impacts:</p> <p>Retreat strategies may negatively impact traffic, ESHA, and other resources of the City, depending on the realignment. Accommodation strategies may create additional stormwater drainage issues. Protection strategies (green) could provide some room for habitat transgression for roads adjacent to wetlands. Gray protection strategies could negatively impact ESHA and wetland habitat transgression as well as escalating maintenance costs.</p>										
Vulnerabilities						Additional Information										
2030		2060		2100		<table border="1"> <thead> <tr> <th colspan="2">Recommendations</th><th colspan="2">Existing Condition</th></tr> </thead> <tbody> <tr> <td colspan="2"> <ul style="list-style-type: none"> • Elevate critical roads along Hollister Avenue, Fairview Avenue, and Los Carneros Road. • Amend Capital Improvement Plan to add additional inches to the lift in street resurfacing to gain elevation at the pace of sea level rise or greater. • Develop alternative bus routes. • Efforts to proactively reengineer existing routes will require collaboration amongst several land owners, private and public. Emergency services should be considered to ensure roadways are wide enough as responders depend on accessibility to any affected areas. • Note: Coastal confluence modeling would likely show an expansion of the extent and duration of future flooding. </td><td colspan="2">  </td></tr> </tbody> </table>			Recommendations		Existing Condition		<ul style="list-style-type: none"> • Elevate critical roads along Hollister Avenue, Fairview Avenue, and Los Carneros Road. • Amend Capital Improvement Plan to add additional inches to the lift in street resurfacing to gain elevation at the pace of sea level rise or greater. • Develop alternative bus routes. • Efforts to proactively reengineer existing routes will require collaboration amongst several land owners, private and public. Emergency services should be considered to ensure roadways are wide enough as responders depend on accessibility to any affected areas. • Note: Coastal confluence modeling would likely show an expansion of the extent and duration of future flooding. 			
Recommendations		Existing Condition														
<ul style="list-style-type: none"> • Elevate critical roads along Hollister Avenue, Fairview Avenue, and Los Carneros Road. • Amend Capital Improvement Plan to add additional inches to the lift in street resurfacing to gain elevation at the pace of sea level rise or greater. • Develop alternative bus routes. • Efforts to proactively reengineer existing routes will require collaboration amongst several land owners, private and public. Emergency services should be considered to ensure roadways are wide enough as responders depend on accessibility to any affected areas. • Note: Coastal confluence modeling would likely show an expansion of the extent and duration of future flooding. 																
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1,746 feet of roads • 9 interruptions • 97 bus stops <p>A few roadways including Los Carneros, Hollister, and Fairview serve as emergency evacuation routes. Beach closure of Goleta Slough mouth and severe storm events could flood these routes. Residents traveling by bike or bus have limited alternatives during flood events. During high tide storm events, emergency vehicles may be delayed in reaching some locations.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5,420 feet of roads • 12 interruptions • 111 bus stops <p>As Hollister Avenue is the major thoroughfare for the City, the only alternative route is Highway 101. There are no other viable alternative routes through the City in times of emergency. While temporary shut downs during high tides and storms could be tolerated, chronic flooding could render road segments along Fairview and Hollister Avenues frequently impassable.</p>		<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 23,149 feet of roads (4.4 miles) • 24 interruptions • 246 bus stops <p>There are no other viable alternative routes through the City in times of emergency. While temporary shut downs during high tides and storms may be tolerable, routine tidal flooding could render portions of Hollister and Fairview Avenues impassable daily.</p>		<p>February 1998 flooding Photo: City of Goleta</p>										

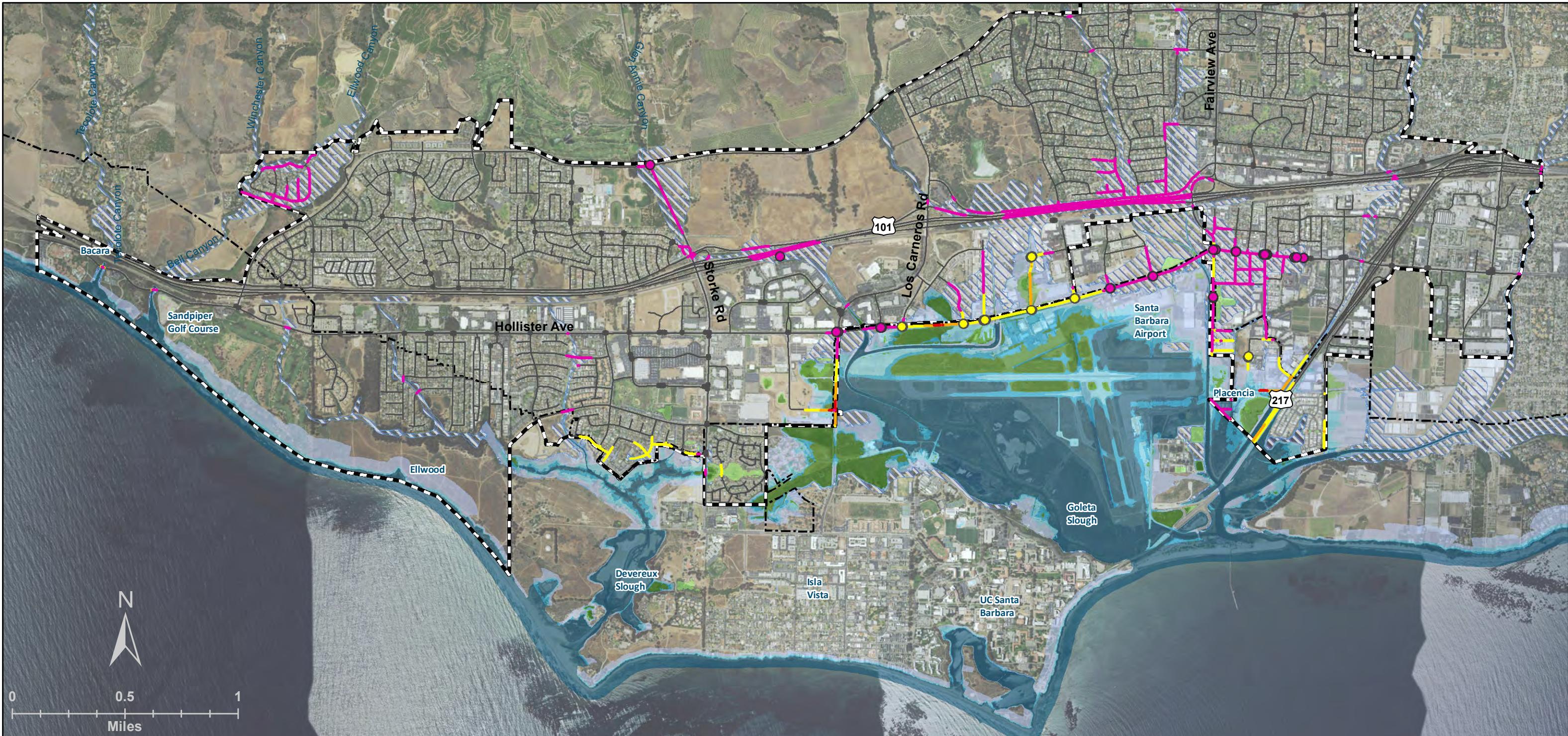


Figure H. Transportation and Coastal Hazards

Coastal Zone Boundary

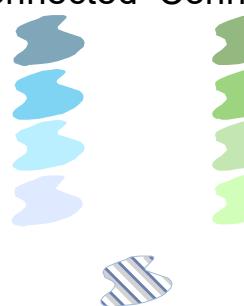
City Boundary



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Coastal Hazard Zones

Surface Potentially
Connected Connected



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood
Hazard Modeling by ESA 2015

Flooded Roads and Bus Stops

- Existing Roads / Bus Stops
- 2030 Roads / Bus Stops
- 2060 Roads / Bus Stops
- 2100 Roads / Bus Stops
- Unflooded Roads / Bus Stops

Wastewater

Overview			Measures of Impact	Fiscal Impacts
<p>Two separate special districts, Goleta Sanitary District (GSD) and Goleta West Sanitary District (GWSD), provide wastewater collection, treatment, and disposal services to the City of Goleta and the larger Goleta Valley. GWSD serves the western portion of the City with a collection system only. The eastern portion of the City is served by GSD, which collects, treats, and disposes of all wastewater, including wastewater received from GWSD. The GSD wastewater treatment plant, located adjacent to the City and Santa Barbara Airport on William Moffett Place, has a capacity of 9.72 million gallons per day (MGD). For impacted locations, refer to Figure I.</p>			<p>Operate and maintain the wastewater collection system including approximately 62 miles of sewer lines and 2 pump stations. To quantify the impact of coastal hazards and climate change on wastewater infrastructure, the following measures of impacts have been identified:</p> <ul style="list-style-type: none"> • Number of pump stations • Length of pipe (feet) • Number of manholes <p>Failure in the system could be passed onto City rate payers.</p>	<p>Damages: The cost to retrofit each of the two lift stations would be \$150,000. Sealing manhole covers costs approximately \$150 each. Damages to the ocean outfall cleanout access vault at Goleta Beach could be caused by erosion, with the cost to relocate at \$75,000.</p> <p>Fiscal Impact to the City: The Sanitary Districts will finance these improvements and pass costs on to ratepayers.</p> <p>Impacts by planning horizon:</p> <ul style="list-style-type: none"> • 2030: 14 manhole covers • 2060: 29 manhole covers • 2100: 82 manhole covers <p>Adaptation costs:</p> <ul style="list-style-type: none"> • 2030: 14 manhole covers at \$150 per manhole will cost \$2,100. • 2060: 29 manhole covers at \$150 per manhole will cost \$4,350. • 2100: 82 manhole covers at \$150 per manhole will cost \$12,300. <p>Clean up: None, if retrofits are performed in a timely manner, otherwise cost could vary from \$20,000 to several hundred thousand dollars.</p> <p>Public vs. private: All the costs will be borne by the Sanitary Districts, which would eventually be passed on to rate payers.</p>
Existing Conditions			Adaptation Strategies	
Historical		Present	Additional Information	
<p>The wastewater treatment plant is built on what was once Mescalitan Island. The island was cut to fill the Goleta Slough and create the Santa Barbara Airport. The wastewater system has had no reported sewage spills or damages, even during the 1995, 1998, and 2005 flood events. During the 1995 tide gate experiment, there was no tidal inundation to the infrastructure although tides inundated Mesa Road and crossed under Los Carneros into the Storke Ranch development. A recent Mesa Road Realignment Project relocated about 1,700 feet and 6 manholes from the Storke Ranch wetlands to Mesa Road, improving maintenance access, conveyance capacity, and habitat at a project cost of \$9 million. Until 2014, Goleta Slough was managed for open tidal conditions utilizing mechanical breaching. This inlet management practice was stopped due to concerns for endangered species, and future management is in question.</p>		<p>There is no infrastructure within the City at risk from erosion.</p> <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 1,535 feet of pipe • 6 manholes <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 63,416 feet of pipe • 204 manholes <p>The most vulnerable area is in the Old Town Sub-Area due to barrier beach flooding. During flood conditions, access to the GSD treatment plant could be completely isolated. Two pump stations and a clean out vault are in various hazard zones, outside of the Goleta boundaries.</p> <p>System failures from any hazards cause sewage spills.</p>	<p>Range of Strategies: A range of strategies includes retreat, inlet management to reduce the flood levels, elevating key vulnerable infrastructure to accommodate additional flood levels, and flood proofing retrofits to protect existing components.</p> <p>Retreat: Phased relocation of the ocean outfall cleanout access vault in the short-term and pump stations in the long-term. One substantial section of the wastewater conveyance network servicing the Southwest Residential Sub-Area runs through the UCSB North Campus Open Space (formerly Ocean Meadows Golf Course). As the restoration design is currently ongoing, the opportunity to relocate the wastewater infrastructure seems prudent since there would be cost savings associated with co-joining the two projects.</p> <p>Accommodate: Recognizing that the primary flood risk for this sector is from "closed" barrier beach flooding, inlet management and increasing the elevation of some of the key access roads to the GSD plant would provide better emergency access to valves and the treatment plant itself.</p> <p>Protect: Flood-proof retrofits to the two pump stations would provide a relatively low-cost option to accommodate several feet of sea level rise. Seal the manholes to minimize additional infiltration of brackish floodwaters and stormwater into the wastewater system.</p> <p>Secondary Impacts: Phased relocation may increase rates to cover initial costs but may reduce long-term maintenance costs. Inlet management has several secondary impacts from sediment accretion on wetlands to increased exposure for sensitive and endangered species in the Goleta Slough. Protect strategies may limit the ability for the habitats to advance landward.</p>	
Vulnerabilities		Additional Information		
2030	2060	2100	Recommendations	Existing Condition
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,885 feet of pipe exposed • 14 manholes exposed • GWSD stormwater drains to a conveyance system of 11.16 ft. <p>Vulnerabilities primarily occur in the Old Town Sub-Area. Portions of the system near the former Ocean Meadows Golf Course become increasingly vulnerable. Underground pipes exposed to flooding should not pose a risk although maintenance costs may rise.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 7,128 feet of pipe exposed • 29 manholes exposed • GWSD door to pump station 12.25 ft. <p>Vulnerabilities primarily occur in the Old Town Sub-Area, specifically in the Placencia neighborhood adjacent to Highway 217. Portions of the Central Planning Sub-Area, north of the Santa Barbara Airport, and the Southwest Residential Sub-Area, notably portions of Ellwood Shores, and Storke Ranch become increasingly vulnerable.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 22,945 feet of pipe exposed • 82 manholes exposed <p>Vulnerabilities primarily occur in the Old Town Sub-Area adjacent to Highway 217 and Fairview Avenue. Portions of the Central Planning Sub-Area, north of the Santa Barbara Airport, and the Southwest Residential Sub-Area, notably portions of Ellwood Shores, and Storke Ranch become increasingly vulnerable.</p>	<ul style="list-style-type: none"> • Add policy language to require relocation or avoidance of wastewater hazards to the extent possible. • Conduct advanced maintenance to keep lines clear. • Recommend flood proofing the pump stations through retrofits and installation of collars for the storm drain entrances at the pump stations. • Recommend relocation of the sewer line away from the Upper Devereux Slough/North Campus Open Space restoration area. • Recommend relocation of the pump vault at Goleta Beach. • Note: Coastal confluence modeling would likely show an expansion of the extents and duration of future flooding. 	<p>Lift stations retrofit: \$300,000</p> <ul style="list-style-type: none"> • GWSD facility • GSD Firestone Pump Station • Ocean Meadows/Upper Devereux Restoration, opportunity to relocate facility out of wetland during restoration project and avoid retrofit costs (estimated ~\$9 million based on Mesa Road relocation).

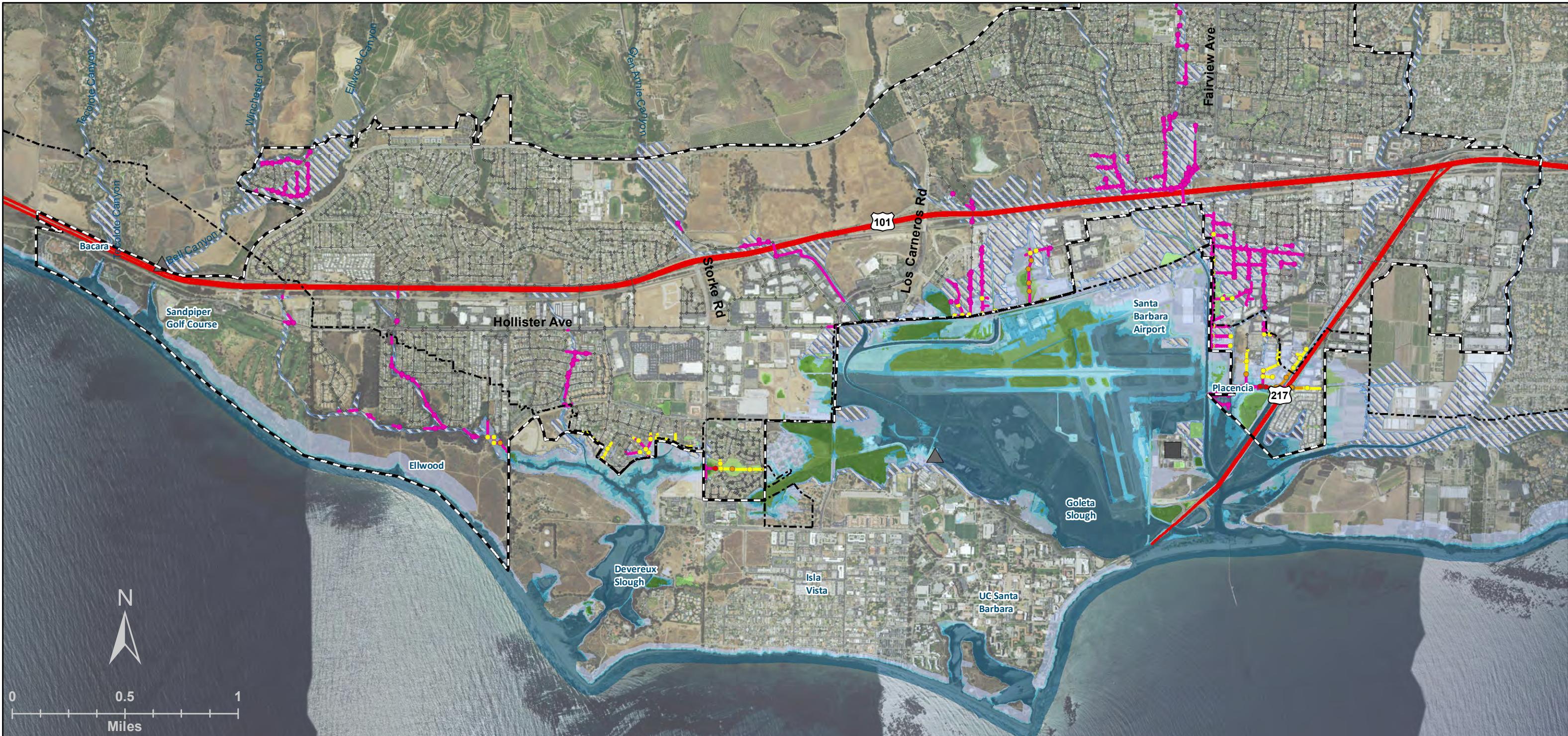


Figure I. Wastewater and Coastal Hazards

Coastal Zone Boundary

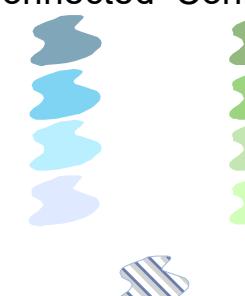
City Boundary



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Coastal Hazard Zones

Surface Connected
Potentially Connected



Existing
2030 (10.2")
2060 (27.2")
2100 (60.2")

Existing FEMA
100-Year Flood

Hazard Modeling by ESA 2015

Wastewater Infrastructure

- Existing Pipes/Manholes
- 2030 Pipes/Manholes
- 2060 Pipes/Manholes
- 2100 Pipes/Manholes
- Unflooded Pipes/Manholes
- ▲ Pump Station
- Treatment Plant

Water Supply

Overview		Measures of Impact		Fiscal Impacts
<p>The Goleta Water District (GWD) provides water supply to the Cities of Goleta and Santa Barbara and unincorporated Santa Barbara County. The GWD service territory spans from the City of Santa Barbara to El Capitan State Park, which includes approximately 87,000 residents using 270 miles of pipe. The current water use in GWD is 13,143 acre-feet per year (AFY) based on average sales data from the years 2006 to 2010. Sources of potable drinking water include: Lake Cachuma, the California Water Project, and seven (7) wells that provide water from the Goleta Groundwater Basin and enable groundwater injection during wet years. Recycled water from the GWD has been available since 1995 and is used primarily for irrigation and restroom facilities.</p>		<p>Measures of Impact:</p> <ul style="list-style-type: none"> • Miles of pipe • Number of hydrants • Number of wells • Number of control valves <p>Note: Due to alignment confidentiality concerns by GWD, specific locations have not been mapped.</p> <p>Pipes are generally not overly susceptible to flood damages; however, the valves are critical to isolating leaks and managing the water supply. Access to maintain and repair valves when they are flooded increases maintenance costs.</p>		No fiscal impact analysis was conducted on this Sector.
Existing Conditions				Adaptation Strategies
Historical		Present		Secondary Impacts
<p>GWD was formed in 1944 to take advantage of the water supply to be developed by the Federal Cachuma Project on the Santa Ynez River. GWD initially relied on local groundwater until the Cachuma Project began making deliveries in 1955.</p>		<p>Coastal Flooding from Sandbar Closure</p> <ul style="list-style-type: none"> • 1,044 feet of pipe • 3 valves <p>Creek Flooding (FEMA)</p> <ul style="list-style-type: none"> • 10.16 miles of pipe • 68 hydrants • 2 wells • 312 control valves <p>Saltwater intrusion was not included in this vulnerability analysis.</p>		<p>Retreat – Relocate distribution pipelines from flooding hazard areas; relocate or eliminate “at risk” outfalls; reduce or find alternatives for septic systems in hazardous areas.</p> <p>Accommodate – Coordinate with GWD on the following: determine need for treatment capacity of Lake Cachuma water for injection wells; develop a water banking system south of the Sacramento Delta; increase water use efficiency and use of recycled water with the Model Water Efficient Landscape Ordinance; reduce annual SAFE allocations; increase capacity of stormwater infrastructure to reduce impacts from higher water levels, especially from upstream actions.</p> <p>Protect – Prevent coastal flooding from long-term sand bar enclosure.</p>
Vulnerabilities				
2030	2060	2100		Additional Information
<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 2,154 feet of pipe • 3 hydrants • 8 valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 4,995 feet of pipe • 3 hydrants • 21 control valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>	<p>Coastal Flooding</p> <ul style="list-style-type: none"> • 18,801 feet (3.56 miles) of pipe • 3 hydrants • 21 control valves <p>No water supply-related infrastructure within the City is at risk from erosion. Coastal flooding hazards come primarily from long-term sand bar closure. Coastal confluence flooding has not been conducted or included in the vulnerability assessment.</p>	<p>Recommendations</p> <ul style="list-style-type: none"> • Continue to improve policies to promote water conservation and reclaimed water use. • Continue integrating climate projections on precipitation and temperature into water supply allocations. • Participate in regional water supply discussion, notably, GWD’s updated Water Supply Management Plan, Infrastructure Improvement Plan, and Sustainability Plan. • Restrict development of new wells in sensitive habitat or vulnerable areas. • Monitor demand and supply for potential additional groundwater pumping – limiting extraction from shallow aquifers, to reduce saltwater intrusion potential. • Ensure that adequate long-term water supplies are available to serve additional new development. • Update policies to encourage use of gray water by discouraging septic systems and reducing volumes discharged through ocean outfalls. • Improve policies to reduce saltwater intrusion by limiting groundwater pumping and diversifying water supplies. 	<p>Existing Condition</p>  <p>Bradbury Dam forming “Lake” Cachuma Reservoir. Photo source: T. Robinson</p>

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Overview			Measures of Impact	Fiscal Impacts
Southern California Edison Company (SCE) provides electrical service to Goleta and to all of southern Santa Barbara County. Two SCE substations occur in the City: the Hollister Avenue substation and the Glen Annie substation. Sixteen kilovolt (kv) electrical distribution lines and a 64 kv main line also exist in the City. A "Peaking Station" occurs in western Goleta on Las Armas Road south of Highway 101. For a term of 30 years, the City of Goleta is allowing SCE the use of city streets and property to use and construct poles, wires, conduits, and other facilities necessary for the transmission and distribution of electricity within the City.	To quantify the impact of coastal hazards and climate change on electric utilities, the following measures of impacts have been identified: <ul style="list-style-type: none">• Length above ground• Length below ground Damages: Below ground lines are sealed and should be protected against coastal flooding. Above ground lines are not vulnerable to coastal flooding, but are vulnerable to high winds associated with coastal storms. Future projections of wind intensity were not considered in this assessment. Disruptions could cause a temporary loss of electrical power that would impact City services, local businesses, and residents.		Damages: Below ground lines are sealed and should be protected against coastal flooding. Above ground lines are not vulnerable to coastal flooding, but are vulnerable to high winds associated with coastal storms. Fiscal Impact to the City: SCE will bear the costs of repair. These costs will likely be passed on to ratepayers as evidenced with other similar events such as the recent PG&E natural gas explosions in the Bay Area. A temporary loss in electrical power would impact City services, local businesses, and residents. Adaptation Costs: These are the estimate costs of replacement. 2030: 322 ft. above ground power lines at \$10 per linear ft. will equate to \$3,220. 531 ft. below ground at \$30 per linear ft. will equate to \$15,930. 2060: 360 ft. above ground power lines at \$10 per linear ft. will equate to \$3,600. 671 ft. below ground at \$30 per linear ft. will equate to \$20,130. 2100: 637 ft. above ground power lines at \$10 per linear ft. will equate to \$6,370. 1636 ft. below ground at \$30 per linear ft. will equate to \$49,080. Clean up: There may be some cleanup costs from downed power lines. This cost will be borne by SCE. Public vs. private: Replacement/cleanup costs will be borne by SCE. The costs of electrical outages will be borne by residents, businesses, school districts, and the City.	
Existing Conditions		Adaptation Strategies		
Historical	Present	Additional Information		
There are a number of locational considerations associated with these facilities. Since these utility services are generally provided through service lines within City right of ways, management of City right of ways will need to anticipate the maintenance and development of utility lines. The potential development and expansion of the nearby natural gas resources at the storage facility near Goleta Beach will involve potential hazard considerations near the site and along the transmission lines serving the resource. Note: Due to alignment confidentiality concerns by SCE, specific locations have not been mapped.	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 300 feet above ground • 510 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 5,383 feet above ground • 4,463 feet below ground <p>FEMA Creek flooding</p> <ul style="list-style-type: none"> • 31,556 feet above ground (6.0 miles) • 35,069 feet below ground (6.6 miles) 	<p>Range of strategies: Potential to relocate, remove, or place lines underground.</p> <p>Retreat: Requires relocation or realigning power lines to less hazardous areas.</p> <p>Accommodate: Either underground lines to avoid wind hazards in non-flooded areas or elevate to accommodate flooding.</p> <p>Protect: Pole footings could be fortified so that the poles are more resilient to wind and flood hazards.</p> <p>Secondary impacts of Adaptation Strategies: Retreat and accommodate strategies would have short term habitat impacts along transmission corridors. Elevation of lines would have aesthetic impacts.</p>		
Vulnerabilities			Recommendations	Existing Condition
2030	2060	2100		
<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 322 feet above ground • 531 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 8,143 feet above ground (1.5 miles) • 5740 feet below ground (1.1 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 360 feet above ground • 671 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 12,659 feet above ground (2.4 miles) • 8,176 feet below ground (1.5 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<p>Coastal Erosion</p> <ul style="list-style-type: none"> • 637 feet above ground • 1,636 feet below ground <p>Coastal Flooding</p> <ul style="list-style-type: none"> • 28,784 feet above ground (5.5 miles) • 21,928 feet below ground (4.2 miles) <p>Vulnerabilities to above ground lines will continue to exist from wind with temporary loss of power impacting City services, residents, and businesses. Once flooded, below ground lines will be more difficult to maintain.</p>	<ul style="list-style-type: none"> • Strengthen policies to underground lines in non-flood prone areas. • Incentivize realignment of underground lines in flood prone areas. • Phase realignment based on projections of future flood risks. 	<p>Hollister Avenue</p>  <p>Photo: City of Goleta</p>

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July 9, 2021

Beth A. Collins
Attorney at Law
805.452.6283 tel
[bccollins@bhfs.com](mailto:bcollins@bhfs.com)

VIA ELECTRONIC MAIL

Eric Gillies
Environmental Program Manager I
California State Lands Commission
Email: CEQA.comments@slc.ca.gov

RE: PRC 421 Decommissioning Project NOP Comments

Dear Mr. Gillies,

We represent Sandpiper-Golf Trust, LLC, a Delaware limited liability company ("Sandpiper"), owner of that certain property located at 7925 Hollister Avenue, Goleta, California ("Sandpiper Golf Course"). We submit the following comment on the Notice of Preparation ("NOP") for the California State Lands Commission ("CSLC") PRC 421 Decommissioning Project ("Project").

This letter comments on two key points. Given that the Project involves facilities primarily located on the Sandpiper Golf Course, we ask that (1) CSLC's EIR analyze the potential environmental impacts of abandoning the pipelines on the Sandpiper Golf Course and consider an alternative under which all pipelines and other oil and gas related infrastructure are removed, and (2) CSLC's EIR analyze the potential environmental impacts, especially to any abandoned pipelines and adjacent wetlands, of removing the access road and rock revetment.

I. CSLC's EIR Must Analyze the Impacts of Abandoning Pipelines

Comment 7-1 The project description describes two existing pipelines, one 6-inch-diameter and one 2-inch-diameter, that are located on the Sandpiper Golf Course within easements granted to Venoco by Sandpiper. (NOP p. 6) Given the age of the pipelines and infrastructure however, it is likely that other pipelines and infrastructure exist in the easement area. To adequately analyze potential environmental impacts, all buried metallic features located in the pipeline corridor (pipelines, debris, etc.) should be located by a geophysical survey including ground penetrating radar and magnetometer. As the NOP rightly points out, "[i]t is currently unknown if there are any contaminated sediments along the pipeline routes within the access road and would need to be investigated." (NOP p. 7.) We agree. Given the age of the pipelines and infrastructure, CSLC should evaluate the Property location for subsurface contamination by analysis of soil and groundwater samples collected from soil borings and test pits.

According to the NOP Project Description, the 6-inch and 2-inch Pipelines would be flushed, grouted, and abandoned in place. The potential environmental impacts caused by the flushing, grouting, and abandoning of the Pipelines must be analyzed in the EIR. Furthermore, since it is reasonably foreseeable that other infrastructure exists in the pipeline corridor, the EIR should analyze any potential impacts of any flushing, grouting, and abandoning of that infrastructure.

CEQA requires that both on and off-site as well as direct and indirect impacts be analyzed. (See Pub. Res. Code § 21100(b)(1); 14 Cal. Code Regs. § 15126.2(a); see also CEQA Guidelines Appendix G, Evaluation of Environmental Impacts, ¶ 2.) It is reasonably foreseeable that the process of decommissioning and abandoning the Pipelines will have direct and indirect environmental impacts. For instance, as the NOP points out, “the 6-inch former production pipeline may contain residual crude oil.” (NOP p. 6) As such, any impacts of removing this oil and disposing of it should be identified and analyzed in the EIR. Additionally, as discussed further below, the EIR should analyze the potential impacts from sea level rise and coastal erosion damaging any abandoned pipelines or other facilities.

Comment 7-2 We also urge the CSLC to consider an alternative in which any pipelines and other facilities in the easement area are removed from the Sandpiper Golf Course property. “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives for the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. (CEQA Guideline § 15126.6; Public Res. Code §§ 21002.1, 21100(b)(4).) In light of the inevitable erosion and wave action that will occur in the area, especially with sea level rise and climate change, the removal of these vestigial facilities is a reasonable alternative –a more protective alternative – to abandoning them in place and would likely avoid the environmental impacts caused by future damage to those pipelines and facilities. In addition to removal of these structures and debris, they should also be evaluated for the presence of hazardous materials including polychlorinated biphenyls (PCBs), metals, polycyclic aromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene, xylene, asbestos, and other VOCs and oil-related byproducts.

II. CSLC’s EIR Must Analyze the Impacts of Removing the Access Road and Rock Revetment

Comment 7-3 Pursuant to the NOP Project Description, the Project would also include the removal of the access road and supporting rock revetment. (NOP p. 3) The access road being removed is a dirt and gravel road originating near the Ellwood Offshore Facility that provides vehicle access to the two shoreline piers at PRC 421 (the “Access Road”). (NOP p. 4) The Access Road is located entirely on the Sandpiper Golf Course. (NOP p. 4) Additionally, the segment of the Access Road along the base of the bluff is protected by a rock revetment. (NOP p. 4) Directly landward of and adjacent to the Access Road is an existing wetlands.

The removal of the Access Road and supporting rock revetment will inevitably increase erosion in the area, especially in light of sea level rise and climate change. This will inevitably result in reduced bluff stability on the Sandpiper Golf Course. Additionally, because the Project currently anticipates abandoning the pipelines and associated facilities in the easement in place, the coastal erosion increased by the removal of the rock revetment could damage any pipelines and facilities which are not removed and result in additional environmental harm. Finally, given the nearby proximity of the wetlands, the Project’s removal of the Access Road and revetment may result in impacts to this environmentally sensitive habitat. The EIR must consider those potential impacts and describe feasible mitigation measures to reduce the impacts. (14 Cal. Code Regs. § 15126.4(a)(1)(“An EIR shall describe feasible measures which could minimize significant adverse impacts.”)

Comment 7-4 Any direct and indirect impacts to the Sandpiper Golf Course property and any neighboring property, including the public beach, caused by the removal of the Access Road and rock revetment should be addressed and analyzed in the EIR. Furthermore, to the extent that any of these impacts rise to a level of significance, the EIR should address and analyze the feasible mitigation measures.

For the foregoing reasons, we respectfully request that CSLC address the concerns of Sandpiper by adequately analyzing the environmental impacts caused by abandoning the infrastructure in the easement area and removing the Access Roads and rock revetment, evaluating an alternative project under which

Eric Gillies
July 9, 2021
Page 3

the pipelines and other facilities in the easement area are removed, and providing further analysis of any necessary mitigation measures.

Thank you for considering the above comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Beth Collins".

Beth A. Collins