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# F10e

**Prepared September 30, 2022 for October 14, 2022 Hearing**

**To:** Commissioners and Interested Persons

**From:** Dan Carl, Central Coast District Director  
Rainey Graeven, Central Coast District Supervisor  
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**Subject: Santa Cruz County LCP Amendment Number LCP-3-SCO-20-0066-2  
(Coastal Hazards)**

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## SUMMARY OF STAFF RECOMMENDATION

Santa Cruz County proposes to update LCP Land Use Plan (LUP) and Implementation Plan (IP) provisions that relate to coastal hazards, including in terms of response, adaptation, and resiliency, along the County's roughly 32 miles of coastal zone shoreline. The proposed update is essentially a complete replacement of the LUP's beaches and bluffs chapter (Chapter 6.4) and proposed conforming changes to the IP's geologic hazards chapter (Chapter 16.10).

Situated on the northern shore of the Monterey Bay crescent at almost exactly the midpoint of California's coast, Santa Cruz County is bordered to the north and south by San Mateo and Monterey Counties, respectively, along California's Central Coast. The County shoreline ranges from the more sparsely developed (and mostly made up of parks and agricultural uses) and rural north and south County coastal areas, where these areas essentially 'bookend' the more densely developed north bay area, which, in the unincorporated County consists mainly of the Live Oak (between the Cities of Santa Cruz and Capitola) and Aptos (extending south from Capitola) areas. The Bay itself has long been a focal point for area residents and visitors alike, providing opportunities for surfers, fishermen, divers, marine researchers, kayakers, and boaters, among others. The unique grandeur of the region and its national significance was formally recognized in 1992 when the area offshore became part of the Monterey Bay National Marine Sanctuary – the largest of the fifteen such federally-protected marine sanctuaries in the nation.

The County shoreline is also a significant and very popular visitor destination that is home to some of the best recreational beaches in all of Central and Northern California. Not only are north Monterey Bay weather patterns warmer and more conducive to beach and ocean recreation than many other areas, but north bay beaches are generally the first beaches accessed by visitors coming from the north of Santa Cruz. With enormous population centers nearby (such as the greater San Francisco Bay Area

and San Jose and the Silicon Valley to the north) and easy access from more inland locations (such as the Central and Salinas Valleys to the east and south), the County's shoreline – and its more urban-backed shoreline in particular – provides an important and heavily used beach and ocean recreational respite for County residents and visitors alike. These same beach and ocean resources also drive a significant visitor-oriented economy, and provide a clear social fabric and identity that is ingrained in the County's coastal communities and areas. These shoreline resources are also varied throughout the County, in part reflecting the variety of different landform and inland development conditions, with generally wider beaches on southwest facing shorelines in the Bay (like upcoast Live Oak and South County), and narrower and pocket beaches and rockier shoreline for southeast facing areas (like Pleasure Point and Opal Cliffs), where the urban core of the County (i.e., Live Oak and northern South County) also includes significant areas of armoring. It is in that context that the County's proposed new LCP coastal hazard provisions must be understood.

To that end, the County sought to develop an adaptation and coastal resiliency approach that reflects this varied coastal context, including, broadly, to require managed retreat as a primary adaptation strategy in rural areas of the County and to allow continued armoring in the more developed urban portion of the coastline. This overall approach is not uncommon statewide. In fact, over the past several years the Coastal Commission and coastal local governments have been coordinating through a Local Government Sea Level Rise Working Group to identify strategies for updating LCPs to better address coastal hazards and sea level rise in a way that reflects local conditions while also protecting coastal resources consistent with the Coastal Act. One key concept of this work includes taking a more regional or neighborhood-scale approach to protection of resources and development, along with mitigation of any impacts. This can include implementation of specifically identified adaptation strategies across areas with shared characteristics, as opposed to a parcel-by-parcel approach, in order to provide better protection of public infrastructure, more predictability for property owners and shoreline users, and greater benefits to recreational and natural resources. The County's proposed LCP takes a step in this direction and includes a variety of forward-looking coastal adaptation provisions. Unfortunately, however, the proposed amendment does not adequately protect coastal resources and cannot be found consistent with the Coastal Act for several key reasons.

First, the proposed LCP takes an adaptation approach that reflects an overreliance on shoreline armoring in a way that does not clearly address the uncertainties and anticipated impacts associated with sea level rise, and thus does not adequately ensure protection of the range of significant shoreline area resources referred to above. In short, in addition to essentially allowing armoring on an unlimited basis within the area from Pleasure Point proper (Soquel Point) to the Capitola city limits, with uncertain mitigation for armoring impacts, a key provision of the County's proposal would further allow a one-time exception for new development and redevelopment to rely on existing legally-established armoring (including ongoing repair and maintenance and the potential for additional modifications) within the entirety of the LCP's Urban Services and Rural Services Lines (USL and RSL, respectively), an area of some 12 shoreline miles (or roughly 40% of the County's shoreline), that includes essentially all of the most critical and popular recreational areas of that shoreline. This area is also predominantly

backed by private high-priced residential development (that can range in value from some \$5 million to \$10 million or more), almost all of which appears to post-date the Coastal Act, and so the 'trade off' of such a program as it is proposed here is the protection of such high end private residential development at the expense of the public's shoreline beach and ocean resources, and without the type of significant offsetting mitigation that would be required. The expected outcome would also be to allow for the continued presence of shoreline armoring for a longer period of time than in these areas than would be otherwise expected in some of the County's key shoreline resource areas, with little mitigation for the related impacts, including along wide sandy beaches (like Twin Lakes and Seacliff/Rio Del Mar State Beaches), pocket and narrower beaches (like Sunny Cove Beach and 26th Avenue Beach), and rockier shoreline and world renowned surfing areas (like Pleasure Point). This proposal would also allow for such continued armoring in some of the County's more rural shoreline areas, such as Davenport and La Selva Beach, which are also within the LCP's USL/RSL area.

The Coastal Act generally prohibits shoreline armoring except to protect pre-Coastal Act structures or coastal-dependent uses. In urbanized areas, where there is a mix of pre-Coastal and post-Coastal development side by side, or where public infrastructure lies amid or just inland of residential development, there may be benefits to taking a more regional or 'neighborhood' approach to sea level rise adaptation as discussed above, including to seek to provide the benefits of larger and more meaningful adaptation strategies, such as sand nourishment or nature-based adaptation, which tend not to be feasible on a site-by-site scale. However, even if the Commission were to allow armoring to protect development that post-dates the Coastal Act (as is the case with much of the beach and ocean fronting development in the County) or even some new development (which the proposed LCP amendment would allow) in order to take a more neighborhood scale approach to sea level rise adaptation, as proposed, the Commission may need to do so through the Coastal Act's conflict resolution provisions, and the County has not clearly identified nor developed any conflict requiring resolution in that manner. In addition, as proposed, the potential impacts to coastal resources from the County's proposed armoring approach would not be appropriately minimized and mitigated, particularly within the areas inside the USL/RSL that are currently sandy beaches backed by armoring, where that armoring is currently impacting sandy beach access and is only expected to be exacerbated as the sea rises. The proposed amendment does contain some policies that attempt to mitigate such impacts, but, as currently written, such policies do not provide enough certainty that important coastal resources can be protected with this armoring strategy, particularly in light of ongoing sea level rise.

Second, the proposed LCP framework and language is complicated and complex, leading to internal inconsistencies that make it difficult to understand the manner in which it would be applied to proposed development. For example, the LCP includes general policies that apply throughout the County, as well as policies specific to different areas of the County, shoreline type, and development type, with policy language that is slightly but not consistently overlapping in various sections. Additionally, the proposed LCP includes a significant amount of introductory text with goal and objective statements that raise their own Coastal Act consistency questions, some of which isn't

clearly reflected in the implementable policies, which also leads to a lack of clarity regarding how the County will implement the policies. The same can be said of the proposed IP text inasmuch as it mirrors the proposed LUP text, and thus suffers from similar Coastal Act inconsistencies and complicated and internally inconsistent frameworks. Thus, it would be a challenge for even a seasoned coastal planner to understand how the various policies of the proposed amendment would apply to a proposed project, much less the general public attempting to understand the LCP's requirements. It thus provides a poor adaptation roadmap for the County's shoreline and its important coastal resources.

As a result, staff does not recommend suggested modifications to resolve the proposed amendment's inconsistencies. The amount of required changes would be so significant as to be a substantial re-write of the proposed amendment, which could potentially exacerbate, rather than resolve, confusion regarding the LCP's intended approach to coastal hazards, and which is unlikely to be accepted as is by the County's Board of Supervisors. Staff firmly believes that the best approach for the Commission is to continue to work with County staff to collaborate on changes to the proposal, starting first with simplifying the framework, approach, and objectives, and looking to find consensus before County staff takes the matter to their Planning Commission and Board. Unfortunately, due to a variety of factors, including Commission and County staffing changes and staffing and workload limitations due to the COVID-19 pandemic, the proposed amendment is up against the Coastal Act deadline for Commission action of October 21, 2022. Although the two staffs previously agreed that the amendment should be withdrawn to allow for further collaboration, the County Board of Supervisors disagreed with its staff, and voted just last week (on September 20, 2022) not to withdraw it, requiring the Commission to act on the amendment before October 21st, even though both staffs advised that Commission staff was likely to recommend denial of the proposed amendment without identifying suggested modifications. Thus, although steps were taken to avoid such an outcome, staff, regretfully, recommends denial of the proposed LCP in its current form.

Fortunately, the County's proposal does include many forward-thinking elements that can form the foundation of a successful coastal hazards amendment. In particular, the proposal recognizes the challenges posed by sea level rise, and identifies the need for using best available science, applying hazard disclosures for properties in harm's way, providing for managed retreat in rural and less developed portions of the County, and committing to continued shoreline management planning (or 'phasing') to fine tune LCP provisions in light of a changing future context. These types of provisions are consistent with the types of shared principles around LCP coastal hazard planning that have been discussed with the Local Government Sea Level Rise Working Group (including at the recent August workshop), and can be a starting point for a refined LCP amendment in this case. Thus, in light of all of the above and as explained in more detail in the remainder of this report, staff recommends that the Commission deny the proposed LCP amendment, and the motions – there are two required motions and votes – and resolutions to do so are found on page 6 below.

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**EXHIBITS**

Exhibit 1: Location Maps

Exhibit 2: Commission Staff Letter to Board of Supervisors dated September 9, 2020

Exhibit 3: Proposed LUP Amendment (shown in strikethrough and underline)

Exhibit 4: Proposed IP Amendment (shown in strikethrough and underline)

## 1. MOTIONS AND RESOLUTIONS

Staff recommends that the Commission, after public hearing, deny the proposed LCP amendment. The Commission needs to make two motions on the proposed LCP amendment in order to act on this recommendation: one on the LUP portion of the amendment and a second on the IP portion of the amendment.

### **A. Deny the Land Use Plan Amendment**

Staff recommends a **NO** vote on the motion below. Failure of this motion will result in denial of the LUP Amendment as submitted and adoption of the following resolution and findings. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.

***Motion to Deny LUP Amendment:** I move that the Commission certify Land Use Plan Amendment LCP-3-SCO-20-0066-2 as submitted by Santa Cruz County, and I recommend a no vote.*

***Resolution to Deny LUP Amendment:** The Commission hereby denies certification of Land Use Plan Amendment LCP-3-SCO-20-0066-2 as submitted by Santa Cruz County and adopts the findings set forth below on the grounds that the Amendment, as submitted, does not meet the requirements of and is not in conformity with the policies of Chapter 3 of the Coastal Act. Certification of the Amendment would not meet the requirements of the California Environmental Quality Act, as there are feasible alternatives and mitigation measures that would substantially lessen the significant adverse impacts on the environment that will result from certification of the Amendment as submitted.*

### **B. Deny the Implementation Plan Amendment**

Staff recommends a **YES** vote on the motion below. Passage of this motion will result in rejection of the IP Amendment and adoption of the following resolution and findings. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.

***Motion to Deny IP Amendment:** I move that the Commission reject Implementation Plan Amendment LCP-3-SCO-20-0066-2 as submitted by Santa Cruz County, and I recommend a yes vote.*

***Resolution to Deny IP Amendment:** The Commission hereby denies certification of Implementation Plan Amendment LCP-3-SCO-20-0066-2 as submitted by Santa Cruz County and adopts the findings set forth below on the grounds that the Amendment, as submitted, does not conform with, and is not adequate to carry out, the provisions of the certified Land Use Plan. Certification of the Amendment would not meet the requirements of the California Environmental Quality Act, as there are feasible alternatives and mitigation measures that would substantially lessen the significant adverse impacts on the environment that will result from certification of the Amendment as submitted.*

## 2. FINDINGS AND DECLARATIONS

### **A. Santa Cruz County Context**

Santa Cruz County is the second smallest county in land area in California, and it is located about midway between Oregon and Mexico on California's Central Coast between San Mateo (to the north) and Monterey (to the south) Counties (see **Exhibit 1**). The Santa Cruz County shoreline includes the northern half of the Monterey Bay and the rugged north coast extending to San Mateo County along the Pacific Ocean, with the rest of the County's shoreline within Monterey Bay itself. The County's coastal zone resources are varied and oftentimes spectacular, including the Santa Cruz Mountains coastal range and its vast forests and streams; an eclectic collection of shoreline environments ranging from craggy outcrops to vast sandy beaches (in both urban and more rural locations); numerous coastal wetland, lagoon and slough systems; habitats for an amazing variety and number of endangered and sensitive species; water and shore oriented recreational and commercial pursuits, including world class skimboarding, bodysurfing, and surfing areas; internationally renowned marine research facilities and programs; special coastal communities; vast public lands, and the Monterey Bay itself. The unique grandeur of the region and its national significance was formally recognized in 1992 when the area offshore of the County became part of the Monterey Bay National Marine Sanctuary (MBNMS), the largest of the fifteen such federally protected marine sanctuaries in the nation.

Santa Cruz County's rugged mountain and coastal setting, its generally mild climate, and its well-honed cultural identity combine to make the area a desirable place to both live and visit. As a result, the County has seen extensive development and regional growth over past few decades. In fact, Santa Cruz County's population has more than doubled in the time since the State's Coastal Management Program started in the early 1970s, with current state estimates indicating that the County is home to over 270,000 people.<sup>1</sup> This level of growth not only increases the regional need for housing, jobs, roads, urban services, infrastructure, and community services, but also the need for park areas, recreational facilities, and visitor serving amenities. For coastal counties such as Santa Cruz where the vast majority of residents live within a half-hour of the coast, and most significantly closer than that, coastal zone resources are a critical element in helping to meet these needs. In addition, for those not lucky enough to live in Santa Cruz County, the County's shoreline areas are an important and extremely popular visitor destination, where both County residents and visitors alike flock to the shoreline in droves. In fact, with the County's shoreline and beaches providing arguably the warmest and most accessible ocean waters in all of Northern and Central California, and with the large population centers of the San Francisco Bay Area, San Jose, and Silicon Valley nearby, and when coupled with easy access from the Salinas and Central Valley areas, this type of resource need – and pressure – is particularly evident in coastal Santa Cruz County.

Santa Cruz County occupies a space of just over 600 square miles overall, with about 20% of that (nearly 115 square miles) being located in the coastal zone, which varies

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<sup>1</sup> Census data from 1970 shows Santa Cruz County with 123,790 persons, and census data from 2020 shows Santa Cruz County with 270,861 persons.

significantly depending on the area (e.g., where the coastal zone boundary extends inland some 5 miles on the rural north coast, but less than half a mile in the more densely populated Live Oak area). And the County's unincorporated shoreline to which its LCP applies (i.e., not including the incorporated Cities of Santa Cruz, Capitola, and Watsonville, all of which have their own certified LCPs) stretches some 32 miles.<sup>2</sup> The County's shoreline areas are not homogeneous, and are actually quite different from one another, and are thus probably best understood geographically in three main segments: the North Coast, Live Oak, and Aptos/South County areas.

### ***The North Coast***

The North Coast begins at the San Mateo County/Santa Cruz County line in the north near Año Nuevo State Park and extends some 17 miles to the south to the border shared with the City of Santa Cruz near UCSC's Institute of Marine Sciences campus on the edge of the City. This stretch of California's coastline, characterized largely by agricultural fields and vast state, federal, and non-profit public lands,<sup>3</sup> represents grandeur of a bygone (in many places) agrarian wilderness California and is a critical public viewshed. Habitats of the North Coast are beautiful and diverse, mixing beaches, dunes, tall coastal cliffs, coastal prairie lands, lagoons and wetlands, streams, creeks, and riparian habitats, all supporting a host of diverse, sensitive, and special-status plant and animal species. Highway 1, an LCP-designated scenic road, is the critical spine for traveling to/from the North Coast.<sup>4</sup>

The town of Davenport is the only concentrated development area on Highway 1 not only in Santa Cruz County, but also along the mostly undeveloped stretch of Central Coast extending some 50 miles between Santa Cruz and Half Moon Bay. Davenport provides a convenient stopping place and a visitor destination for travelers along this mostly undeveloped coastline, with the bulk of development in Davenport landward of Highway 1 save for the former Odwalla Factory<sup>5</sup> (itself historically an agricultural packing shed) and a small structure just north of town that historically provided for a

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<sup>2</sup> Excluding the incorporated cities' shorelines, and measured along the general shoreline orientation 'as the crow flies' as opposed to an attempt to quantify every inch of shoreline where it jigs and jogs at inlets and headlands. This same methodology is applied in this report in the calculation of shoreline length for the North Coast, Live Oak, and Aptos/South County areas, as well as the USL and RSL, the SPEA, and the remaining rural areas of shoreline in the County.

<sup>3</sup> The North Coast is home to a variety of public lands, including Waddell State Beach, Big Basin State Park, Rancho Del Oso Nature Center, Cotoni-Coast Dairies National Monument, Davenport Landing County Beach Park, Davenport Beach, Scott Creek County Beach Park, San Vicente Redwoods, Wilder Ranch State Park, and Boon Doon Ecological Reserve.

<sup>4</sup> Besides Highway 1, the only way to access the North Coast is via Bonny Doon Road, which connects the Santa Cruz Mountains to the rugged North Coast.

<sup>5</sup> The Odwalla Factory was once a juice manufacturing and distribution center for Odwalla when that company was first formed, but is now largely used as office/workshop space. That could change as the Commission approved a CDP allowing for the building/site to be transformed into a mixed-use facility catering primarily to visitors (overnight accommodations, visitor-serving commercial, etc.), including to take advantage of its prime location seaward of Highway 1 and overlooking the Pacific Ocean and Davenport Beach (see CDP A-3-SCO-98-101).



community hospital (in the early 1900s) and a firehouse (in the 1960-70s) but that has been unused for decades.

Other than in Davenport, and except for a handful of homes located in a cluster adjacent to Highway 1 along Coast Road south of Davenport, the only residential development seaward of Highway 1 on the North Coast is located on Davenport Landing Beach Road (immediately adjacent to Davenport Landing Beach and north of Davenport proper), and this area also includes a longstanding aquaculture facility, currently known as the American Abalone Farm<sup>6</sup> (see page 2 of **Exhibit 1**). Other than residential development is sparsely located on agricultural lands (i.e., considered ancillary to the underlying primary agricultural use of the property).

Access to the North Coast is mostly via car, although some limited bus service exists (only to and from the town of Davenport and the City of Santa Cruz currently). That stands to change soon, though, as a 7.5-mile multi-use bicycle and pedestrian trail and associated public access improvements were recently approved by the Commission within the rail right-of-way<sup>7</sup> (which runs along the seaward side of Highway 1), and that project is slated for construction within the next few years, which should enhance access to this somewhat remote coastal area. In addition, many of the surrounding public lands have developed trails and visitor amenities in recent years and/or are envisioning more, and a number of public access management plans have been approved recently (including for the North Coast Rail Trail Project, Wilder Ranch State Park, Cotoni-Coast Dairies, and San Vicente Redwoods properties). Thus, the north coast area is slated to provide more opportunities for residents and visitors alike to experience and appreciate the resources of the area. At the same time, the LCP does not direct any significant growth into this area, and it is expected that the rural, rugged, and mostly undeveloped nature of the North Coast should remain.

Finally, with the exception of riprap fronting Highway 1 at Waddell State Beach and Scott Creek County Beach,<sup>8,9</sup> the American Abalone Farm intake/outfall pipe, and the armoring approved by the Commission at Davenport Beach to facilitate the North Coast Rail Trail project (but not yet constructed), the roughly 17 miles of North Coast shoreline is unarmored. The entire North Coast area is rural and not located in the LCP's Urban Services (USL) or Rural Services (RSL) Lines, other than the town of Davenport that is located within the RSL. Per the County's proposed amendment, development within the USL and RSL would be entitled to a one-time allowance to redevelop and continue to

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<sup>6</sup> The American Abalone Farm facility has been in operation for decades, and it is subject to the terms and conditions of CDP P-79-356.

<sup>7</sup> Pursuant to Federal Consistency Determination CD-0001-21.

<sup>8</sup> See CDP 3-04-040 (Caltrans Waddell Creek Revetment) and emergency CDP 3-03-007-G (Caltrans Scott Creek Revetment).

<sup>9</sup> Caltrans is currently in the middle of a multi-year planning process to pursue a coastal resiliency project that would entail replacing/reconfiguring the bridge/highway at Scott Creek County Beach, where the expected outcome is to reduce if not eliminate armoring and to restore/enhance Scott Creek habitat functions. Caltrans is currently in the process of completing its final Study Report-Project Development Support document for that project, and is preliminarily targeting 2030 for potential construction. These efforts, too, are likely to be used as model for similar projects at Waddell Creek as well eventually.

rely on existing, legally-established armoring (that could also be maintained or potentially modified) whether or not they (or other development protected by the armoring) were considered 'existing structures' pre-dating the Coastal Act (i.e., pre-dating 1977, and thus allowed armoring pursuant to Coastal Act Section 30235; see also Coastal Act policy analysis framework later in this report for more explanation). Thus, such an explicit armoring exception area on the North Coast would be limited to the Davenport area, where the County's proposed policy otherwise would be to allow this area to retreat naturally, except for cases that would otherwise meet Coastal Act Section 30235 criteria for allowing armoring.

### ***Live Oak***

The core of Santa Cruz County is the Live Oak area, which is the unincorporated segment of the County located between the City of Santa Cruz (upcoast) and the City of Capitola (downcoast) (see **Exhibit 1**). Live Oak begins at Lake/5th Avenues on the downcoast side of the Santa Cruz Harbor, and continues downcoast to the border with the City of Capitola where Opal Cliff Drive, Portola Drive, and Cliff Drive intersect. Live Oak is home to some of the best recreational beaches in the Monterey Bay area. Not only are north Monterey Bay weather patterns more conducive to beach recreation than the rest of the Monterey Bay area, but north bay beaches are generally the first beaches accessed by visitors coming from the north of Santa Cruz. With Highway 17 providing the primary access point from the north (including from the San Francisco Bay Area, San Jose and the Silicon Valley) into the Monterey Bay area, Santa Cruz, Live Oak, and Capitola are the first coastal areas that visitors encounter upon traversing the Santa Cruz Mountains and arriving in Santa Cruz County (see **Exhibit 1**). As such, the Live Oak coastal area is an important coastal access asset for not only Santa Cruz County, but also the entire Central and Northern California region.

In fact, the Live Oak coastal area is well known for excellent public access opportunities for beach area residents, other Live Oak residents, other Santa Cruz County residents, and visitors to the area. Walking, biking, skating, viewing, skimboarding, bodysurfing, surfing, fishing, sunbathing, and more are all among the range of recreational activities possible along the Live Oak shoreline. In addition, Live Oak also provides a number of different coastal environments including sandy beaches, rocky tidal areas, blufftop terraces, and coastal lagoons. Live Oak also includes a number of defined neighborhood and special communities within it, including the larger Pleasure Point area. These varied coastal characteristics make the Live Oak coastal area unique in that a relatively small area (roughly 3 miles of shoreline) provides different recreational users a diverse range of alternatives for enjoying the coast. By not being limited to one large, long beach, or solely an extended stretch of rocky shoreline, the Live Oak shoreline accommodates recreational users in a manner that is typical of a much larger access system.

Primarily residential with some concentrated commercial and industrial areas, Live Oak is a substantially urbanized area with few major undeveloped parcels remaining. Development pressure has been disproportionately intense for this section of Santa Cruz County. Because Live Oak is projected to absorb the majority of the unincorporated growth in Santa Cruz County, development pressure will likely continue

to tax Live Oak's public infrastructure (e.g., streets, parks, beaches, etc.).<sup>10</sup> Given that the beaches are the largest public facility in Live Oak, this pressure will be particularly evident in the beach area. And that pressure is on top of the pressure of being the most popular shoreline destination in unincorporated Santa Cruz County, where coastal visitors are abundant not only during the prime summer season, but year-round. With much of its backing shoreline bluffs occupied by high cost coastal real estate (ranging from \$5 million to \$10 million or more for ocean/beach fronting houses),<sup>11</sup> and where much of the bluffs are armored, Live Oak (and especially its south-west facing shoreline that includes almost all of its sandy beaches, extending from the Harbor to Soquel Point) represents one of the most important shoreline areas for which to identify appropriate adaptation and resilience pathways that can respect these resources and their broader importance.

East Cliff Drive is the major coastal thoroughfare through the Live Oak area and is a major segment of the California Coastal Trail (CCT) and the Monterey Bay Sanctuary Scenic Trail. It primarily serves as the first through-road paralleling the sea for the bulk of Live Oak, providing shoreline and ocean vistas where it is not impeded by residential and other development. Substantial residential development has occurred seaward of East Cliff Drive that mostly blocks any available coastal vistas from the road. This is in contrast to some other nearby urban areas where the first through public road is located immediately adjacent to the ocean, and residential development is confined inland of it (for example, West Cliff Drive in the City of Santa Cruz). Although it is not developed with significant recreational trail amenities (lacking even sidewalks in most locations), East Cliff Drive is an important recreational and other access facility that is used by a significant number of people (i.e., drivers, joggers, bicyclists, walkers, etc.) on an everyday basis.

There are numerous very popular and heavily visited beaches/coastal access points accessed from East Cliff Drive (and/or the numerical avenues that run perpendicular to East Cliff) including Twin Lakes State Beach, Black Point Beach, the Geoffroy Drive Rock Shelf area, Sunny Cove Beach, Santa Maria Beach, 26th Avenue/Moran Lake Beach, Rockview, 38th Avenue Beach, and Pleasure Point County Park/Parkway (which runs along East Cliff Drive from 32nd Avenue to 41st Avenue and is described in more detail in the next section below).<sup>12</sup> East Cliff Drive transitions to Opal Cliff Drive at 41st Avenue, and Opal Cliff Drive extends downcoast to the end of the Live Oak area at the City of Capitola city limits. The Opal Cliffs area is entirely blocked from physical or visual access to the ocean by a string of private homes, other than one public accessway available at Opal Cliffs Park, where free beach access and a beach stairway

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<sup>10</sup> Although Live Oak accounts for less than 1% of Santa Cruz County's total acreage, the identified required amount of park acreage to serve this areas represents nearly 20% of the County's total projected park acreage.

<sup>11</sup> And the County has previously estimated that much of the County's ocean/beach fronting houses are not primary residences, but rather second, third, etc. homes.

<sup>12</sup> Approved by the Commission through CDP A-3-SCO-07-015/3-07-019.

is provided by Santa Cruz County.<sup>13</sup>

Much of the Live Oak backbeach area is occupied by armoring, both revetments (mostly focused north of Soquel Point) and seawalls (including large seawalls at Twin Lakes State Beach and Pleasure Point Parkway areas), as well as a variety of atypical armoring structures (such as concrete barrels, stacked concrete slabs, etc.). Because such armoring fixes the bluff location, covers useable beach area, blocks materials from replenishing beaches, and leads to loss of beach when the beaches aren't allowed to naturally adjust/reform in response to erosion and other factors,<sup>14</sup> all of which is expected to be exacerbated by rising sea levels, it is expected that the usable beach areas here will continue to narrow – and eventually disappear – over time<sup>15</sup> absent some form of intervention. In some areas, like the 26th Avenue/Moran Lake Beach area, many beaches are significantly less than 100 feet wide in summer to completely disappearing during parts of the winter due to the effects of such armoring.<sup>16</sup> And beaches along the Pleasure Point Parkway and Opal Cliffs areas are mostly transient during much of the year except at lower tides, and thus even more vulnerable in that sense.

All of coastal Live Oak is located within the LCP's Urban Services Line where, per the County's proposed amendment, development (including new development and redevelopment) would be entitled to a one-time allowance to continue to rely on existing, legally-permitted armoring that could also be maintained or potentially modified. In addition, the downcoast half of coastal Live Oak would be located within the County's proposed "Shoreline Protection Exception Area" (or SPEA) where shoreline fronting development would be allowed armoring as needed (and not limited to the more general proposed 'one-time exception' as would be applicable in the rest of the USL) regardless as to whether it pre- or post-dates the Coastal Act and would be allowed or prohibited by it. In addition, and based on the Commission's experience in CDP applications, appeals, and other applications of the Coastal Management Program in this area, the overwhelming majority of ocean/beach fronting development in this area

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<sup>13</sup> The Santa Cruz County Parks Department recently took over management of Opal Cliffs Park from the Opal Cliffs Recreation District, the later entity which recently was dissolved and no longer exists. The Recreation District previously required a fee to enter the park and access the beach, all without necessary CDP authorization, which was the subject of longstanding Commission enforcement efforts. Those efforts proved successful, including as the fee and other impediments to general public access have been eliminated, and the Commission is working with the County on further and near term improvements to the park to make it even more inviting in the general public.

<sup>14</sup> The concept of passive erosion, also known as the 'coastal squeeze'; see also hazard findings that follow.

<sup>15</sup> Note that just looking at rising seas alone, and not also adding in the manner in which they are likely to exacerbate erosion, wave and storm intensity, and related coastal hazards, a rise of 2.5 feet of sea levels on a fairly typical beach profile (i.e., 40:1 slope) would drown out 100 feet of beach width by itself. While there are clearly uncertainties in terms of expected sea level rise levels, should sea levels rise at the higher end of estimates, there could be 2.5 feet of sea level rise in the next couple of decades.

<sup>16</sup> The Commission's 1995 Monterey Bay ReCAP project, or Regional Cumulative Assessment Project, estimated that over an acre of beach at 26th Avenue/Moran Lake Beach was covered by rock revetments.

was either originally developed or redeveloped since 1977.

Like the County as a whole, Live Oak's shoreline also includes some variability that is important to understand for LCP planning purposes, and thus it can be further broken down to Midtown, Pleasure Point, and Opal Cliffs areas, each of which are described in more detail below.

### Midtown

The Midtown portion of Live Oak extends from the Santa Cruz Harbor to Soquel Point (aka Pleasure Point), and it provides Live Oak's largest and most popular beaches, all of which are south-west facing (see **Exhibit 1**),<sup>17</sup> including Twin Lakes State Beach that is visited by over one-million people every year. These beaches provide a fairly quintessential sandy beach experience where users can currently still spread out on the sand, and enjoy typical beach and ocean recreational activities. As with many other areas of Santa Cruz, surfing and body surfing in particular are popular here,<sup>18</sup> and 26<sup>th</sup> Avenue/Moran Lake beach is widely regarded as one of the top skimboarding locations in all of California.<sup>19</sup> Several of these beach areas also include substantial lagoon systems in the back beach area (Schwan and Corcoran Lagoons, and Moran Lake), two of which will sometimes open up to the ocean (Corcoran and Moran),<sup>20</sup> and all of which further differentiate these beach areas as also important ecosystems.

All of this area is primarily backed by the range of armoring and private high-cost residential development described earlier, other than areas where East Cliff Drive immediately fronts the beach (at Twin Lakes State Beach and at each of the lagoon/lake outlet locations) or where public streets extend vertically off of East Cliff Drive to the shoreline (at the 'Avenues'; e.g., 12th through 26th Avenues). Midtown presents a decidedly single-family residential character, as bespeaks its predominant form of built environment, but it is also welcoming to visitors, including being the County area most densely populated with short term rentals. Midtown is the only portion of Live Oak that

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<sup>17</sup> That is, Twin Lakes State Beach, Black Point Beach, Sunny Cove Beach, Santa Maria Beach, and 26th Avenue/Moran Lake Beach. Unlike many areas of California's coast that face the ocean due west or thereabouts, Live Oak is located on the Monterey Bay crescent, and ocean-facing in the Midtown area is almost directly south (see **Exhibit 1**). Dues to storm, wave, and sand distribution patterns within the Bay, these south-west facing beaches tend to retain more sand (i.e., Midtown Live Oak and Aptos/South County), whereas the south-east facing beaches of Pleasure Point and Opal Cliffs tend to not.

<sup>18</sup> Including popular surf breaks at the Harbor, Black Point, Santa Maria's, Wind-and-Sea, and 26th Avenue, the latter of which is home to a well-known and extremely popular surfing break that provides a high energy, if somewhat abrupt, rolling beach break known for its Pipeline-esque (but smaller scale, of course) barrels often delivering surfers directly to the sandy shore.

<sup>19</sup> Along with Aliso and Tenth Street Beaches in Laguna Beach, and the Wedge in Newport Beach, 26th Avenue/Moran Lake Beach is known as one of the best skimboarding and bodysurfing locations in California. Professional and amateur contests are often held here, and recreational users pack the nearshore area.

<sup>20</sup> Schwan Lagoon has been mostly disconnected from direct ocean influence for decades due to the presence of East Cliff Drive between it and the beach, and the application of a drop culvert underneath the road that allows the lagoon to drain to the beach but not vis versa. That said, Schwan Lagoon at times gets some salt water when larger storms wash over the road, which is not atypical during a large winter storm at higher tides.

would not be located in the County's proposed Shoreline Protection Exception Area where all development would be able to rely on coastal armoring for safety and stability regardless of its status in relation to the Coastal Act. Rather, Midtown is located within the USL where the County proposes to allow a one-time exception to allow continued reliance on existing, legally-permitted armoring that could also be maintained or potentially modified.

### Pleasure Point

Pleasure Point is the name of the predominantly residential area within Live Oak that is located roughly between Moran Lake/26th Avenue Beach on the upcoast end and 41st Avenue (at the "Hook" where it transitions to the Opal Cliffs area) on the downcoast end (see **Exhibit 1**). Pleasure Point is also the name of the offshore surfing area between Soquel Point (aka "Pleasure Point") and the Hook.<sup>21</sup> This area has an informal, beach community aesthetic and ambiance that clearly distinguishes it from inland commercial areas as well as the downcoast Opal Cliffs neighborhood towards Capitola. Housing stock is eclectic, densely crowded together, and there are no sidewalks through the neighborhoods (only the blufftop promenade that is the Pleasure Point Parkway). Though certainly in the midst of a gentrification that has greatly intensified over the last few decades, the Pleasure Point area retains its informal charm and appeal, much of it rooted in the intrinsic relationship between the built environment, its inhabitants, and the surfing area offshore.

The most popular section area of Pleasure Point is located between 32nd and 41st Avenues, where the LCP designates this section of East Cliff Drive as a Scenic Road. At this location, East Cliff Drive is mostly directly adjacent to the bluff edge, with the Pleasure Point Parkway<sup>22</sup> located immediately seaward of the one-way road. The Parkway represents a prime segment of the California Coastal Trail, and includes a series of benches, stairways, restrooms, landscaping, and overlook areas. It provides mostly unimpeded ocean views,<sup>23</sup> including of the world class Pleasure Point surfing area located directly offshore. Pleasure Point is an extremely popular recreational surfing destination that is well known around the world. It is not uncommon to see hundreds of surfers in the water, even more when prime surfing conditions are present, and to see small groups of people lining East Cliff Drive both enjoying the shoreline view and watching the surfing below.

The Pleasure Point area is mostly fronted by shoreline armoring. The bluff from 26th Avenue around Soquel Point is backed by residential development seaward of East Cliff Drive and South Palisades Avenue that is fronted by a fairly continuous area of riprap. Downcoast of that a similar development pattern is evident with a hodgepodge of vertical seawalls and riprap fronting residential development seaward of Rockview Drive

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<sup>21</sup> There are a number of individually named breaks within the overall Pleasure Point surf area (such as Rockview, Sewer Peak, First Peak, Second Peak, 38th Avenue, etc.), but the overall surf area is known as Pleasure Point.

<sup>22</sup> Again, constructed pursuant to CDPs 3-07-019 and A-3-SCO-07-015, approved in 2007.

<sup>23</sup> There are three intervening residential structures seaward of East Cliff Drive interspersed along this stretch, each blocking through views and access in different ways.

and Pleasure Point Drive. Then, from Pleasure Point Park headed downcoast, the Pleasure Point Parkway itself includes a large relatively new vertical seawall (with built in stairways) that spans about half of the shoreline between 32nd and 41st Avenues, and the three lone private homes on the seaward side of East Cliff in this stretch are also armored. Some of the armoring in this stretch is pre-coastal, some is unpermitted, some is recently permitted,<sup>24</sup> and a number of CDP applications are pending for replacement armoring.<sup>25</sup>

Pleasure Point differs from Midtown in two primary ways. First, the Parkway area is mostly open to the ocean from the public road with limited intervening private residential development. This means that this area presents a different form of 'trade-off' with respect to the tension between armoring and protecting beach/ocean resources. Namely, while the public bears the burden from any armoring as it relates to landforms, beaches, surfing, and other protected coastal resources, the public also gains the benefit from such armoring in the form of protecting the public road, CCT, and public views.<sup>26</sup> This is not the same for areas where private residential development gains the private benefit from armoring, but the public bears the brunt of the impacts from it on the fronting beach, shoreline, and offshore recreational areas.

And second, the area at Soquel Point proper and extending downcoast to Pleasure Point Park lacks significant beach area (other than the intermittent sandy beaches near and accessed via Rockview Drive), and the ocean basically extends to the armoring at most times. Here, tradeoffs are even more different inasmuch as the public, at least predominantly, does not have beach access in this stretch currently, and also lacks a means of through lateral access along the bluffs seaward of the private residences, and thus questions have been raised about the practicality of the Coastal Act's armoring limitations in this area, and whether a Coastal Act-consistent outcome might be to allow some armoring provided it increases public access (e.g., via walkways embedded in the armoring itself).<sup>27</sup> Under the proposed amendment, all of Pleasure Point would be located in the County's proposed Shoreline Protection Exception Area where armoring would be allowed and relied on on an as-needed basis.

### Opal Cliffs

The Live Oak area extending from 41st Avenue to the City of Capitola city limits is generally referred to as Opal Cliffs (see **Exhibit 1**). Opal Cliff Drive runs along its length for about two-thirds of a mile, and it is lined with an almost unbroken string of private residential developments between the road and the blufftop edge, which limits the public's ability to even see the ocean or shoreline, let alone access it. In fact, the only

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<sup>24</sup> See, for example, CDPs 3-16-0446 (Rockview seawall) and 3-14-0488 (Iceplant seawall).

<sup>25</sup> See CDP Applications 3-22-0440 (Casanova seawall), 3-18-0720 (Candau seawall), and 3-20-0166 (Wavefarer seawall).

<sup>26</sup> And indeed, the Commission recognized as much in approving the Pleasure Point Parkway and Seawall project in 2007, conditioning it upon also enhancing the Parkway for public use, where the Commission accepted the trade off of potential loss of beach for the benefit of a protected public CCT and parkway open to the coast and ocean.

<sup>27</sup> And the three aforementioned CDP applications pending before the Commission for this area propose just that.

place where the public can access the shoreline from Opal Cliff Drive is at Opal Cliffs Park roughly along the midpoint of Opal Cliff Drive, where free beach access and a beach stairway is provided, as previously described. The next closest vertical accessways are located about a half-mile up and downcoast from the Park (at 41st Avenue upcoast, the downcoast-most extent of Pleasure Point<sup>28</sup> and Hooper Beach downcoast in Capitola<sup>29</sup>). There are a series of well-used surf breaks all along Opal Cliffs, including the Hook, Sharks, In-Betweens, Privates, and Trees, with the Hook considered a world-renowned surf spot.

Beaches along Opal Cliffs are either mostly inaccessible/submerged except during fairly low tides, sandwiched between the ocean and inland armoring. The beach context in this area (e.g., the limited access points and limited windows of availability to access the beach area seaward of Opal Cliff Drive) emphasizes the importance of the beaches associated with this area, and the importance of weighted consideration to any proposed or existing residential development and shoreline armoring and any LCP planning document that plans for this area, such as the proposed amendment. In any event, and notwithstanding the limited area, the beaches and shoreline below the homes seaward of Opal Cliff Drive are heavily used by the public for tide-pooling, beach walks, fishing, and access to the ocean for surfing, paddle-boarding, etc. Although most of the beaches along Opal Cliffs are accessible only during low tides, the beaches seaward of Opal Cliffs Park (known locally as “Privates Beach” or “Key Beach”) do provide a true sandy beach experience during most tides. There is also a sandy pocket beach sometimes referred to as Trees Beach just downcoast of Opal Cliffs Parks’ beaches, but it is mostly inaccessible to the public due existing shoreline armoring on the upcoast end which has created a promontory/artificial headland of sorts, and an existing bedrock outcrop on the downcoast Capitola end of Opal Cliffs, both of which block the public from accessing this area at most times.

The bluffs along Opal Cliffs are steep and some 60 feet tall, with roughly the lower third consisting of a rocky marine sedimentary base, and the upper two-thirds consisting of softer soil-like terrace deposits. Portions of the Opal Cliffs bluffs are armored; portions are unarmored; and there are other portions where only remnants of former armoring remain. Past Commission cases along this stretch of coast have also shown that the armoring is both permitted and unpermitted. In other words, unlike Midtown and Pleasure Point (outside of Pleasure Point between 32nd and 41st Avenues) where riprap is the predominate form of shoreline armoring, Opal Cliffs includes vertical seawalls, seacave plugs, riprap, concrete cylinders, upper bluff retaining walls,<sup>30</sup> and shotcrete/gunnite, as well as a plethora of atypical applications such as stacked rubber

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<sup>28</sup> Via a stairway at the overlook and surf spot known as “The Hook”.

<sup>29</sup> The Hooper Beach stairway is owned and maintained by the City of Capitola. The stairway has been periodically closed in the last few years due to varying sand elevations that leave a large gap between the bottom of the stairs and the beach, and/or the bottom-most section of the stairs being washed out during winter storms.

<sup>30</sup> See, for example, County CDPs 95-0621, 92-0585, 92-0507, and 92-0508, and Commission CDPs 3-97-034-DM, 3-07-031, and 3-11-034 (seawalls); Commission CDP 3-97-034-DM (seacave plug); Vested Right 3-04-020-VRC (riprap); Commission CDP 3-84-083 (concrete cylinders); and County CDPs 171161 and 171261 (upper bluff retaining walls).



car tires mixed with rebar and plastic fill/adhesive. At the same time, unlike most of Midtown Live Oak, Opal Cliffs includes unarmored and minimally armored segments, and segments where only dilapidated remnant armoring fronts the bluff/beach areas. Because Opal Cliffs would also be located within the County's proposed Shoreline Protection Exception Area (where armoring could be allowed/relied on as-needed even if it were inconsistent with the Coastal Act), all of Opal Cliffs would be eligible for new armoring projects as-needed, and such armoring would also be explicitly allowed to protect new development and redevelopment.

### ***Aptos/South County***

The Aptos/South County area begins at the downcoast end of the City of Capitola at New Brighton State Beach and extends some 12 miles to the Monterey County border at the Pajaro River (see **Exhibit 1**). It is overall more rural compared to the Live Oak area, with more suburban residential development concentrated in the northern half of South County. The southern half of South County beginning at the downcoast end of La Selva Beach and continuing through to the county line is generally much more rural, with much less dense residential development, and State Park lands/beaches and agricultural lands predominating. Favorable climate, combined with some of the most fertile soils in the state, make this an extremely productive agricultural region, with agricultural lands extending inland three miles to the City of Watsonville and beyond. Agriculture is the principal base of the local economy in the southern half of South County, although tourism (and particularly eco-tourism) are making inroads in this area. There are only a few enclaves of non-agricultural development (e.g., Pajaro Dunes and Sunset Beach, which are non-contiguous oceanfront residential developments) in this areas, and these represent the only non-agricultural urban land uses west of the City of Watsonville.

As with the Live Oak area, the Aptos/South County area also faces south-west, and also includes wider beaches as a result due to the nature of storms, waves, tides, and sand distribution within the Bay as affects this orientation. In fact, most days a beachgoer could walk all the way from the City of Capitola city limits to the Monterey County border at the Pajaro River via the beach. In other words, as distinct from the North Coast's varied shoreline and pocket beaches, and as distinct from Live Oak's range of shoreline offerings, the Aptos/South County beach shoreline is pretty homogenous. Granted, inland development along this stretch varies considerably, but the beach resource itself is pretty similar. To help get a better sense of this area, several of the more prominent pockets of different ocean/beach fronting developments in this area are described in more detail below.

### **Potbelly Beach Road/Las Olas Drive/Beach Drive/Via Gaviota Residential Areas**

Potbelly Beach Road, Las Olas Drive, Beach Drive, and Via Gaviota are all roads with private residential developments located directly on the beach and seaward of the coastal bluffs (see **Exhibit 1**). These residential areas originally pre-dated the Coastal Act, and thus were 'inherited' in a coastal planning sense when the Coastal Act was passed, including because it is hard to see a scenario where they could be allowed and approved consistent with the Coastal Act today.

The homes along Potbelly Beach Road, which is a private gated community, are fronted by continuous riprap; most of Las Olas Drive, also a private gated community, is fronted by riprap, with the three most upcoast homes also elevated on deep piers; the row of homes along the inland side of Beach Drive inland of Rio Del Mar State Beach is either fronted by the public road and the sidewalk/promenade adjacent to the beach, or by other private homes on the opposite side of the street (i.e., nearest Aptos Creek and commonly referred to as the “Beach Island”, and at the downcoast end of Beach Drive where it becomes a gated and private road); and the row of homes along Via Gaviota, another private gated community, are fronted by both a large concrete seawall and a riprap revetment.

These low-lying areas present considerable questions when it comes to LCP adaptation planning, including as they are actually located at beach level, and thus potentially subject to even more dangerous conditions than development atop bluffs, and also as they are located at the base of the bluffs with literally nowhere to move inland. They also raise questions about the ability of communities like Santa Cruz County to maintain roads and provide utilities to serve such low-lying development when it is likely to become simply infeasible to do so at some point with rising sea levels. These are also the types of area where even an armoring program is not likely to be able to protect these developments at some point,<sup>31</sup> even if the LCP were to allow for that trade off in relation to the public beach and ocean area resources just seaward of them. It may be possible in the short-term, but these low-lying areas present more than planning challenges over time, they also present engineering feasibility challenges to maintain such a precarious back beach development zone. These areas are located within the LCP’s USL, where the County proposes to allow a one-time project (i.e., redevelopment or new development) to rely on existing legally-established armoring that would be allowed to be maintained and/or bolstered as needed to meet requisite protection needs for the development. The proposed LCP does contain some language suggesting that beach level development such as this would not be allowed to have armoring, and instead would need to rely on elevation strategies. However, as described elsewhere, it is unclear as currently written how these various policies (and introductory goal statements) would be applied to specific projects in these low-lying areas.

#### Seacliff/Rio Del Mar State Beach

Seacliff State Beach begins at the downcoast end of the private row of homes along Las Olas Drive and continues to the downcoast-most end of the Beach Island (see **Exhibit 1**). This State Park is fronted by a fairly wide sandy beach, and it provides a very popular RV campground, as well as a series of other public amenities just inland of the beach, an interpretive center, and the renowned Cement Ship.<sup>32</sup> The bulk of these

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<sup>31</sup> And even today many of these homes have been repeatedly inundated with storm waves and tides, which is expected to only increase and be exacerbated by rising sea levels.

<sup>32</sup> According to the State Parks, three cement ships were built in the early 1900’s for military uses following steel shortages. Ultimately, these ships were not completed until after World War II had ended, so they sat in various shipyards in the Bay Area unused. In 1929, one of these cement ships, the Palo Alto, was purchased by private investors with the idea that they would use it as an amusement ship. The Palo Alto’s maiden and only voyage was to Seacliff State Beach, where it was sunk in place and settled to the ocean floor, where it has resided ever since. By the summer of 1930 a pier to the ship had been

attractions are also located at the base of the coastal bluff like the aforementioned residential development areas. Rio Del Mar State Beach, which is technically a part of Seacliff State Beach, runs from the Aptos Creek mouth through to the end of Beach Drive downcoast, and consists of a similar stretch of sandy beach serviced by a parking lot and restroom just outside of the private gated section of Beach Drive. Rio Del Mar State Beach is also located adjacent to the Beachgate pathway that begins at the intersection of Beachgate Way and Coates Drive and provides public access down the bluff to Seacliff State Beach, and access is also provided to the beach from Hidden Beach County Park between the end of Beach Drive and Via Gaviota. The coastal bluff is between 100 to 120 feet high in the Seacliff area.<sup>33</sup> A retaining wall separates the back beach from the public promenade/roads.

These State Beach areas generally present similar LCP planning issues as other low-lying areas located at the base of the bluff and at beach level here. However, they also present some differences, including the question of who gains the benefit and who bears the burden from coastal armoring, where the private residential areas favor the private residents at the expense of the public, but the public bears both benefit and burden in these public settings. In addition, Seacliff State Beach has a significant area atop the bluff, and the potential for adaptation in that area that these other low-lying developments do not have. This area too is located in the proposed USL one-time armoring exception area.

#### La Selva Beach Area

The unincorporated La Selva Beach area is located in the southern portion of the County just downcoast of the Seascape residential and resort development that marks the southernmost end of the County's USL (see **Exhibit 1**). The town of La Selva Beach proper is developed to semi-urban residential densities. There are pockets of residential land and blufftop residential development with a wider sandy beach below. The Santa Cruz county Reginal Transportation Commission's Santa Cruz Branch Line railroad corridor runs along the blufftop for a small portion of La Selva Beach. Although the beaches fronting La Selva Beach include Hidden Beach, Sumner Beach, Beer Can Beach, Seascape, La Selva Beach, and Manresa State Beach, there are no clear markers distinguishing these beaches as it is just one continuous sandy beach area. These beaches are very popular for residents and visitors alike, and are the widest continuously sandy beach areas (allowing for long uninterrupted beach strolls) in all of Santa Cruz County. This section of the coast is entirely unarmored, including at Seascape Resort, with the exception of a single seawall located immediately downcoast of the main Manresa State Beach parking lot. Seascape Resort is in the LCP's USL, and much of the more developed portion of this area is located within the Rural Services Line, and all of these USL/RSL areas would be within the area allowed to continue to rely on existing armoring for a one-time development project (regardless of whether or

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built, and a deck, swimming pool, and dance floor were constructed. After two seasons the owners went bankrupt, and the boat was stripped. It was then used for recreational fishing until it became unsafe. Although it has deteriorated over time and completely broke in half in winter of this year, it has remained a renowned local attraction.

<sup>33</sup> Griggs, G.B. & Fulton-Bennett, K.W. "Failure of Coastal Protection at Seacliff State Beach, Santa Cruz County, California, USA." Environmental Management Volume 11, No. 2, pp. 175 – 182. (1987).

not the site has already been redeveloped).

### Place de Mer, Sand Dollar, and Pajaro Dunes

Downcoast of La Selva Beach, coastal agriculture still predominates in the County's coastal zone, with some large-lot residential development nearest the coast, including a few semi-isolated subdivision communities (e.g., Place de Mer, Sand Dollar, Pajaro Dunes, etc.) (see **Exhibit 1**). This area is decidedly less urban than the Live Oak and Aptos-Seacliff-Rio Del Mar areas. The Pajaro Dunes residential community is the largest of the residential subdivisions in this area, located along approximately 1.75 miles in the dune area behind and adjacent to Sunset State Beach. The southernmost portion of the Pajaro Dunes residential community is located adjacent to the Pajaro River mouth and is sandwiched between the Watsonville Slough and the Pacific Ocean; however, the precise location of the river mouth changes seasonally, and thus sometimes it is closer to the Pajaro Dunes residential community, and other times it is closer to Zmudowski State Beach. Agricultural lands surround the river on both the northern and southern sides of the lagoon. The only roads leading to Pajaro Dunes North and South (West Beach Road and Shell Road) and the surrounding agricultural lands typically flood one or more times per winter, cutting off vehicular access including emergency services to the Pajaro Dunes community.<sup>34</sup> Although there are a few vacant parcels remaining, the Pajaro Dunes subdivisions/residential developments were constructed in the late 1960s and early 1970s just before adoption of the Coastal Act. The major shoreline armoring fronting this section of South County is the roughly one-mile long riprap revetment fronting Pajaro Dunes South,<sup>35</sup> and the sheet pile retaining wall connected to that and running inland from the shoreline at the downcoast portion of the development to Watsonville Slough.<sup>36</sup> The Place de Mer and Sand Dollar residential developments, the latter of which is a private gated community, both appear to include various forms of coastal armoring, but the vast Sunset State Beach shoreline area appears to be all unarmored with more natural bluff/dune areas and wide sandy beaches. These developed pockets in this South County stretch of coast are all located within the USL/RSL and thus would be subject to the County's proposed one-time allowance to rely on existing armoring, though again, it is unclear how that policy would interplay with other LCP language related to requiring elevation rather than armoring for beach-level development.

Overall, this portion of South County has a lot of potential for an adaptation approach that favors natural processes and not armoring. And, in fact, at least for the areas that are not located in the LCP's USL/RSL, the County here proposes to implement managed retreat, except where the Coastal Act would allow armoring.

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<sup>34</sup> The County has implemented limited periodic breaching typically when flood levels reach +4.5 feet (see CDPs 3-97-047, 3-03-015, 3-14-0128, 3-19-0344), and is in the early planning stages for a coastal resiliency centered project that envisions converting some of lands around the lower reaches of the Pajaro River back into floodplain in an effort to minimize periodic breaching activities, flooding of roads and infrastructure, and the inherent adverse coastal resource impacts associated with mechanical breaching activities.

<sup>35</sup> See County CDP 83-1194-CZ.

<sup>36</sup> See CDP 3-01-111.

### ***Urban Services Line/Rural Services Line and SPEA***

As discussed above, the LCP differentiates between more rural areas and more urban areas by virtue of an Urban Services Line (USL) and a Rural Services Line (RSL).<sup>37</sup> And while the latter includes “rural” in its name, it is essentially akin to the former in terms of what it provides/requires. Within the coastal zone, the USL boundary extends from the Santa Cruz Harbor through to the community of Seascape, and includes Live Oak, Aptos/Seacliff/Rio del Mar, including the Beach Drive, Pot Belly Beach and Las Olas areas. The RSL includes La Selva Beach, Place de Mer, Sand Dollar Beach, Canon del Sol, Sunset Beach, Via Gaviota, and Pajaro Dunes (both Pajaro Dunes North and Pajaro Dunes South) (see **Exhibit 1**). Together, the USL and RSL areas encompass about 12 of the County’s 32 shoreline miles.

As alluded to above, and as more fully described in the “Proposed LCP Amendment” discussion below, the County’s proposed amendments rely on the LCP’s USL/RSL to define when existing, legally established shoreline armoring (that would be allowed to be repaired, maintained, and/or modified/augmented as need to meet requisite protection needs) is allowed to protect development as a one-time exception to the prohibitions that the Coastal Act would otherwise require. Thus, it is important to note what areas are in versus out of the USL/RSL as it fundamentally changes how the County proposes to handle coastal armoring questions through CDPs. And to be clear, almost every single location where there might be a question about whether armoring should be allowed to protect inland development, much of which is post-Coastal Act development, would fall within the USL/RSL. In fact, the only coastal areas within the County’s coastal zone with development where this may be a question and that do not fall within the USL/RSL appear to be along Davenport Landing Road on the North Coast, a handful of properties along/off of San Andreas Road, and Lilly Way in South County. As a result, the one-time USL/RSL redevelopment exception equates to an allowance for nearly all new shoreline development in the County to rely on and receive protection from existing, legally-established shoreline armoring (that could be repaired, maintained, modified, or improved as desired/needed), even though the Coastal Act in most cases limits allowable shoreline protection to structures in existence when the Coastal Act took effect (i.e., January 1, 1977), thus continuing the negative impacts these structures have on coastal resources for the lifetime of a new generation (easily 75 to 100 years) of structures. For the remaining more rural, agricultural, and State Park portions of the County where armoring is essentially non-existent and not likely to be needed anytime soon, most of which is located within the County’s rural North Coast area, the County proposes that bluffs be allowed to naturally erode and not be armored, unless the Coastal Act requires it. See the USL and RSL mapped in **Exhibit 1**.

In addition to the importance of the USL/RSL to the County’s proposal, as alluded to above, and as more fully described in the “Proposed LCP Amendment” discussion below, the County also proposes the Shoreline Protection Exception Area, or SPEA. This proposed SPEA area is entirely located within the USL in the portion of the Live Oak area extending from Soquel Point to the City of Capitola city limits, or roughly the

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<sup>37</sup> The USL and RSL concepts emanate from the County’s Measure J, a growth management referendum that was passed by County voters in 1978, and meant to help direct allowable development to developed areas able to accommodate it, and away from more rural portions of the County’s coast.

downcoast half of Live Oak including both the Pleasure Point and Opal Cliffs areas. In this roughly 1.5-mile stretch of coast, the County proposes that shoreline fronting development would be allowed armoring as needed (and not limited to the more general proposed 'one-time exception' as would be applicable in the USL/RSL) regardless as to whether it pre- or post-dates the Coastal Act, and even though much of the ocean/beach fronting development in this area does not qualify as "existing" structures entitled to shoreline protection under the Coastal Act. Thus, like the USL/RSL areas, it is important to note what areas are in versus out of the SPEA too, as it even more fundamentally changes how the County proposes to handle coastal armoring questions through CDPs in that area. See the SPEA mapped in **Exhibit 1**.

## **B. Existing LCP Shoreline/Beach Protection and Coastal Hazard Provisions**

The County's LCP serves as the basic planning tool to guide development in the coastal zone under the Coastal Act, in partnership with the Coastal Commission, and it establishes the ground rules for development and protection of coastal resources in the County's coastal areas. The LCP was originally fully certified in 1983, and most recently updated in 1994. In addition, the LCP has been amended through nearly one-hundred LCP amendments over the years, affecting everything from short-term rentals to ADUs to farmworker housing. The LCP is made up of the LCP's Land Use Plan (or LUP), which provides the overarching distillation of the Chapter 3 policies of the Coastal Act as tailored to the County's unique coastal zone areas, and the LCP's Implementation Plan (or IP), which includes measures to implement the LUP, including zoning ordinances and other sections of the County's code.

With respect to beach, shoreline and related resource protection, and the way in which such resource protection interacts with coastal hazards issues, the LUP includes a series of provisions protecting beach and shoreline resources, including primarily in Chapter 5 (Conservation and Open Space) and Chapter 7 (Parks, Recreation, and Public Facilities). These provisions reflect the same Coastal Act directives and objectives around preserving and protecting the natural shoreline, including natural landforms and beaches, for their public recreation, aesthetic, and related values.

For example, the LCP explicitly designates coastal bluffs and beaches as open space areas "which are not suited to development due to the presence of natural resource values or physical development hazards" (LUP Objective 5.11 and LUP Policy 5.11.1), and only allows development in these areas if it "is consistent with the maintenance of the area as open space" (LUP Policy 5.11.3). In addition, County beaches are explicitly called out and protected as public parks in LUP Chapter 7, and beach/shoreline recreational access is required to be maximized (LUP Objective 7.7.a). Likewise, the LCP prohibits "intrusion by nonrecreational structures and incompatible uses to the extent legally possible" on beaches (LUP Policy 7.7.4), and requires that public access to beaches be protected (LUP Policy 7.7.10).

Similarly, LUP Objectives 5.10.a and 5.10.b require that public views be not only protected but restored, and development is only allowed if it will have "minimal to no adverse impact upon identified visual resources", which per the LCP includes all immediate shoreline and beach areas. And these LUP policies include provisions that require natural landform disruptions to be limited (LUP Policy 5.10.3), that require ocean

vistas to be “retained to the maximum extent possible” (LUP Policy 5.10.6), and prohibit the placement of new structures on open beaches unless they are for public access or for allowed armoring, and only then if they “use natural materials and finishes to blend with the character of the area and integrate with the landform” (LUP Policy 5.10.7). In addition, all of Highway 1 in the County, and the portion of East Cliff Drive at Pleasure Point Parkway are LCP-designated scenic roads where additional view protections apply (e.g., requiring development to be sited out of public view when possible, and requiring it to improve public views through good siting and design (LUP Policies 5.10.11 and 5.10.12). All of these policies are implemented in similar ways through the IP, including in IP Chapter 13.20 (Coastal Zone Regulations) as well as IP Chapters 13.10 (Zoning Regulations), 13.11 (Site, Architectural And Landscape Design Review) and IP Title 16 (Environmental and Resource Protection). In addition, and pursuant to Coastal Act Section 30604(c), all development subject to the LCP that is located seaward of the first public road and the sea, which is essentially all of the areas in the County’s coastal zone where shoreline, beach and related resources are located, must be consistent with the Coastal Act’s public access and recreation policies that likewise protect these resources against disruption, and require that public recreational access opportunities be maximized (see also LCP Amendment consistency evaluation section for more detail on these Coastal Act provisions), and thus these LCP coastal resource protections are amplified in this way by requiring conformance with the Coastal Act as well on these points.

Thus, and the same as the Coastal Act, the LCP’s primary objectives as it relates to the shoreline and beach areas is to protect these natural resources as resource of great public importance, and to avoid development either on such areas or adversely affecting them as much as is legally possible. In other words, the Coastal Act and LCP prioritize preserving and protecting the natural shoreline, including natural landforms and beaches, for their public recreation, aesthetic, and related values. In that core framework, the LCP also addresses the need for development to be sited and designed to minimize coastal hazard risks, and to avoid the use of armoring due to its known adverse impacts to such important public resources. In that sense, and like the Coastal Act, armoring allowances in the LCP are best understood as variances and exceptions to the ‘normal’ resource protection requirements, creating non-conformities in terms of such resource protection when they are allowed, and such armoring is only allowed in specific and limited exception circumstances mirroring the Coastal Act.

Specifically, the current LUP addresses such coastal hazard considerations in Chapter 6 (Public Safety), and within that chapter in Section 6.2 (Slope Stability). There, the LUP requires hazards evaluation (LUP Policies 6.2.1, 6.2.2, and 6.2.11); requires development to be sited and designed to avoid or minimize hazards (LUP Policy 6.2.10); requires that blufftop setbacks be sufficient to provide a safe building location over at least 100 years (or at least a minimum setback of 25 feet) without a reliance on armoring (LUP Policies 6.2.12 and 6.2.15); strictly limits armoring to the least environmentally damaging feasible solution to protect existing structures from a “significant threat”, and prohibits such armoring if it would “reduce or restrict public beach access, adversely affect shoreline processes and sand supply, increase erosion on adjacent properties, or cause harmful impacts on wildlife and fish habitats or

archaeological or paleontological resources” (LUP Policy 6.2.16);<sup>38</sup> prohibits new building sites that cannot meet 100-year stability requirements (LUP Policy 6.2.17); and requires that development in coastal hazard areas be accompanied by hazard disclosures via recordation on deeds (LUP Policies 6.2.9 and 6.2.15).

The IP essentially tracks all of these provisions, primarily in IP Chapter 16.10 (Geologic Hazards) and its subsection 16.10.070(h) (Coastal Bluffs and Beaches), and adds some specificity around the concept of when a structure goes beyond a repair and maintenance project to instead become a replacement structure that must be evaluated as ‘new’ against all applicable LCP provisions (akin to the same provisions as emanate from Coastal Act Section 30610 and CCR Section 13252), and articulates a 50% threshold for such a determination.<sup>39</sup>

With respect to armoring, the County has at times suggested that the LCP allows armoring to be countenanced for setback and stability purposes when a new structure (whether a brand new structure, a replacement structure where one is demolished and replaced, or a replacement structure that tips the threshold to be redevelopment)<sup>40</sup> is developed, pointing to the language in LUP Policy 6.2.12 that states “The determination of the minimum 100 year setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed shoreline or coastal bluff protection measures” and the language in IP Section 16.10.070(h)(1)(c) that states “The determination of the minimum setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed protection measures, such as shoreline protection structures, retaining walls, or deep piers.” In both cases, the County has at times attempted to draw a distinction from the words “existing site conditions” and “proposed” armoring to suggest that such new structures are allowed to use any armoring as may exist at the site for its demonstration of stability and appropriate setbacks, just not any new proposed armoring. Similarly, the County has at

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<sup>38</sup> And thus LUP Policy 6.2.16 by itself essentially prohibits all armoring in the County because it doesn’t allow armoring that would reduce or restrict public beach access, or that would adversely affect shoreline processes and sand supply, and it is the Commission’s experience that armoring does in fact lead to all such impacts. As a result, LUP Policy 6.2.16 prohibits armoring in the County. Of course, this is tempered by the same Coastal Act exceptions that are covered in other LUP provisions, but it is indicative of the degree to which the LUP promotes protection of the shoreline’s natural landforms and beach recreational and related resources.

<sup>39</sup> It is noted that the County has at times suggested that its non-conforming regulations provide a 65% threshold and not a 50% threshold via IP Section 16.10.040 (Definition of “Development/Development Activities”). However, the Commission was clear in adopting changes to Section 16.10.040 in 2012 (via LCP Amendment SCO-1-12 Part 1) that the 65% threshold could apply to typical zoning non-conformities at more inland sites, but that the 65% would not apply to questions of redevelopment for coastal hazard purposes. The Commission found: “That said, it is noted that the new nonconforming regulations are focused on zoning district development standards (for setbacks from property lines, floor area ratio, number of stories, etc.) and do not address the question of development that is nonconforming in terms of blufftop and shoreline setbacks, and provides only limited guidance for other resource related standards (e.g., nonconformities related to development near rivers, streams, wetlands, riparian corridors, etc.)” As a result, the 50% threshold is still applicable to questions of redevelopment as it relates to coastal hazard questions under the LCP.

<sup>40</sup> Where such structural replacement projects are almost exclusively for high-end private ocean/beach-fronting homes given the pattern of County development along the immediate shoreline.



times pointed to the text in LUP Policy 6.2.15 to suggests that armoring, even new armoring, can be used under the LCP to protect such new structures if “both adjacent parcels are already similarly protected”. These assertions are incorrect for a number of reasons.

For one thing, LUP Policy 6.2.15 does not actually use the term “proposed armoring” in terms of establishing safe building sites. Rather, it requires that “Mitigation of the potential hazard is not dependent on shoreline or coastal bluff protection structures.” In other words, that LUP language is clear that new development may not rely on shoreline or bluff protective measures to mitigate potential hazards. Even if the LCP was unclear, which it is not, the LCP provides a pathway for resolving such questions, stating in LUP Chapter 1 as follows:<sup>41</sup>

*In any case in which the interpretation or application of an LCP policy is unclear, as that policy may relate to a particular development application or project, the application or interpretation of the policy which most clearly conforms to the relevant Coastal Act policy shall be utilized.*

In other words, the Coastal Act is the arbiter for understanding the LCP on these points. And in fact, courts have also previously found that LCP provisions must be understood in relation to the relevant Coastal Act section or sections from which a specific LCP provision derives its authority.<sup>42</sup> And, as indicated throughout this report, shoreline armoring can and does lead to a number of distinct and well-known adverse impacts to coastal resources, perhaps most significantly in terms of its impacts on beaches, beach formation, and beach use. Thus, the Coastal Act strictly limits when such armoring can be allowed in the first place, and, if it is allowed, requires that adverse coastal resource impacts be limited as much as possible and that any unavoidable impacts be appropriately offset and mitigated. Such Coastal Act armoring allowance is best understood as a Coastal Act exception, variance, or non-conformity that is generally (though not exclusively) allowed for certain qualifying “existing structures” under Coastal Act Section 30235.<sup>43</sup> And, as alluded to earlier and as explained in more detail in the LCP Amendment Consistency section that follows, Section 30235’s existing structure criterion does not mean existing as in extant structures today, rather under the Coastal Act that reference refers to structures that existed prior to the effective date of the Coastal Act, (i.e., January 1, 1977) and that have not been redeveloped since. In addition, Coastal Act Section 30253 is clear that armoring is not allowed to protect new

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<sup>41</sup> See LUP Chapter 1, Interpretation, page 1-20.

<sup>42</sup> See, for example, *McAllister v. Coastal Commission* (2008) 169 Cal.App.4th 912.

<sup>43</sup> Section 30235 states, in applicable part: “Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or **to protect existing structures** or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply” (emphasis added).

development when it would cause erosion or destruction of the site, or substantially alter natural landforms,<sup>44</sup> which is almost always the case.

In other words, Section 30235's directive to allow shoreline armoring for structures in certain circumstances applies to development that lawfully existed as of January 1, 1977 and that has not subsequently been redeveloped (i.e., where changes to it since 1977 have been sufficient enough that it is considered a replacement structure required to conform to applicable Coastal Act and LCP provisions). This interpretation is the most reasonable way to construe and harmonize Coastal Act Sections 30235 and 30253 (the latter of which, in conjunction with other Coastal Act policies that protect public beaches, public access, and visual resources in ways that also don't allow armoring, does not allow for such armoring to protect new development). In short, the Coastal Act reflects a broad legislative intent to allow armoring only under certain very limited circumstances, and only for structures that existed when the Coastal Act was adopted and when such structures are in danger from erosion (Section 30235), but to prohibit such armoring for new development constructed after adoption of the Act. This interpretation to allow protection only for certain structures that predate the Coastal Act, is also supported by the Commission's duty to protect public trust resources, and the Coastal Act requirement that the Act "shall be liberally construed to accomplish its purposes and objectives" (Section 30009), where, as described, the Act on this point protects these natural shoreline and beach resources and only allows for armoring as an exception under extremely narrow criteria.

In addition, the purpose and structure of the Coastal Act support such an interpretation as well, as reflected in numerous policies of the Act. For example, not only does Section 30009 require a liberal interpretation to protect shoreline and beach resources, but Section 30007.5 also directs the Commission to resolve conflicts in a manner that is "most protective of significant coastal resources." Courts have relied on Section 30009 to find that exceptions to the Act's requirements must be read narrowly,<sup>45</sup> and have also found that the Act is designed to ensure "that state policies prevail over the concerns of a local government" making "the Commission, not the [local government], the final word on the interpretation of the LCP."<sup>46,47</sup>

As such, the existing LCP conforms to Coastal Act requirements and evinces a strong coastal resource protection objective within which armoring in response to coastal

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<sup>44</sup> Section 30353 states, in applicable part, that "New development shall...Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area **or in any way require the construction of protective devices** that would substantially alter natural landforms along bluffs and cliffs" (emphasis added).

<sup>45</sup> See, for example, *Citizens for a Better Eureka v. California Coastal Com.* (2011) 196 Cal.App.4th 1577, 1586-87 ("[i]n light of the legislative directive to construe the Act liberally...it is appropriate to construe the exceptions narrowly", quoting *Capon v. Monopoly Game LLC* (2011) 193 Cal.App.4th 344, 355).

<sup>46</sup> See, for example, *Charles A. Pratt Const. v. California Coastal Commission* ((2008) 162 Cal.App.4th 1068, 1076, 1078).

<sup>47</sup> California law affords "great weight" to the Commission's interpretation of the statutes and regulations under which it operates (see, for example, *Ross v. California Coastal Commission* (2011) 199 Cal.App.4th 900, 922-23; and *Reddell v. California Coastal Commission* (2009) 180 Cal.App.4th 956, 965).

hazards may be allowed under certain very limited circumstances. One of the issues, however, is that although the Commission's experience in implementing the Coastal Management Program is that most immediate shoreline development in the County appears to post-date the Coastal Act, much of the more urban areas of the County are armored, including armoring fronting such structures. There are a variety of reasons for this, including historical development patterns and 'legacy' armoring, but also the manner in which the County is currently implementing its LCP, all of which points to the need for LCP coastal hazards update to better achieve Coastal Act goals, including in relation to what is going to be required adaptation in light of rising sea levels. In addition, as a subset of this problem, the low-lying development areas previously described that are actually located along the back beach and seaward of coastal bluffs are not well accounted for in the existing LCP, where an LCP focus on coastal flooding in these areas can miss some of the larger issues associated with protection of these natural shoreline areas for their recreational, biological, and aesthetic values. In sum, while the existing LCP, appropriately interpreted, provides a strong resource protection mandate, including limiting armoring, the existing built environment shows that it hasn't been necessarily able to achieve such objectives. With seas rising, the issues are only going to be exacerbated, and thus it is certainly a good time for coastal hazards LCP update in Santa Cruz County.

### **C. Proposed LCP Amendment**

#### ***History and Background for this Amendment***

As indicated above, the County's LCP was originally approved by the Commission in 1983, and last comprehensively updated in 1994. Although there have been a large number of LCP amendments since (approximately one-hundred amendments), the last major changes to the LCP's coastal hazard provisions were from over two decades ago in 1999 (LCP Amendment 2-98), and the County has been pursuing updates to these provisions on and off for a number of years going back to the 2010s. County and Commission staffs early on enjoyed a fairly robust collaboration in that effort, taking part in literally dozens of discussions and meetings, including all-day brainstorming sessions. These discussions were fruitful, and it was clear that both staffs had and have a firm understanding of the issues as they affect the Santa Cruz County coast, including in terms of the challenges that coastal hazards, including rising sea levels, present to the County's shoreline and beach resources, as well as to coastal development, adaptation, and resilience.

In particular, the two staffs had focused discussions about how best to implement the Coastal Act through the LCP in terms of coastal armoring, including in a physical context where much of the more urbanized portions of coastline are armored, much of it many decades old, and fronting what is predominantly private residences that have either been fully constructed and/or fully redeveloped in the time since the effective date of the Coastal Act in 1977. As discussed above, the policy challenge in that context is that the Coastal Act requires natural landforms and beaches and related shoreline resources to be protected as a matter of great public importance without reliance on armoring to protect most new development, including because armoring has demonstrable and significant negative impacts on such coastal resources. In fact, for those reasons, the Coastal Act generally only allows for armoring in very limited

circumstances for ‘grandfathered’ pre-Coastal Act structures,<sup>48</sup> and generally not for the post-Coastal Act structures that predominate along the Santa Cruz County shoreline.<sup>49</sup>

In discussing those somewhat paradoxical issues, the two staffs discussed whether the LCP could identify areas where some new development could be constructed in reliance on armoring (such as in areas where armoring removal would not be expected to result in significant landform restoration or beach formation) provided impacts were offset and other forms of access in these areas improved (e.g., incorporating public accessways into such armoring structures). Commission staff made clear that this raises issues of Coastal Act consistency, and would potentially need to be evaluated under the Coastal Act pursuant to its conflict resolution provisions,<sup>50</sup> were a conflict to be identified. The two staffs also focused on a 2040 planning horizon, where the expectation was that the LCP would be further updated at that point. Although many, many versions of potential policies and provisions were shared back and forth, and despite agreement on certain key principles (e.g., hazard disclosure, use of best available science, 2040 planning horizon, etc.), the two staffs were unable to agree on a draft set of applicable LCP provisions, where the primary sticking points essentially emanated from disagreements about where armoring exceptions might be allowed/pursued, and disagreement about where natural shoreline and beach protection would take precedence over armoring.

Ultimately, once the County started in on local Planning Commission hearings regarding the proposed LCP coastal hazard provisions in October of 2018, and although the two staffs continued to discuss issues and collaborate, County staff was understandably pre-occupied with that local process, including as many interested parties locally had their own ideas about how the County’s LCP should handle these issues, where many such inputs were (and still are) diametrically opposed. During this time, County staff did all it could to respond to these inputs, including Planning Commission inputs, and the proposal morphed and changed, where many of the changes bore little resemblance to past County-Commission staff discussions and identified consensus areas, and where most of the changes were additive, leading to a fairly dense and somewhat convoluted product.

The Planning Commission-approved version of the LCP amendment was then sent to the County Board of Supervisors in late 2019. Commission staff again suggested to County staff, and ultimately to the Board itself, that the proposed LCP provisions were in need of refinement to pass Coastal Act muster, and that Commission staff was available for a renewed collaboration to help the County develop a revised amendment package before the Board considered it. Commission staff even provided the Board at that time a complete version of the LUP portion of the amendment that could be used as a starting

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<sup>48</sup> Where such allowance is probably best conceptualized as an exception to Coastal Act objectives and provisions akin to a variance in land use terms, where armoring that is legally allowed represents what might best be described as ‘legal non-conforming’ development under the Coastal Act and LCPs.

<sup>49</sup> See findings that follow for a more robust recitation of Coastal Act requirements in this regard.

<sup>50</sup> Pursuant to Coastal Act Section 30007.5, wherein conflicts between Coastal Act policies are to be “resolved in a manner which on balance is the most protective of significant coastal resources.”

point for discussion in such efforts.<sup>51</sup> Commission staff believed, and still believes, that the Commission's time is better spent working with County staff in this way to find as much consensus as possible first, then it is for the Commission to resolve significant hazards policy issues through suggested modifications to a document that has not first had that requisite collaboration to narrow issues. Ultimately, however, the Board chose to adopt the proposed LCP amendment and sent it to the Commission.<sup>52</sup> After that submittal, Commission staff continued to suggest to County staff that there be a renewed collaboration to try to arrive at something that represented as much consensus as possible, but Commission and County staff were not able to make any significant progress.

Subsequently, in 2021 and 2022 the County organizationally restructured several County departments, including its Planning Department, and appointed new senior leadership to lead a new Community Development and Infrastructure Department. Staff reached out to County staff again in mid-2022 with the same entreaties regarding the LCP amendment as before. Given the Commission's deadline for action was coming up in October 2022, Commission staff again suggested that the amendment be withdrawn to open up some time/space for the two staffs, and County staff agreed. However, Commission staff was informed on August 12, 2022 that County staff had decided that withdrawal of the amendment required Board of Supervisor action/approval. On September 23rd, the Board unanimously decided to not withdraw the amendment proposal, even when informed by County staff that Commission staff would only be in a position to recommend denial of the amendment (with no suggested modifications) given the incredibly condensed amount of time available.

Ultimately, as well, this proposed amendment raises issues that are also being discussed statewide, including via the Commission's Local Government Sea Level Rise Working Group that has made progress agreeing on certain principles in the review of LCP amendments such as this. In fact, this amendment raises important issues regarding both 'phased' LCP updates and 'neighborhood-scale'<sup>53</sup> adaptation that are central to the Working Group's efforts over the past several years, and that in this

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<sup>51</sup> See Commission staff's letter to the Board dated September 9, 2020 in **Exhibit 2**.

<sup>52</sup> Note that the proposed LCP amendment was actually in multiple parts, with the coastal hazards update component being just one of six different amendments proposed as part of the larger package. The Commission previously approved and certified the other five components of that overall LCP amendment submittal between late 2020 and earlier this year; see LCP Amendments LCP-3-SCO-20-0062-2 (Cannabis), LCP-3-SCO-20-0063-2 (Temporary Uses), LCP-3-SCO-20-0064-2 (Vacation Rentals), LCP-3-SCO-20-0065-2 (Permanent Room Housing), and LCP-3-SCO-20-0067-2 (Safety Element).

<sup>53</sup> As alluded to above, the concept of 'neighborhood-scale' adaptation (is premised on the idea that there may be sections of shoreline for which strict application of the Coastal Act might not allow armoring, but where the context might suggest that armoring is the more practical approach that minimizes and better mitigates for impacts to coastal resources (e.g., a mostly armored shoreline that is unlikely to lead to significant and naturally occurring beach space if there was no armoring, etc.), at least in the short term, and when it is accompanied by appropriate mitigation for impacts and triggers and to allow future shoreline planning to identify longer term outcomes that are consistent with the Coastal Act. As indicated earlier, such concepts may invoke the conflict resolution provisions of the Coastal Act (i.e., Section 30007.5), where conflicts between Coastal Act policies are to be "resolved in a manner which on balance is the most protective of significant coastal resources".

proposal these concepts are (a) underdeveloped and not well-supported; and (b) likely better for the Commission to consider more generally, such as in a Commission workshop, before the concepts are applied in a single jurisdiction so that the benefits and risks can be more fully considered and evaluated by the Commission.<sup>54</sup> As such, this proposed amendment is not a good vehicle for moving such LCP planning efforts forward on these key points. In any event, the County's proposal is now before the Commission for required action, and that proposal is described in the section that follows.

***Description of Proposed LCP Amendment***

The proposed LCP amendment does not propose any changes to the aforementioned foundational LCP provisions that require that natural shoreline and beach resources be protected for their recreational, biological, and aesthetic values, and all of these provisions would remain the same. The amendment instead focuses on updating LCP provisions dealing with minimizing risk and addressing coastal hazards, including in light of rising sea levels. In doing so, the proposed amendment would essentially replace all existing provisions addressing coastal hazards, and would significantly expand the scope and breadth, and significantly change the meaning, of the existing certified LCP's coastal hazards framework.<sup>55</sup> The proposed amendment includes some 38 LUP policies addressing the spectrum of coastal hazards impacting the various shoreline typologies that comprise the Santa Cruz County coast. Among the primary differences between the existing and proposed LCPs is this policy differentiation based on shoreline type. For example, while the overall hazard-related objective in both the existing and proposed LCPs is similar in terms of reducing, minimizing, and internalizing risk to life and property and to minimize impacts to coastal resources (Objective 6.4), the proposed LCP implements this overarching goal with requirements to: "Recognize the diverse nature of the coastline and coastal development in the County and implement a policy hierarchy with general policies that apply to all projects, policies that apply to shoreline type, policies that apply to project type, and policies that address ongoing adaptation to sea level rise along the County's coastline and in specific shoreline areas" (Policy 6.4.1). As such, the proposed amendment's framework is to identify a series of policies that apply to all development and then to identify additional specific standards and requirements dependent on project location and project type.

With respect to those universal, coastal zone-wide policies, the proposed amendment requires all development to avoid, and, where unavoidable, to minimize coastal hazards and coastal resource impacts (Policy 6.4.2) using the best available science (Policy 6.4.3) via a coastal hazard assessment (Policy 6.4.5) over a 75-year timeframe for

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<sup>54</sup> Where Commission staff intends to provide the Commission with a workshop on these concepts, and related topics, in the near term and before consideration of an LCP amendment proposing as much.

<sup>55</sup> The proposed amendment includes updates to both the LUP's coastal hazards provisions in LUP Chapter 6 as well as corresponding IP updates in IP Chapter 16.10. The LUP and IP changes largely mirror each other, with LUP policy language being essentially repeated in the IP for conformance purposes.

residential or commercial structures and 100 years for critical facilities (Policy 6.4.4).<sup>56</sup> Such assessment must account for sea level rise “based on current best professional practices and best available science....Setback calculations shall consider historical shoreline and bluff retreat factors but must also consider projected acceleration of retreat due to sea level rise, wave run-up and other climate impacts according to best available science, which may include requirements for alternatives analysis under a range of future possible scenarios” (Policy 6.4.5). All development subject to coastal hazards is to record a deed restriction that, among other things, acknowledges the inherent risks in developing in such a location, waives liability/indemnifies the County in terms of potential damage to the development, site occupants, or general public from coastal hazards, and makes the property owner responsible for the costs associated with “monitoring, maintenance, repair, abatement and/or future removal of structures” for any coastal hazard impacts (Policy 6.4.9). Finally, new lots in required hazard setback areas would be prohibited (Policy 6.4.6) as would new development on bluff faces (with certain exceptions for public coastal access facilities and otherwise allowable armoring) (Policy 6.4.14); and density calculations would exclude coastal inundation areas, bluff faces, sandy beach space, and public trust space (Policy 6.4.8). In sum, these policies are meant to ensure that all development proposed along the County’s shoreline is subject to a baseline coastal hazard minimization standard, including in terms of ensuring the best available science in its siting and design as well as notice and disclosure to existing and future property owners that the subject property is located in an area subject to such hazards threats.

From here, however, the LCP introduces different policy requirements dependent on the particulars of the proposed project’s location. One of the fundamental objectives of the proposed policies is to differentiate the hazard response based on the particular geography of the proposed project, with a particular emphasis on urban versus rural areas. Specifically, the LCP seeks to tailor different hazard-related policy prescriptions dependent on whether the site in question is located within or outside of the LCP-defined and mapped Urban or Rural Services Lines (USL/RSL). As described in the proposed amendment’s Background section:

*A fundamental land use policy of Santa Cruz County since adoption of the Measure J growth management framework in 1978 is to encourage new development to locate within existing developed urban areas, and to protect agricultural land and natural resources. Santa Cruz County has a long established Urban and Rural Services Line (USL/RSL) which defines an area of the county characterized by urban densities of development based on a pattern of existing supporting urban infrastructure. In contrast, areas along the coast that are not within the USL/RSL are characterized by low-intensity development, agriculture and open space....The area of the County along the coast within the USL is essentially urbanized and dominated by single-family residential*

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<sup>56</sup> And in no case less than 25 feet set back from coastal blufftop edges. The LCP includes certain exceptions to the 75/100-year/25-foot setbacks, including for regulatory takings purposes (except in cases of public nuisance or public trust incompatibility (Policy 6.4.10)) and for development located outside the Shoreline Protection Exception Area which may be allowed to request a smaller setback subject to certain risk internalization and removal triggers (Policy 6.4.7(b)).

*development on top of coastal bluffs and on beaches or back beach areas. The USL boundary at the west is the Santa Cruz Harbor coastal resource and City of Santa Cruz city limit. The boundary at the east extends to and includes the community of Seascape. This urbanized area along the coast includes the City of Capitola city limits, and the Capitola shoreline is currently protected with rip rap, and coastal bluff armoring within the key coastal visitor serving resource of Capitola Village. This urbanized area along the coast also contains critical public infrastructure such as roads, sewer, water supply, drainage, parking lots and train tracks. In many areas, such as along Opal Cliffs Drive, only one row of residential lots establishes a buffer between public roads and infrastructure and the coastal bluff and beach. Those existing roads and infrastructure improvements support public access to the coast, and support structures, businesses and economic activity related to visitor accommodations and tourism, a key job and business sector for Santa Cruz County. As the existing homes become threatened by coastal bluff erosion it will be important to consider how the homes can be protected while also preserving infrastructure and increasing public access to the coast.*

The County's shoreline is varied and comprised of a mix of rural, essentially unarmored and urban, fairly armored, coast, with some of the urban area fronted by broad sandy beaches and others on coastal bluffs fronted by small pocket beaches only accessible at lower tides, as previously described. As such, the County's proposal is to provide a policy lens that is specific to these different geographic contexts. The proposal states:

*Shoreline and coastal bluff armoring are not common outside of the urbanized coastal areas of Santa Cruz County. Armoring that does exist for development that has been built on or along beaches and coastal lagoons can have greater impacts on coastal resources. Given the distinctly different contexts that exist within the unincorporated area, the proposed coastal bluffs and beaches and armoring policies reflect a "hybrid approach", with "managed natural retreat" ("MNR") establishing the regulatory approach in the rural areas, beach and lagoon areas being subject to different FEMA-influenced regulations, and "conditional accommodation, acceptance of risk, and adaptation" ("AAA") establishing the regulatory approach in certain urbanized areas. However, the AAA policies themselves differentiate between coastal bluff sites involving the less-erodible Purisima rock formation (e.g. higher existing bluffs along Opal Cliffs Drive that are included within a designated "shoreline protection exception area" or "SPEA") and more-erodible sandy coastal bluff areas that are typically shorter and typically adjacent to higher-value coastal shorelines accessed by the public.*

Thus, as stated above, the proposed LCP includes three tiers of policies to respond to three types of shoreline typologies: rural; within the Urban or Rural Services Line (USL/RSL); and within the Shoreline Protection Exception Area (SPEA).

For the rural areas (i.e., defined as being outside of the mapped USL/RSL lines and generally comprised of the rural stretches of coast along the undeveloped North Coast outside of the unincorporated town of Davenport and the State Parks/agricultural South Coast outside of the noted residential enclaves (such as Pajaro Dunes), the County



identifies a policy approach called “Managed Natural Retreat” where the intent is to site development so that it does not rely on any armoring (i.e., proposed development must be set back a sufficient distance from the bluff or shoreline without taking into account the protection afforded by any armoring) and where new armoring is prohibited unless otherwise required by the Coastal Act (Policies 6.4.7, 6.4.12 and 6.4.25(a)). Even so, existing armoring in these rural areas would be allowed to be repaired, maintained, bolstered, or modified as needed to maintain the requisite level of protection and foundations may nevertheless be replaced for structures that cannot meet applicable setback requirements, including due to inadequate parcel size to relocate the structure (Policy 6.4.28).

Within the USL/RSL (i.e., the unincorporated shoreline stretching from the Santa Cruz city limits in the north through Live Oak and Aptos in the south, and also including small urbanized pockets such as Davenport, La Selva Beach, and Pajaro Dunes), new development or redevelopment proposed along coastal bluffs is allowed to rely on existing, legally-established armoring (that would be allowed to be repaired, maintained, bolstered, or modified/augmented to maintain the requisite level of protection) to establish the appropriate setback and mitigate potential hazards risk (Policies 6.4.7(c) and 6.4.11) so long as the armoring is subject to an evaluation of its needed repair and maintenance as well as identification and mitigation of its coastal resource impacts. However, the proposed amendment would allow development<sup>57</sup> to rely on existing armoring only one time per lot and only until either the year 2040 or when the policy is amended, whichever occurs first. Subsequent development on the site would be evaluated pursuant to Policy 6.4.12, which does not allow new development to include new shoreline or coastal bluff armoring or to rely on existing armoring in establishing minimum bluff edge setbacks, although such existing, legally-established armoring could still be repaired and maintained and/or improved/modified. Development proposed within the USL/RSL along shoreline areas, including on beaches and coastal lagoons, is not allowed to include new armoring (Policy 6.4.25(a)) and is instead required to be sited outside of identified flood areas or mitigate flood risk pursuant to FEMA floodproofing and elevation requirements, provided such measures are otherwise consistent with the LCP’s armoring policies (Policy 6.4.15).<sup>58</sup> And for the specific development located along the Pajaro Dunes in the southern part of the County, Policy 6.4.18 requires development to be elevated above the 100-year flood and to prevent impacts to coastal resources.

Finally, development proposed within the SPEA, defined as the bluff area between Soquel Point on the upcoast end to the City of Capitola border on the downcoast end,

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<sup>57</sup> The proposed amendment does not use the term “redevelopment”, but it does define “development” to include the modification, replacement, or reconstruction of 50% or more of an existing habitable structure’s major structural components within any consecutive five-year period as determined by the Board of Supervisors (see IP Section 16.10.040(N)(2)).

<sup>58</sup> It is unclear as currently written how the policies limiting reliance on armoring for beach-level development would interplay with the other USL/RSL policies that would allow for continued reliance on existing armoring. This is one of many ways in which the proposed LCPA’s complex and convoluted structure creates internal inconsistencies that must be resolved through future discussions between the Commission and the County.

would be allowed to rely on existing armoring (which could be repaired, maintained, bolstered, or modified/augmented to maintain the requisite level of protection) and also to build new armoring without the limits applied elsewhere in the USL/RSL, though introductory text and required disclosures note that these policies may be updated in the future (including in 2040), and continued armoring in this area may not be feasible under future conditions.<sup>59</sup>

These policies that address the three shoreline types are further augmented by Policy 6.4.25 that identifies the specific standards for shoreline armoring, including identifying when such armoring is permissible (i.e., allowed outside the USL/RSL to only when required by the Coastal Act; allowed within the USL/RSL to the 'one-time' armoring exception when development is in danger from significant threats; allowed within the SPEA as-needed; allowed to protect vacant lots where both adjacent parcels are already protected; allowed to protect vacant lots if lack of protection threatens adjacent or nearby development; and allowed to protect public roads, infrastructure, and recreation areas), armoring siting and design requirements (e.g., minimize visual intrusion as much as possible, strive for a continuous lateral pedestrian access as physically feasible, and minimize the footprint on the beach), and required mitigation for armoring impacts (e.g., fees for loss of beach sand and public recreational value impacts). Critically, it is unclear when and the extent to which any currently existing armoring would be required to be updated to come into consistency with these design requirements (or removed or relocated), and thus the extent to which these policies would result in improvements to the existing status quo of aging protective devices that result in coastal resources impacts is unclear.

Finally, the LCP includes a series of policies meant to address ongoing adaptation over time, including in terms of triggers for potential structure removal and site cleanup and if future LCP amendments dictate as much based on updated site conditions and/or new science. In addition, all development is required to record against the property conditions specifying that the structure be removed and affected area restored if the Building Official or County Geologist determines the structure is permanently unsafe for occupancy, or if essential services can no longer be maintained, or if removal is required pursuant to an adopted Shoreline Management Plan (Policies 6.4.32 and 6.4.33). On this latter point, Policy 6.4.37 states that the intent is that "the shoreline and coastal bluff policies of this Safety Element shall be considered to be in effect until the year 2040, by which time the expectation is that shoreline management plan(s) and/or an updated set of policies within a Safety Element Amendment will have been adopted. Should a future Shoreline Management Plan(s) become effective, all future proposed development shall be found to be substantially consistent with the provisions of the approved management Plan." Shoreline Management Plans are intended to be smaller scale prescriptions for discrete segments of coast, including to identify, among other

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<sup>59</sup> See, for example, proposed IP Section 16.10.070(H)(1)(b): "Within a designated Shoreline Protection Exception Area or other area within the Urban and Rural Services Lines otherwise addressed by an adopted Shoreline Management Plan, the determination of the minimum geologic setback are allowed to and will take into consideration the effect of a proposed protection measure, such as shoreline or coastal bluff armoring structures, retaining walls, or deep piers if the armoring is consistent with the requirements of this Chapter and allowed under the adopted Shoreline Management Plan".

things, “requirements for adapting existing development, public improvements, coastal access, recreational areas, and other coastal resources. Plans would assess the impact of existing and future development, and evaluate the feasibility of hazard avoidance, managed retreat, restoration of the sand supply and beach nourishment in appropriate areas. Plans would incorporate strategies necessary to manage and adapt to changes in wave, flooding, and erosion hazards due to sea level rise” (Program L). In short, the County envisions the proposed policies as a broad starting point for future adaptation planning that would be further augmented in the future based on lessons learned and additional study. However, the proposed amendment does not actually specify what happens if such plans don’t come to LCP fruition by 2040, or don’t come to LCP fruition ever, and don’t specify how development approved prior to the addition of such plans will be made to conform to such plans when/if they are added later.

In conclusion, the proposed amendment is a complex combination of coastal hazard-related policies and standards governing new development along the County’s shoreline, beaches and bluffs. The intent is to provide a series of policies that apply for all development subject to coastal hazards risks (e.g., use the best available science in decision making and internalize and disclose potential hazards risk) with differing standards based on shoreline typology. Rural stretches of coast are generally dissuaded from armoring, whereas in the USL/RSL new development and redevelopment is allowed a one-time opportunity to rely on existing armoring until at least 2040 and its subsequent repair and maintenance over time. And within the SPEA, development is specifically allowed to utilize existing and proposed armoring in siting and design with few restrictions. The amendment also seeks to provide for continuous study and ongoing adaption of coastal hazards issues in the County, including that it’s the County’s intent for these policies to guide development actions until 2040, at which time new LCP policies and/or shoreline management plans are intended to be developed and added to the LCP to guide development past 2040.

See **Exhibit 3** for the proposed LUP update, and **Exhibit 4** for the proposed IP update.

#### **D. Evaluation of Proposed LCP Amendment**

The proposed amendment affects both the LCP’s LUP and IP components. The standard of review for LUP amendments is that they must be consistent with and adequate to carry out the policies of the Coastal Act. The standard of review for IP amendments is that they must be consistent with and adequate to carry out the policies of the certified LUP.

This proposed LCP amendment was filed as complete on June 15, 2021. Because the proposed amendment affects both the LUP and IP components of the LCP, the Commission is subject to a 90-working-day Commission action deadline on the amendment, where that date originally fell on October 21, 2021. However, the Commission extended the deadline by one year, as allowed for by the Coastal Act, to October 21, 2022. Thus, the Commission has until October 21, 2022 to take a final action on this LCP amendment. Given that the Commission’s October 2022 meeting runs from October 12 – 14, and the Commission’s November 2022 meeting runs from November 16 – 18, that means that the Commission must take an action on the LCP amendment at the October meeting (unless the amendment is withdrawn by the County

before that time). If the Commission does not take action by the deadline, then the LCP amendment is deemed approved and certified as submitted.

## **1. Land Use Plan Amendment Consistency Analysis**

### ***Coastal Hazards/Sea Level Rise Background***

Sea level rise (SLR) will have dramatic impacts on California's coast in the coming decades and is already impacting the coast today. In the past century, the average global temperature has increased by about 0.8°C (1.4°F), and global sea levels have increased by 7 to 8 inches (17 to 21 cm). In addition, SLR has been accelerating in recent decades, with the global rate of SLR tripling since 1971 (IPCC, 2021). This SLR has and will continue to increase the risks of flooding, inundation, coastal erosion, saltwater intrusion, and changing groundwater dynamics. In turn, these hazards have the potential to threaten many of the resources that are integral to the California coast, including coastal development, coastal access and recreation, habitats (e.g., wetlands, coastal bluffs, dunes, rocky intertidal areas, and beaches), coastal agricultural lands, water quality and supply, cultural resources, community character, and scenic quality.

Further, the various possible adaptation responses to SLR each carry their own potential benefits or adverse impacts to these different coastal resources and values. As a primary example, beaches, wetlands, and other habitats backed by fixed or permanent development such as shoreline armoring will not be able to migrate inland as sea level rises, and will become permanently inundated over time, which in turn presents serious concerns for future public access, recreational opportunities, environmental justice, habitat protection, and scenic and visual qualities of the coast. However, shoreline armoring may be a necessary strategy for protecting coastal dependent infrastructure or uses (e.g., ports and harbors) and in some cases to protect access to the shoreline. Thus, SLR heightens a long-standing challenge along the California coast: how to balance the protection of coastal development and coastal resources when emphasizing one is typically at the expense of the other.

The Coastal Act mandates the protection of public access and recreation along the coast, coastal habitats, and other coastal resources, as well as providing priority for visitor-serving and coastal-dependent or coastal-related development while simultaneously minimizing risks from coastal hazards. Accordingly, the Coastal Act places a strong emphasis on protecting natural landforms and shoreline/beach access and related resources, while also requiring that risks be minimized in association with coastal hazards, including via ensuring stability and structural integrity for development over time without armoring, and avoiding adverse impacts to natural processes and coastal resources. The Act also recognizes that shoreline-altering development, such as armoring, can cause significant adverse impacts to coastal resources such as sand supply and ecology, public access, coastal views, natural landforms, and shoreline processes, and thus requires approvable armoring to avoid or minimize coastal resource impacts, and to commensurately mitigate for allowed impacts that are unavoidable. More recently, the Coastal Act was also amended to explicitly require the Commission to take into account the effects of SLR in coastal resource planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of SLR.

Taken together, the Coastal Act's policies on SLR planning, coastal resource protection, and minimizing risks from coastal hazards – combined with the increasing scientific certainty that SLR is and will continue to increase coastal hazards along the shoreline – elevates the need for local governments to understand the projected sea level rise impacts within their jurisdictions and to implement sea level rise adaptation planning within LCPs. Without such assessment and adaptation planning, SLR could push local governments into situations where coastal resources are being lost, inconsistent with the resource protection policies of the Coastal Act, and where development is exposed to significant hazards, inconsistent with the development policies of the Coastal Act.

Although Santa Cruz County has not completed a sea level rise vulnerability assessment, some of the potential impacts from sea level rise can be broadly estimated and summarized. Currently, the best available science on SLR projections in California is provided in the State of California Sea-Level Rise Guidance (OPC 2018) (as reflected in the Coastal Commission Sea Level Rise Policy Guidance (CCC 2018)). These projections include upwards of 6.9 to 10.1 feet of SLR for the Santa Cruz County area by 2100 (medium-high and H++ projections, respectively, for the Monterey tide gauge) and approximately 1.2 feet of SLR by 2040, the intended time horizon for this LCP update (based on the medium-high scenario).<sup>60</sup> As discussed in the background section of this report, Santa Cruz County includes a diverse mix of shoreline types and geologies, a variety of coastal habitats, both less developed/rural areas and more heavily developed urban areas, and a wide variety of coastal access and recreational opportunities, all of which will be affected by sea level rise.

In general, areas with less development and with less shoreline armoring (primarily the North and South coast portions of the county, outside of the urbanized core) have generally been allowed to evolve under the existing LCP, and would evolve under the proposed LCP update, more naturally, and associated beach areas and other coastal habitats are expected to migrate inland in these areas as sea levels rise. In some of these areas, shoreline and bluff erosion will result in increasing risks to Highway 1 and other pockets of development, and the future safety of these structures (and the associated impacts to coastal resources) will depend on the adaptation strategies undertaken in these areas. Within the more developed urbanized areas, a variety of residential and commercial structures, transportation and other public utility infrastructure, and a variety of built public access features will all be increasingly at risk from wave impacts, flooding, and shoreline and bluff erosion, and the ability for fronting beaches, lagoons, and other coastal habitats to persist will depend in large part on decisions made regarding continued shoreline armoring versus managed retreat.

In all cases, a vulnerability assessment could help to identify the timelines associated with impacts, and therefore prioritization of different adaptation options. Similarly, a vulnerability assessment could help to address some of the unique issues facing the County given its diverse shoreline geologies, such as where various wide sandy

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<sup>60</sup> Note that SLR projections continue to evolve, and the most recently released NOAA SLR projections (at <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html>) suggest that extreme SLR scenarios (on which the H++ projection are based) are unlikely to occur in the near-term but remain a possibility in 2100 and beyond.

beaches, pocket beaches, rocky habitats, surf spots and so on would be able to persist with certain adaptation actions, or where the coastal dynamics are such that sea level rise will change these resources no matter what, and where other adaptation approaches should be identified to support alternative community goals.

Even without the benefit of a vulnerability assessment, a variety of SLR planning policies can be integrated into an LCP update to set the stage for proactively addressing anticipated sea level rise impacts. Broadly speaking, the goal of updating an LCP to prepare for SLR is to ensure that adaptation occurs in a way that protects both coastal resources and public safety and allows for safe development and sustainable economic growth. This process includes identifying how and where to apply different adaptation strategies based on Coastal Act requirements, other relevant laws and policies, acceptable levels of risk, and community as well as statewide priorities. By planning ahead, coastal areas can reduce the risk of costly damage from coastal hazards, can ensure that the coastal economies continue to thrive, and can protect coastal habitats, public access and recreation, and other coastal resources for current and future generations. However, this is a complex and challenging process, and the Coastal Commission has recently been working with local government partners (most directly through the Local Government Sea Level Rise Working Group) to identify strategies for overcoming these challenges. Among these has been increasing early coordination in developing LCP updates; committing to phased LCP updates, which could include an initial set of SLR policies followed by additional, more frequent LCP updates; recognizing the need for flexible approaches that are reflective of local conditions; and considering opportunities for regional approaches. The proposed LCP amendment was initially intended to reflect many of these goals, but a variety of key issues remain that need to be addressed through continued coordination, as discussed below.

### ***Applicable Coastal Act Provisions***

#### **Coastal Hazards**

Coastal Act Section 30270 addresses the need to evaluate and consider sea level rise in coastal resource planning:

***Section 30270.*** *The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise.*

Coastal Act Section 30235 addresses the use of shoreline protective devices:

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

Coastal Act Section 30253 addresses the need to ensure long-term structural integrity,

minimize future risk, and to avoid landform altering protective measures in the future. Section 30253 provides, in relevant part:

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

#### Public Access and Recreation

Coastal Act Section 30604(c) requires that every CDP issued for any development between the nearest public road and the sea “shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3.” Essentially all of the shoreline/beach areas affected by this proposed LCP amendment are located seaward of the first public road where such requirements apply, not only to Commission CDP decisions under the Coastal Act, but also to County CDP decisions under the LCP. Coastal Act Sections 30210 through 30224 specifically protect public access and recreation, and Section 30240 protects parks and recreational areas. In particular:

**Section 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.*

**Section 30211.** *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

**Section 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. ...*

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

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

**Section 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.*

**Section 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.*

**Section 30223.** *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

**Section 30240(b).** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

### Marine Resources

Coastal Act Section 30230 requires that marine resources be maintained, enhanced, and restored. New development must not interfere with the biological productivity of coastal waters or the continuance of healthy populations of marine species. Coastal Act Section 30230 states:

**Section 30230.** *Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act Section 30231 requires that the productivity of coastal waters necessary for the continuance of healthy populations of marine species shall be maintained and restored by minimizing wastewater discharges and entrainment and controlling runoff. Coastal Act Section 30231 states:

**Section 30231.** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Among other things, Coastal Act Section 30233(a) lists seven types of development that are allowed to fill open coastal waters. Section 30233(a) states:



**Section 30233(a).** *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines. (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas. (6) Restoration purposes. (7) Nature study, aquaculture, or similar resource dependent activities.*

#### Public Views

Coastal Act Section 30251 states:

**Section 30251.** *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

#### Environmental Justice

The Coastal Act explicitly identifies the need to ensure equality and environmental justice, and allows the Commission to consider coastal resource issues and impacts through that lens in LCPs and LCP amendments, like this. The Coastal Act states:

**Section 30013.** *The Legislature further finds and declares that in order to advance the principles of environmental justice and equality, subdivision (a) of Section 11135 of the Government Code and subdivision (e) of Section 65040.12 of the Government Code apply to the commission and all public agencies implementing the provisions of this division. As required by Section 11135 of the Government Code, no person in the State of California, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, genetic information, or disability, shall be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination, under any program or activity that is conducted, operated, or administered pursuant to this*

*division, is funded directly by the state for purposes of this division, or receives any financial assistance from the state pursuant to this division.*

**Section 30107.3.** (a) *“Environmental justice” means the fair treatment and meaningful involvement of people of all races, cultures, and incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.* (b) *“Environmental justice” includes, but is not limited to, all of the following:*

*(1) The availability of a healthy environment for all people.*

*(2) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.*

*(3) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process.*

*(4) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.*

To implement its Coastal Act environmental justice authority, the Commission adopted an Environmental Justice Policy (“EJ Policy”) <sup>61</sup> in 2019 to guide and inform its decisions and procedures in a manner that is consistent with the provisions in, and furthers the goals of, Chapter 3 of the Coastal Act and certified LCPs. The EJ Policy further articulates environmental justice concepts, including stating:

*The term “environmental justice” is currently understood to include both substantive and procedural rights, meaning that in addition to the equitable distribution of environmental benefits, underserved communities also deserve equitable access to the process where significant environmental and land use decisions are made.*

Thus, the Commission’s EJ Policy underscores the importance of both substance (i.e., evaluating whether projects do or do not disproportionately distribute environmental benefits and burdens) and process (i.e., ensuring that those potentially affected by proposed development have an equitable opportunity to participate in a transparent public process). The proposed LCP amendment raises environmental justice concerns regarding impacts to public access from proposed adaptation approaches, particularly

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<sup>61</sup> California Coastal Commission Environmental Justice Policy, Adopted March 8, 2019 [https://documents.coastal.ca.gov/assets/env-justice/CCC\\_EJ\\_Policy\\_FINAL.pdf](https://documents.coastal.ca.gov/assets/env-justice/CCC_EJ_Policy_FINAL.pdf).

shoreline armoring, that may disproportionately burden environmental justice communities,<sup>62</sup> particularly those who cannot afford to live near the coast.

Taken together, the Coastal Act thus applies a specific set of land use planning principles and resource protection provisions within the coastal zone, including specific policies that address a wide range of resources including, but not limited to, shoreline public access and recreation, terrestrial and marine biological resources and habitat protection, visual resources, and landform alteration. The Coastal Act stands for the premise that all these shoreline resources are required to be protected, including by Section 30253. Thus, while the Coastal Act requires minimizing risks to life and property from coastal hazards, it first mandates the protection of coastal habitats and other sensitive resources, maximization of public access and recreation along the coast, protection of visual resources, and minimization in the alteration of landforms. Thus, while the Coastal Act recognizes that shoreline-altering development in response to coastal hazards, such as armoring, may be required in certain situations, it also reflects that such armoring can cause significant adverse impacts to coastal resources due to its effects on natural landforms and processes (which impact public access and recreation), the introduction of manmade structures into the public view, landform alteration, and changes to shoreline habitats and ecology. Given these impacts, the Coastal Act allowance for shoreline armoring is probably best understood as an exception, variance, and nonconformity with respect to the Coastal Act's resource protection policies. Which is why Coastal Act Section 30235 only allows armoring under very limited circumstances (i.e., when required to serve coastal-dependent uses or to protect existing structures in danger from erosion, and only when designed to eliminate or mitigate adverse impacts on local shoreline sand supply). This is the lens in which shoreline armoring must be reviewed and evaluated, including when policies that provide for shoreline armoring are considered as part of an LCP coastal hazards amendment.

And in fact, the Coastal Act strictly limits armoring, where new or redeveloped non-coastal-dependent developments generally cannot rely on armoring in their proposed siting and design, and instead must be located safe from coastal hazard threats without reliance on such devices. This is true even as to new development that may not include a proposal for new shoreline protection because it is sited in locations already protected by existing (and possibly legally permitted) shoreline armoring, as Section 30253(b) states that new development shall not "in any way require the construction of protective devices that would substantially alter natural landforms...".<sup>63</sup> This is an important concern in unincorporated Santa Cruz in particular, where at least much of the

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<sup>62</sup> In this report, "environmental justice communities" refers to low-income communities, communities of color, and other populations with higher exposure and/or sensitivity to adverse project impacts due to historical marginalization, discriminatory land use practices, and/or less capacity to mitigate adverse impacts.

<sup>63</sup> Siting new development in locations where it depends on already constructed shoreline armoring for safety would mean that, if previously permitted shoreline armoring were to be removed at some point in the future (for example, because it is no longer necessary to protect the development for which it was originally constructed), the project would require construction of a new protective device to ensure its safety in a hazardous area, contrary to Section 30253(b) and related Coastal Act policies described above.

urbanized core shoreline is already armored. The Coastal Act provides these limitations because shoreline protective devices can have a variety of negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on- and offsite, ultimately resulting in the loss of beaches.

As such, for consistency with the above Coastal Act policies, updated LUP coastal hazards policies must, at a minimum, include: policies that require new development to be safe from coastal hazards risk, including as these hazards may be exacerbated in the future due to climate change and sea level rise; policies that specify which development is potentially allowed shoreline armoring, namely coastal-dependent development, public beaches, and “existing structures” (i.e., structures that existed prior to the Coastal Act’s effective date (January 1, 1977) and have not been redeveloped since;<sup>64,65</sup> and, for development allowed shoreline armoring, policies that specify the requirements and mitigation measures needed to ensure resultant coastal resource impacts are appropriately addressed, including with respect to impacts on sand supply, as well as public access and recreation, public views, beach ecology, and other coastal resources. In short, the Coastal Act requires new development to minimize risks to life and property while ensuring stability and structural integrity without contributing significantly to erosion, geologic instability, or destruction of the site or surrounding area, while also requiring compliance otherwise with all of the other coastal resource protection provisions of the Act. It also provides that new development that would rely

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<sup>64</sup> As described in the Commission’s 2015 Sea Level Rise Policy Guidance, the Commission interprets the term “existing structures” in Section 30235 as meaning structures that were in existence on January 1, 1977, the effective date of the Coastal Act. In other words, Section 30235’s directive to permit shoreline armoring for structures in certain circumstances applies to development that lawfully existed as of January 1, 1977, and that has not subsequently been redeveloped (i.e., where changes to it since 1977 have been extensive enough that it is considered a replacement structure required to conform to applicable Coastal Act and LCP provisions). This interpretation is the most reasonable way to construe and harmonize Sections 30235 and 30253, which together evince a broad legislative intent to allow armoring for development that existed when the Coastal Act was passed, when such development is in danger from erosion, but to avoid such armoring for development constructed consistent with the Act, which does not allow shoreline altering armoring development to support same. This interpretation, which narrowly allows protection for development that predates the Coastal Act, is also supported by the Commission’s duty to protect public trust resources and interpret the Coastal Act in a liberal manner to accomplish its purposes.

<sup>65</sup> Coastal Act Section 30610(d) and Title 14 of California Code of Regulations (CCR) Section 13252(b) help define when structures meet or don’t meet the redevelopment threshold. CCR Section 13252(b) specifically states that replacement of 50% or more of a structure, including single-family residences, is not repair and maintenance under Coastal Act Section 30610(d) but instead constitutes a replacement structure that must be evaluated for Coastal Act compliance purposes. In applying Section 13252(b), the Commission has, in the past, found that a structure will be considered a replacement structure (also referred to as redevelopment) if at least one of the following takes place: 1) 50% or more of the major structural components (i.e., including exterior walls, floor, roof structure, or foundation, where alterations are not additive between individual structural components) are replaced; 2) there is a 50% or more increase in gross floor area; 3) replacement of less than 50% of a major structural component results in cumulative alterations exceeding 50% or more of that major structural component (taking into account previous replacement work undertaken since January 1, 1977); and 4) a less than a 50% increase in floor area where the alteration would result in a cumulative addition of 50% or more of the floor area, taking into account previous additions to the structure since January 1, 1977.

on shoreline armoring is prohibited, and that adverse impacts of shoreline armoring to coastal resources (when armoring is allowed) be avoided, lessened, and mitigated for where unavoidable. As such, the Coastal Act requires that new development minimize risks to life and property in areas of coastal hazards and prohibits new development or redevelopment that would require armoring to ensure stability at any point during its lifetime.

### ***Coastal Act Consistency Analysis***

As discussed above, the County's development pattern includes areas along the North Coast where there is limited to no existing development on the back beach or on coastal bluffs; however, Highway 1 traverses low-lying areas directly adjacent to the coastline in this area (i.e., adjacent to Waddell State Beach and Scott Creek County Beach/Park). The densest development on the County shoreline is found within the mid-coast urbanized core region of the County, including dense residential blufftop development (and some beach level development) throughout the Live Oak area, as well as development located on the blufftop and directly along the shoreline and beach areas in unincorporated Aptos/South County. The bluffs and beaches along the most highly urbanized part of the County's coastline are extensively, but not completely, fronted by a variety of armoring types (e.g., riprap, vertical concrete seawalls, etc.). Further south, large portions of the County have limited shoreline development, except for residential properties located along the bluffs in the unincorporated La Selva Beach/Manresa Beach area, and in the Pajaro Dunes development, which is located at the extreme south end of the County and fronts approximately 1 mile of armored (riprap) coastline that is vulnerable to sea level rise, coastal flooding, and severe erosion of the dunes on which the homes are constructed.<sup>66</sup> As a result, there is significant development at risk of coastal bluff erosion, coastal flooding, wave run-up, and sea level rise impacts over the 2040 planning horizon, which is the focus of this LCP hazards update, as well as beyond 2040. These different geographies and different built environments and histories engender their own unique set of needs and issues when coastal hazards are considered in relation to the Coastal Act, and thus all require their own nuanced policy approach that ensures the protection of coastal resources consistent with the Coastal Act, but also one that respects and responds to unique site constraints and contexts.

The proposed LUP amendment includes some laudable policies, including requiring that development avoid, and where unavoidable, minimize coastal hazards and coastal resource impacts using the best available science via a coastal hazard assessment that accounts for sea level rise based on current best professional practices; incorporation of setbacks based on the coastal hazard assessment; recordation of a deed restriction acknowledging the inherent risks of developing in such a location and putting future property owners on notice of such; and prohibiting new development on bluff faces, sandy beach space. However, the proposed LUP amendment includes policies that are not consistent with Coastal Act Sections 30235 and 30253, and further, are not

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<sup>66</sup> The private gated Pajaro Dunes residential community is actually developed on a beach sandspit between Watsonville Slough (inland), Pajaro River (downcoast), and the Pacific Ocean, and thus is nearly surrounded by waterbodies and located atop less cohesive sand dunes, and coastal hazards threats there are heightened as a result.

supported by inclusion of other policies that might be able to mitigate the potential impacts associated with such a proposed armoring approach to adequately ensure protection of coastal resources.

#### Proposed Armoring Allowances within the USL/RSL and the SPEA

In terms of the LUP's proposed geographic framework, the proposed policies would allow new development (and redevelopment) a one-time exception to Coastal Act armoring limitations to rely on existing, legally established shoreline armoring (and continued repair and maintenance and improvements/modifications to that armoring as needed to meet desired/need protection moving forward) if located within the LCP's USL and RSL (Policies 6.4.7, 6.4.11, and 6.4.12). The USL and the RSL cover extensive areas of the County's coastal zone, some 12 miles or nearly 40% of the County's shoreline area, and include large geographic areas where armoring is currently limited or mostly non-existent. For example, the bluff areas in Aptos from the Seascape Resort downcoast to the unincorporated community of La Selva Beach (approximately one-mile of shoreline) are largely unarmored but are mostly located within the USL (Seascape Resort) or the RSL (La Selva Beach).<sup>67</sup> The small community of Davenport on the County's north coast is located within the RSL, but the RSL here includes the unarmored Davenport bluffs.

Bracketing whether such a geographic armoring framework is workable under Coastal Act Section 30253, the proposed USL/RSL geographic framework is far too broad for such a policy, including because it does not account for natural and built environment differences that may result in different coastal resource impact implications.<sup>68</sup> Further, the proposed amendment would allow new development to rely on armoring, in some cases existing armoring (in the USL/RSL for one time) and in some cases even new armoring (in the SPEA as needed), to establish safe siting and setbacks, which is generally prohibited by Section 30253. If the County intends to pursue a geographic scope wherein policies for armoring differ depending on the geography, then the geographic scope needs to be significantly more refined in relation to geomorphological considerations, existing armoring, existing structures, public and recreational access value and amenities, and other contextual components that would suggest differing

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<sup>67</sup> There are several agricultural parcels between the Seascape Resort and La Selva Beach that are not located in the USL/RSL.

<sup>68</sup> While the USL/RSL boundaries are existing LCP framing elements, they were established for decidedly different purposes than identifying where armoring is allowed versus it is not allowed. In fact, the genesis of the USL/RSL concept pre-dated LCP development and was based on County residents' desire (via an initiative process, Measure J in 1978) to avoid urban-type sprawl into more rural areas of the County. The USL/RSL boundaries have been successful tools toward that stated objective. However, they were not and are not defined in terms of the purpose that the County proposes to ascribe to them here, namely where the Coastal Act would and would not allow armoring. Coastal Act armoring criteria are different than criteria for avoiding urban sprawl into rural areas, and not a good match for identifying where pre-Coastal Act structures exist versus where they don't. In fact, it has been the Commission's experience in coastal Santa Cruz County that almost all shoreline/beach fronting structures are post-Coastal Act, whether initially constructed since the Act or redeveloped in such a way as to be required to be considered replacement structures that must meet Coastal Act requirements (through the LCP in most cases) as new development, including that they be developed in way that eliminates the possibility that they will require shoreline altering armoring.

treatment between differing areas. As is, the proposed USL/RSL armoring exception area concept is much too blunt an LCP instrument as to effectively channel the Coastal Act in this respect, it cannot be found Coastal Act consistent, and reliance on this framework would lead to unnecessary complexity and confusion regarding how to implement the LCP, all to the detriment of coastal resources.

Similarly, the proposed amendment includes a broad armoring exemption by creating the proposed Shoreline Protection Exception Area (SPEA), extending from Soquel Point to the City of Capitola City limits, and encompassing the Pleasure Point and Opal Cliffs areas, approximately 1.5 miles of shoreline. In the SPEA, armoring would be allowed to protect any development, including new development, on an as-needed basis. The SPEA provisions appear to be based on the rationale that the designated area was developed well before the Coastal Act, and thus the entire area is entitled to shoreline armoring regardless of whether there are any existing structures or coastal-dependent uses that would be legally entitled to it under Section 30235 of the Coastal Act. However, and as described above, the Coastal Act largely prohibits shoreline protection for new development except in the narrow circumstances described in Section 30235. It may well be that there were a number of beach/ocean fronting developments in this area in 1976, prior to the Coastal Act's effective date, but most structures appear to have been replaced since 1977, meaning they would not currently be entitled to armoring under Section 30235, as is the case with any new development in the SPEA. Like the USL/RSL armoring allowance concept, the SPEA concept requires further refinement and better underlying support to be considered under the Coastal Act, including in terms of understanding the nature of the bluffs and beaches in this area, and the ways in which they may or may not continue to provide important coastal resource uses in the future given sea level rise, as well as the coastal resource impacts of removing existing shoreline armoring that is no longer necessary to protect uses entitled to it under Section 30235 of the Coastal Act.

Importantly, while the County's proposal is not consistent with the Coastal Act for the reasons described above and elsewhere in this report, any deviation from Coastal Act restrictions on allowable shoreline armoring could potentially be approved if it is necessary to resolve a significant conflict between mandatory requirements of Coastal Act policies, where under Coastal Act Section 30007.5 any such conflict must "be resolved in a manner which on balance is the most protective of significant coastal resources." The County's proposal does not demonstrate a valid basis for the Commission to invoke the Coastal Act's conflict resolution provisions, which would require a better understanding and analysis of the coastal resources threatened by shoreline armoring in specific areas of Santa Cruz, measures to mitigate and/or eliminate such impacts, as well as the coastal resource implications of removing existing shoreline armoring.

As discussed earlier, shoreline armoring can have a variety of negative impacts on coastal resources including adverse effects on beaches and sand supply, which ultimately result in the loss of the beach with associated impacts to public recreational access. Specifically, when the back of a beach is "fixed" (via a hard armoring structure such as a rock revetment along the seaward side of the beach), the bluff's natural retreat and erosion processes are disrupted, inhibiting natural sand supply and littoral

cell transport and also inhibiting the erosion that would have normally taken place that would create new beach area. Furthermore, shoreline armoring devices, whether riprap or vertical seawalls, are all physical structures that occupy space. When a shoreline protective device is placed on a beach area, the underlying beach area can no longer be accessed. Taken together, fixing the back beach, disrupting the bluff's natural retreat and erosion processes, and placing a hard structure on the beach generally results in a loss of public access as well as a loss of sand and/or areas from which sand generating materials can be derived. Over time, including with sea level rise, such armoring results in "coastal squeeze," meaning the available beach/recreation area will narrow, being squeezed between the moving shoreline and the fixed backshore, and this represents the loss of a beach and recreational shoreline as a direct result of the armor. The coastal squeeze phenomenon caused by armoring will only be exacerbated by climate change and sea-level rise. As climate change causes the seas to rise ever faster, beach and recreational shoreline areas will retreat inland at an increasingly rapid pace. If the inland area cannot also retreat, eventually there will be no available dry beach area and the shoreline will be fixed at the base of the armoring structure. In the case of an eroding shoreline, this represents the loss of a beach and shoreline recreational area as a direct result of the armor. In other words, the expected result of the proposed LCP amendment would be to facilitate such armoring impacts over some 12 miles of the County's prime shoreline/beach areas,<sup>69</sup> nearly 40% of the County's entire shoreline, including all of the extremely popular Live Oak shoreline area, which would be contrary to both the Coastal Act's and the LCP's resource protection mandates, and directly create internal LCP inconsistencies on this point, including as the proposed LCP amendment does not alter any of these core foundational coastal resource protection provisions in the LCP, which would continue to apply.

As described earlier, the County's USL/RSL includes a variety of beaches and shoreline recreational areas that provide for substantial public access and recreational opportunities, even at high tide, and offer world-renowned surfing and other water-oriented activity areas. The County's proposed amendment amounts to what is best described as an armoring program for these areas, which would be expected to be accompanied by beach loss as well as impacts to offshore areas (such as surfing areas, where rising seas will be expected to 'drown out' surf breaks if they aren't able to adapt and migrate landward or otherwise to adjust to new inland tripping features in shallower water), with concomitant and significant adverse impacts to public access and recreation. Importantly, there are remaining questions as to the extent to which some beach areas, surf spots, and other coastal habitats will be able to migrate inland even

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<sup>69</sup> On this point it is noted that the proposed LUP amendment includes some provisions for offsetting such adverse coastal resource impacts, but these provisions lack requisite detail. For example, the proposed amendments do not detail the methodology for assessing public recreational impacts, nor do they identify what compensatory public recreational and/or other coastal resource impact mitigation would entail. The proposed amendments identify that public access mitigation may come in the form of an in-lieu fee or in-kind "project-based" mitigation, but a methodology for assessing the impacts is not outlined, and the appropriate migration will be determined "at the County's discretion." Similarly, while the proposed amendments note that shoreline armoring shall not result in unmitigated impacts to fish and wildlife impacts or archaeological or paleontological impacts, the amendments do not determine how such impacts will be assessed or mitigated for. And mitigation requirements for other coastal resource impacts is not clearly identified.



without shoreline armoring. For example, areas backed by rocky bluffs that are less erodible may not be able to keep pace with rising sea levels, and fronting beaches and surf breaks would thus be drowned regardless. In such areas, it may be appropriate to allow armoring or to otherwise re-imagine the future of coastal access and recreation opportunities, including through mitigation. Answering such questions in order to appropriately protect coastal resources, though, would require a more in-depth assessment than provided in the County's proposal prior to committing to adaptation approaches that could both lead to significant coastal resource impacts as well as limit future options. And, at least with respect to the SPEA, some areas are currently unarmored and constitute a natural shoreline. Allowing for armoring of these unarmored bluffs would result in landform alteration of bluffs and beaches where these landforms are currently in a natural state.

In terms of biological and marine resources, "coastal squeeze" due to shoreline armoring also leads to the narrowing of shoreline coastal habitats and will eventually result in the loss of vulnerable intertidal and low-lying habitats. Specifically, when habitats, such as beaches wetlands, or stream outlets are not able to migrate inland as sea level rises (due to the presence of shoreline armoring), these habitats will become permanently inundated over time, which presents serious concerns for future habitat protection. Many areas of the USL/RSL provide extensive beach/lagoon habitat for foraging birds and other species, and there are streams and wetlands along the County's coastline in these areas. Armoring over time in these areas would have a negative impact on a variety of habitats, including intertidal, beach, and wetland and stream habitats due to impacts as discussed above. Riprap is particularly problematic in terms of habitat because it covers beach area, which reduces foraging opportunities for shorebirds, and it also reduces habitat for species that burrow into sand and upon which birds and other species rely on for food.<sup>70</sup> Furthermore, the construction/installation of armoring and the ongoing repair and maintenance activities for such structures also can have adverse impacts to water quality and marine resources due to the potential for construction materials to enter ocean waters and the use of heavy construction equipment on the beach. All of this presents conflicts with Coastal Act Sections 32030, 30231, and 30233.

In addition, the armoring that would be engendered by the proposed LUP changes would be expected to result in not only a continuation of armoring in the USL/URL/SPEA, but an expansion of it in some cases. In addition to the impacts to public recreation, including critical and important beach surfing resources, and to marine and biological resources, as described above, such armoring replaces natural bluff and beach landforms with artificial structures. And although such structures can be camouflaged to reduce their impacts on beach and bluff public viewsheds (and some camouflaging efforts are better than others), such armoring has distinct adverse impacts on public views even when camouflaged. And these impacts are felt in the shoreline/beach area that is one of the most important coastal views that are available,

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<sup>70</sup> And it provides for the phenomenon of 'riprap rats', which is common in riprap in Santa Cruz County, namely where such rodents inhabit the voids in the riprap, and where they hunt and forage onto the adjacent beach areas, especially at twilight and evening times. This not only upsets beach ecological balances, but it can present a significant public health hazard.

and a resource that is required to be “protected as a resource of public importance” (Section 30251). Given that there is no armoring in many areas of the USL/RSL, the introduction of any armoring would introduce unnatural artificial-looking and highly visible structures into a significant public recreational viewshed as seen from the beach and any nearby trails. The County’s proposal cannot be found consistent with Coastal Act Section 30251

Finally, it is important to note that while the Coastal Act is structured to protect beaches and bluffs, to protect natural landforms and public views, to protect shoreline public access and recreation, and to protect marine and habitat resources outright, those Coastal Act protections are required by the Act itself to be tempered when shoreline armoring is allowed by Section 30235. In other words, Section 30235 defines the narrow circumstances in which development is entitled to shoreline armoring notwithstanding adverse impacts to coastal resources. Given the fundamental structure of the Coastal Act, the County’s proposal simply goes too far in allowing new development to rely on shoreline armoring along significant portions of the Santa Cruz County coast. Proposed LUP policies that could allow such resource impacts over and above what the Coastal Act generally allows, including as proposed by the County through the USL/RSL and SPEA armoring exceptions, without providing for significant mitigation of impacts or other benefits, cannot be found Coastal Act consistent.

#### Existing Structures and Redevelopment

As described above, the question of when a pre-Coastal Act structure has been replaced, or repaired, maintained, or improved to the point that the structure has been ‘redeveloped’, and thus must be evaluated as ‘new’ against all applicable policies, is a critical aspect of coastal hazard planning inasmuch as it defines, under the Coastal Act, whether a structure pre-dates the Coastal Act (i.e., was in existence prior to January 1, 1977) or post-dates the Coastal Act, where the latter is not entitled to armoring under Section 30235. The proposed LUP amendment uses the term “existing structure” but does not define what constitutes an existing structure. Further, the proposed amendment allows new development and redevelopment<sup>71</sup> to rely on existing armoring in the USL and RSL to establish the appropriate setback and mitigate potential hazards risk (LUP Policies 6.4.7(c) and 6.4.11). Given the numerous impacts that shoreline armoring generally has on beach sand supply, public recreational access, shoreline aesthetics, natural landforms, ecology, public trust land, and other coastal resources, the Coastal Act limits the situations in which shoreline protection can be considered and approved. Under Section 30235, there are limited circumstances in which shoreline protection that has negative coastal impacts may be approved. However, if “existing structures” were interpreted to mean any structure currently in existence (which is a potential way to interpret the proposed LUP amendment), the Commission and local governments would be required to approve applications for armoring in far more circumstances, and also to allow existing armoring to protect new development and

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<sup>71</sup> “Redevelopment” is not defined in the LUP but is defined in the proposed IP as “the modification, replacement, or reconstruction of 50% or more of an existing habitable structure’s major components within any consecutive five-year period as determined by the Board of Supervisors (IP Section 16.10.040(N)(2)). This definition does not comport with the Commission’s typically applied definition of redevelopment.

redevelopment, leading to far greater coastal resource impacts, inconsistent with the Coastal Act.

Thus, in addition to the core problems associated with the proposed USL/RSL and SPEA armoring program, the proposed LUP amendment also lacks clear enough definition for making these important determinations regarding what constitutes an “existing structure.” The lack of clarity on this critically important term means that even in areas outside of the USL and RSL where ostensibly the County’s plan is to require managed retreat, it appears that the LCP could be applied by the County to require shoreline armoring for new development proposals. This potential interpretation, if applied, would only further extend to the proposed armoring program to mean that any and all endangered development along the County’s shoreline would be allowed armoring. This, too, is Coastal Act inconsistent, and would only exacerbate the expected impacts identified above.

#### 2040 Time Horizon

The proposed LUP amendment relies on a 20-year time horizon (now 18 years) when the coastal hazard adaptation situation can be reassessed (i.e., the 2040 Time Horizon (Policy 6.4.1)). This component of the LUP could be considered an essential element of the overall coastal hazards update, including as it could help respond to uncertainties and set in motion a series of events for better understanding the effects of coastal hazards on the County’s shoreline, including in relation to its beaches, which can be further addressed in 2040. However, there are significant questions regarding how that policy is intended to actually be implemented in practice, both in the short term between now and 2040, as well as when 2040 is reached, and beyond 2040. In fact, it is unclear how such a time horizon would affect permitting and planning between now and 2040, and it is unclear what happens, if anything, when we get to 2040, and it is unclear what happens after 2040, if anything. The proposed time horizon concept requires actual implementing mechanisms, and these are essentially missing in the submittal. For example, certain provisions could sunset at 2040 and be replaced by others, or policies could include ‘triggers’ that would require different things between now and 2040 and after depending on actual physical circumstances (e.g., a certain amount of sea level rise), or shoreline management plans could be required by 2040 and if not certified triggers/replacement policies would become effective, or other implementing mechanisms. However, absent actual provisions such as these, the 2040 time horizon is simply aspirational, and it is quite possible that these proposed coastal hazard policies would not be updated, and would not be supported by individualized and enforceable shoreline management plans for discrete sections of coast, and would not in fact create any implementable ‘phasing’ for addressing uncertainties and changing circumstances moving forward. In short, the concept of a planning horizon is a good one, but as proposed, the LUP amendment does not provide actual implementation of the concept.

#### LUP Complexity and Internal Inconsistencies

Finally, the proposed LUP language is complicated, hard to understand and follow in many places, and internally inconsistent, all of which means that on top of the critical armoring inconsistencies alluded to above, the proposal is simply unwieldy and unlikely to be able to be successfully implemented even without fixing the core Coastal Act

armoring inconsistencies discussed above. For example, the proposed LUP provisions include 10 pages of introduction, and some 50 overlapping policies (some covering multiple pages themselves) and overlapping programs spanning another some 20 pages, all of which is dense reading that in many cases suffers from serious internal inconsistencies,<sup>72</sup> including in one policy suggesting that armoring is not allowed on beaches, but the entire proposed USL/RSL and SPEA armoring exception proposal that permeates the proposed LUP stands for exactly the opposite).<sup>73</sup> The proposed LUP amendment is a challenge for even a seasoned coastal planner to understand how the various policies of the proposed LCPA would apply to a proposed project, much less the general public attempting to understand the LCP's requirements. It thus provides a poor adaptation roadmap for the County's shoreline and its important resources, and, even if the core Coastal Act inconsistencies could somehow be fixed, the proposed LUP provisions are inadequate to carry out the Coastal Act in this respect as well, also requiring denial.

### Environmental Justice

The Commission recognizes in its Environmental Justice (EJ) Policy that equitable coastal access is encompassed in and protected by the public access and recreation policies of the Coastal Act. An individual's race, national origin, income level, gender, sexual orientation, or place of residence should not affect how someone experiences the benefits of the California coast. However, in California, equitable coastal access and recreation opportunities for all populations have not been realized due to historic and social factors, such as discriminatory land use and economic policies and practices.<sup>74</sup> Spatial analysis of 2010 Census data shows a majority of Californians (70.9%) live within 62 miles of the coast, but populations closest to the coast are disproportionately white, affluent, and older than those who live farther inland.<sup>75</sup>

Existing patterns of inequitable access for environmental justice communities will likely be exacerbated by sea level rise and coastal hazards, especially if environmental justice is not considered during coastal hazards adaptation planning. In this case, the adaptation approach of shoreline armoring could result in coastal hazard impacts that can disproportionately burden environmental justice communities who rely on the coast for

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<sup>72</sup> See, for example, the background section entitled "Guiding Principles" Regulation of Proposed Development Activities on Coastal Bluffs & Beaches and Policy 6.4.25 in **Exhibit 2**.

<sup>73</sup> Similarly, proposed LUP Policy 6.4.25 limits the use of armoring within the USL and RSL to serve coastal-dependent uses or to protect existing beaches from significant threats unless located within a SPEA or subject to a Shoreline Management Plan, meanwhile Policy 6.4.11 identifies that new development can rely on existing armoring to establish the required 75 or 100-year setback, and further, that within the USL/RSL (but not within the SPEA), one new structure (either a substantial remodel or redevelopment/replacement) is allowed. In other words, there are policies that limit the use of shoreline armoring to protect existing structures in danger of erosion (unless located within the SPEA where armoring is also allowed to protect new development), and also policies that allow a one-time redevelopment regardless of whether or not the site has already been redeveloped since Coastal Act adoption (i.e., January 1, 1977).

<sup>74</sup> Robert Garcia and Erica Flores Baltodano, *Free the Beach! Public Access, Equal Justice, and the California Coast*, 2 *Stanford Journal of Civil Rights and Civil Liberties*, (143, 2005).

<sup>75</sup> *Coastal Access Equity and the Implementation of the California Coastal Act* (2016) Reineman, et al., *Stanford Environmental Law Review Journal*, v.36, pages 96-98.

public access and low-cost recreation. Coastal armoring, as described elsewhere in this report, causes significant impacts to shorelines, beaches, public views, and public access. Often, armoring protects very expensive private residences (\$5 million to \$10 million or more for beach/ocean fronting homes in the County) at the direct expense of the public's ability to recreate on beaches and other coastal areas. Sea level rise will exacerbate existing erosion and beach loss near shoreline armoring. As such, if not carefully planned and addressed, impacts from sea level rise and shoreline armoring will disproportionately affect EJ communities who do not live near the coast, often cannot afford to live there or visit often, and rely on free public access to the beach and low-cost recreation amenities and accommodations.

Further, to protect public access equitably in the face of sea level rise, coastal adaptation planning must be inclusive of all who will be affected by coastal planning decisions, including environmental justice communities and visitors to the coast. In this case, while it is clear that coastal property owners were fully engaged in the County's process, the same cannot be said for environmental justice communities, including inland residents of and visitors to the County, low-income communities, and communities of color that depend on the County's coastline for recreation, such as communities in the Salinas and Central valleys for whom a trip to the beaches in Santa Cruz can provide a welcome – and free – recreational respite. LCP planning by its very nature tends to focus on those most directly impacted by that planning, but here, those most affected by that planning include more than just shoreline property owners. It appears that others affected by this planning – including the millions of visitors to the County's shoreline, beach, and ocean recreational resources every year – have not been the focus of the County's efforts. Although the various LCP amendment forums for the proposed amendment as it was being developed locally were available to the public, it does not appear that the process provided an effective means for many of these other parties to participate. Given the complexities of such outreach, it can be a challenge for local governments to reach all who might be interested, but there needs to be a more concerted effort as it affects the County's coastline than appears to have occurred here.<sup>76</sup> It is also not clear that those participating, beyond perhaps the coastal property owners, understood that the County's proposal includes continued use of armoring for much of the County's most popular shoreline and beach areas, which would be expected to lead to adverse impacts – and in some cases full loss – of those resources. In short, the LCP amendment development process appears to have not meaningfully included the vast majority of those that would be most affected by it, including environmental justice communities.

Thus, the proposed LCP amendment raises environmental justice concerns and may result in disproportionate coastal access burdens for low-income communities,

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<sup>76</sup> For example, in nearby City of Santa Cruz, as part of recent LCP coastal hazard planning efforts the City deployed a number of staffers to prime visitor destinations to engage the visiting public and to get both their input and their contact information, including providing sea level rise 'goggles' that would show what the shoreline in those locations would look like under various levels of sea level rise using virtual reality technology. While not the only way of engaging the visiting public, it is clear that at the least an effort to 'meet the public where they are' is needed for coastal planning efforts like this that affect so many that don't necessarily live right along the immediate shoreline, in addition to other outreach (e.g., to inland areas) in other ways.

communities of color, and others who cannot afford to live near the coast or live farther away due to systemic inequities. While not completely mutually exclusive, it needs to be understood that because armoring will generally result in the loss of fronting beaches and other coastal habitats as sea levels rise, it represents a choice that typically benefits private interests at the expense of the public's interests. To be sure, these are difficult choices, including because allowing for continued armoring to protect development generally means that beaches (and the public values they provide) will ultimately disappear, whereas choosing to allow beaches to migrate inland generally requires the removal and relocation of development to more inland locations out of harm's way. Again, these are not easy decisions, including as they are often framed in terms of coastal property owner's needs – and coastal property owners have a vested interest in the outcome – but often missing from the debate are the public's needs as it relates to ensuring continued access to the County's sandy beaches and shoreline and park areas, including environmental justice communities. Where these beaches are a primary means of coastal recreation for those who are not able to live near the coast, including lower-income and communities of color who depend on the public beach for low-cost recreation and access to the coast, the proposed LUP amendments are also inconsistent with the Coastal Act's environmental justice principles, and would result in disproportionate environmental justice impacts.

### Conclusion

In conclusion, the County's proposed LUP coastal hazards provision are not consistent with Chapter 3 of the Coastal Act. The County proposes what must be best understood as an armoring program for the more urbanized areas of the County without clearly identifying the impacts of continued and expanded reliance on armoring for adaptation and resilience moving forward in light of the significant coastal hazards affecting these shoreline areas, including as exacerbated by ongoing and increasing sea level rise, and without proposing policies that would adequately protect the range of significant shoreline area resources referred to above. In other words, for the precise areas that provide the most important of the County's shoreline resources, from wide sandy beaches (like Twin Lakes and Seacliff/Rio Del Mar State Beaches) to pocket and narrower beaches (like Sunny Cove Beach and 26th Avenue Beach) to rockier shoreline and world renowned surfing areas (like Pleasure Point), the County essentially proposes to allow all forms of new development to rely on existing shoreline armoring, with very few restrictions that would facilitate managed retreat of development to protect beaches and shoreline bluffs. And, the proposed LCPA includes extensive allowances for shoreline protection of new development even in the more rural areas, such as Davenport and La Selva Beach, where managed retreat should be more proactively pursued.

This allowed armoring area is a significant chunk of Santa Cruz County's shoreline, some 12 miles or so (and roughly 40% of its shoreline), and includes essentially all of the most critical and popular recreational areas of that shoreline. This area is also predominantly backed by private high-priced residential development (that can range in value from some \$5 million to \$10 million or more), much of which appears to post-date the Coastal Act, and so, without a more comprehensive approach to the adaptation and mitigation of impacts, the 'trade off' of such a program is the protection of private

residential development at the expense of the public's shoreline beach and ocean resources.

In short, the County's proposed LUP amendment does not conform to the requirements of Chapter 3 of the Coastal Act and must be denied.

## **2. Implementation Plan Amendment Consistency Analysis**

With the proposed Land Use Plan changes denied, the proposed Implementation Plan changes are evaluated against the existing certified LUP. As described in the "Existing LCP Shoreline/Beach Protection and Coastal Hazard Provisions" Section above, the LUP tracks the Coastal Act as it relates to shoreline area coastal resource protection and the way in which that intersects with coastal hazards.<sup>77</sup> Specifically, like the Coastal Act, the LUP's primary objectives as it relates to the shoreline and beach areas are to protect the County's natural resources as resources of great public importance, and to avoid development either on such areas or adversely affecting them as much as is legally possible. In other words, the Coastal Act and LCP prioritize preserving and protecting the natural shoreline, including natural landforms and beaches, for their public recreation, aesthetic, and related values. In that core framework, the LCP also addresses the need for development to be sited and designed to minimize coastal hazard risks, and to avoid the use of armoring due to its known adverse impacts to such important public resources. In that sense, and like the Coastal Act, armoring allowances in the LUP are best understood as variances and exceptions to the 'normal' resource protection requirements, creating non-conformities in terms of such resource protection when they are allowed, and such armoring is only allowed in specific and limited exception circumstances mirroring the Coastal Act.

Specifically, the existing LUP addresses such coastal hazard considerations in Chapter 6 (Public Safety), and within that chapter in Section 6.2 (Slope Stability). There, the LUP requires hazards evaluation (LUP Policies 6.2.1, 6.2.2, and 6.2.11); requires development to be sited and designed to avoid or minimize hazards (LUP Policy 6.2.10); requires that blufftop setbacks be sufficient to provide a safe building location over at least 100 years (or at least a minimum setback of 25 feet) without a reliance on armoring (LUP Policies 6.2.12 and 6.2.15); strictly limits armoring to the least environmentally damaging feasible solution to protect existing structures from a "significant threat", and prohibits such armoring if it would "reduce or restrict public beach access, adversely affect shoreline processes and sand supply, increase erosion on adjacent properties, or cause harmful impacts on wildlife and fish habitats or archaeological or paleontological resources" (LUP Policy 6.2.16);<sup>78</sup> prohibits new building sites that cannot meet 100-year stability requirements (LUP Policy 6.2.17); and

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<sup>77</sup> And, as described in the prior existing LCP section, any questions of meaning, interpretation, and/or conflict between LUP provisions are to be resolved in favor of the meaning, interpretation, and outcome that most directly tracks the Coastal Act, from where the LUP (and the LCP overall) derives its statutory authority. This is specifically stated in LUP Chapter 1 and also explicitly recognized by court decisions (see, for example, *McAllister*, 169 Cal.App.4<sup>th</sup> 912).

<sup>78</sup> And, again, essentially prohibiting armoring overall.

requires that development in coastal hazard areas be accompanied by hazard disclosures via recordation on deeds (LUP Policies 6.2.9 and 6.2.15).

The proposed IP amendments are intended to implement and conform to the County's proposed modifications to the LUP, including the County's proposal to allow continued armoring throughout significant portions of the Santa Cruz coastline without sufficient minimization and mitigation requirements, the same USL/RSL and SPEA armoring exceptions, and similar resulting internal inconsistencies that make the County's proposal difficult to implement in a coherent way that can be clearly understood by the public and decision-makers. For example, proposed IP Section 16.10.040 includes new definitions of "Shoreline Protection Exception Area" and "shoreline or coastal bluff armoring," clarifications to the definitions of "development" and "shoreline and coastal bluff protection structure," and removal of numerous other hazards-related terms from the definitions section of the IP. Likewise, proposed IP Section 16.10.070 updates the criteria for new projects in areas subject to coastal bluff erosion, tracking and implementing the proposed LUP policies relating to SPEAs and USLs and RSLs, including allowing shoreline and bluff "protection measures" as well as hard shoreline "armoring" in designated SPEAs regardless of whether the measures (or armoring) are necessary to protect "existing" structures (i.e., those structures in existence prior to the effective date of the Coastal Act). In addition, the proposed IP contains several different terms relating to shoreline protective devices, including "protection measures," "armoring," and "shoreline and coastal bluff protective structures" that make it difficult to understand the LCP's requirements for particular projects.

In short, the proposed IP provisions are inconsistent with the existing LUP in the same manner that the proposed LUP provisions are inconsistent with the Coastal Act (and the entire prior section analyzing the proposed LUP changes is incorporated herein by reference for that purpose). The Commission finds the proposed IP changes do not conform with, and are not adequate to carry out, the certified LUP, and denies the County's proposed IP amendment.

### **3. LCP Amendment Consistency Analysis Conclusion**

Santa Cruz County's shoreline provides an important and heavily used beach and ocean recreational resource for County residents and visitors alike. These same beach and ocean resources also drive a significant visitor-oriented economy and provide a clear social fabric and identity that is ingrained in the County's coastal communities and areas. These resources are currently threatened and face intensified threats in the future from coastal erosion coupled with rising sea levels. If the shoreline were allowed to react to such factors naturally, including were it allowed to naturally erode and allow for new beaches and new surfing areas to naturally form, then those natural processes would likely be sufficient to maintain these resources indefinitely. At the same time, however, the County's more urban shoreline is also fronted by significant development, including public roads and utilities, but mostly by private high-priced residential development (ranging in value from some \$5 million to \$10 million or more for each such unit), and allowing nature to take its course in that way would be at the expense of such development. On the other hand, a choice to protect such development in place, such as via shoreline armoring, would be at the expense of these beach and ocean



recreational resources. And obviously, there might be programs that tilt more one way or the other (i.e., more towards facilitating natural processes versus more towards armoring) but find a balance between these two ends of the spectrum. These issues thus pose a series of questions about the tradeoffs that are oftentimes inherent in any such response to these coastal hazards issues.

In that context it is important to note that the Coastal Act requires these natural landforms and beaches and related shoreline resources to be protected as a matter of great public importance without reliance on armoring, including because armoring has demonstrable and significant negative impacts on such coastal resources, ultimately leading to their loss. In fact, for those reasons, the Coastal Act only allows for armoring in very limited circumstances,<sup>79</sup> and the post-Coastal Act structures that predominate along the Santa Cruz County shoreline are not entitled to armoring under the Coastal Act. It is in that context that the County's proposed new LCP coastal hazard provisions must be understood. And, unfortunately, such provisions fall short in terms of an appropriate vision for the future under the Coastal Act in a number of ways.

Primarily, and as opposed to clearly identifying and countenancing tradeoffs and uncertainties for adaptation and resilience moving forward in light of the significant coastal hazards affecting these shoreline areas, including as exacerbated by ongoing and increasing sea level rise, and as opposed to proposing policies that would adequately protect the range of significant shoreline area resources described above, including through comprehensive adaptation strategies that would adequately mitigate the impacts of armoring, the County instead proposes what is probably best understood as an armoring program for the urbanized areas of the County. In other words, for the precise areas that provide the most important of the County's shoreline resources, the County proposes to allow armoring to protect new development on a one-time basis, and on a nearly unlimited basis within the area from Pleasure Point proper to the Capitola city limits. And in fact, such armoring allowance on a one-time basis extends even to more rural areas, such as Davenport and La Selva Beach, because it would apply within the LCP's Urban Services and Rural Services Lines (USL and RSL, respectfully). This allowed armoring area is about 12 miles or so (or almost 40%) of the County's shoreline, and all of the most critical and popular recreational areas of it.

In other words, the County has chosen to protect shoreline development that is predominantly not entitled to it under the Coastal Act at the expense of immensely popular public beaches and shoreline recreational areas, without a comprehensive plan for protecting public access and recreation and mitigating armoring impacts in a way that could be approved under the Coastal Act. As described above, such a proposal is Coastal Act inconsistent. Many related proposed provisions, such as proposed introductory text and parts of many policies, are framed around how such an armoring program is Coastal Act consistent. However, as proposed, it is not consistent, and such proposed text – and there is a lot of it, including some 10 pages of such introductory text

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<sup>79</sup> Where such allowance is probably best conceptualized as an exception to Coastal Act objectives and provisions akin to a variance in land use terms, where armoring that is legally allowed represents what might best be described as 'legal non-conforming' development under the Coastal Act and LCPs.

in the proposed LUP provisions alone – is also inconsistent with the Coastal Act for similar reasons.

In addition, the proposed LCP language is complicated, hard to understand and follow in many places, and internally inconsistent, all of which means that on top of the critical armoring inconsistencies alluded to above, the proposal is simply unwieldy and unlikely to be able to be successfully implemented even without fixing the core armoring inconsistencies. The same can be said of the proposed IP text inasmuch as it mirrors the proposed LUP text, and thus suffers from the same Coastal Act inconsistencies and complicated and inconsistent frameworks. Thus, the proposed LCP amendment is a challenge for even a seasoned coastal planner to be able to understand the manner in which it would all work together in a coastal zone development evaluation and permitting context, and it would be difficult – and likely in some cases impossible – for the general public to work through what it means for proposed development.

In short, the proposal includes significant Coastal Act inconsistencies and structural problems that require that it be denied. When the Commission denies a submitted LCP amendment, the Commission has the ability to suggest modifications that, if the local government accepts them, would allow of the LCP amendment to be approved and certified as consistent with the Coastal Act (or the LUP, as appropriate).<sup>80</sup> However, the Commission does not suggest such modifications to the County's proposal in this case, because doing so would require a significant re-write of the County's proposal and a significant expenditure of staff and Commission resources.<sup>81</sup> Rather, the Commission believes that the Commission's time is better spent working with County staff to collaborate on changes to the County's proposed hazards update, starting first with simplifying the framework, approach, and objectives, and looking to find as much consensus as possible before County staff takes the matter to their Planning Commission and Board.

Fortunately, the County's proposal does include many forward-thinking elements that can form the foundation for a successful LCP coastal hazards amendment. In particular, the proposal clearly understands the phenomenon of coastal hazards as affected by sea level rise, and points to the need for such things as using best available science, applying hazard disclosures for properties in harm's way, allowing managed retreat in rural and less developed portions of the County, and deferring to future shoreline management planning to fine tune LCP provisions in light of changing future context. It appears that these types of provisions need to and can be extricated from the rest of the text to help form a number of consensus points almost immediately.

Finally, there has been much discussion at the Commission level, and particularly with the Local Government Sea Level Rise Working Group (including at a workshop just two months back this past August), regarding shared principles around LCP coastal hazard

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<sup>80</sup> These changes are referred to as 'suggested modifications'.

<sup>81</sup> In addition, there are significant questions whether the County Board of Supervisors would accept Commission suggested modifications relating to its hazards update. If a local government does not accept suggested modifications, the Commission's approval and certification expires and only its denial stands.

planning, including regarding thoughtful staff-to-staff collaboration before local governments finalize proposed LCP amendments to try to limit disagreements, and including regarding more fully exploring such concepts as ‘baseline’ policies and phased and ‘neighborhood scale’ adaptation. The Commission remains committed to the type of process and outcome that the Working Group and the Commission expect when an LCP amendment of this type comes to a hearing. Such efforts will include looking into how best to achieve practical phasing of LCP provisions over time, including in response to both future planning and future triggers that might provide the framework for a more step-wise LCP approach that keeps the document and its provisions nimble in light of sea level rise uncertainties.

In addition, the Commission here does not intend to ‘shut the door’ on exploring the concept of ‘neighborhood-scale adaptation,’<sup>82</sup> and does not intend its action here to be construed as an action evincing an intent to deny all such proposals moving forward. On the contrary, although the County here proposes a form of community or ‘neighborhood-scale’ adaptation, it is much broader in scope and less completely formed (particularly in terms of offsetting mitigating factors and areas, etc.) than would be required for a thoughtful discussion of such issues, including in terms of the potential need for both identifying and resolving Coastal Act conflicts as would be required by the Act’s conflict resolution provisions. And conversely, the Commission likewise is not endorsing the concept. Rather, the problems and context with this particular proposal make evaluation of the relevant community adaptation issues more difficult, which is exacerbated by the fact that the concept itself is controversial, and consideration of them in a broader context (e.g., a Commission workshop on the subject) and/or in a more well-formed LCP amendment (including where better efforts have been made to achieve as much consensus as possible before Commission consideration, and where actual Coastal Act conflicts and supporting documentation are a part of the proposal) is a preferred first-step.

The Commission looks forward to seeing the results of the expected staff-to-staff collaboration, acknowledging at the same time that there are a range of interests beyond the staffs, and further acknowledging that while consensus is the objective, it is not a failure if it is not achieved. On the contrary, coastal hazard issues in the age of sea level rise (and sea level rise uncertainties) are some of the more vexing planning issues and questions of our time, with a wide range of viewpoints on how best to adapt and be more resilient. In other words, there is much at stake and no obvious one right answer that will be acceptable to all or even most stakeholders. In that context, the Commission encourages all parties to be respectful, to seek to understand others’ viewpoints with whom they may disagree, to seek common ground where it may be

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<sup>82</sup> The concept of ‘neighborhood-scale’ or ‘community adaptation’ is premised on the idea that there may be sections of shoreline for which strict application of the Coastal Act might not allow armoring, but where the context might suggest that armoring is the more practical approach that minimizes and better mitigates for impacts to coastal resources overall (e.g., a mostly armored shoreline that is unlikely to lead to significant and naturally occurring beach space if there was no armoring, etc.), at least in the short term, and when it is accompanied by appropriate mitigation for impacts and triggers for future shoreline planning to identify preferred longer term outcomes.

presented, and all in all to try to reach as much consensus as possible as the revised LCP amendment is developed.

### **E. California Environmental Quality Act (CEQA)**

CEQA Section 21080.5(d)(2)(A) prohibits a proposed LCP or LCP amendment from being approved if there are feasible alternatives and/or feasible mitigation measures available that would substantially lessen any significant adverse effect that the LCP or LCP amendment may have on the environment. Although local governments are not required to satisfy CEQA in terms of local preparation and adoption of LCPs and LCP amendments, many local governments use the CEQA process to develop information about proposed LCPs and LCP amendments, including to help facilitate Coastal Act review. In this case, the County issued a Negative Declaration under CEQA, finding that there was no substantial evidence that the project will have a significant effect on the environment.

The Commission incorporates all above findings at this point as if set forth in full. This report has discussed the relevant coastal resource issues with the proposal, has addressed comments received, and has concluded that the proposed LCP amendment is expected to result in significant environmental effects, including as those terms are understood in CEQA. Further, this report shows that modifications aren't available to allow for approval of a modified LCP amendment that can adequately address the coastal resource issues identified herein. Accordingly, it is necessary for the Commission to deny the proposed LCP amendment to ensure that it does not result in significant adverse environmental effects.

Pursuant to CEQA Guidelines Section 15042, "a public agency may disapprove a project if necessary in order to avoid one or more significant effects on the environment that would occur if the project were approved as proposed." Section 21080(b)(5) of CEQA, as implemented by Section 15270 of the CEQA Guidelines, provides that CEQA does not apply to LCP amendments that a public agency rejects or disapproves. Accordingly, the Commission finds that denial, for the reasons stated in this report, is necessary to avoid the significant effects on coastal resources that would occur if the LCP amendment was approved. Accordingly, the Commission's denial of the LCP amendment represents an action to which CEQA, and all requirements contained therein that might otherwise apply to regulatory actions by the Commission, do not apply.

## **3. APPENDICES**

### **A. Substantive File Documents<sup>83</sup>**

- File for LCP-3-SCO-20-0066-2 (Coastal Hazards)

### **B. Staff Contacts with Agencies and Groups**

- Santa Cruz County Community Development and Infrastructure Department

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<sup>83</sup> These documents are available for review from the Commission's Central Coast District office.

LCP-3-SCO-20-0066-2 (Coastal Hazards)

- California State Association of Counties (CSAC)/League of California Cities/Coastal Commission Local Government Sea Level Rise Working Group
- Smart Coast California
- Coastal Property Owners Association - Santa Cruz County
- Surfrider Foundation
- Save the Waves Coalition