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# Th9d

**DATE:** May 27, 2021

**TO:** Coastal Commissioners and Interested Persons

**FROM:** Karl Schwing, Deputy Director, San Diego Coast District  
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Kanani Leslie, Coastal Program Manager, San Diego Coast District  
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**SUBJECT:** **Staff Recommendation on City of Del Mar Major Amendment LCP-6-DMR-20-0005-1 (Sea Level Rise) for Commission Meeting of June 10, 2021**

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## **SYNOPSIS**

The subject LCP amendment (LCP-6-DMR-20-0005-1) was submitted and subsequently filed as complete on January 21, 2020. The Commission granted a one-year time extension on May 14, 2020 pursuant to Coastal Act § 30517 and California Code of Regulations, Title 14, § 13535(c). Therefore, the Commission must take action on this LCP amendment by July 27, 2021.

## **SUMMARY OF AMENDMENT REQUEST**

The City of Del Mar is proposing revisions to its Land Use Plan (LUP) and Implementation Plan (IP) related to coastal hazards. The City's Land Use Plan was approved in 1993, but the Local Coastal Program (LCP) was not fully certified until September 11, 2001. In 2014, the City initiated a process to update its LCP to address sea level rise (SLR). With grant funding from the Coastal Commission and Ocean Protection Council totaling \$311,220, the City engaged consultants to develop a number of supporting informational documents on SLR impacts and adaptation, conducted extensive public outreach and stakeholder engagement, and developed the subject LCP amendment, which the City refers to as its Sea Level Rise Local Coastal Program Amendment. This amendment was originally scheduled to be discussed at the October 2019 Coastal Commission meeting, but in order to provide more time for staff-to-staff coordination on the submittal, the item was postponed. The City withdrew the amendment application and resubmitted the same proposed amendment on January

15, 2020, thus providing more time for coordination with Coastal Commission staff. This staff report is the result of that coordination.

Del Mar is a small coastal community in San Diego County situated entirely within the Coastal Zone. Exhibits 1 and 2 of this staff report provide maps of the major neighborhoods and some of the key features of the City. From north to south, the City's coastline includes: a small section of bluffs called the North Bluffs, the San Dieguito River mouth, the low-lying (non-bluff) North Beach neighborhood, a section of mid-City bluffs called the South Beach area with railroad tracks running along the blufftop, and the South Bluffs area. The southern border of the City lies near the mouth of the Los Penasquitos Creek.

The submitted LCP amendment includes amendments to both the Land Use Plan and Implementation Plan. Of the five chapters in the LUP, amendments were submitted for Chapter 1 (Introduction) and Chapter III (Hazard Control) (Exhibit 7). Of the ten chapters in the IP, amendments were submitted for three chapters: the Floodway Zone, Floodplain Zone, and Bluff Zone regulations (Exhibit 8). The 2018 Del Mar Sea Level Rise Adaptation Plan was also included as part of the submittal as an LCP amendment (Appendix A).

The 2018 Del Mar Sea Level Rise (SLR) Adaptation Plan is a technical document that describes the City's preferred near-term SLR adaptation measures, including beach nourishment, dredging of the San Dieguito River, living levees, and flood proofing or relocating vulnerable public infrastructure. The report also lists adaptation strategy options that could be applied in the longer term in various regions of the City. For each region of the City, the Adaptation Plan provides metrics that the City plans to monitor over time (such as beach width, bluff erosion, wetland habitat conversion, and flood risk) to track the progress of SLR impacts, and specifies thresholds of impact that will signal to the City that action needs to be taken (such as beach width narrowing to less than 80 feet in the summer and 25 feet in the winter, the bluff edge coming within 35 feet of development, etc.). The Adaptation Plan does not specify what actions would be taken after those thresholds are crossed, but rather states that the City prefers to maintain a flexible approach to future adaptation. The Plan also states that the City has rejected managed retreat as an adaptation strategy at this time.

In the submitted LUP amendment, Chapter 1 (Introduction) was edited to acknowledge SLR and the associated impacts of flooding, beach loss, and coastal bluff erosion. In Chapter III (Hazard Control), the introductory language was edited to describe the impacts of SLR expected to affect Del Mar, and to state that the City will continue to monitor changing conditions over time and take appropriate action once impacts are observed. Additionally, policies in Chapter III were edited or added to broadly provide for the following: implementing best management practices to minimize shoreline hazards (Policy III-2.e), supporting the relocation of the LOSSAN railroad (Policy III-2.f), coordinating with certain regional entities on sand replenishment (Policy III-5), requiring new development to include design measures to address SLR (Policy III-6), requiring setbacks that achieve a minimum factor of safety of 1.5 on coastal bluffs and vulnerable

slopes (Policy III-9), ensuring development is sited and designed to avoid and mitigate impacts from SLR hazards associated with bluff erosion (Policy III-10), protecting, flood-proofing or relocating vulnerable public facilities (Policy III-12.d and e), dredging the San Dieguito River channel (Policy III-12.f), using living levees to reduce flood risk (Policy III-12.g), and developing a program to mitigate development impacts on coastal resources and fund adaptation projects consistent with the Del Mar Adaptation Plan (Policy III-15).

Submitted amendments to Chapter 30.29 of the IP (Floodway Zone) include minor revisions as well as new language reflecting FEMA requirements on required permits for development in the floodway zone, regulations for development in the floodway zone, and notifications required. FEMA standards are designed to address current extreme storm and flood events but are insufficient to address sea level rise and its effect on future hazard conditions.

Submitted amendments to Chapter 30.55 of the IP (Coastal Bluff Overlay Zone) include re-organization of language from the certified IP concerning development regulations and permit requirements. This re-organized language addresses issues such as geotechnical reports required in conjunction with Coastal Development Permit applications and measures to prevent projects from exacerbating erosion and sedimentation, such as grading plans and landscaping plans. The submitted amendments also include new definitions as well as new language related to setback requirements, a permit exemption for structures destroyed by disasters in certain circumstances, and language related to permit conditions of approval, including a requirement that applicants record a notice on the title to the property that the property is located in the Coastal Bluff Overlay Zone.

Submitted amendments to Chapter 30.56 of the IP (Floodplain Overlay Zone) include edits related to FEMA floodplain management requirements which, like the Floodway Overlay Zone, address current, not future, flood events. The amendment introduces new regulations that do the following in the Floodplain Overlay Zone: require disclosures in real estate transactions, prohibit new basements in AE and VE zones of the Federal Flood Insurance Rate Maps (FIRMs), describe required permits in the Floodplain Overlay Zone, require a registered professional engineer or architect to certify that all design and methods of construction meet elevation and anchoring standards, and require applicants to record a notice that acknowledges the property is located in the Floodplain Overlay Zone.

### **SUMMARY OF STAFF RECOMMENDATION**

The proposed LCP amendment addresses hazards through a combination of policies on sea level rise (SLR) and updates to comply with FEMA standards. The City's Sea Level Rise Adaptation Plan includes specific, near-term SLR adaptation strategies identified as the City's preferred alternatives, as well as a discussion of options for the longer term. The Plan is detailed and informational, and is not written in the form of policy language. The proposed LUP amendment includes about 10 broad policies related to SLR, many of which capture the preferred near-term adaptation strategies from the

Adaptation Plan. The proposed IP amendment includes code updates largely focused on compliance with FEMA standards, which address current, not future, flood events. Thus, the proposed LCP amendment is a first and important step forward in the City's efforts to address SLR, especially in the near-term.

However, the proposed amendment does not include the level of detail necessary to address the future impacts of SLR – and future extreme events – which are described in the City's Coastal Hazards, Vulnerability, and Risk Assessment, the Sea Level Rise Adaptation Plan, and other technical documents. Given the extensive work the City has done to better understand its sea level rise vulnerability, and given the serious consequences those vulnerabilities could have on coastal resources, development, and public safety in Del Mar, it is important that the LCP sufficiently address sea level rise hazards. Thus, Commission staff recommends denial of the proposed LUP and IP amendments as submitted, and certification of the proposed amendments only if modified to include suggested modifications that incorporate additional measures consistent with the City's Adaptation Plan. Only as modified can the LCP amendments ensure safety of development and protection of coastal resources in light of sea level rise.

Commission and Del Mar City staff worked closely together during the development of the proposed LCP amendment. Several outcomes of the local process have guided Commission staff's approach to development of suggested modifications. Some of these key outcomes are listed below:

- Del Mar's voter-approved Beach Preservation Initiative, which was incorporated into the original certified LCP's Beach Overlay Zone regulations, provides a framework for approvable shoreline protective devices along the coast. Through the local LCP amendment development process, significant concern was voiced among North Beach residents and other community members that the Commission's suggested modifications to the proposed LCP amendment will preclude development or redevelopment in this neighborhood, or change how shoreline protective devices are regulated in this area. The submitted LCP amendment does not include changes to any of the regulations related to these topics, nor does the Commission's suggested modifications. Thus, if conditionally certified by the Commission as recommended, action on this LCP amendment will not result in changes to these existing shoreline protection standards in the North Beach neighborhood beyond those already required by FEMA's update to the applicable Flood Insurance Rate Maps (FIRMs).
- The Del Mar Sea Level Rise Adaptation Plan was submitted along with amendments to the LUP and IP. The City Council and many members of the public have conveyed strong support for the Adaptation Plan and have questioned why the LCP should incorporate SLR adaptation measures if the Adaptation Plan already includes them. However, the Adaptation Plan is an informational document, and while it describes the City's intended approach to adaptation, it does not include specific policy language that provides standards for development in the coastal zone. Because the Coastal Commission is tasked

with ensuring the policies and zoning regulations within LCPs are consistent with the Coastal Act, it is the policies and regulations within the LUP and IP that must be analyzed for consistency with the Coastal Act. The Commission cannot rely on content in an informational document to determine whether an LCP provision is consistent with the Coastal Act. Thus, as is described in the Findings section of this staff report, some of the content of the Adaptation Plan must be incorporated directly in the LUP in order to ensure that the LUP is consistent with the Chapter 3 policies of the Coastal Act and that in turn, the certified LUP provides a standard of review for amendments to the IP. Additionally, the role of the Adaptation Plan as a supporting guidance document within the LCP needs to be clarified.

- Managed retreat was a major topic of discussion within the Del Mar community during the development of the proposed LCP amendment. Large sections of the community, Stakeholder Technical Advisory Committee (STAC), and City Council came to the conclusion that it was not appropriate to include managed retreat in the proposed LCP amendment. The Commission's task is to ensure the proposed LCP amendment is consistent with the Coastal Act; therefore, Commission staff have developed suggested modifications necessary to ensure consistency with the Coastal Act. As modified, the LCP will provide a phased approach to SLR adaptation, as framed by the City in its Adaptation Plan. Thus, the subject LCP amendment, as suggested to be modified, includes measures that must be implemented in the short term, and sets up specific thresholds for future adaptation actions and LCP updates that will carry out necessary SLR adaptation over time, as appropriate.

As modified, this LCP amendment would take steps toward addressing SLR in certain sections of the Del Mar LCP, but as described in the adopted Adaptation Plan, more steps will be needed in the future. Thus, this LCP amendment is the first step in what should be an ongoing process to periodically update the LCP to incorporate developing science on SLR, observed impacts of SLR, and other events that may impact the City's coastal resources and development. As a result, suggested modifications require future updates and planning to minimize hazards and protect coastal resources as conditions change, as anticipated, over time in Del Mar.

The following is a brief summary of the major suggested modifications to the proposed LUP Amendment:

- **Thresholds for future LCP updates.** A suggested modification would require the LCP to be reviewed, and if necessary, updated every 10 years to address changed conditions and updated best available science on sea level rise. It would also require an LCP amendment to be initiated sooner if and when relocation of the LOSSAN railroad is approved and funded, and it lists a series of actions derived from the City's adopted Adaptation Plan that the City shall undertake after a certain number of years or when certain hazard conditions are observed. The scope and scale of any future LCP amendment would depend on the observed impacts, current conditions, best available science, and anticipated

future impacts of SLR. Because of the limited scope of the proposed LCP amendment, it is not consistent with the Coastal Act without commitment to future LCP reviews and necessary updates built into the LCP that require future reassessment of the City's adaptation approach if/when increased SLR impacts are realized.

- **Floodplain Overlay Zone map.** The proposed LCP amendment defines the Floodplain Overlay Zone as the floodplain areas shown on the most recently approved FEMA Flood Insurance Rate Maps (FIRMs). Suggested modifications would make the minor revision of instead defining the Floodplain Overlay Zone map as the FIRM dated December 2019 specifically, because that version of the FIRM closely matches the maps of SLR hazards in the Del Mar Sea Level Rise Vulnerability, and Risk Assessment. Suggested modifications would require future updates to the FIRMs to be incorporated into the LCP through LCP amendments, which would provide opportunities to reassess whether the FIRMs capture both current extreme flood risks as well as risks from sea level rise. Thus, the suggested modifications make only a minor change to the submittal, while also ensuring the map captures sea level rise risks and will continue to do so, as necessary, in the future.
- **Incorporation of elements of the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment and Adaptation Plan.** A suggested modification would clarify that the 2016 Del Mar Coastal Hazards, Vulnerability, and Risk Assessment, the 2018 Addendum to the Risk Assessment, and the 2018 Del Mar Sea Level Rise Adaptation Plan are incorporated as guidance documents to the extent they do not conflict with any other provisions of the certified LCP. This would clarify the relationship between these guidance documents and the policies and zoning code of the LUP and IP. Another suggested modification would incorporate the principles from the Adaptation Plan directly into Chapter III of the LUP. These principles, as adopted by the City, capture the intent of several Coastal Act policies as they apply to the hazard conditions in Del Mar; and by including them in the main text of the LUP, they would provide the appropriate Coastal Act-consistent standard of review for future SLR adaptation measures that are likely to be implemented.

Major suggested modifications to the proposed IP Amendment are summarized below:

- **Bluff setbacks.** The proposed LCP amendment requires blufftop setbacks to include the projected long-term bluff retreat over the next 75 years, plus the distance needed to maintain a minimum factor of safety of 1.5 against land sliding. A suggested modification would clarify that long-term bluff retreat shall be calculated considering the effects of sea level rise upon erosion rates.
- **Definition of existing development.** The proposed amendment would introduce a new definition of existing development into two chapters of the IP, including the Coastal Bluff Overlay Zone (Chapter 30.55) and the Floodplain Overlay Zone (Chapter 30.56), as follows: "any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or

preceding San Diego County ordinances.” This proposed definition would be deleted by a suggested modification.

- **Definition of substantial improvement.** A suggested modification would not change the language included in the proposed LCP amendment, but rather add additional criteria and state that if a development meets any of the criteria, that the development would meet the definition. These new criteria would capture 50% change to any major structural component of the development, either in a single project or cumulatively since the original date of certification of the LCP (September 11, 2001).
- **Floodplain Overlay Zone map.** Since a suggested modification to the LUP defines the Floodplain Overlay Zone map as the December 2019 FIRM (Exhibit 5), suggested modifications would amend appropriate sections of the IP to also define Floodplain Overlay Zone map as the floodplain areas in the December 2019 FIRM.
- **Assumption of risk in the Floodplain Overlay Zone.** Suggested modifications would expand the assumption of risk requirements proposed in the Coastal Bluff Overlay Zone (Chapter 30.55) and the Floodplain Overlay Zone (Chapter 30.56) to include information about potential SLR vulnerability.
- **Floodplain Development Permit exemptions.** A suggested modification would clarify what development types in the Floodplain Overlay Zone are exempt from the requirement to obtain a Floodplain Development Permit.
- **Design requirements in Floodway and Floodplain Overlay Zones.** The proposed IP amendment includes new development regulations that have an emphasis on compliance with FEMA regulations, which are designed to address current extreme flood risk, not heightened flood risk due to SLR. Suggested modifications would require consideration of design modifications to address SLR in both the Floodway and Floodplain Overlay Zones, and incorporation of those modifications into the design as appropriate.

Finally, several minor, nonsubstantive modifications correct minor grammatical issues, provide clarity, or correct unintentional omissions (see Exhibit 11).

In summary, Commission staff recommends that the Commission, after public hearing, **reject** the City of Del Mar’s proposed LCP Amendment No. LCP-6-DMR-20-0005-1 as submitted, and **certify** the proposed amendment only if modified pursuant to **22 suggested modifications**. The staff-recommended suggested modifications are found in Section III of this staff report. The suggested modifications to the proposed LUP amendment are necessary to ensure that the amendment request meets the requirements of and is consistent with the policies of Chapter Three of the Coastal Act, including policies related to geologic and coastal hazards, shoreline and bluff development, public access, recreation, marine resources, and visual resources. The suggested modifications to the proposed IP amendment are necessary to ensure that the amendment request is consistent with and adequate to carry out the LUP as conditionally-certified with those suggested modifications.

The appropriate motions and resolutions begin on Page 13. The suggested modifications begin on Page 15. The findings for denial of the Land Use Plan Amendment as submitted, and approval if modified, begin on Page 31. The findings for denial of the Implementation Plan Amendment, and approval if modified, begin on Page 53.

### **ADDITIONAL INFORMATION**

Written public comments on this item can be sent to [DelMarSLR@coastal.ca.gov](mailto:DelMarSLR@coastal.ca.gov). Further information on the City of Del Mar LCP amendment LCP-6-DMR-20-0005-1 (Sea Level Rise) may be obtained from Carey Batha, Environmental Scientist, at [Carey.Batha@coastal.ca.gov](mailto:Carey.Batha@coastal.ca.gov) or (415) 904-5200; or from Kanani Leslie, Coastal Program Manager in the San Diego District Office, at [Kanani.Leslie@coastal.ca.gov](mailto:Kanani.Leslie@coastal.ca.gov).

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### **EXHIBITS**

- [1. General Location Map](#)
- [2. Del Mar Communities Map](#)
- [3. Shoreline Protection Area \(SPA\) Line Map](#)
- [4. Certified Floodway, Floodplain, and Coastal Bluff Hazard Overlay Maps](#)

5. [Sea Level Rise Flooding Map & December 2019 Flood Insurance Rate Maps \(FIRMs\)](#)
6. [Maps of Bluff Erosion as influenced by SLR](#)
7. [City-proposed LUP amendment \(underline-strikethrough\) with Suggested Modifications shown in track changes](#)
8. [City-proposed IP amendment \(underline-strikethrough\) with Suggested Modifications shown in track changes](#)
9. [City Resolution No. 2018-72](#)
10. [Del Mar “Building Valuation for Projects Involving Structural Non-conformities: An applicant’s guide to the process and valuation worksheet”](#)
11. [Minor suggested modifications](#)
12. [Comparison of October 16, 2019 staff recommendation with the June 10, 2021 staff recommendation](#)

## **I. OVERVIEW**

### **A. LCP History**

Del Mar is a small urbanized community with little undeveloped land and a current population of about 4,400. After completing its community plan update and addressing some longstanding beachfront issues, in May 1991, the City of Del Mar submitted its Land Use Plan (LUP) for Commission action. In September 1991, the Commission denied the LUP as submitted and certified it with suggested modifications. The City did not accept the suggested modifications within six months, so the City resubmitted the same documents and the Commission again certified the LUP with suggested modifications in June 1992. This time, the City Council did adopt the modifications within the prescribed time and the LUP became effective in March 1993. The Implementation Plan (IP) was certified with suggested modifications on March 13, 2001. On September 11, 2001, the Commission concurred with the Executive Director’s determination that the City’s action was adequate to make the City of Del Mar Local Coastal Program (LCP) effective, and on that date the City assumed permit issuing authority.

The certified LCP was first amended (LCPA No. 1-2000) in 2002 to incorporate the City’s Multiple Species Conservation Program Subarea Plan. A second LCP amendment (DMR-MAJ-1-08), referenced as Garden del Mar, was certified with suggested modifications in March 2009 for the re-designation and rezoning of the property at the southeast corner of Camino del Mar and 10th Street. The amendment allowed for a mix of commercial uses at the site, and the Commission wanted to ensure that a ground-floor restaurant use would be included along the Camino del Mar frontage. A third amendment (DMR-MAJ-1-09) was certified with suggested modifications in March 2010 to revise parking regulations to support revitalization of the City’s downtown business district. A fourth amendment (DMR-MAJ-1-11) involved deleting a phrase regarding the processing for authorization of reduction in wetland setbacks so as to delete automatic deferral to California Department of Fish and

Wildlife. A fifth amendment (DMR-16-0073-1) was certified with modifications in May 2017 to amend the certified Implementation Plan (IP) to add and update various regulations related to off-street parking to more efficiently utilize existing spaces in commercial zones, change in-lieu fee parking program requirements, and incentivize alternative transportation options. A sixth amendment (DMR-17-0062-2) was certified as submitted in February 2018 to amend the certified LCP Implementation Plan to establish local regulations for Accessory Dwelling Units and Junior Accessory Dwelling Units. A seventh amendment (LCP-6-DMR-18-0096-2) was certified as submitted in May 2019 to rescind the Garden del Mar Specific Plan and add a Specific Plan for the redevelopment of two adjacent parcels at the southeast corner of Camino Del Mar and 10th Street.

In 1988, the voters of the City of Del Mar approved Measure “D” – the “Beach Preservation Initiative” (BPI) – later codified as Chapter 30.50 in the Implementation Plan when it was originally certified in 2001. The goal of the initiative was to address encroachments onto the beach and establish the City’s rules for seawall permits. The BPI established the “Shoreline Protection Area” (SPA), which essentially covers the sandy beach west of the North Beach neighborhood and the area west of the railroad as it runs along the Del Mar bluffs. Its eastern boundary is a line commonly referred to as the “SPA line,” which generally runs along a line of existing seawalls fronting beachfront properties and south along the center line of the railroad (Exhibit 3). The certified Del Mar LCP allows shoreline protective devices on private property *landward* of the SPA line if the devices meet certain criteria (which mirror Sections 30235 and 30253 of the Coastal Act); and the LCP allows protective devices *seaward* of the SPA line when they meet those same criteria and extend no more than 5 feet seaward of the SPA line in the case of seawalls and no more than 20 feet in the case of riprap. One of these criteria requires that the protective device be necessary to protect existing development in danger from erosion. Traditionally, the term “existing development” has been interpreted to include the existing North Beach neighborhood as a whole; and protective devices along the shoreline that prevent flooding from flowing inland to parcels and infrastructure at *lower* elevations have been approved because they were necessary to protect the existing development within the neighborhood. Any changes to the regulations established through this voter approval can only be changed through another voter initiative (Cal. Const., art. II, § 10(c)), and only if the new regulations are also certified by the Coastal Commission. The subject LCP amendment does not include or affect these regulations.

In 2014, the City began a process to update its LCP to address sea level rise. This work was supported by grant funding from the Coastal Commission (LCP-16-13, for \$211,220) and Ocean Protection Council (LCP-14-13, for \$100,000), both of which were administered through the Coastal Commission’s LCP Local Assistance Grant Program. The grants supported the development of several technical documents in addition to public outreach and the development of the subject LCP amendment. The technical documents included a 2016 Coastal Hazards, Vulnerability, and Risk Assessment and 2018 Addendum; a 2018 Sea Level Rise Adaptation Plan; a 2018 Sediment Management Plan; and a 2018 Wetland Habitat Migration Assessment. Commission

staff and City staff collaborated extensively on the development of these technical documents, and subsequently, on the development of the draft LUP and IP amendments.

After City Council meetings on October 1, 2018 and October 15, 2018, the City of Del Mar submitted the LCP amendment to Commission staff, which was deemed complete on December 10, 2018. The submittal included the Sea Level Rise Adaptation Plan, amendments to the LUP, and amendments to the Floodway, Floodplain, and Coastal Bluff Overlay chapters of the IP. The submittal does not include any amendments to Chapter 30.50 of the IP, which includes the regulations that carry out the voter-approved Beach Preservation Initiative.

To support the submittal, the City Council (which at the time was comprised of a different set of Councilmembers than the set that comprises the Council as of the date of this staff report) adopted Resolution 2018-72, which states the City's intention to "reject any proposed modification by the Coastal Commission which substantially deviates from the adopted Adaptation Plan and Local Coastal Program amendments." (Exhibit 9, Page 1.) The Resolution further detailed the City's intent to reject any suggested modifications that "conflict with the City's rejection of managed retreat as a local adaption strategy, and that substantially conflict with how the City current regulates 'existing development'." (Exhibit 9, Page 4, Item 2b.)

A Coastal Commission staff report<sup>1</sup> was prepared for the October 16, 2019 Commission meeting, but after discussions between City staff and Commission staff, the item was postponed to allow for more time for staff-to-staff coordination on the amendment. The City withdrew the submittal and resubmitted the same proposed amendment on January 15, 2020. City and Commission staff have worked together to address new information that has been made available since October 2019 as well as to identify other ways to resolve remaining issues. This staff report represents the outcome of that work. For a summary of how the staff recommendation in this staff report is different than the one in the staff report for the October 2019 Commission meeting, please see Exhibit 12.

## **B. Standard of Review**

The standard of review for the proposed LUP amendment is whether it meets the requirements of, and is in conformity with, the Chapter 3 policies of the Coastal Act (Pub. Resources Code, § 30512(c). A decision to certify requires a majority vote of the appointed membership of the commission.

The standard of review for the proposed IP amendment is whether it conforms with and is adequate to carry out the LUP, as conditioned with suggested modifications. (§ 30513, Cal. Code of Regs., tit. 14, 13542(c).) The Commission shall take action by a majority vote of those present. (Cal. Code of Regs., tit. 14, 13542(b).)

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<sup>1</sup> See Coastal Commission staff report for the October 16, 2019 Commission meeting here: <https://documents.coastal.ca.gov/reports/2019/10/W10a/W10a-8-2019-report.pdf>

## C. Public Participation

The City has held Planning Commission and City Council meetings with regard to the subject amendment request. All of those local hearings were duly noticed to the public. Notice of the subject amendment has been distributed to all known interested parties.

Additionally, the City conducted extensive outreach during the development of both the LCP amendment and the supporting guidance documents. This work was supported in part by grant funding administered by the Coastal Commission staff. A Sea-Level Rise Stakeholder Technical Advisory Committee (STAC) was established in 2015 by City Resolution, and it met twenty-four times between 2015 and 2018 to provide a public forum for stakeholder review, discussion, and recommendations to the City Council. Coastal Commission staff participated directly as a part of the STAC until the fall of 2017.

## II. MOTIONS AND RESOLUTIONS

Staff is recommending that the Commission certify the LUP amendment as modified and to certify the IP amendment as modified. The Commission needs to take two separate actions for each the LUP amendment and the IP amendment to effect this recommendation; four actions in total.

### 1. Denial of LUP Amendment as Submitted

***Motion:** I move that the Commission certify Land Use Plan Amendment LCP-6-DMR-20-0005-1 as submitted by the City of Del Mar. I recommend a no vote.*

Staff recommends a **NO** vote on the following motion. 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 a majority of the appointed Commissioners.

***Resolution:** The Commission hereby denies certification of Land Use Plan Amendment LCP-6-DMR-20-0005-1 as submitted by the City of Del Mar and adopts the findings set forth below on the grounds that the amendment does not conform with the policies of Chapter 3 of the Coastal Act. Certification of the Land Use Plan amendment would not comply with the California Environmental Quality Act because there are feasible alternatives or mitigation measures which could substantially lessen any significant adverse impact which the Land Use Plan Amendment may have on the environment.*

### 2. Approval of LUP Amendment with Suggested Modifications

**Motion:** *I move that the Commission certify Land Use Plan Amendment LCP-6-DMR-20-0005-1 for the City of Del Mar if it is modified as suggested by the staff recommendation. I recommend a yes vote.*

Staff recommends a **YES** vote on the following motion. Passage of the motion will result in the certification of the LUP amendment with suggested modifications and adoption of the following resolution and findings. The motion to certify with suggested modifications passes only upon an affirmative vote of the majority of the appointed Commissioners.

**Resolution:** *The Commission hereby certifies Land Use Plan Amendment LCP-6-DMR-20-0005-1 for the City of Del Mar if modified as suggested and adopts the findings set forth below on the grounds that the Land Use Plan amendment with suggested modifications will meet the requirements of and be in conformity with the policies of Chapter 3 of the Coastal Act. Certification of the land use plan amendment if modified as suggested complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the plan on the environment, or 2) there are no further feasible alternatives or mitigation measures that would substantially lessen any significant adverse impacts which the Land Use Plan Amendment may have on the environment.*

### 3. Denial of the IP Amendment as Submitted

**Motion.** *I move that the Commission reject Implementation Plan Amendment LCP-6-DMR-20-0005-1 as submitted by City of Del Mar, and I recommend a yes vote.*

Staff recommends a **YES** vote on the following motion. Passage of this motion will result in denial of the IP amendment as submitted and adoption of the following resolution and findings. The motion passes only upon an affirmative vote of a majority of the Commissioners present.

**Resolution.** *The Commission hereby denies certification of the Implementation Plan Amendment LCP-6-DMR-20-0005-1 as submitted by City of Del Mar and adopts the findings set forth below on grounds that the Implementation Plan as submitted does not conform with, and is inadequate to carry out, the provisions of the Land Use Plan as amended. Certification of the Implementation Plan as submitted 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 Implementation Plan as submitted.*

### 4. Approval of the IP Amendment with Suggested Modifications

**Motion.** *I move that the Commission certify Implementation Plan Amendment LCP-6-DMR-20-0005-1 for City of Del Mar if it is modified as suggested by the staff recommendation, and I recommend a yes vote.*

Staff recommends a **YES** vote on the following motion. Passage of the motion will result in the certification of the IP amendment with suggested modifications and adoption of the following resolution and findings. The motion to certify with suggested modifications passes only upon an affirmative vote of the majority of the Commissioners present.

**Resolution.** *The Commission hereby certifies the Implementation Plan Amendment LCP-6-DMR-20-0005-1 submitted by the City of Del Mar, if modified as suggested, and adopts the findings set forth below on grounds that the Implementation Plan with the suggested modifications conforms with, and is adequate to carry out, the provisions of the Land Use Plan as amended. Certification of the Implementation Plan if modified as suggested complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the plan on the environment, or 2) there are no further feasible alternatives and mitigation measures that would substantially lessen any significant adverse impacts on the environment that will result from certification of the Implementation Plan if modified as suggested.*

### **III. SUGGESTED MODIFICATIONS**

Staff recommends that the following suggested modifications to the proposed LCP amendment be adopted. The underlined sections represent language that the Commission suggests be added, and the ~~struck-out~~ sections represent language which the Commission suggests be deleted from the language as originally submitted. For convenience, the suggested modifications are organized by topic area.

#### **Suggested Modifications to the Proposed Land Use Plan**

**Suggested Modification No. 1** Modifications related to the Floodplain Overlay Zone Map: The proposed LCP Amendment defines the Floodplain Overlay Zone as the floodplain depicted on the Federal Flood Insurance Rate Maps (FIRMs), but references older versions of the FIRMs that were updated after the City submitted the proposed Amendment. The following suggested modifications would make the necessary changes to instead reference the updated FIRMs, clarify that future updates to the FIRMs will be incorporated through future LCP amendments, and clarify how to handle parcels that fall partially within the map.

- a. Modify CHAPTER III – HAZARD CONTROL, Section E. Flood Hazards, Policy III-13 as follows:

III-13 Ensure that development within the Floodplain Overlay Zone will not unreasonably obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs; and will minimize the cost of flood insurance to Del Mar residents. The following Floodplain (FP) Overlay Zone policies shall be applied to all applications for a Floodplain Development Permit. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone. This overlay zone incorporates floodplain areas designated on the Federal Insurance Rate Map (FIRM) for the area as prepared by the Federal Emergency Management Agency. The floodplain areas are generally depicted on the FIRMs dated December 2019. Updates to the FIRMs shall be incorporated into the Land Use Plan and FP Overlay Zone through future LCP Amendments within a reasonable time period map that is included as Figure III-E.

- b. Modify CHAPTER III – HAZARD CONTROL, Section E. Flood Hazards, paragraph 2 as follows:

Flood hazards shall be minimized through the application of the Floodway Zone (Del Mar Municipal Code Chapter 30.29) and the Floodplain Overlay Zone (Del Mar Municipal Code Chapter 30.56), which rely on the ~~most recently approved~~ Federal Insurance Rate Maps (FIRMs) dated December 2019.

- c. Modify CHAPTER III – HAZARD CONTROL, Section B. Shoreline Hazards – Goals and Policies, Policy III-2.a as follows:

Regulate development in accordance with the specific Beach Overlay Zone (BOZ), Floodway Zone (FW) and Floodplain Overlay Zone (FP) regulations contained within Del Mar Municipal Code Chapters 30.50, 30.29, and 30.56 respectively. Interpret the Hazard Overlay Zone maps such that if a portion of a parcel falls within the overlay zone, the whole parcel is considered to be within that zone.

**Suggested Modification No. 2** Modifications related to incorporating key elements of the Sea Level Rise Adaption Plan into the LUP: These modifications would incorporate the principles from the City of Del Mar Sea Level Rise Adaptation Plan into the LUP. The modifications also state that the City’s Adaptation Plan as well as the Coastal Hazards, Vulnerability, and Risk Assessment and its Addendum are incorporated as guidance when implementing the LCP. These technical documents were adopted by the City of Del Mar, and the Adaptation Plan was submitted as part of the proposed LCP Amendment.

- a. Under CHAPTER III – HAZARD CONTROL, Section B. Shoreline Hazards – Goals and Policies, insert Goal III-B as follows:

Goal III-B: To respond to evolving understanding of sea level rise and its impacts upon the City's resources and development, and to maintain public access and recreational resources, maintain the ability of beaches and wetlands to continue providing a storm-buffering function, and protect development, the City shall pursue the following principles from the City's adopted Sea Level Rise Adaptation Plan:

- Adopt and implement adaptation measures that will limit the risk of extreme coastal and river flooding and damage to vital infrastructure and structures in the low-lying areas of the City.
- Maintain a walkable beach for recreational use and economic benefit, and to reduce flooding.
- Maintain the extensive existing system of horizontal and vertical access points to the Del Mar Beach and the San Dieguito River and Lagoon.
- Maintain continuous coastal access from North Beach to South Beach.
- Maintain San Dieguito Lagoon wetland habitat functions.

- b. Modify CHAPTER III – HAZARD CONTROL, Section A. Background, Section 5. Sea Level Rise, paragraph 1 as follows:

Sea level rise is the increase in the elevation of the ocean surface. The City's Coastal Hazards, Vulnerability, and Risk Assessment (Environmental Science Associates 2016) identified that the City is vulnerable to sea level rise and the associated increased risk of flooding (river and coastal), storm surge, beach erosion, and coastal bluff erosion. With projected future climate change and sea level rise, Del Mar's vulnerabilities are projected to increase in both frequency and intensity, resulting in increased damage to much of Del Mar's shoreline, San Dieguito Lagoon, Los Penasquitos Lagoon, and the adjacent low-lying areas and coastal bluffs. Sea level rise is projected to impact the City's coastal resources and valued assets including public and private properties; the public beach and beach access; lagoon habitat; and government infrastructure including the City's emergency services, roads, bridges, and other infrastructure. The City's Coastal Hazards, Vulnerability, and Risk Assessment (Environmental Science Associates, July 2016; City Council adopted October 1, 2018 by Resolution 2018-67) and Addendum 1 (Comparison of CHVRA, CoSMoS, and FEMA for Beach Erosion, Bluff Erosion, and Coastal Storm Flood Hazards)(Environmental Science Associates, September 2018; City Council adopted October 1, 2018 by Resolution 2018-67), along with the City of Del Mar Sea Level Rise Adaptation Plan (Environmental Science Associates, May 2018; City Council adopted October 1, 2018 by Resolution 2018-67), were developed by the City to provide information on sea level rise hazards and how to address them. The Coastal Hazards, Vulnerability, and Risk Assessment (Environmental Science Associates, July 2016), Addendum 1 (Environmental Science Associates, September 2018), and the City of Del Mar Sea Level Rise Adaptation Plan

(Environmental Science Associates, May 2018) are incorporated as guidance when implementing the LCP to the extent they are not inconsistent with any other provisions of the certified LCP.

**Suggested Modification No. 3** Modification related to future, threshold-based LCP updates and associated monitoring: This modification would add a new policy to the LUP that calls for periodic reviews of the LCP and the initiation of LCP Amendments, if they are found to be necessary. It also adds a series of actions that align with the Adaptation Plan and stem from coordination between Coastal Commission staff and City staff.

- a. Under CHAPTER III – HAZARD CONTROL, Section B. Shoreline Hazards – Goals and Policies, Goal III-B, insert Policy III-5 as follows:

III-5 The City shall periodically review and, if necessary to address changed conditions and updated best available science on sea level rise, update its LCP to address sea level rise. Such LCP amendments shall include appropriate updates to hazard overlay maps, policies, or the zoning code. The scope of each update is expected to vary depending on the extent to which conditions have changed over time. A review of the LCP and, if necessary, an update shall be initiated every ten years at minimum. An LCP update shall be initiated sooner if relocation of the LOSSAN railroad from the Del Mar bluffs to a different location is approved and funded. That LCP amendment shall include at minimum, a method for noticing property owners inland of the railroad of relevant risks related to erosion as impacted by sea level rise and an evaluation of the scope and coverage of the Coastal Bluff Overlay Zone; in addition the City shall prepare an updated vulnerability assessment to evaluate the projected change in bluff conditions, considering sea level rise.

In addition:

- If a consistent pattern of flood damage to structures on a specific property or properties due to ocean or river flooding is identified, the City shall hold a noticed public hearing to consider available adaptation strategies. This hearing shall be followed by processing appropriate Coastal Development Permits and/or an LCP amendment to implement selected adaptation strategies.
- Within five years of certification of the Sea Level Rise LCP amendment the City shall prepare a conceptual design for a living levee along the San Dieguito River, and identify when implementation of the levee will be initiated via a coastal development permit processed by the Coastal Commission.
- Within five years of certification of the Sea Level Rise LCP amendment the City shall establish a Sand Compatibility and Opportunistic Use Program (SCOUP) and apply for funding to facilitate beach nourishment.

- Within 5 years of the SCOUN/beach nourishment, if data collected shows a consistent pattern of narrowing beach width, the City shall hold public hearing to decide whether to pursue sand retention strategy.
- If public access is not consistently maintained at the beach street ends and/or along the beach for lifeguard vehicles and people, the City shall hold a public hearing to decide which adaptation strategies to pursue to ensure public beach access. This hearing shall be followed by processing appropriate coastal development permits and/or an LCP amendment to implement selected adaptation strategies.
- If the Southern California Edison obligation to complete the San Dieguito lagoon restoration plan ends, then the City shall hold a noticed public hearing to consider how the existing endowment should be applied to continue Lagoon habitat protection and accommodate wetland habitat migration.
- If a bluff edge erodes to within 35 feet of development, the affected property or properties shall immediately be subject to the requirements of the Coastal Bluff Overlay Zone.

The City shall conduct monitoring to determine if any of the above physical thresholds are met. The City shall work with local and regional partners, as appropriate, to monitor the distance between the bluff edge and development, beach width and accessibility, beach attendance, flood and damage risk, and river flooding. Monitoring sites and methods shall be consistent from year to year and shall be generally consistent with those outlined in the 2018 Del Mar Adaptation Plan, but shall be adjusted if necessary to provide sufficient data on whether thresholds have been met.

**Suggested Modification No. 4** Modification related to incorporating sea level rise into bluff setback calculations. This modification would add more details about standard industry practices for calculating setbacks for new development on a coastal bluff or vulnerable slope, and clarity on how sea level rise will be incorporated into parts of those calculations.

Modify CHAPTER III – HAZARD CONTROL, Section C. Vulnerable Bluffs and Slopes, Policy III-9 as follows:

III-9 Require all new development located on a coastal bluff or vulnerable slope to be setback from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Such setbacks must take into consideration projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, as well as slope stability. To assure stability, the development should maintain a minimum factor of safety of 1.5 against land sliding for the economic life of the structure determined through a quantitative slope stability analysis, specifically: 1.5 under static conditions and 1.1 pseudostatic conditions, where  $k=0.15$  unless otherwise

~~determined through analysis by the geotechnical engineer or certified engineering geologist. Alternative stability requirements may be approved to the satisfaction of the City Engineer and Building Official if an equivalent factor of safety is demonstrated.~~

**Suggested Modification No. 5** Modification related to public safety and sea level rise adaptation policies: This modification would remove language that the proposed amendment added to Policy III-12.c, which would have the effect of making no change to the City's original, certified LCP. Policy III-12 includes a list of ways to enhance public safety within the San Dieguito River Floodway.

Modify CHAPTER III – HAZARD CONTROL, Section E. Flood Hazards, Policy III-12, part c as follows:

Requiring proposed development to be located, ~~where feasible,~~ so as to eliminate the need for protective devices such as seawalls, riprap, retaining walls, or other flood control devices.

**Suggested Modification No. 6** Modification related to incorporating sea level rise into project design within the Floodplain Overlay Zone, where appropriate: In the certified LUP, Policy III-13 includes a list of requirements for new development in the Floodplain Overlay Zone (parts a – m). This modification would add language to part d that requires new development to either be elevated to account for sea level rise or be designed such that the development can be elevated in the future – if and when studies demonstrate the need for such design modifications.

Modify CHAPTER III – HAZARD CONTROL, Section E. Flood Hazards, Policy III-13, part d as follows:

d. Have the lowest floor (including basement) of any residential structure elevated to or above the base flood elevation. When applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation or other adaptation strategies in the future.

**Suggested Modification No. 7** Modification related to a mechanism for the implementation of a fee recovery program:

Modify CHAPTER III – HAZARD CONTROL, Section E. Flood Hazards, Policy III-15 as follows:

III-15 Develop a fee recovery program, which will be incorporated into the LCP through a future LCP amendment, to mitigate development impacts on coastal resources and fund adaptation projects that are consistent with the City's Adaptation Plan.

**Suggested Modification No. 8** Modification related to best available science: This modification would update the introductory text to Chapter III of the LUP to include information that was made available after the City developed the subject LCP Amendment. It includes standard, well-accepted information about the current best available science for the State of California.

Modify CHAPTER III – HAZARD CONTROL, Section A. Background, Section 5. Sea Level Rise, paragraph 2 as follows:

In the City of Del Mar Sea Level Rise Adaptation Plan (Environmental Science Associates 2018), local sea level rise projections and effects are based on the 2012 National Research Council study “Sea Level Rise for the Coasts of California, Oregon, and Washington”, which, subject to updates as appropriate, is was considered the best available science for the State of California at the time the report was developed. In 2018, the State adopted an update to the State Sea Level Rise Guidance<sup>2</sup>, which provided updated best available science on sea level rise projections, impacts, and adaptation planning processes. As of the adoption of this LCP, the OPC guidance still provided the best available science; however, updates to the science are expected in the coming years. Therefore, the City shall always utilize – and require the use of – the best available science. However,

The processes causing sea level rise and the science projecting sea level rise are inherently uncertain because the rate of sea level rise is highly dependent on whether global greenhouse gas emissions will be reduced....

## **Suggested Modifications to the Proposed Implementation Plan**

**Suggested Modification No. 9** Modification related to incorporating sea level rise into Floodway development regulations: This modification would apply to development that occurs within the Floodway Overlay Zone, which historically has been rare. It would ensure that sea level rise is considered in the design of any such development.

Under Chapter 30.29 FLOODWAY ZONE, Section 30.29.060.A Development Regulations for the Floodway Zone, add Part 6 as follows:

6. The applicant shall consider siting and design alternatives to account for sea level rise over the project’s development life. Those design modifications shall be implemented in project design as feasible, and at minimum, the project shall be designed such that it can accommodate those design modifications in the future as necessary.

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<sup>2</sup> [http://www.opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20180314/Item3\\_Exhibit-A\\_OPC\\_SLR\\_Guidance-rd3.pdf](http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf)

**Suggested Modification No. 10** Modifications related to hazard disclosure requirements within the Coastal Bluff Overlay Zone: These modifications would require all real estate transactions within the Bluff Overlay Zone to disclose that the property is potentially vulnerable to erosion influenced by sea level rise, and would require property owners within the zone to record a notice on the title to the property that acknowledges the development is located in a hazardous area or an area that may become hazardous in the future, and that hazard conditions may depend on the location of the LOSSAN railroad. The Bluff Overlay Zone consists of the railroad right-of-way and the open space on the Del Mar bluffs.

- a. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.020 Zone Boundaries and Real Estate Disclosures, Part B as follows:

All real estate transactions within the boundary of this Overlay Zone shall disclose that the property is located in the Coastal Bluff Overlay Zone and potentially vulnerable to erosion influenced by sea level rise.

- b. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.060 Required Permit for Development in the Coastal Bluff Overlay Zone, Part B as follows:

The decision maker ~~may~~ shall include permit conditions of approval as deemed necessary to protect the public health, safety, and welfare and to ensure compliance with the findings supporting such approval consistent with the City's certified Land Use Plan. The permit conditions ~~may~~ shall include, but shall not be limited to:

1. Compliance with the Coastal Development Permit general conditions of approval in Section 30.75.150.
2. Recordation of a notice on the title to property that: [...]

- c. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.060 Required Permit for Development in the Coastal Bluff Overlay Zone, Part B.2 as follows:

Recordation of a notice on the title to property that:

- a. Identifies the property is located in the Coastal Bluff Overlay Zone.
- b. Acknowledges owner responsibility for maintenance and repair of drainage and erosion control systems pursuant to a detailed maintenance program.
- c. Waives the right to future shoreline protective devices for the new development. (This shall not preclude the ability for an owner to submit a future permit application request to protect existing development.)

- d. Acknowledges and agrees that the development is located in a hazardous area, or an area that may become hazardous in the future, and that hazard conditions may depend on the location of the LOSSAN railroad.

**Suggested Modification No. 11** Modifications related to the definition of existing development: The proposed LCP Amendment includes a definition of existing development. This suggested modification would remove that definition, having the effect of making no change to the certified LCP.

Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.030 Definitions as follows:

~~Existing development shall mean any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or preceding San Diego County ordinances).~~

**Suggested Modification No. 12** Modifications related to incorporating sea level rise into the calculation of coastal bluff setbacks in the Coastal Bluff Overlay Zone, which currently consists of open space and the railroad right-of-way:

- a. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.050 Development Regulations for the Coastal Bluff Overlay Zone as follows:
- A. Proposed development shall be sited and designed to avoid impacts from erosion hazards over the economic life of the development (minimum 75 years) in accordance with the following:
1. Proposed development shall be set back from the edge of a coastal bluff or vulnerable slope a distance that equals the projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, plus the distance needed to maintain a minimum factor of safety against land sliding of 1.5 under static conditions and 1.1 under pseudostatic conditions (where  $k=0.15$  unless otherwise determined through analysis by the geotechnical engineer or certified engineering geologist). In addition, a A minimum 40-foot setback shall be provided between proposed development (including supporting structures and foundations) and a coastal bluff edge, except where otherwise provided below:
- a. The setback from the coastal bluff or vulnerable slope edge shall have priority over required yard setbacks from the property line. If necessary to comply with setbacks from the coastal bluff edge and provide for reasonable use to avoid a taking, the decision maker may approve reduced yard setbacks up to a minimum of 5 feet from the property line

without need for a Variance application provided the development is consistent with all other applicable requirements of the certified Local Coastal Program.

- b. No grading shall be allowed within 40 feet of the coastal bluff or vulnerable slope edge, except as necessary to control surface runoff in accordance with Section 30.55.050(C). Grading or construction activities (on the face of a coastal bluff) shall only be permitted if approved as part of a Shoreline Protection Permit or Setback Seawall Permit pursuant to Chapters 30.50 and 30.51 respectively, and if the authorized review body makes a finding that the proposed grading is the minimum required to implement the authorized shoreline protection.
  - c. At-grade accessory structures that do not require foundations (such as fences, windscreens, and benches) may be set back a minimum of ten feet from a coastal bluff or vulnerable slope edge if constructed using lightweight materials and without the use of grading or continuous foundation components.
  - d. If application of the minimum 40-foot setback would preclude reasonable use of the property such that it would constitute a taking of private property, a smaller setback may be permitted if the proposed development is setback as far landward as feasible and its footprint is minimized.
2. Native plants and other drought-tolerant plant species shall be utilized to minimize irrigation and reduce the potential for over watering of the bluffs. No new irrigation systems shall be installed within 40 feet of the coastal bluff or vulnerable slope edge. Any existing irrigation systems located within 40 feet of the coastal bluff or vulnerable slope edge shall be removed as a condition of approval.
- B. No grading shall occur from November 15th to March 31st for any projects involving a total of more than 25 cubic yards of cut and/or fill grading. If vegetative erosion control is used (i.e. landscape planting, seeding, mulching, fertilization, and irrigation), the installation shall occur with sufficient time to achieve landscape coverage prior to the November 15th start of the rainy season.
  - C. All drainage from the impervious surfaces of the site shall be collected and appropriately discharged in a manner that will not contribute to further erosion of the coastal bluff or vulnerable slope. Drainage shall be conveyed away from any coastal bluff or vulnerable slope face, and where available, into existing developed storm drain systems capable of handling

the drainage without adverse impact to coastal bluffs. The responsibility for maintenance of drainage and erosion control facilities shall rest with the applicant unless such responsibility is assumed by another agency or party found acceptable by the Planning Director.

- b. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.070 Submittal Requirements, Part 2.b as follows:

Identifies the suitability of the site for the proposed development without shoreline protection, and whether shoreline protection is projected to be necessary over a 75 year time period to protect the development;

- c. Under Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.070.A.2, add Part f as follows:

f. Includes the projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, and the distance needed to maintain a minimum factor of safety against land sliding of 1.5 under static conditions and 1.1 under pseudostatic conditions (where  $k=0.15$  unless otherwise determined through analysis by the geotechnical engineer or certified engineering geologist). Added together, these distances shall comprise the necessary setback distance to assure safety and stability of the proposed development.

**Suggested Modification No. 13** Modifications related to the purpose of the Coastal Bluff Overlay Chapter: The proposed LCP amendment would add language to the Purpose section of the Coastal Bluff Overlay Zone Chapter of the IP about protection of private property rights and the intent of the Chapter. These suggested modifications would add additional language about protection of coastal resources and public access and reword language related to shoreline protective devices.

- a. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.010 Purpose, Part A as follows:

The purpose of the Coastal Bluff Overlay Zone is to protect Del Mar's coastal bluffs as a visual resource and avoid the risks to life and property associated with bluff failure and shoreline erosion while employing regulations consistent with the rights of private property owners and the protection of coastal resources and public access.

- b. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.010 Purpose, Part B as follows:

The intent is to prohibit incompatible development in hazardous areas; and to ensure that new development is appropriately sited to minimize damage and

avoid hazards; and ~~reduce the need for~~ in no way require shoreline protective devices that alter landforms along bluffs and cliffs.

**Suggested Modification No. 14** Modifications relate to re-inserting language that was omitted during re-organization of the Coastal Bluff Overlay Zone Chapter: Some of the proposed LCP Amendment would have the effect of re-organizing language in the Bluff Overlay Zone Chapter of the IP. These modifications would add language that was omitted, having the effect of maintaining the same content as the certified IP.

- a. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.050 Development Regulations for the Coastal Bluff Overlay Zone, Part D as follows:

The development shall not result in an increase in peak runoff from the site over the greatest discharge expected during a 10-year, 6- hour frequency storm. Runoff control shall be accomplished by a variety of measures including, but not limited to, temporary and/or permanent on-site catchment basins, detention basins, siltation traps, energy dissipaters and the installation of landscape material. All temporary erosion control measures proposed or required pursuant to the provisions of Chapter 30.55 shall be installed prior to the commencement of grading in the areas for which the erosion control measures are intended.

- b. Modify Chapter 30.55 Coastal Bluff Overlay Zone, Section 30.55.050 Development Regulations for the Coastal Bluff Overlay Zone, Part E.1 as follows:

All parcels created meet the standards for new development, including the applicable coastal bluff edge and vulnerable slope setbacks and other resource protection measures required pursuant to this LCP, and provide safe, legal, all-weather access to each parcel created; [...]

**Suggested Modification No. 15** Modification related to incorporating the December 2019 FIRMs into relevant sections of Chapter 30.56: Suggested Modification No. 1 (above) would modify language in the LUP to define the Floodplain Overlay Zone as the floodplain areas in the Flood Insurance Rate Maps dated December 2019. This modification would make the same change to relevant language in the IP as well.

Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.020 Zone Boundaries and Real Estate Disclosure, Part B as follows:

Real Property within the Floodplain Overlay Zone shall be further designated as being within areas of flood hazard on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps dated December 2019 and associated Flood Insurance Study (FIS)~~a Special Flood Hazard Area identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS), dated June 16, 1999, and all subsequent amendments and/or revisions are hereby adopted by reference and are~~ declared to be subject to the Chapter 30.56 Floodplain Overlay Zone requirements.

1. This FIS and associated mapping per Section 30.56.020(B)(4) are the area of applicability for this Overlay Zone. FEMA's mapping may be supplemented by studies recommended to the City Council by the Floodplain Administrator as necessary to implement floodplain management if approved by the City Council after notice to all property owners affected by any proposed change to this Overlay Zone. The FIS and FIRM are on file in the City of Del Mar.
2. Where technical or scientific data is presented to the City indicating the base flood elevation will increase or decrease as a result of physical changes affecting flooding conditions, the City shall submit the data to FEMA in accordance with the code of federal regulations so that upon confirmation by FEMA, risk premium rates and floodplain management requirements will be based on current data and the mapped boundary can be amended accordingly (Title 44 Section 65.3). The information shall be submitted to FEMA as soon as practicable, but not later than 6 months after the date of final action approving any physical changes that will affect flood conditions.
3. Letter of Map Change (LOMC) is a formal document that communicates an official modification to an effective FIRM. LOMCs are issued in place of a physical alteration and republication of the map.
4. The set of effective FIRM, FIS, and National Flood Hazard Layer Database, as well as any effective Letters of Map Change (LOMC) that have been issued to revise or amend the FIRM or FIS, collectively comprise FEMA's official flood hazard determination for a given area. LOMCs shall not change the boundaries of the Floodplain Overlay Zone without an LCP Amendment.

**Suggested Modification No. 16** Modification related to the definition of existing development in the Floodplain Overlay Zone Chapter: The certified LCP does not include a definition of existing development. The proposed amendment would add a definition to apply to the Floodplain Overlay Zone Chapter of the IP, and the suggested modification would take it back out, thus making no change to the certified IP.

Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.030 Definitions as follows:

~~“Existing Development” shall mean any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or preceding San Diego County ordinances).~~

**Suggested Modification No. 17** Modification related to the definition of “Substantial Improvement”: The certified IP includes a definition of substantial improvement that applies to the Floodplain Overlay Zone Chapter of the IP. This suggested modification would add another criteria to the definition, so that the definition is met if development meets either the criteria in the original language or the language in the suggested modification.

Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.030 Definitions as follows:

“Substantial Improvement”

1. “Substantial Improvement” shall mean development that meets either set of criteria as described by subdivisions (a) or (b) below:

a. any repair, reconstruction or improvement of a structure, when, pursuant to a determination by the Director, the cost of the repair, reconstruction or improvement equals or exceeds fifty percent of the market value of the structure either:

i. Before the improvement or repair is started, or

ii. If the structure has been damaged 50% or more and is being restored, as it existed before the damage occurred.

b. Development including, but not limited to, (1) additions to an existing structure, (2) exterior and/or interior renovations, and/or (3) demolition or replacement of an existing home or other principal structure, or portions thereof, which results in any of the following:

i. Replacement (including demolition, renovation, reinforcement, or other type of alteration) of 50% or more of any major structural component, including exterior walls, floor, roof structure or foundation, as calculated by linear feet, surface area, volume, or weight. Alterations are not additive between individual major structural components; or

ii. A 50% increase in gross floor area; or

iii. Replacement (including demolition, renovation, reinforcement, or other type of alteration) of less than 50% of a major structural component where the proposed replacement would result in cumulative alterations exceeding 50% or more of that major structural component, taking into consideration previous replacement work undertaken on or after September 11, 2001 (the date of certification of the LCP); or

iv. an alteration that constitutes less than 50% increase in floor area where the proposed alteration would result in a cumulative addition of 50% or greater of the floor area, taking into consideration previous additions undertaken on or after September 11, 2001 (the date of certification of the LCP).

2. For purposes of this definition, “Principal Structure” shall mean a building or structure in which the primary use of the lot on which the building is located is being conducted, and substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor or

other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

3. The term “substantial improvement” does not however, include either:

- a. Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions, or
- b. Any alteration of a structure listed on the National Register of Historic Places or California Register of Historic Places.

**Suggested Modification No. 18** Modification related to Development Regulations for new subdivisions in the Floodplain Overlay Zone: This suggested modification would add a new section to the Floodplain Overlay Zone Chapter of the IP.

Under Chapter 30.56 Floodplain Overlay Zone, Section 30.56.045 Development Regulations for Floodplain Overlay Zone, Part D, add Part E as follows:

E. New subdivisions shall not be approved unless: All parcels created meet the standards for new development, including the applicable resource protection measures required pursuant to this LCP, and the subdivision provides safe, legal, all-weather access to each parcel created.

**Suggested Modification No. 19** Modification related to recordation requirements for Floodplain Development Permits: The proposed LCP Amendment would require applicants for Floodplain Development Permits to record a notice that the property is located in the Floodplain Overlay Zone. This suggested modification would require additional elements to be recorded. It would also alter existing language in the Floodplain Overlay Zone Chapter of the IP to require appropriate conditions to be imposed upon Floodplain Development Permits to ensure compliance with the provisions of the Floodplain Overlay Zone Chapter of the IP.

Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.050 Required Permits for Development in the Floodplain Overlay Zone, Part E as follows:

E. The Issuing Authority for the Floodplain Development Permit shall review the application to ensure that all other required state and federal permits are obtained, and shall approve, conditionally approve, or deny the application based upon the regulations of this Chapter.

1. The Issuing Authority ~~may~~shall impose conditions in the permit as necessary and or authorized to ensure the project’s continued compliance with the provisions of this Chapter.
2. All Floodplain Development Permits shall require that prior to the issuance of a Building Permit, the applicant shall record a notice that acknowledges the property is 1) located in the Floodplain Overlay Zone; 2) located in a hazardous area, or an area that may become hazardous in the future; 3)

to acknowledge that that sea level rise could render it difficult or impossible to provide services to the site (e.g., maintenance of roadways, utilities, sewage or water systems); 4) to acknowledge that the boundary between public land (tidelands) and private land may shift with rising seas and the development approval does not permit encroachment onto public trust land; and 5) to acknowledge that additional adaptation strategies may be required in the future to address sea level rise consistent with the Coastal Act and certified LCP.

**Suggested Modification No. 20** Modifications related to Floodplain Development Permits: The Floodplain Overlay Zone Chapter of the certified IP includes two lists of requirements for Floodplain Development Permit applications (parts A – Q, and parts A – C). These suggested modifications would add one item to the first list and add language to one item in the second list.

- a. Under Chapter 30.56 Floodplain Overlay Zone, Section 30.56.060 General Grounds for Application Approval/Denial, Part D, add Part E as follows:

[...] D. Will use methods and practices that minimize flood damage.

E. Will, if appropriate, incorporate siting and design modifications, such as elevation and flood proofing, to ensure safety from the impacts of sea level rise over the anticipated lifetime of the proposed structure, or at minimum, be designed such that those design modifications can be implemented in the future if necessary.

- b. Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.070 Additional Grounds for Application Approval/Denial, Part A.4.a as follows:

The bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) is elevated at or above the base flood elevation. When applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation or other adaptation strategies in the future; or  
[...]

**Suggested Modification No. 21** Modification related to exemptions from required permits in Floodplain Overlay Zone: This suggested modification would clarify how two existing sections of the certified IP relate to each other by adding a cross-reference.

Modify Chapter 30.56 Floodplain Overlay Zone, Section 30.56.050 Required Permits for Development in the Floodplain Overlay Zone, Part A as follows:

Development in the Floodplain Overlay Zone requires approval of the following permits, unless it meets the exemption criteria in 30.75.200 and the development

does not qualify as a substantial improvement and is limited to interior modifications or repairs, or exterior repairs, alterations or maintenance that does not increase the footprint of an existing structure:

**Suggested Modification No. 22** Minor edits necessary for clarity or to correct unintentional omissions from the proposed LCP amendment:

Please see Exhibit 11 for a list of non-substantive modifications that are necessary for clarity and to correct unintentional omissions from the LCP amendment, and do not require expansive discussion in the Findings of this staff report.

## **IV. FINDINGS FOR DENIAL OF THE DEL MAR LUP AMENDMENT AS SUBMITTED, AND APPROVAL WITH MODIFICATIONS**

### **A. Introduction**

Sea level rise (SLR) is increasing the risks of flooding, inundation, coastal erosion, and saltwater intrusion into freshwater supplies. 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, and beaches), coastal agricultural lands, water quality and supply, cultural resources, community character, and scenic quality. In addition, many possible responses to SLR can have adverse impacts on coastal resources, whereas other adaptation options may preserve or enhance coastal resources. For example, beaches, wetlands, and other habitat backed by fixed or permanent development such as shoreline protective devices 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. Thus, SLR heightens a long-standing challenge along the California coast: how to balance the protection of coastal development with the protection of coastal resources.

The Coastal Act mandates the protection of public access and recreation along the coast, coastal habitats, and other sensitive 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 Act places a strong emphasis on minimizing risks associated with such hazards, ensuring stability and structural integrity for development over time, and avoiding adverse impacts to natural processes and coastal resources. The Act also recognizes that shoreline-altering development, such as protective devices, 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 shoreline

protective devices to avoid or minimize coastal resource impacts and mitigate those that are unavoidable.

In summary, the Coastal Act's policies on coastal resource protection and minimizing risks from coastal hazards – combined with the scientific certainty that SLR is increasing and will continue to increase coastal hazards along the shoreline – elevates the need for local governments to implement sea level rise adaptation planning within LCPs. Without such 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 new development is exposed to hazards, inconsistent with the development policies of the Coastal Act.

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 while allowing safe development. 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 priorities. By planning ahead, communities can reduce the risk of costly damage from coastal hazards, can ensure that the coastal economy continues to thrive, and can protect coastal habitats, public access and recreation, and other coastal resources for current and future generations.

## **B. How Sea Level Rise is expected to impact Del Mar**

The City of Del Mar produced informational documents describing its vulnerabilities to sea level rise (SLR) as well as potential adaptation approaches. These documents include the Coastal Hazards, Vulnerability, and Risk Assessment (2016) and Addendum (2018); Sediment Management Plan (2018); the Wetland Habitat Migration Assessment (2018); and the Sea Level Rise Adaptation Plan (2018). These documents formed the informational basis for the City's development of the proposed LCP amendment.

The City accepted the Coastal Hazards, Vulnerability, and Risk Assessment, the Sediment Management Plan, and the Lagoon Wetland Habitat Mitigation Assessment at its October 1, 2018 City Council meeting. The City adopted its Sea Level Rise Adaptation Plan on May 21, 2018, and on October 1, 2018, the City Council adopted a resolution to submit the Adaptation Plan to the Coastal Commission along with amendments to the Land Use Plan and Implementation Plan. Since then, various stakeholders and the City Council have expressed strong support for the Adaptation Plan. The findings of the Coastal Hazards, Vulnerability, and Risk Assessment and Sea Level Rise Adaptation Plan are summarized here.

### Summary of the Coastal Hazards, Vulnerability, and Risk Assessment

The Coastal Hazards, Vulnerability, and Risk Assessment states that the City is currently vulnerable to coastal flooding and erosion, and that SLR will exacerbate these vulnerabilities. It found that SLR will cause the existing beach landward of current high tide elevations to be lost to erosion between 2030 and 2070, at which point beach

erosion and coastal storms will threaten seawall integrity in the City's North Beach District. It also found that bluff erosion has already progressed to a point where it poses a safety concern for the LOSSAN railroad (located atop the bluffs in the southern half of Del Mar; see Exhibit 1), necessitating a number of bluff stabilization projects. With SLR, the bluffs will continue to erode and impact the LOSSAN railroad as well as the South Beach and South Bluff Districts; or, if the railroad is completely armored with a seawall, little to no beach will persist below the bluffs. River and coastal flooding have historically occurred within the city, particularly within the North Beach neighborhood with notable events occurring in 1980 and 1983. With SLR, flooding from the San Dieguito River is expected to inundate the City's North Beach and Valley Districts and the Del Mar Fairgrounds more frequently and at greater depths.

In addition to a disappearing walkable beach and threatened railroad, SLR will impact coastal resources and development in Del Mar in a number of ways if no adaptation strategies are implemented. Roads and properties in the North Beach neighborhood, along with the fairgrounds, other roads, bridges, a fire station, a sewer lift station, and sewer infrastructure that relies on gravity drainage could all reach "highly vulnerability" status at various points in time between about 2050 and 2070, according to the Assessment. The railroad's vulnerability will continue to increase as bluff erosion progresses, and if the railroad is armored, the beach below the bluff will likely disappear (Assessment, Page xi). If the bluffs are not armored, blufftop residential properties inland of the railroad could become vulnerable to erosion by 2050. Wetlands and other habitats will convert to deeper water habitats and eventually disappear as water levels in the San Dieguito River and river mouth continue to rise.

These findings were developed using the best available SLR projections available at the time the Coastal Hazards, Vulnerability, and Risk Assessment was written, and these projections stemmed from the National Research Council 2012 report and 2015 version of the Coastal Commission's Sea Level Rise Policy Guidance. The mid-range set of SLR projections from these reports included 5 inches by 2030, 12 inches by 2050, and 37 inches by 2100. The high-range set of projections included 12 inches by 2030, 24 inches by 2050, and 66 inches by 2100. These scenarios were used to determine the approximate timeframes during which impacts could occur. However, the best available science on SLR projections has since been updated in the State Sea Level Rise Guidance (OPC 2018) and incorporated into the 2018 version of the Coastal Commission Sea Level Rise Policy Guidance. The new projections recommended for use in planning for residential, commercial development, and critical infrastructure are higher than those used in the City's Risk Assessment, including 7 feet (84 inches) by 2100 in the scenario recommended for use in planning for residential structures, and 10 feet (120 inches) by 2100 in the more precautionary scenario recommended for use in planning for critical infrastructure.

Therefore, the timeframes reported in the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment may *underpredict* how soon certain impacts may start to occur. In other words, Del Mar may face worse and more immediate hazards than those described in the Coastal Hazards, Vulnerability, and Risk Assessment. Still, it is

important to broadly appreciate the uncertainty in SLR projections (an issue that is recognized in the State Sea Level Rise Guidance (OPC 2018), the Commission’s 2018 Sea Level Rise Policy Guidance, and the City’s Adaptation Plan), and for this reason Commission staff support the City’s approach to adaptation planning that involves identifying appropriate thresholds of impact after which adaptation measures will be implemented. It is similarly important to appreciate that if sea levels begin to rise at a faster rate than anticipated in the Coastal Hazards, Vulnerability, and Risk Assessment, action may need to be taken sooner in order to provide for the necessary lead times to plan, fund, and implement various adaptation measures. Thus, it is crucial to build in periodic LCP updates that provide the opportunity to incorporate into the LCP the best available science on SLR.

### Summary of the Del Mar Sea Level Rise Adaptation Plan

The 2018 Del Mar Sea Level Rise Adaptation Plan provides adaptation measures recommended for near term implementation within Del Mar, as well as options to implement after certain thresholds of impacts from SLR are met. In the near term, the Adaptation Plan prioritizes sand replenishment and management; dredging of the river channel as needed; other strategies to reduce flood risk such as storm drain modifications and/or a new living levee; and continued application of minimum setbacks to properties subject to flooding and erosion (i.e., no change to setbacks required in the certified LCP). Some of these strategies are included in the proposed LUP amendment. The Adaptation Plan also states that the City has concluded that managed retreat is not necessary or feasible at this time, stating that managed retreat is a:

long-term approach that will be reevaluated and considered as part of future planning and plan amendment if it becomes necessary and feasible because a change in conditions warrants reconsideration and other strategies are unable to achieve the stated goals.

(Adaptation Plan 2018, Page ES-4).

The Adaptation Plan also identifies additional adaptation options that could be implemented once they are needed. Options are provided for the following categories: adaptation for public facilities, infrastructure, and beaches; San Dieguito Lagoon wetland adaptation; San Dieguito River flooding adaptation; bluff/beach erosion adaptation; and beach coastal (ocean) flooding and beach erosion adaptation. The options listed for each category are characterized as a “toolbox” from which the City may or may not select options once certain thresholds are crossed. The Adaptation Plan states that these measures would be integrated into the City’s LCP via an LCP Amendment in the future.

### Summary of Del Mar’s vulnerability to sea level rise and preferred approach to adaptation

In summary, the Coastal Hazards, Vulnerability, and Risk Assessment identifies significant vulnerabilities to the City of Del Mar as a result of future sea level rise, including: loss of the walkable beach with 1-2 feet of sea level rise, vulnerability to the LOSSAN railroad along almost the entire southern bluffs with just one foot of SLR, complete loss of certain wetland habitats with three feet of SLR, and significant river flooding if river water levels increase by 2-3 feet through a combination of increased precipitation and increased sediment deposition in the channel. The Adaptation Plan states that “the City’s favored approach is to pursue a combination of beach nourishment, sand retention/management, and flood management projects.” Accordingly, the City included policies in the proposed LUP amendment prioritizing sand replenishment, San Dieguito River channel dredging, support for relocation of the LOSSAN rail corridor, living levees to reduce river flood risk, relocation or flood proofing of public facilities, and protection of public infrastructure and private development from flooding. Although the Adaptation Plan acknowledges that these adaptation options likely will not be effective with higher amounts of SLR (for example, that sand replenishment may only be effective with up to approximately two feet of SLR, depending on various factors), and that eventually other adaptation strategies will likely be necessary, the City has rejected managed retreat as an adaptation strategy at this time. The other adaptation options identified in the Adaptation Plan are framed as options, or a “toolbox” from which the City may choose options if and when they are needed.

### **C. Standard of Review: Coastal Act Policies**

The standard of review for the proposed LUP amendment is the Chapter 3 policies of the Coastal Act. (Pub. Resources Code, § 30200 et seq.) Coastal Act policies relating to coastal development, public access and recreation, wetlands and environmentally sensitive resources, and marine resources provide the relevant standard of review for Del Mar’s proposed LUP amendment and the basis for the suggested modifications herein. These policies are listed below.

#### **Coastal Development**

Section 30235 of the Coastal Act (Construction altering natural shoreline) states in 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.

Section 30236 of the Coastal Act (Water supply and flood control) states:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other

method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30251 of the Coastal Act (Scenic and visual qualities) states:

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...

Section 30253 the Coastal Act (Minimization of adverse impacts) states in part:

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**

Section 30210 of the Coastal Act (Access; recreational opportunities; posting) states:

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 of the Coastal Act (Development not to interfere with access) states:

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 of the Coastal Act (New development projects) states:

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

responsibility for maintenance and liability of the accessway.

Section 30214 of the Coastal Act (Implementation of public access policies; legislative intent) states:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

### **Coastal Recreation**

Section 30220 of the Coastal Act (Protection of certain water-oriented activities) states:

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 of the Coastal Act (Oceanfront land; protection for recreational use and development) states:

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.

## **Biological Resources**

Section 30230 of the Coastal Act (Marine resources; maintenance) states:

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.

Section 30231 of the Coastal Act (Biological productivity; water quality) states:

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.

Section 30240 of the Coastal Act (Environmentally sensitive habitat areas; adjacent developments) states:

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (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.

## **D. Findings for Denial of the Proposed Land Use Plan Amendment as Submitted**

The proposed Land use Plan (LUP) amendment includes amendments to Chapter 1 (Introduction), that incorporate sea level rise (SLR) into the discussion of the hazard conditions in Del Mar, including increased risk of flooding, beach loss, and coastal bluff erosion. Similar amendments are proposed throughout the introductory text of Chapter III (Hazard Control), to reference SLR as a hazard. Amendments to policies in the LUP are proposed in Chapter III (Hazard Control).

The following sections describe the major topic areas within the LUP where the Commission is proposing suggested modifications. They describe why the policies in each topic area are inconsistent with the Chapter 3 policies of the Coastal Act. Section E then describes why they would be consistent if modified as suggested.

### Floodplain Overlay Zone map

Chapter III of the LUP includes a section of introductory text entitled Flooding (River and Coastal) as well as introductory text for a set of policies on Flood Hazards. Proposed amendments to these sections would define the Floodplain Overlay Zone map as the floodplain in the mostly recently approved Flood Insurance Rate Maps (FIRMs) from FEMA. The most recent set of FIRMs applicable to Del Mar (as of the date of this staff report) are dated December 2019, and almost all parcels in the North Beach community are mapped either fully or partially within a flood hazard area. The Floodplain Overlay Zone map defines the area of applicability of the regulations in the Floodplain Overlay Zone chapter of the Implementation Plan (Chapter 30.56), which includes various provisions to assure safety of development.

It is important to note that FEMA FIRMs show only the floodplain associated with current extreme flood events, not the even more extreme flood events that can be expected in the future due to SLR. With SLR, extreme floods are expected to increase, pushing flooding further inland and to higher elevations. The Del Mar Coastal Hazards, Vulnerability, and Risk Assessment identifies the parcels in the North Beach neighborhood as vulnerable to both current and future flood hazards and includes maps of future flood extents expected with sea level rise. The map of 5.7 feet of SLR plus a 100-year storm shows flood waters affecting almost the same set of parcels that are either fully or partially within a flood hazard area on the FEMA FIRM. Exhibit 5 provides these maps for comparison.

Section 30253 of the Coastal requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity. A key way to achieve consistency with this policy is by including areas at risk from SLR in hazard overlay maps, thereby extending the regulations associated with that map to vulnerable development and imposing regulations designed to keep vulnerable development safe from hazards. Because the November 2019 FEMA FIRM includes almost all the parcels shown to be at risk from SLR, either fully or partially, it effectively includes areas at risk from SLR hazards.

The submittal proposes to use the “most recently approved FEMA FIRM” to define the Floodplain Overlay Zone. Because future iterations of the FIRM may not match the areas mapped to be at risk from SLR, the proposed amendment cannot assure stability and structural integrity of development over time, nor can it assure that that risks to life and property associated with SLR will be minimized. Therefore, as proposed, the amendment is inconsistent with Section 30253 of the Coastal Act.

### Incorporate key elements of the Sea Level Rise Adaption Plan into the LUP

The City has consistently expressed a strong intent to use the Sea Level Rise Adaptation Plan as the City’s guide to SLR adaptation over time. As such, the proposed LUP amendment includes new policies related to the near-term approach to SLR

adaptation described in the Adaptation Plan, while options for longer term SLR adaptation only appear in the Adaptation Plan.

The City submitted the Del Mar Sea Level Rise Adaptation Plan as part of the subject LCP amendment package. However, the Adaptation Plan is an informational document written in narrative form, and it does not contain policy language that could serve as a standard of review for development in the Coastal Zone. Because the Coastal Commission is tasked with ensuring the policies and zoning code within LCPs are consistent with the Coastal Act, it is the policies and code within the Del Mar's LUP and IP that must themselves be analyzed for consistency with the Coastal Act. The Commission cannot rely on content in an informational document to determine whether those policies and code are Coastal Act-consistent.

Thus, the primary content within the Adaptation Plan necessary to bring the LUP or IP into consistency with the Coastal Act must appear in the LUP or IP themselves. The Adaptation Plan contains principles that are consistent with Chapter 3 of the Coastal Act and will guide the City's ongoing work to address SLR. These principles would help ensure that future SLR adaptation projects beyond those listed in the LUP will be consistent with Chapter 3 of the Coastal Act. However, they are not included in the LUP itself and thus would not serve as the official standard of review for future projects to ensure that new development is safe over its anticipated life (often 75-100 years or more), as required by Section 30253 of the Coastal Act, or that coastal resources are protected as SLR adaptation measures are implemented, as required by the Coastal Act policies related to public access, recreation, habitats, and visual/scenic resources (Sections 30210, 30211, 30212, 30214, 30220, 30221, 30230, 30231, 30240, and 30251). Since this material was submitted as a part of the subject LCP amendment, but not directly incorporated in a way that makes it clear how it relates to the LUP and IP, the submitted amendment is inconsistent with these sections of the Coastal Act.

#### Near-term adaptation and future, threshold-based adaptation and LCP updates

The City of Del Mar Sea Level Rise Adaptation Plan lays out an adaptation framework that is "more specific about the first half of this century while leaving flexibility for the latter half" (Adaptation Plan, page ES-1). It identifies preferred near-term adaptation strategies, including sand replenishment and management, ocean and river flood management, and application of minimum setbacks. The Adaptation Plan acknowledges that these near-term adaptation strategies will not remain effective in the long term, and that additional adaptation strategies will likely be needed in the future. For example, the Adaptation Plan includes beach nourishment as a near-term adaptation strategy as a means to both preserve the walkable beach in Del Mar and protect development. However, the Adaptation Plan also states that beach nourishment will be effective for up to two feet of sea level rise, after which additional strategies will likely be needed. According to the current best available science, two feet of SLR could occur by about 2050, which is just under thirty years from now. Therefore, additional strategies will likely need to be implemented over time to ensure that the LCP remains

consistent with the policies in the Coastal Act related to hazard minimization and coastal resource protection.

The Adaptation Plan identifies a “toolbox” of adaptation strategies from which the City could select strategies to implement if and when certain thresholds of physical impacts from SLR are crossed in the future. The Adaptation Plan does not specify which adaptation measures in the toolbox would be applied after these thresholds are met, but rather lays them out as potential options that would be implemented through future LCP amendments or projects.

Even though the Adaptation Plan states that future actions would be carried out through future LCP amendment(s), the Del Mar City Council has not included policies in the proposed LUP or IP amendments that commit the City to future LCP amendments. Only one part of the proposed amendment refers to potential future reconsideration of material included in the amendment, and it appears in the introductory text to a set of policies under the subheading, Coastal Bluffs and Vulnerable Slopes. It states, “Future consideration of whether to amend the boundary of the Coastal Bluff Overlay Zone subareas will occur within 5 years and will take into account the effects of approved adaptation projects.”

As stated in the section above, the Adaptation Plan is an informational document written in narrative form, and it does not contain policy language that could serve as a standard of review for development in the Coastal Zone. Because the Coastal Commission is tasked with ensuring the policies and zoning code within LCPs that serve as the standard of review for development are consistent with the Coastal Act, it is the policies and codes within the Del Mar’s LUP and IP that must themselves be analyzed for consistency with the Coastal Act. By not including policies that identify near-term adaptation actions the City shall undertake to address SLR, and by not including policies on monitoring and thresholds for future adaptation carried out through LCP updates, the LUP and IP themselves lack the necessary content to achieve consistency with the Coastal Act.

In summary, because hazards will worsen as SLR progresses, the combination of adaptation strategies included in the proposed LUP amendment are not sufficient to carry out the hazard avoidance and resource protection policies of the Coastal Act. The Adaptation Plan predicts that if current adaptation strategies become ineffective, the width of the beach may narrow, coastal bluff erosion will progress, wetland habitats will drown, and flood risk will increase. These impacts are inconsistent with Section 30253 of the Coastal Act, which requires new development to assure stability and structural integrity; Sections 30210, 30211, 30212, and 30214, which provide for maximum public access to the shoreline; Sections 30220 and 30221, which protect coastal recreational resources, and Sections 30230, 30231, and 30240, which protect water quality, marine life, and land habitats.

In addition, the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment includes maps of areas at risk from potential SLR-influenced erosion that covers some of the

developed parcels inland of the railroad. Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high geologic hazard, assure stability and structural integrity, and in no way require a shoreline protective device that will alter landforms along bluffs and cliffs. One of the key ways to achieve consistency with this policy in an era of sea level rise is to ensure property owners are aware of the risks associated with SLR as they make decisions about their properties, and the proposed LCP does not include any specific provisions to achieve noticing or to require noticing through a future LCP Amendment. Without requirements to ensure owners of blufftop properties that are vulnerable to erosion from SLR are aware of the risks, they may not make fully informed decisions that assure stability and structural integrity of their properties. Thus, as submitted, the amendment is inconsistent with Section 30253 of the Coastal Act.

In summary, not only will the near-term adaptation actions identified in the Adaptation Plan be necessary as the first steps to address SLR, additional adaptation strategies effectuated through future LCP updates will be needed to prevent such impacts and protect coastal resources. Therefore, without policy language that identifies near-term adaptation measures as well as commitments to future LCP updates and associated monitoring incorporated into the LUP itself, the subject LUP amendment cannot be found consistent with the above-mentioned Coastal Act policies.

#### Incorporate sea level rise into bluff setback calculations

The proposed amendment moves language that was part of Policy III-9 in the certified LUP to a small background section under the subheading, "Coastal Bluffs and Vulnerable Slopes." The amendment then creates a new Policy III-9, which states that all new development located on a coastal bluff or vulnerable slope will be set back to ensure a minimum factor of safety against sliding of 1.5 and take into account long term erosion over the next 75 years, to assure stability. This policy does not specify that SLR must be included when taking long term erosion into account.

Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity, and in the context of coastal bluffs, calculating an appropriate setback has long been a way to carry out this policy. Because SLR may cause long term erosion to accelerate, and because the City supports the relocation of the LOSSAN railroad, which would eliminate the railroad as a potential barrier to erosion, the effects of SLR must be taken into account in order to effectively assure stability and structural integrity. Therefore, as proposed, Policy III-9 is inconsistent with Section 30253 of the Coastal Act.

#### Public safety and sea level rise adaptation policies

In the certified LUP, Policy III-12 lists actions to enhance public safety within the San Dieguito River Floodway, including prohibiting the construction of permanent structures or the placement of fill on either a temporary or permanent basis within designated floodway (FW) areas; prohibiting uses in the floodway which would constitute an

unreasonable, unnecessary, undesirable, or dangerous impediment to the flow of floodwaters, or which would cause a cumulative increase in the water surface elevation of the base flood of more than one foot at any point; and requiring proposed development to be located so as to eliminate the need for protective devices such as seawalls, riprap, retaining walls, or other flood control devices. The proposed LCP amendment would add the words “where feasible” to the latter item listed above and add new items to this list, including protecting public infrastructure and property from sea level rise and flooding risks; flood-proofing or relocating vulnerable facilities, infrastructure, and utilities; dredging and maintaining the San Dieguito River channel to reduce river flood risks; and utilizing living levees to reduce flood risk to adjacent low-lying areas.

Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard, assure stability and structural integrity, and not in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. Section 30236 of the Coastal Act, in part, limits channelizations or other substantial alterations of rivers to flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development. By proposing to add “where feasible” to the policy that requires proposed development to be located so as to eliminate the need for protective devices such as seawalls, riprap, retaining walls, or other flood control devices, the amendment weakens the certified policy as it relates to Sections 30253 and 30236. It creates an allowance for development to not comply with the requirements of 30253 and 30236 when, in subjective circumstances, compliance is not considered feasible. Therefore, as proposed, the amendment is inconsistent with Sections 30253 and 30236 of the Coastal Act.

#### Incorporate sea level rise into project design, where appropriate

As proposed, Policy III-13 provides broad requirements for development in the Floodplain that must obtain Floodplain Development Permits, including requirements related to anchoring the structure, using flood resistant materials, drainage, disposal systems, etc. One requirement in particular calls for the lowest floor (including basement) of any residential structure to be elevated to or above the base flood elevation. Base flood elevations are provided by FEMA on Flood Insurance Rate Maps (FIRMs), and those maps do not incorporate the effects of SLR.

Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity. To carry out this policy in the context of SLR, proposed development address the changes in flood hazards that may occur with SLR over the period of time the development is anticipated to remain in place (typically 75-100 years for residential and commercial structures) through design measures, or plans to incorporate design modifications at agreed-upon thresholds, or both. Because the policy does not account for SLR, it is inconsistent with Section 30253 of the Coastal Act.

### Mechanism for the implementation of a fee recovery program

The proposed LCP amendment creates a new policy, Policy III-15, calling for the City to develop a fee recovery program to mitigate development impacts on coastal resources and fund adaptation projects that are consistent with the City's Adaptation Plan. However, it does not specify that such a program will be incorporated into the LCP through a future LCP amendment, and thus, there is no mechanism to ensure its consistency with the Chapter 3 policies of the Coastal Act, both in terms of how mitigation fees are calculated and what projects those funds would support. The methods used to calculate mitigation fees should reflect policies of the Coastal Act related to habitat protection, maximization of public access, and recreation (Sections 30210, 30211, 30212, 30214, 30220, 30221, 30230, 30231, and 30240) and appropriately mitigate for impacts to these resources. The projects funded by the program should ensure consistency with these policies as well as ensure consistency with Section 30253, which requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity. Therefore, as proposed, Policy III-15 cannot be found consistent with the Chapter 3 policies of the Coastal Act.

### Best available science

The proposed LCP amendment incorrectly refers to the 2012 National Research Council report as the current best available science in a section of introductory text in Chapter III (Hazard Control). It states, "Local sea level rise projections and effects are based on the 2012 National Research Council study 'Sea Level Rise for the Coasts of California, Oregon, and Washington', which, subject to updates as appropriate, is considered the best available science for the State of California."

In general, development proposals should always be informed by – and analyzed under – the best science available at the time that planning and permitting decisions are being made. Using the current best available science on SLR will best illustrate a project's hazard conditions, potential coastal resource impacts, and potential measures to minimize hazards and impacts. Without using the current best available science, a future project would not be able to ensure consistency with Section 30253 of the Coastal Act, which requires new development to minimize risks to life and property in areas of high flood and geologic hazards, assure stability and structural integrity, and not in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs; nor would it be able to ensure consistency with the resource protection policies of Chapter 3 of the Coastal Act.

In 2018, the State adopted an update to the State Sea Level Rise Guidance,<sup>3</sup> which provided updated best available science on sea level rise projections, impacts, and adaptation planning processes. As of the date of this staff report, the Ocean Protection

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<sup>3</sup> [http://www.opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20180314/Item3\\_Exhibit-A\\_OPC\\_SLR\\_Guidance-rd3.pdf](http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf)

Council guidance still provides the best available science; however, updates to the science are expected in the coming years. In general, using best available science as it is updated over time ensures that hazards and future sea level rise impacts are appropriately identified, allowing for risks to be avoided and minimized, and coastal resources to be protected under current and future conditions, as required by the Coastal Act. Therefore, in general, the City shall always utilize – and require the use of – the current best available science on sea level rise. Because the proposed amendment does not include a reference to the current best available science, nor a clear statement committing the City to use whatever the best available science is at future dates, the proposed amendment cannot be found consistent with Coastal Act policies requiring hazards to be minimized and coastal resources to be protected.

### **E. Findings for Approval of the Proposed Land Use Plan Amendment, if Modified**

Section D above describes each of the major topic areas where inconsistencies with Chapter 3 of the Coastal Act were identified and why the LUP Amendment, as proposed, must be denied. This section describes the suggested modifications needed in each topic area to bring the proposed LUP amendment into conformity with Chapter 3 of the Coastal Act.

#### Floodplain Overlay Zone map

As proposed, the LCP amendment defines the Floodplain Overlay Zone map as the floodplain depicted on whatever versions of the FEMA Flood Insurance Rate Maps (FIRMs) are currently effective in Del Mar. FIRMs are intended to depict flood risk at the time of publication (including flood risk associated with the 100-year and 500-year flood events) and are not designed to capture future flood risk associated with SLR.

The FIRMs that were effective in Del Mar during the development of the proposed LCP Amendment covered low-lying inland areas in the North Beach neighborhood that were vulnerable to flooding originating from the San Dieguito River, but a thin ribbon of beachfront homes remained outside the floodplain due to their slightly higher elevation. FEMA recently updated the FIRMs that apply to Del Mar, increasing the extent of the mapped floodplain such that most properties in the North Beach neighborhood are now mapped as fully or partially within the floodplain. These updated maps went into effect and are dated December 2019. These updated FIRM maps closely match the SLR maps included in the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment, so using the December 2019 FIRM would have virtually the same effect as using the SLR maps; both would capture areas currently at risk from extreme flooding and expected to be at risk due to SLR. However, the proposed LCP Amendment defines the Floodplain Overlay Zone as “the most recently approved FIRM,” and if the FIRM is updated in the future, there is no guarantee the updated map will also capture the SLR-vulnerable areas.

Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity. Regulations that help assure stability and structural integrity of homes subject to flooding are found in Chapter 30.56 of the Implementation Plan (Floodplain Overlay Zone), and these regulations only apply to development located on parcels within the Floodplain Overlay Zone map. Therefore, any future update to the FIRM that causes it to no longer align with SLR-hazard areas could mean that vulnerable parcels would not be subject to regulations aimed at assuring safe development.

To address this issue, **Suggested Modification No. 1a** would define the Floodplain Overlay Zone as December 2019 FIRMs (Exhibit 5) and state that any future updates to the FIRMs shall be incorporated into the Land Use Plan and Floodplain Overlay Zone through future LCP amendments that occur within a reasonable time period. This suggested modification would ensure that any future updates to the FIRMs could be considered in the context of an LCP amendment that ensures the overlay zone includes areas subject to hazards due to SLR as well as the floodplain as mapped by FEMA, thus capturing FEMA's floodplain as well as the areas at risk from SLR-related flooding. **Suggested Modification No. 1b** would delete language in the LUP that refers to the out-of-date FIRM and instead reference the December 2019 FIRM.

This suggested modification would ensure that development subject to current and future coastal hazards from SLR will be subject to the regulations of the Floodplain Overlay Zone, regardless of how future iterations of the FIRM maps may depict current flooding vulnerabilities. This is necessary to assure stability and structural integrity of development and minimize risks to life and property in areas of high flood hazard. Therefore, the suggested modification is consistent with Section 30253 of the Coastal Act.

Additionally, **Suggested Modification No. 1c** would clarify in Policy III-2 that Hazard Overlay Zone maps will be interpreted such that if a portion of a parcel falls within the overlay zone, the whole parcel is considered to be within that zone. This modification is necessary to ensure that the entire development on a vulnerable parcel is resilient to coastal hazards, not just a portion of the development. As modified, Policy III-2 is consistent with Section 30253 of the Coastal Act.

#### Incorporate key elements of the Sea Level Rise Adaption Plan into the LUP

The Adaptation Plan includes principles to guide the City's approach to implementing the plan. They include:

- Limit the risk of extreme coastal and river flooding and damage to vital infrastructure and structures in the low-lying areas of the City Maintain a walkable beach for recreational use and economic benefit, and to reduce flooding.
- Maintain the extensive existing system of horizontal and vertical access points to the Del Mar Beach and the San Dieguito River and Lagoon.
- Maintain continuous coastal access from North Beach to South Beach.

- Maintain San Dieguito Lagoon wetland habitat functions. (Adaptation Plan, Page ES-2)

These principles are consistent with the hazard avoidance and resource protection policies of the Coastal Act. Specifically, the principle of limiting extreme coastal and river flooding and damage is consistent with Section 30253 of the Coastal Act, which requires new development to assure stability and structural integrity. The principles of maintaining a walkable beach and continuous horizontal access and vertical water access points along the city shoreline are consistent with the public access (Sections 30210, 30211, 30212, 30214), recreation (Sections 30220 and 30221), and visual resource policies (Section 30251) of the Coastal Act. The public access policies provide for maximizing public access while assuring the public's constitutional right of access is balanced with the rights of private property owners. The recreation policies require that coastal areas, oceanfront land, and upland areas suited for recreation be protected for that purpose. The visual resource policy requires protection of scenic and visual qualities of coastal areas.

As stated above, these principles are included in the Del Mar Sea Level Rise Adaptation Plan, but not in the proposed LCP amendment. As described in Section D above, the Del Mar Sea Level Rise Adaptation Plan was submitted by the City as a part of the subject LCP amendment, but the submittal does not specify the intended regulatory function of the Adaptation Plan nor does the Plan include policy language that could serve as a standard of review for development in the Coastal Zone. Because proposed LUP amendment includes a relatively collection of policies that carry out the city's earliest set of preferred adaptation measures – but the Adaptation Plan acknowledges they may not be effective in the long term and that other measures will be needed in future – the LCP must include principles that are consistent with the Coastal Act and that will provide an appropriate standard of review for future SLR adaptation projects the City is likely to implement in the future. Without these principles incorporated into the LUP, the LUP cannot be found consistent with Chapter 3 of the Coastal Act.

Therefore, **Suggested Modification No. 2** would incorporate the principles from the City's adopted Adaptation Plan into the LUP as a new goal, Goal III-B. It would also add text to the introductory sections of Chapter III (Coastal Hazards) of the LUP stating that the City's Coastal Hazards, Vulnerability, and Risk Assessment (Environmental Science Associates, July 2016; City Council adopted October 1, 2018 by Resolution 2018-67) and Addendum 1 (Comparison of CHVRA, CoSMoS, and FEMA for Beach Erosion, Bluff Erosion, and Coastal Storm Flood Hazards)(Environmental Science Associates, September 2018; City Council adopted October 1, 2018 by Resolution 2018-67), along with the City of Del Mar Sea Level Rise Adaptation Plan (Environmental Science Associates, May 2018; City Council adopted October 1, 2018 by Resolution 2018-67), are incorporated as guidance documents when implementing the LCP to the extent they are not inconsistent with any other provisions of the certified LCP. These three documents provide information that would help ensure future projects are informed by SLR hazard information and the City's adopted adaptation framework. As modified, this

section of the LCP amendment is consistent with Coastal Act sections 30210, 30211, 30212, 30214, 30220, 30221, 30251, and 30253.

These suggested modifications are also consistent with how the City expressed its intent to use its technical documents. First, the City has voiced strong commitment to the Adaptation Plan and its contents in many public forums, including City Council meetings in 2018 and 2019 prior to the submittal of the proposed LCP amendment. Second, the certified LUP states, “The Land Use Plan is a compilation of the goals, policies and recommendations identified in the Del Mar Community Plan, various policy reports, the San Dieguito Lagoon Enhancement Program, as well as other goals and policies adopted by the City Council to guide future development within Del Mar.” Because the City Council adopted the Adaptation Plan, incorporating the principles of the Adaptation Plan into the LCP is the clearest way of achieving this purpose, consistent with the certified LCP.

#### Near-term adaptation and future, threshold-based adaptation and LCP updates

The proposed LUP amendment includes policies that reflect some elements of the City’s preferred near-term approach to SLR adaptation (i.e., sand replenishment, river dredging, living levees, and flood proofing or relocating vulnerable public facilities). The Del Mar Sea Level Rise Adaptation Plan recognizes that subsequent adaptation measures will likely be needed as sea levels continue to rise, and that these “new sea-level rise policies that will be integrated into the City’s LCP via an LCP Amendment” (Adaptation Plan, Page 6). Accordingly, the Adaptation Plan defines specific physical thresholds of impact from SLR that will signal to the City that additional adaptation action is needed, and it describes how the City will monitor whether those thresholds have been crossed. This content is not incorporated directly into the submitted LUP or IP amendments.

The Adaptation Plan does not include policy language, so it does not provide a clearly enforceable standard for development; rather, it is an informational document written in narrative form. Because it is the policies and zoning code of the LCP that must be consistent with the Coastal Act, any language in the Adaptation Plan necessary to ensure consistency with the Coastal Act must be incorporated into the LCP itself. As described in Section D of this staff report, the LUP cannot be found consistent with Chapter 3 of the Coastal Act without incorporating additional near-term adaptation measures identified in the Adaptation Plan as well as thresholds for future action and monitoring described in the Adaptation Plan. In addition, the Adaptation Plan identifies the potential future removal and relocation of the railroad off the bluffs as a key event that could impact future conditions along the shoreline, but the LUP does not include provisions to ensure safety and stability of development and the protection of coastal resources if and when the removal of the railroad is implemented.

Therefore, **Suggested Modification No. 3** would add a policy to the LUP stating that the City will review the LCP at least every 10 years, and update it if necessary to address SLR. These 10-year reviews would provide the opportunity for the LCP to be

updated in response to changing conditions, to incorporate new data and information on sea level rise, to address any emerging land use issues, and to incorporate any necessary, additional SLR adaptation measures. In addition, the suggested modification would require an LCP update to be initiated when removal of the railroad is approved and funded, and it states that this update shall include, at minimum, a method for noticing property owners inland of the railroad of relevant risks related to erosion as impacted by sea level rise and an evaluation of the scope and coverage of the Coastal Bluff Overlay Zone. Finally, the suggested modification would add a list of additional, near-term adaptation measures the City intends to undertake, along with thresholds for future action, consistent with the Adaptation Plan.

As suggested to be modified, the LUP will ensure that the LCP is reviewed periodically and, when necessary, an amendment is initiated to incorporate new adaptation strategies and maintain consistency with the goals of the LCP, including principles related to maintaining a walkable beach, maintaining vertical and horizontal access to the shoreline, limiting the risk of extreme coastal and river flooding and damage, and maintaining wetland habitat function. Thus, periodic LCP reviews and updates will ensure continued consistency with Section 30253 of the Coastal Act, which requires new development to assure stability and structural integrity; Sections 30210, 30211, 30212, and 30214, which provide for maximum public access to the shoreline; Sections 30220 and 30221, which protect coastal recreational resources; and Section 30251, which protects visual resources. Thus, as modified, this section of the LCP amendment is consistent with the above-mentioned sections of the Coastal Act, both now and over time.

In addition, as suggested to be modified, the LUP will ensure the LCP is updated to ensure relevant property owners are noticed about any relevant changes to shoreline conditions, hazards, and risks associated with future removal of the railroad. Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high geologic hazard and assure stability and structural integrity. Noticing property owners of hazard risks is a key way to carry out SLR adaptation because it ensures that both current and prospective property owners are fully aware of and informed about risks as they make decisions about their properties. It is particularly important to begin such noticing before expected hazard impacts begin to occur, because that risk information should be available to inform the forward-looking decisions property owners make about their properties. While the railroad and its associated shoreline protective devices are currently blocking or reducing natural erosion along the bluffs, these conditions will change when the railroad is removed from the bluffs. Once removal of the railroad is approved and funding is identified, it is reasonable to expect it to take several years, if not a decade or more, to implement the actual removal project, which is anticipated to occur by 2050. Therefore, requiring noticing about any relevant hazards and risks once the railroad removal is approved and funded will ensure noticing is required within a reasonable amount of lead time prior to removal of the railroad. Thus, as modified, this section of the LCP amendment is consistent with Section 30253 of the Coastal Act.

Finally, as suggested to be modified, the LUP will list several actions the City intends to undertake within 5 years of the certification of the subject LCP Amendment to implement the near-term adaptation strategies included in the Adaptation Plan, including the following: 1) holding a noticed public hearing to consider whether the vulnerability and risk of the south bluff has significantly changed, 2) preparing a conceptual design for a living levee along the San Dieguito River, and 3) establishing a Sand Compatibility and Opportunistic Use Program (SCOUP) and applying for funding to facilitate beach nourishment. It also states that the City shall hold a noticed public hearing to consider available adaptation strategies when the following thresholds occur: 1) if a consistent pattern of flood damage to structures on a specific property or properties due to ocean or river flooding is identified, 2) if data collected shows a consistent pattern of narrowing beach width, 3) if public access is not consistently maintained at the beach street ends and/or along the beach for lifeguard vehicles and people, or if public beach access is not maintained consistently at the beach street ends, or 4) if the Southern California Edison obligation to complete the San Dieguito lagoon restoration plan ends. Those noticed public hearings will be followed by the appropriate Coastal Development Permit application or LCP Amendment – whichever is applicable – to implement the selected adaptation strategy. Finally, the suggested modification states that if a bluff edge erodes to within 35 feet of development, the affected property or properties shall immediately be subject to the requirements of the Coastal Bluff Overlay Zone.

As suggested to be modified, the LUP will ensure that near-term adaptation strategies consistent with the Adaptation Plan are implemented and will ensure next steps are initiated once certain thresholds are crossed. By incorporating development into the Coastal Bluff Overlay Zone when it comes within the 35-foot minimum buffer distance included in the Adaptation Plan, the LCP will ensure the regulations of the Coastal Bluff Overlay Zone, which are designed to ensure safety and stability of development and minimization of hazards, are applied to properties potentially at risk from coastal hazards. Thus, by incorporating these threshold-based actions into the LUP itself, the LUP will ensure consistency with Section 30253 of the Coastal Act, which requires new development to assure stability and structural integrity; Sections 30210, 30211, 30212, and 30214, which provide for maximum public access to the shoreline; Sections 30220 and 30221, which protect coastal recreational resources; and Section 30251, which protects visual resources. As modified, this section of the LCP amendment is consistent with the above-mentioned sections of the Coastal Act.

#### Incorporate sea level rise into bluff setback calculations

The proposed amendment includes new language in Policy III-9, which states that all new development located on a coastal bluff or vulnerable slope will be set back to ensure a minimum factor of safety against sliding of 1.5 and take into account long term erosion over the next 75 years, to assure stability. Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high geologic hazard and assure stability and structural integrity, and in the context of

coastal bluffs, calculating an appropriate setback has long been a way to carry out this policy.

Therefore, **Suggested Modification No. 4** would specify that long term erosion rates be determined considering the effects of SLR and would strike a sentence that allows alternative stability requirements to be approved if an equivalent factor of safety is demonstrated. As suggested to be modified, this policy is consistent with Sections 30253 of the Coastal Act.

#### Public safety and sea level rise adaptation policies

In the certified LUP, Policy III-12 lists actions to enhance public safety within the San Dieguito River Floodway, including: prohibiting the construction of permanent structures or the placement of fill on either a temporary or permanent basis within designated floodway areas; prohibiting uses in the floodway that would constitute an unreasonable, unnecessary, undesirable, or dangerous impediment to the flow of floodwaters, or that would cause a cumulative increase in the water surface elevation of the base flood of more than one foot at any point; and requiring proposed development to be located so as to eliminate the need for protective devices such as seawalls, riprap, retaining walls, or other flood control devices.

As described in Section D of this staff report, the proposed LCP amendment would add “where feasible” to the latter item listed in Policy III-12. (The Floodway essentially follows the San Dieguito River, and is the area needed to convey moving floodwaters.) Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard, assure stability and structural integrity, and not in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. Additionally, Section 30236 restricts the channelization and substantial alteration of waterways. **Suggested Modification No. 5** would remove “where feasible” from the language of the Policy III-12. As modified, the policy would not allow a subjective allowance for development in the Floodway to be located in a manner that requires shoreline protective devices. Thus, as modified, Policy III-12 is consistent with Section 30253 and 30236 of the Coastal Act.

#### Incorporate sea level rise into project design, where appropriate

In the proposed LUP amendment, Policy III-13d calls for the lowest floor (including basement) of any residential structure to be elevated to or above the base flood elevation (BFE). The base flood elevations are related to the elevation of the current extreme flood mapped by FEMA on its Flood Insurance Rate Maps, and therefore it does not incorporate the effects of SLR. Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity. To carry out this policy in the context of SLR, proposed development must account for the changes in flood hazards that may occur with SLR over the period of time the development is anticipated to remain in place (typically 75-100 years for residential and commercial structures), either by increasing

the elevation of the lowest floor in its initial design and construction, or by ensuring the design can accommodate renovations to increase the elevation or implement other adaptation strategies in future. Therefore, **Suggested Modification No. 6** would specify that when applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation in the future. As modified, Policy III-13d is consistent with Section 30253 of the Coastal Act.

#### Mechanism for the implementation of a fee recovery program

The proposed LUP amendment creates a new policy, Policy III-15, calling for the City to develop a fee recovery program to mitigate development impacts on coastal resources and fund adaptation projects that are consistent with the City's Adaptation Plan. Such a program – including the methods used to calculate mitigation fees and the process used to identify projects to fund – must ensure consistency with the Chapter 3 policies of the Coastal Act, including Section 30253, which requires new development to minimize risks to life and property in areas of high flood hazard and assure stability and structural integrity, and the resource protection policies of the Coastal Act related to habitat protection, maximization of public access and recreation, etc. (Sections 30210, 30211, 30212, 30214, 30220, 30221, 30230, 30231, 30240, and 30251). However, the proposed policy does not include a mechanism to ensure its consistency with the Chapter 3 policies. Therefore, **Suggested Modification No. 7** would specify that this program shall be incorporated into the LCP via a future LCP amendment, which would ensure any such program is consistent with applicable Coastal Act policies. As modified, Policy III-15 is consistent with the Chapter 3 policies of the Coastal Act.

#### Best available science

The proposed LCP amendment incorrectly refers to the 2012 National Research Council report as the current best available science in a section of introductory text in Chapter III (Hazard Control). Section 30253 of the Coastal Act requires new development to minimize risks to life and property in areas of high geologic and flood hazards and assure stability and structural integrity. Using the current best available science on coastal hazards – to inform both development proposals and the analysis of Coastal Development Permit applications – is necessary to ensure consistency with this policy. Therefore **Suggested Modification No. 8** corrects the reference to the current best available science in the introductory text to the LUP, and states that because updates to the science are expected in the coming years, the City shall always utilize – and require the use of – the current best available science on sea level rise. As modified, the introductory text to the LUP is consistent with Section 30253 of the Coastal Act.

#### Minor suggested modifications

Additional, minor modifications are needed to make small editorial changes for clarity or to correct unintentional omissions from the proposed LCP amendment. Please see Exhibit 11 for a list of these minor modifications. Without these changes, the LUP policies may be misleading, ambiguous, or simply inaccurate, making it inconsistent with the Chapter 3 policies of the Coastal Act.

## **V. FINDINGS FOR DENIAL OF THE DEL MAR IMPLEMENTATION PLAN AMENDMENT AS SUBMITTED, AND APPROVAL WITH MODIFICATIONS**

### **A. Introduction to the proposed IP amendment**

The proposed LCP amendment introduces broad policies in the LUP that aim to implement the City's preferred near-term approach to sea level rise (SLR) adaptation. In contrast, the proposed Implementation Plan (IP) amendment has little focus on SLR; the subject is not included in any of the proposed amendments to the IP except in the definitions section of the Coastal Bluff Overlay Zone chapter, where the proposed amendment would introduce definitions of the terms "sea level rise" and "vulnerable slope."

The term "sea level rise" does not appear anywhere else in the proposed amendments to the IP; it only appears once in an existing, certified provision of the IP which requires geotechnical reports in the Coastal Bluff Overlay Zone to analyze the potential effects of SLR on bluff stability. However, it is important to note that because no amendments are proposed to the Coastal Bluff Overlay Zone map, this requirement would only apply to the open space and railroad right-of-way included in the existing overlay map, not the additional inland areas that are also projected to be at risk from erosion influenced by SLR.

"Vulnerable slopes" would be defined as bluffs that are vulnerable to projected SLR and erosion impacts, but do not currently meet the definition of a "coastal bluff." The proposed IP amendment would require drainage from vulnerable slopes to be collected and discharged in a manner that minimizes erosion, and would require vulnerable slopes to be identified in topographic maps required for the submittal of Coastal Development Permit applications in the Coastal Bluff Overlay Zone. While these provisions are important on their own, they do not directly address the potential impacts of SLR.

In sum, the proposed amendments to the Definitions do relatively little to effectuate SLR adaptation through the IP. Rather, the focus of the proposed amendments to the IP is compliance with FEMA requirements, which address today's extreme flood events, not future SLR. In the Resolution that resulted in the City's adoption of the proposed IP amendments (Ordinance No. 943), the City stated that the proposed zone code amendments to the Floodway Zone and Floodplain Overlay Zone are needed to satisfy

federal floodplain management requirements and allow the City's continued participation in the National Flood Insurance Program (NFIP), and for continued access to FEMA funding for hazard mitigation and disaster relief assistance.

While continued compliance with FEMA regulations is an important way to minimize risks associated with today's extreme flood event, FEMA regulations do not address additional risks associated with SLR and storm events exacerbated by SLR. Without provisions to address SLR, the proposed LCP amendment would rely solely on the broad policies in the proposed LUP amendment to carry out SLR adaptation. This is insufficient because all LCPs must include adequate detail in the IP needed to carry out the policies of the LUP. Therefore, additional modifications are needed in the IP in order to support the LUP amendment.

## **B. Standard of Review: Land Use Plan policies**

The standard of review for the proposed IP amendment is whether it is consistent with and adequate to carry out the certified LUP. In the situation where the Commission has conditionally certified an LUP subject to local government acceptance of the modifications, the standard of review shall be the conditionally-certified LUP. (Reg. § 13542(c).) To aid in understanding the standard of review for the IP, certification of the LUP is assumed according to the staff recommendation, and modifications to the LUP are expressed below in underline/~~strike through~~ format.

Goal III-B of the Land Use Plan, as modified, states:

Goal III-B: To respond to evolving understanding of sea level rise and its impacts upon the City's resources and development, and to maintain public access and recreational resources, maintain the ability of beaches and wetlands to continue providing a storm-buffering function, and protect development, the City shall pursue the following principles from the City's adopted Sea Level Rise Adaptation Plan:

- Adopt and implement adaptation measures that will limit the risk of extreme coastal and river flooding and damage to vital infrastructure and structures in the low-lying areas of the City.
- Maintain a walkable beach for recreational use and economic benefit, and to reduce flooding.
- Maintain the extensive existing system of horizontal and vertical access points to the Del Mar Beach and the San Dieguito River and Lagoon.
- Maintain continuous coastal access from North Beach to South Beach.
- Maintain San Dieguito Lagoon wetland habitat functions.

Policy III-2 of the certified Land Use Plan, as modified, states:

Conserve the natural character of land, water, vegetative and wildlife resources within the community by ensuring that future development minimizes the disturbance of existing or natural terrain and vegetation, and does not create soil erosion, silting

of lower slopes, slide damage, flooding problems and/or cutting or scarring, through application of the following policies:

- a. Regulate development in accordance with the specific Beach Overlay Zone (BOZ), Floodway Zone (FW) and Floodplain Overlay Zone (FP) regulations contained within Del Mar Municipal Code Chapters 30.50, 30.29, and 30.56 respectively. Interpret the Hazard Overlay Zone maps such that if a portion of a parcel falls within the overlay zone, the whole parcel is considered to be within that zone.
- b. Review all proposed drainage and irrigation systems for their ability to control runoff and seepage into downstream areas and to ensure that no significant erosion or the associated siltation of downstream resources will occur.  
For purposes of this Land Use Plan, "significant erosion" shall mean the likelihood of removal of soil or the cutting, scarring, or filling of slopes, canyons, or bluff faces, or the silting of lower slopes brought about by runoff from surfaces during irrigation or from rainfall of an intensity and duration less than or equal to that of the 100-year period design storm.
- c. Regulate development in proximity to coastal bluffs in accordance with the Coastal Bluff Overlay Zone Regulations contained within Del Mar Municipal Code Chapter 30.55.
- d. In addition to the requirements of the Coastal Bluff regulations of this chapter, require the use of drought-tolerant plants in new and redevelopment projects throughout the City in order to minimize potential erosion impacts from irrigation, systems and to reduce water consumption.
- e. Implement best management practices to minimize shoreline hazards.
- f. Support relocation of the railroad and other public infrastructure from vulnerable bluff areas.

Policy III-6 of the Land Use Plan, as amended, states in part:

Minimize the loss of life and destruction of property from seismic, geologic, oceanographic and weather related causes by developing a well-coordinated disaster plan which includes preparation for earthquakes, tsunamis, and storm waves. Require new development to incorporate design measures that will reduce and where feasible eliminate the risk of extreme flooding damage to people and property, public and private.

Policy III-9 of the Land Use Plan, as modified, states:

Require all new development located on a coastal bluff or vulnerable slope to be setback from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Such setbacks must take into consideration projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, as well as

slope stability. To assure stability, the development should maintain a minimum factor of safety of 1.5 against land sliding for the economic life of the structure determined through a quantitative slope stability analysis, specifically: 1.5 under static conditions and 1.1 pseudostatic conditions (where  $k=0.15$  unless otherwise determined through analysis by the geotechnical engineer or certified engineering geologist). ~~Alternative stability requirements may be approved to the satisfaction of the City Engineer and Building Official if an equivalent factor of safety is demonstrated.~~

Policy III-10 of the Land Use Plan, as amended, states:

Ensure development is sited and designed to avoid and mitigate impacts from sea level rise hazards associated with bluff erosion.

Goal III-D of the Land Use Plan, as amended, states:

Minimize risks to life and property associated with flooding and flood waters by anticipating flood hazards, monitoring and evaluating shoreline areas for significant trends and changes in conditions (i.e. repetitive flood losses, reduced sandy beach width, and bluff retreat), and taking appropriate action to reduce the risk and potential adverse effects.

Policy III-13, as modified, states in part:

Ensure that development within the Floodplain Overlay Zone will not unreasonably obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs; and will minimize the cost of flood insurance to Del Mar residents. The following Floodplain (FP) Overlay Zone policies shall be applied to all applications for a Floodplain Development Permit. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone. This overlay zone incorporates floodplain areas designated on the Federal Insurance Rate Map (FIRM) for the area as prepared by the Federal Emergency Management Agency. The floodplain areas are generally depicted on the FIRMs dated December 2019. Updates to the FIRMs shall be incorporated into the Land Use Plan and FP Overlay Zone through future LCP Amendments within a reasonable time period ~~map that is included as Figure III-E.~~

Applications for Floodplain Development Permits shall be reviewed for consistency with the following requirements to be assured that new development will:

- a. Be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

- b. Be constructed with materials and utility equipment resistant to flood damage;
- c. Use methods and practices that minimize flood damage;
- d. Have the lowest floor (including basement) of any residential structure elevated to or above the base flood elevation. When applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation or other adaptation strategies in the future.
- e. [...]

### **C. Findings for Denial of the Proposed Implementation Plan Amendment as Submitted**

This section will discuss the proposed Implementation Plan amendment and describe areas that are inconsistent with the LUP as modified. For readability, the subheadings below describe the topic of each major inconsistency.

#### **a. Findings for Denial of the Floodway Overlay Zone Amendment as Submitted**

In the certified LCP, the Floodway Overlay Zone encompasses the areas subject to relatively deep and high velocity floodwater and roughly matches the course of the San Dieguito River. Chapter 30.29 of the Implementation Plan (IP) provides regulations for the Floodway Zone.

#### Background on proposed amendments to Chapter 30.29 Floodway Zone

Chapter 30.29 includes sections on the chapter's Purpose, Definitions, Allowed Uses within the Floodway Zone (including field and seed crops, aquaculture and mariculture operations, open recreational uses in accordance with the San Dieguito Lagoon Enhancement Plan, and any similar use which conforms to the description and purpose of the zone), and Disallowed Uses (including permanent structures, placement of mobile homes, parking that does not serve one of the allowed uses, and placement of fill).

The proposed IP amendment would add sections on 1) Required Permits for Development in the Floodway Overlay Zone and 2) Development Regulations. Required permits would include a Floodplain Development Permit, Conditional Use Permit, and a Coastal Development Permit. This section also states that the Floodplain Administrator shall utilize base flood elevation and floodway data available from federal or state sources when base flood elevation data has not been provided by the Flood Insurance Study (which is created as part of the development of the FIRMs) and make any necessary interpretations as to the location of Areas of Special Flood Hazards Areas (which is also a FEMA designation). It also requires that, as a condition of approval for

development in the Floodway, the applicant shall grant a flowage easement to the City for the portion of the property within the Floodway.

The proposed IP amendment also adds a section describing development regulations for the Floodway Zone. In general, it requires any development to obtain a permit authorizing that it is an allowed use; requires structures not to be attached to a foundation; requires the owner to clean up any debris should the structure be damaged; allows parking lots and new roadways/roadway expansions in the zone only if they are consistent with LUP; allows encroachments into the Floodway for essential public utility and transportation crossings allowed pursuant to Chapter 30.29 and FEMA standards; and requires a registered professional engineer to demonstrate development will not increase flood height during the base flood discharge. The section also requires that development be offset by improvements or modifications that enable passage of the base flood, in accordance with FEMA standards, and to not adversely impact existing Environmentally Sensitive Habitat Areas (ESHA). It limits the allowed purposes for channelizations or other substantial alteration of rivers or streams, and requires such projects to: 1) incorporate all relevant recommendations from hydrological studies in regard to erosional characteristics, flow velocities, volume, sediment transport, and maintenance of hydrology; and 2) design channels to do the following: minimize stream scour, provide for erosion protection, maintain water flow velocities as specified by the City Engineer, ensure they do not increase downstream bank erosion or sedimentation of sensitive biological resources, maintain wildlife habitat and corridors, implement resource management criteria consistent with applicable land use plans, and maintain or improve groundwater recharge capability. The section also requires that channels that accommodate a base flood shall do so without increasing the water surface elevation more than one foot at any point from the level of a non-confined base flood in the natural undeveloped floodplain, unless otherwise consistent with FEMA regulations. It requires artificial channels to consist of natural bottoms and sides designed to accommodate existing and proposed riparian vegetation and other natural or proposed constraints.

#### Incorporate sea level rise into Floodway development regulations

The development regulations summarized above that often cite FEMA regulations are generally needed to be consistent with FEMA requirements. Consistency with FEMA requirements is important for ensuring safety from an extreme flood event. However, because FEMA regulations are designed to address current extreme flood events, they do not take into account how SLR will exacerbate the size and frequency of extreme flood events in the future. The City's Coastal Hazards, Vulnerability, and Risk Assessment found that flood hazards will increase with SLR, necessitating additional measures to ensure safety and minimize risks.

Policy III-6 of the LUP states, "Require new development to incorporate design measures that will reduce and where feasible eliminate the risk of extreme flooding damage to people and property, public and private." In order to be consistent with this policy, the effects of SLR on the risk of extreme flooding must be considered in

development design. The proposed amendments to the Floodway development regulations (Section 30.29.060) do not require SLR to be considered in design measures; therefore, they are inconsistent with Policy III-6 of the LUP.

**b. Findings for Denial of the Coastal Bluff Overlay Zone Amendment as Submitted**

In the certified LCP, the Coastal Bluff Overlay Zone encompasses the section of bluffs to the north of the San Dieguito River mouth, known as the North Bluffs area, and the section of bluffs running along the southern portion of the City, known as the South Beach and South Bluffs areas (Exhibit 1). In the South Beach and South Bluffs, the LOSSAN railroad corridor runs along the length of the bluffs, just inland from the bluff edge, and residential structures lie inland of the railroad right-of-way. The certified Coastal Bluff Overlay zone map encompasses the open space and railroad-right-of way located along the bluffs but does not include any of the inland residential parcels (Exhibit 4). Chapter 30.55 of the certified Implementation Plan (IP) provides regulations for the Coastal Bluff Overlay Zone.

Disclosure of sea level rise risks in the Coastal Bluff Overlay Zone

The Del Mar Coastal Hazards, Vulnerability, and Risk Assessment analyzed erosion hazards due to sea level rise and found that, absent shoreline protection and other development that would prevent erosion from occurring, the bluff could erode inland through the area covered by the Coastal Bluff Overlay Zone (Exhibit 6).

Section 30.55.060.B of the proposed IP amendment allows the decision maker to include permit conditions of approval as deemed necessary to ensure compliance with the City's certified LUP. It also states that these permit conditions may include a recordation of notice on the title to the property that: a) identifies the property is located in the Coastal Bluff Overlay Zone; b) acknowledges owner responsibility for maintenance and repair of drainage and erosion control systems pursuant to a detailed maintenance program; and c) waives the right to future shoreline protective devices for the new development.

Policy III-10 of the LUP states: "Ensure development is sited and designed to avoid and mitigate impacts from sea level rise hazards associated with bluff erosion." In order to ensure consistency with this policy, property owners and prospective property owners in areas potentially subject to erosion from SLR must be aware of their risks so that they can make fully informed decisions about the development on their properties, including siting and design. The proposed IP amendment does not include requirements for noticing of risks or real estate disclosures; therefore, it is inconsistent with Policy III-10 of the LUP. Additionally, the proposed language states that decision makers "may" impose permit conditions. Because, as proposed, the permit conditions may not always be required, the proposed language does not ensure that property owners in all circumstances will have the necessary knowledge to site and design their development to avoid and mitigate impacts from sea level rise hazards associated with bluff erosion,

as required in Policy III-10. Therefore, Section 30.55.060.B is not consistent with Policy III-10 of the LUP.

Strike the definition of existing development from Chapter 30.55 (Coastal Bluff Overlay Zone)

In the certified IP, Section 30.55.030 provides definitions “for the purposes of the chapter.” This means that the definitions apply only to the terms as they appear in the rest of Chapter 30.55, not the rest of the LCP. The certified version of Chapter 30.55 does not include a definition of existing development.

The proposed amendment to Section 30.55.030 would define “existing development” as “any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code or preceding San Diego County ordinances” – in other words, anything that has been lawfully built, regardless of when it was built. This definition would apply to both past construction and any new development going forward into the future.

The term “existing development” appears in three other places in Chapter 30.55, as proposed to be amended by the City. The proposed amendment would add a parenthetical after two proposed requirements: one in Section 30.55.050.E (Development Regulations for the Coastal Bluff Overlay Zone) that requires new subdivisions to record a notice against each lot waiving rights to future shoreline protective devices, and one in Section 30.55.060.B.2 (Required Permit for Development in the Coastal Bluff Overlay Zone) that allows decision makers to impose a permit condition that requires a waiver of future shoreline protective devices to be recorded on the title to the property. The parenthetical would read, “This [waiver] shall not preclude the ability for an owner to submit a future permit request to protect existing development” (clarification added). Additionally, Section 30.55.070 (Submittal Requirements) requires Coastal Development Permit applications for development in the Coastal Bluff Overlay Zone to include a geotechnical report that, among other things, identifies existing conditions, including existing development.

The term “existing development” also appears in other chapters of the IP, including the Beach Overlay Zone (Chapter 30.50) where the regulations that carry out the Beach Preservation Initiative appear. Section 30.50.060 allows shoreline protective devices to be authorized within the Shoreline Protection Area (i.e., on beach areas in the North Beach neighborhood and seaward of the railroad centerline along the bluffs) if the protective device is required to protect existing structures in danger from erosion (and if it meets other specified criteria). While the definition proposed in Chapter 30.55 only applies to the term when it appears in that Chapter – Section 30.55.030 reads, “For purposes of this Chapter, the following definitions shall apply” – the definition may, in practice, be used to guide the interpretation of the term in Chapter 30.50 and other chapters of the IP.

Policy III-9 of the LUP requires all new development to be set back from the coastal bluff edge to avoid the need for protective devices during the economic life of the structure. If existing development is defined as proposed, all development would be considered “existing” right after it is constructed, as opposed to “new.” Thus, all policies and regulations of the LCP that provide standards for new development would no longer apply, including the requirement in Section 30.55.060.B.2.c, which requires recordation on property titles that waive the right to future shoreline protective devices for new development. Thus, development proposals on structures that have already been constructed would not be subject to this requirement, which is inconsistent with the intent of Policy III-9 to avoid the need for protective devices during the economic life of the structure.

Additionally, Policy III-9 of the LUP as modified is consistent with Chapter 3 of the Coastal Act, including Sections 30235 and 30253. Section 30235 requires that protective devices for existing structures be approved, if the other requirements of Section 30235 are also satisfied. Section 30253 requires that new development assure stability and structural integrity and in no way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The Coastal Commission has interpreted these policies to require applications for shoreline protection to be approved for development that was in existence when the Coastal Act was passed as long as all other requirements are met, but avoid such protective structures for new development now subject to the Act.<sup>4</sup> The definition in the proposed IP amendment is inconsistent with this interpretation of Sections 30235 and 30253. Additionally, as the proposed amendment introduces this expansive definition of existing development, the amendment would thereby weaken the LCP as it relates to Policy III-9 of the LUP, and Sections 30235 and 30253 of the Coastal Act.

Thus, the proposed definition is inconsistent with Policy III-9 of the LUP, and Sections 30235 and 30253 of the Coastal Act as they are carried out through the policies of the LUP.

#### Incorporate sea level rise into the calculation of coastal bluff and vulnerable slope setbacks

Policy III-9 of the LUP requires new development on coastal bluffs or vulnerable slopes to be set back a sufficient distance to account for long-term erosion over 75 years as well as bluff stability. As modified, it states:

*Require all new development located on a coastal bluff or vulnerable slope to be setback from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Such setbacks must take into consideration projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, as*

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<sup>4</sup> See Coastal Commission Chapter 8 of the 2018 Sea Level Rise Policy Guidance

*well as slope stability. To assure stability, the development should maintain a minimum factor of safety of 1.5 against land sliding for the economic life of the structure determined through a quantitative slope stability analysis, specifically: 1.5 under static conditions and 1.1 pseudostatic conditions (where  $k=0.15$  unless otherwise determined through analysis by the geotechnical engineer or certified engineering geologist). ~~Alternative stability requirements may be approved to the satisfaction of the City Engineer and Building Official if an equivalent factor of safety is demonstrated.~~*

As more thoroughly described in Section IV of this staff report, the modification to this policy would clarify that long-term erosion rates must take into account the effects of SLR upon erosion rates. Four sections in Chapter 30.55 are inconsistent with Policy III-9, as modified.

First, as proposed, Section 30.55.050 (Development Regulations for the Coastal Bluff Overlay Zone) states that proposed development shall be sited and designed to avoid impacts from erosion hazards over the economic life of the development (minimum 75 years), and establishes 40 feet as the minimum setback from the coastal bluff edge. This section does not specify that this analysis must take into account the effects of SLR upon long-term erosion rates; in addition, it does not reference vulnerable slopes in addition to coastal bluffs. Therefore, it is inconsistent with Policy III-9.

Second, Section 30.55.050 (Development Regulations for the Coastal Bluff Overlay Zone) does not state what development is approvable if it is not possible to comply with the setback requirements described in the section. Thus, it does not provide an avenue for compliance with Policy III-9 in those situations. Without additional language describing what development is approvable when parcels are not large enough to accommodate the calculated setback, Section 30.55.050 is inconsistent with Policy III-9.

Third, Section 30.55.070 (Submittal Requirements) states that in addition to the standard submittal requirements for a Coastal Development Permit, the application shall include, among other things, a geotechnical report that analyzes a number of relevant topics. It states that the report should take into consideration the projected rates of bluff and shoreline retreat and relevant beach nourishment projects, but it does not specify that the effects of SLR upon erosion rates shall be taken into account; therefore, it is inconsistent with Policy III-9.

Finally, the proposed amendment requires geotechnical reports to identify the suitability of the site for the proposed development, and whether shoreline protection is projected to be necessary over a 75 year time period to protect the development (Section 30.55.070.A.2.b). Policy III-9 requires all new development to be set back from the coastal bluff edge to avoid the need for protective devices during the economic life of the structure; therefore, the geotechnical report should analyze the suitability of the site for the proposed development without shoreline protection. Thus, as proposed, 30.55.070.A.2.b is inconsistent with Policy III-9.

Policy III-2 requires “that future development minimizes the disturbance of existing or natural terrain and vegetation, and does not create soil erosion, silting of lower slopes, slide damage, flooding problems and/or cutting or scarring.” Section 30.55.050 limits grading, limits new irrigation systems, and requires drainage to be conveyed away from coastal bluffs, but does not mention vulnerable slopes. Because vulnerable slopes also require such protections in order to avoid erosion, silting of lower slopes, slide damage, etc., Section 30.55.050 of the proposed IP is inconsistent with Policy III-2.

#### Purpose of the Coastal Bluff Overlay Zone Chapter

Section 30.55.010 states that the purpose of the Coastal Bluff Overlay Zone is to protect Del Mar’s coastal bluffs as a visual resource and avoid the risks to life and property associated with bluff failure and shoreline erosion, and the proposed amendment would add the phrase, “while employing regulations consistent with the rights of private property owners.” The proposed amendment would also add a second element to the Purpose section stating that the intent of the Chapter is to prohibit incompatible development in hazardous areas; ensure that new development is appropriately sited to minimize damage and avoid hazards; and reduce the need for shoreline protective devices.

Goal III-B states that the City shall pursue several principles, including maintaining a walkable beach for recreational use and economic benefit, and to reduce flooding; and maintaining continuous horizontal coastal access and vertical water access points to North and South Beach. Because Section 30.55.010 does not include language requiring the protection of coastal resources identified in Goal III-B, it is inconsistent with Goal III-B of the LUP.

Additionally, Policy III-9 requires all new development located on a coastal bluff or vulnerable slope to be set back from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure. Because Section 30.55.010 states that the intent of Chapter 30.55 is to “reduce” the need for shoreline protective devices, not “avoid” protective devices, it is inconsistent with Policy III-9 of the LUP.

#### Include language that was omitted during re-organization of the Chapter

In the certified IP, Chapter 30.55 starts with three sections: Purpose, Definitions, and Allowed Uses. Next, it provides sections on: Accessory Uses, Parking Requirements, Development Review, Setbacks from Coastal Bluffs, Application Submittals, Grading Methodology and Practice, Maintenance of Drainage and Erosion Control Measures, Retained Open Space/Conditions of Development, and Additional Development Standards for Subdivisions.

The proposed amendment to Chapter 30.55 maintains the structure of the first three sections and reorganizes all of the remaining sections to follow a new series of section

titles, including: Development Regulations for the Coastal Bluff Overlay Zone (Section 30.55.050), Required Permit for Development in the Coastal Bluff Overlay Zone (Section 30.55.060), and Submittal Requirements (Section 30.55.070). Most of the language from the certified IP appears either word-for-word or is non-substantively rephrased in the new sections of the proposed amendment. However, some language related to erosion control and protection of coastal resources was dropped, including: 1) a requirement that all temporary erosion control measures proposed or required pursuant to the provisions of Chapter 30.55 shall be installed prior to the commencement of grading in the areas for which the erosion control measures are intended, and 2) a regulation that new subdivisions shall not be approved unless all parcels created meet the standards for new development, including the applicable coastal bluff edge setbacks and other resource protection measures required pursuant to this LCP.

Policy III-2 requires “that future development minimizes the disturbance of existing or natural terrain and vegetation, and does not create soil erosion, silting of lower slopes, slide damage, flooding problems and/or cutting or scarring.” Therefore, without the requirement for temporary erosion control measures to be installed prior to the commencement of grading, the proposed IP is inconsistent with Policy III-2.

Additionally, Policy III-9 requires all new development located on a coastal bluff or vulnerable slope to be setback from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Without language requiring new subdivisions to meet the applicable coastal bluff edge setbacks and other resource protection measures required pursuant to this LCP, the proposed IP is inconsistent with Policy III-9.

### **c. Findings for Denial of the Floodplain Overlay Zone Amendment as Submitted**

#### Floodplain Overlay Zone map

As discussed in Section IV of this staff report, the proposed LCP amendment would define the Floodplain Overlay Zone map as the most recently approved FEMA Flood Insurance Rate Map (FIRM). The most recent maps are dated December 2019, and almost all parcels in the North Beach neighborhood are mapped as fully or partially in floodplain areas. These floodplain areas represent areas that could flood during extreme events during present-day sea level conditions and do not depict how extreme flood risks will increase in the future with SLR. The proposed amendment to the IP states that all future updates to the FIRMs are hereby incorporated by reference. The Del Mar Coastal Hazards, Vulnerability, and Risk Assessment mapped areas potentially at risk from SLR-related flooding and found that the whole North Beach neighborhood is vulnerable to coastal flooding and with SLR. As shown in Exhibit 5, this SLR mapping captures almost the same parcels as the December 2019 FIRM.

However, FIRMs are periodically updated to reflect updated data on present-day flood risk as well as changed conditions on the shoreline. They also may be subject to Letters of Map Changes (LOMCs) as specified in Section 30.56.020.B of the proposed amendment, so the maps may be changed if FEMA determines that a change is appropriate to accurately capture the current flood risk. Because the methodology used to update FIRMs does not currently incorporate SLR information, it is uncertain whether updated FIRMs will continue to match the SLR mapping in Del Mar in the future.

Therefore Modification No. 1 to the LUP (discussed in Section IV of this staff report) would define the Floodplain Overlay Zone map as the December 2019 FIRMs specifically and require that future updates to the FIRMs be incorporated into the LCP through an LCP Amendment. This LCP Amendment will provide an opportunity to ensure the updated maps continue to capture not only present-day risks from extreme flood events, but also SLR risks. Findings that explain why the proposed LUP amendment is inconsistent with the Coastal Act without Modification No. 1 can be found in Section IV, Part D of this staff report; and Section IV, Part E describes how Suggest Modification No. 1 would bring the LUP into conformance with the Coastal Act.

Because the proposed IP does not contain references to the December 2019 FIRMs and allows for Letters of Map Changes (LOMCs) to become part of the LCP without Commission review, it is inconsistent with the LUP as modified.

#### Definition of “existing development”

In the certified IP, Section 30.56.030 provides definitions “for words or phrases used in this Chapter.” This means that the definitions apply only to the terms as they appear in the rest of Chapter 30.56 (Floodplain Overlay Zone), not the rest of the LCP. The certified version of Chapter 30.56 does not include a definition of existing development.

In the proposed amendment to Section 30.56.030, the City defines “existing development” as “any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or preceding San Diego County ordinances)” – in other words, anything that has been lawfully built, regardless of when it was built. This definition would apply to both past construction and any new development going forward into the future.

The term “existing development” appears in one other place in Chapter 30.56, as proposed to be amended by the City. Section 30.56.045.B (Development Regulations for the Floodplain Overlay Zone) states, “Shoreline protective devices are permitted only where consistent with the Beach Overlay Zone (Chapter 30.50) or as otherwise provided for by the California Coastal Act to protect existing development.”

The term “existing development” also appears in other chapters of the IP, including the Beach Overlay Zone (Chapter 30.50) where the regulations that carry out the Beach Preservation Initiative appear. Section 30.50.060 allows shoreline protective devices to be authorized within the Shoreline Protection Area if the protective device is required to

protect existing structures in danger from erosion (and if other criteria are met). While the definition proposed in Chapter 30.55 only applies to the term when it appears in that Chapter, the definition may, in practice, be used to guide the interpretation of the term in Chapter 30.50 and other chapters of the IP.

Policy III-13 of the LUP states, in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs [...]” Additionally, Part m of Policy III-13 requires applications for Floodplain Development Permits (which are required for any new construction or substantial improvement to existing structures in the Floodplain Overlay Zone and the Floodway Overlay Zone) to “not require construction of flood protective works, including, but not limited to, artificial flood channels, revetments or levees.”

If “existing development” is defined as proposed and that definition is applied to the interpretation of the Beach Overlay Zone regulations in areas where the Beach and Floodplain Overlay Zones overlap, any lawfully established, altered, and maintained structure – including new development and substantial improvements to existing structures that meet this definition – would be considered “existing development” and thus would meet one of the requirements for shoreline protective devices listed in Section 30.50.060 (Authorized Protection Structures) of the Beach Overlay Zone regulations. This expansive definition of existing development would create an expansive interpretation of the regulations that allow shoreline protective devices, which is inconsistent with the intent of Policy III-13 to reduce the need for the construction of flood control facilities. It would also contradict the requirement in Policy III-13.m that new development and substantial improvements in the Floodplain Overlay Zone not require the construction of protective works.

Thus, the proposed definition of existing development in Section 30.56.030 is not consistent with Policy III-13 of the LUP.

#### Definition of “substantial improvement”

The certified IP defines “substantial improvement” as “any repair, reconstruction or improvement of a structure, when, pursuant to a determination by the Director, the cost of the repair, reconstruction or improvement equals or exceeds fifty percent of the market value of the structure either: a. before the improvement or repair is started, or b. if the structure has been damaged 50% or more and is being restored, as it existed before the damage occurred.” It excludes improvements to structures to comply with local health, sanitary or safety code specifications that are solely necessary to assure safe living conditions, and any alteration of a structure listed on the National Register of Historic Places or California Register of Historic Places. The definition applies to the term as it appears in the rest of Chapter 30.56 Floodplain Overlay Zone.

The City implements the certified definition of substantial improvement by requiring permit applicants to complete a Building Valuation worksheet that calculates whether the 50% threshold has been crossed (Exhibit 10). To summarize, the worksheet identifies how to calculate the pre-project value of the structure by multiplying the pre-project square footage with price per square foot, using different \$/ft<sup>2</sup> values derived from the Building Valuation Form for habitable versus non-habitable space. It calculates the value of the improved structure by multiplying the post-project square footage with a different price per square foot, also derived from the Building Valuation Form, added to a valuation of any alterations to the pre-project structure. The latter sum is divided by the pre-project value to calculate the improvement ratio. Improvement ratios less than 50% are considered minor remodels, and improvements equal to or greater than 50% are considered major remodels. Applicants are required to submit plans and documentation to support the information in the worksheet.

Projects that meet the definition of “substantial improvement” must comply with certain requirements described in Chapter 30.56 Floodplain Overlay Zone. First, they must comply with Section 30.56.060 (General Grounds for Application Approval/Denial), which lists several criteria that new development and substantial improvements must meet. These criteria are related to FEMA National Flood Insurance Program (NFIP) requirements on anchoring, flood-resistant materials, base flood elevation, drainage, etc. Second, Section 30.56.070 (Additional Grounds for Application Approval/Denial) provides additional requirements for new development and substantial improvements in the Floodplain Overlay Zone, allowing the following to be grounds for denial for new construction or substantial redevelopment: violation of provisions of this or other sections of this Chapter; a location landward of the ordinary high water mark, unless otherwise approved by the State Lands Commission; the use of fill for structural support of buildings, unless relief is granted in accordance with Section 30.56.080; failure to elevate the development on pilings or columns consistent with one of two potential criteria; and failure to limit the uses of the space below the lowest floor. Thus, the definition of “substantial improvement” will influence which projects in the Floodplain Overlay Zone must comply with the specific floodplain safety standards in Sections 30.56.060 and 30.56.070.

Goal III-D of the LUP states, in part, “Minimize risks to life and property associated with flooding and flood waters by [...] taking appropriate action to reduce the risk and potential adverse effects.” Policy III-13 states, in part, “Ensure that development within the Floodplain Overlay Zone [...] will not create a hazard to life, health, safety, or the general welfare [...]. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone.” Chapter 30.56 sets up the Floodplain Development Permit process to be the way many of the regulations that minimize risks to life and property associated with flooding (including those listed above) are implemented. Therefore, the best way to ensure consistency with Goal III-D and Policy III-13 is to ensure that Chapter 30.56 clearly distinguishes between routine repair and maintenance of development and development that must comply with the applicable requirements of the Floodplain Overlay Zone and thereby ensure its safety from flooding.

Because the certified definition of substantial improvement included in the LCP amendment is a relatively narrow definition, it does not capture all development that must be subject to the requirements of the Floodplain Overlay Zone in order to minimize risks to life and property. Given the increasing hazard conditions in Del Mar, as described in the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment (Appendix A), it is becoming all the more important to distinguish projects that must comply with the safety standards in Chapter 30.56 and those that do not. Therefore, the proposed definition is inconsistent with Goal III-D and Policy III-13 of the LUP.

#### Development regulations for new subdivisions in the Floodplain Overlay Zone

The amendment to the Floodplain Overlay Zone does not include provisions related to new subdivisions in the Floodplain Overlay Zone. Policy III-13 states, in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare [...]. The following Floodplain (FP) Overlay Zone policies shall be applied to all applications for a Floodplain Development Permit. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone.”

Because subdivisions would increase development potential in an area subject to flood hazards, the IP must include provisions that ensure the resultant parcels are consistent with Policy III-13. Because the IP as submitted does not include such provisions, it is inconsistent with Policy III-13 of the LUP.

#### Recordation requirements for Floodplain Development Permits

Section 30.56.050.E.1 of the proposed IP amendment allows the decision maker to include permit conditions of approval as necessary and/or authorized to ensure the project’s continued compliance with the provisions of the Chapter. Section 30.56.050.E.2 of the proposed IP amendment states that all Floodplain Development Permits shall require that, prior to the issuance of a Building Permit, the applicant shall record a notice that acknowledges the property is located in the Floodplain Overlay Zone.

Goal III-D, states in part, “Minimize risks to life and property associated with flooding and flood waters by [...] taking appropriate action to reduce the risk and potential adverse effects.” Policy III-13 states in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs.” Without requirements in Section 30.56.050.E.2 that require applicants to assume the risks associated with SLR, those applicants will not be able to make informed decisions that respond to SLR hazards and reduce the risk of adverse effects, and avoid creating a hazard to life, health, safety, or the general welfare. Additionally, the proposed language

in Section 30.56.050.E.1 states that decision makers “may” impose permit conditions. Because the permit conditions may not always be required, the proposed language does not ensure that development proposals in all circumstances will be subject to permit conditions necessary to ensure compliance with Goal III-D and Policy III-13.

Thus, as proposed, Section 30.56.050.E.1 and Section 30.56.050.E.2 are inconsistent with Goal III-D and Policy III-13 of the LUP.

#### Grounds for denial of Floodplain Development Permits

As proposed, Section 30.56.060 (General Grounds for Application Approval/Denial) requires that proposed new construction or substantial improvements adhere to a list of regulations related to design and construction that address extreme flood events, which relate to FEMA requirements. They do not specifically include design requirements needed to address SLR. Similarly, Section 30.56.070 (Additional Grounds for Application Approval/Denial) states in Section 30.56.070.A.4.a that “The bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) [must be] elevated at or above the base flood elevation” (clarification added). Since base flood elevations are defined by FEMA on Flood Insurance Rate Maps and are designed to capture the current, not future, height of the extreme flood event, this section does not address the flood hazards associated with SLR.

Policy III-6 states in part, “Require new development to incorporate design measures that will reduce and where feasible eliminate the risk of extreme flooding damage to people and property, public and private.” In order to be consistent with this policy, the effects of SLR on the risk of extreme flooding must be considered in development design. Policy III-13 requires new development to ‘have the lowest floor (including basement) of any residential structure elevated to or above the base flood elevation. When applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation or other adaptation strategies in the future.”

The proposed amendments to the Floodplain regulations in Sections 30.56.060 and 30.56.070 do not require SLR to be considered in design measures, nor do they specify how to incorporate SLR into the elevation of the lowest floor of proposed development; therefore, they are inconsistent with Policies III-6 and III-13 of the LUP.

#### Exemptions from required permits in Floodplain Overlay Zone.

In the proposed amendment, Section 30.56.050.A states that development in the Floodplain Overlay Zone requires a Floodplain Development Permit and Coastal Development Permit unless the development is limited to interior modifications or repairs, or exterior repairs, alterations or maintenance that does not increase the footprint of an existing structure.

Policy III-13 states in part, “A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone.” It also states in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs; and will minimize the cost of flood insurance to Del Mar residents.”

Thus, Policy III-13 requires that all new development and substantial improvements obtain a Floodplain Development Permit, but Section 30.56.050.A of the IP, as proposed, would exempt certain types of development from getting a Floodplain Development Permit that could qualify as a substantial improvements. Thus, Section 30.56.050.A is inconsistent with Policy III-13 of the LUP.

#### **D. Findings for Approval of the Proposed Implementation Plan Amendment, if Modified**

##### **a. Findings for Approval of the Floodway Overlay Zone Amendment, if Modified**

###### Incorporate sea level rise into Floodway development regulations

The proposed amendment to the Floodway Overlay Zone chapter of the IP includes new development regulations that have an emphasis on compliance with FEMA regulations, which are designed to address today’s extreme flood risk, not heightened flood risk due to SLR. Policy III-6 of the LUP states in part, “Require new development to incorporate design measures that will reduce and where feasible eliminate the risk of extreme flooding damage to people and property, public and private.” To be consistent with this policy, projects in the Floodway Overlay Zone should either incorporate design modifications to address SLR, or they should be designed in such a way that the design modifications can be implemented in the future if needed.

Therefore, **Suggested Modification No. 9** would add a development regulation to Section 30.29.060.A requiring development within the floodway zone to investigate siting and design necessary to account for sea level rise over the development life, and to implement those modifications if feasible, or, at minimum, be constructed such that the development can accommodate those design modifications in the future if necessary as appropriate. As modified, Section 30.29.060.A is consistent with Policy III-6 of the LUP.

##### **b. Findings for Approval of the Coastal Bluff Overlay Zone Amendment, if Modified**

###### Disclosure of sea level rise risks in the Coastal Bluff Overlay Zone

The Del Mar Coastal Hazards, Vulnerability, and Risk Assessment analyzed erosion hazards due to sea level rise and found that, absent shoreline protection and other development that would prevent erosion from occurring, the bluff could erode inland through the area covered by the Coastal Bluff Overlay Zone – i.e., the open space seaward of the railroad and the railroad right-of-way – with about two feet of SLR.

Section 30.55.020.B of the IP requires real estate transactions in the Coastal Bluff Overlay Zone to disclose that the property is located within the Coastal Bluff Overlay Zone, but it does not require acknowledgement of the potential erosion risks as influenced by SLR. Without this acknowledgement, prospective property owners in areas potentially subject to erosion from SLR may not be equipped to make fully informed decisions about the development on their properties.

In addition, Section 30.55.060.B.2 of the proposed IP amendment allows the decision maker to impose certain permit conditions of approval on permits for development in the Coastal Bluff Overlay Zone, including a requirement that the property owner record a notice on the title to the property that acknowledges and agrees that the development is located in the Coastal Bluff Overlay Zone, that the owner is responsible for erosion control measures, and that waives the right to future shoreline protective devices. As proposed these conditions would not notice property owners of the risks posed by SLR, nor would they be required in all circumstances. To ensure property owners have the necessary knowledge to site and design their development to avoid and mitigate impacts from sea level rise hazards associated with bluff erosion, the permit conditions must notice those property owners of the risks posed by SLR, and they must be required in all permits.

Therefore, **Suggested Modification No. 10** would require all real estate transactions within the Coastal Bluff Overlay Zone to disclose that the property is potentially vulnerable to erosion influenced by sea level rise, and would require property owners within the zone to record a notice on the title to the property that acknowledges the development is located in a hazardous area or an area that may become hazardous in the future, and that hazard conditions may depend on the location of the LOSSAN railroad. The modification would change the language of these regulations from “the decision maker may” to “the decision maker shall,” in order to ensure these regulations are carried out in every case.

The suggested modification is necessary to ensure consistency with Policy III-10 in the LUP, which states: “Ensure development is sited and designed to avoid and mitigate impacts from sea level rise hazards associated with bluff erosion.” By requiring SLR risks to be disclosed in real estate transactions and recorded on property titles, the suggested modification would ensure property owners have the necessary knowledge to make informed siting and design decisions for their proposed projects. The suggested modification is also necessary to carry out the intent of the city’s proposed amendment to the LUP’s text under the subheading “Coastal Bluff Failure,” which states, “The City discloses coastal hazards and protects the public health, safety, and general welfare in these vulnerable areas through application of the Coastal Bluff

Overlay Zone (Del Mar Municipal Code Chapter 30.55).” By requiring real estate disclosures, the modification carries out the City’s intent to disclose risks, including present-day risks and those posed by SLR. Therefore, as modified, Section 30.55.020.B is consistent with Policy III-10 of the LUP.

(Please note, while the section above discusses SLR hazards relevant to the Coastal Bluff Overlay Zone, Exhibit 6 shows that erosion could extend inland of the Coastal Bluff Overlay Zone as well. To ensure current and prospective property owners in this inland area are aware of potential risks as well, Modification No. 3 requires an LCP update to be initiated when relocation of the LOSSAN railroad from the Del Mar bluffs to a different location is approved and funded. That amendment must include provisions to achieve noticing to property owners inland of the railroad of relevant risks, as well as an updated vulnerability assessment to evaluate the projected change in bluff conditions, considering sea level rise. See Section IV.D and Section IV.E of this staff report for more information on this Modification No. 3.)

Strike the definition of existing development from Chapter 30.55 (Coastal Bluff Overlay Zone)

In the proposed amendment to Section 30.55.030, the City defines “existing development” for the purposes of Chapter 30.55 as “any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or preceding San Diego County ordinances)” – in other words, anything that has been lawfully built, regardless of *when* it was built would be considered “existing.” As described in Section V, Part C of this staff report, the proposed definition is inconsistent with Policy III-9 of the LUP.

Therefore, **Suggested Modification No. 11** would strike the definition of existing development altogether, effectively maintaining the certified LCP’s lack of a definition in this Chapter. There are several reasons for this modification.

First, striking the definition would remove the inconsistency with Policy III-9 described in Section V, Part C of this staff report. By removing this definition, the modification removes the scenario where all development would be considered “existing” right after being constructed and thus no longer be subject to requirements for waivers of future shoreline protection—which would be the best way to carry out the intent in Policy III-9 to avoid the need for protective devices during the economic life of the structure. Thus, the proposed definition would weaken the certified IP as it relates to Policy III-9.

Second, the suggested modification would eliminate a logical inconsistency in the regulations of the Implementation Plan. Section 30.55.060.B requires new development to record a notice on the title to the property that waives the right to future shoreline protective devices. According to the proposed definition of existing development, right after new development is constructed, it would be considered “existing development,” and thus it would meet one of the requirements for approvable shoreline protective devices in Section 30.50.060 (Authorize Protection Structures). A user of the IP may

wonder why new development is required to waive its rights to future shoreline protection if, right after it is constructed, it would meet a requirement for approvable shoreline protection. The proposed amendment goes further to clarify its intent by including a parenthetical after the regulation that requires a waiver of future shoreline protective devices to be recorded on the title to the property. The parenthetical would read, "This [waiver] shall not preclude the ability for an owner to submit a future permit request to protect existing development" (clarification added). Together, the intent of these proposed amendments contradicts the intent in Policy III-9 for new development to avoid the need for protective devices during the economic life of the structure.

Third, striking the definition would remove an inconsistency with the Coastal Commission's interpretation of the term "existing development." In the Commission's adopted interpretive guidelines, the 2018 Sea Level Rise Policy Guidance, the following explanation is given (excerpted here):

The Coastal Commission has interpreted Section 30235 as a more specific overriding policy that requires the approval of Coastal Development Permits for construction intended to protect coastal-dependent uses or existing structures if the other requirements of Section 30235 are also satisfied. The Commission thus will generally permit a shoreline protective device if (1) there is an existing structure, public beach, or coastal-dependent use that is (2) in danger from erosion; and (3) the shoreline protection is both required to address the danger (the least environmentally-damaging, feasible alternative) and (4) designed to eliminate or mitigate impacts on sand supply. In contrast to Section 30235, Coastal Act Section 30253 requires that "new development...assure stability and structural integrity, and neither create nor contribute significantly to erosion...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." [...] Read together, the most reasonable and straight-forward interpretation of Coastal Act Sections 30235 and 30253 is that they evince a broad legislative intent to allow shoreline protection for development that was in existence when the Coastal Act was passed, but avoid such protective structures for new development now subject to the Act. In this way, the Coastal Act's broad purpose to protect natural shoreline resources and public access and recreation would be implemented to the maximum extent when new, yet-to-be-entitled development was being considered, while shoreline development that was already entitled in 1976 would be "grandfathered" and allowed to protect itself from shoreline hazards if it otherwise met Coastal Act tests even if this resulted in adverse resource impacts." (Pages 164-165)

Traditionally, the City has interpreted the North Beach neighborhood as a whole to be "existing development." The Commission has made the same finding in certain cases because the neighborhood includes a mixture of development of various ages (including development that pre-dates the Coastal Act) as well as existing public infrastructure. The topography of the North Beach neighborhood is such that shoreline parcels are generally higher in elevation than inland parcels, and therefore shoreline protection is

often found to be necessary along the shoreline in order to prevent flooding of the lower-lying inland area. Therefore, in the past, shoreline protective devices have been permitted along the shoreline because they were found to be necessary to protect the neighborhood as a whole, especially public infrastructure that provides valuable public access, and has historically been considered as “existing development.” This interpretation, however, is not consistent with the proposed definition of “existing development” included in the proposed definition in Section 30.55.030: the traditional interpretation finds the neighborhood as a whole to be “existing development” due to the mix of existing development and infrastructure with new development, whereas the proposed definition would define existing development to be anything lawfully constructed. Thus, the proposed definition is more expansive than the traditional interpretation of the term in the context of the North Beach neighborhood, and would weaken the protection of coastal resources currently provided by the City’s certified LCP.

In summary, while the Commission has interpreted existing development as development in existence prior to the effective date of the Coastal Act (January 1, 1977), at this time, the traditional interpretation of the North Beach neighborhood as “existing” is more protective of resources – including as required by Policy III-9 – than the proposed amendment; therefore, no further modifications are proposed other than striking out the proposed definition.

In Resolution No. 2018-72, which was adopted by the Del Mar City Council in support of the submittal of the subject LCP amendment request, the City expressed its intent to reject any suggested modifications that:

“substantially conflict with how the City currently regulates ‘existing development’ to the extent that the prospective LCP could be misinterpreted and incorrectly applied as a means to prevent new development or redevelopment on properties in existing developed neighborhoods contrary to the Del Mar Community Plan or that conflict with the voter approved BPI [Beach Preservation Initiative] and the City’s integrated and unified systems approach to adaptation at a local neighborhood scale that protects property, infrastructure, coastal access, the public beach, and coastal resources.” (Exhibit 9, p. 4, item 2b.)

The Commission finds that the suggested modification to reject the proposed, weaker language and adhere to the City’s current standard for existing development is consistent with the City’s direction in the Resolution; specifically, that adhering to the currently certified language does not substantially conflict with how the City current regulates existing development, does not conflict with the voter approved initiative, and is consistent with the Del Mar Community Plan and the City’s approach to adaptation at a local neighborhood scale.

Incorporate sea level rise into the calculation of coastal bluff and vulnerable slope setbacks

Policy III-9 requires setbacks for all new development on a coastal bluff or vulnerable slope to take into consideration projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, as well as slope stability. It also requires all new development on a coastal bluff or vulnerable slope to avoid the need for protective devices during the economic life of the structure (minimum 75 years).

As described in Section V, Part C of this staff report, Section 30.55.050 (Development Regulations for the Coastal Bluff Overlay Zone) does not specify that this analysis must take into account the effects of SLR upon long-term erosion rates, and it does not include vulnerable slopes in addition to coastal bluffs; therefore, it is inconsistent with Policy III-9.

**Suggested Modification No. 12a** would modify Section 30.55.050.A.1 to clarify that proposed development shall be set back from the edge of a bluff or vulnerable slope a distance that equals the projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, plus the distance needed to maintain a minimum factor of safety of 1.5 against land sliding. In addition, a minimum 40-foot setback shall be provided. It would also modify Section 30.55.050.A.1.a and Section 30.55.050.A.1.c to extend setback requirements to vulnerable slopes in addition to coastal bluffs.

Section 30.55.050 does not state what should be done if it is not possible to comply with the setback requirements described in the section. Because Policy III-9 take into consideration projected long-term bluff retreat over the next 75 years considering the effects of sea level rise upon erosion rates, as well as slope stability, the policy must explain how to comply with this policy when site specific circumstances such as the size of the parcel precludes the project from complying with the policy; thus, it is inconsistent with Policy III-9. **Suggested Modification No. 12a** would modify Section 30.55.050.A.d to state that if application of the minimum 40-foot setback would preclude reasonable use of the property such that it may constitute a taking of private property, a smaller setback may be permitted if the proposed development is set back as far landward as feasible and its footprint is minimized.

Policy III-2 requires “that future development minimizes the disturbance of existing or natural terrain and vegetation, and does not create soil erosion, silting of lower slopes, slide damage, flooding problems and/or cutting or scarring.” Section 30.55.050 also does not include vulnerable slopes in requirements to limit grading, limit new irrigation systems, and require drainage to be conveyed away from coastal bluffs, inconsistent with Policy III-2. Therefore, Suggested Modification No. 14a would also add the term “vulnerable slopes” to Section 30.55.050.A.1.b, Section 30.55.050.A.2, and Section 30.55.050.C, respectively.

Section 30.55.070 (Submittal Requirements) does not specify that the effects of SLR upon erosion rates shall be taken into account when considering projected rates of bluff

and shoreline retreat; therefore, it is inconsistent with Policy III-9. Therefore, **Suggested Modification No. 12b** would specify that required geotechnical reports shall include the projected long-term bluff retreat over the next 75 years, considering the effects of sea level rise upon erosion rates and the distance needed to maintain a minimum factor of safety against land sliding of 1.5 (static) or 1.1 (pseudostatic, k=0.15 or determined through analysis by the geotechnical engineer); and it would specify that, added together, these distances shall comprise the necessary setback distance to assure safety and stability of the proposed development.

Finally, the proposed submittal requirements described in 30.55.070.A.2.b do not require geotechnical reports to identify the suitability of the site for the proposed development without shoreline protection. Policy III-9 requires all new development on a coastal bluff or vulnerable slope to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Thus, **Suggested Modification No. 12c** would specify that the suitability of the site should be analyzed for the proposed development without shoreline protection.

As modified, Sections 30.55.050 and 30.55.070 are consistent with Policy III-2 and Policy III-9 of the LUP.

#### Purpose of the Coastal Bluff Overlay Chapter

As described in Section V, Part C of this staff report Section 30.55.010 is inconsistent with Goal III-B and Policy III-9 of the LUP, because it does not include language requiring the protection of coastal resources identified in Goal III-B, nor does it require avoidance of shoreline protective devices as required in Policy III-9.

Therefore, **Suggested Modification No. 13** would add that, in addition to employing regulations consistent with the rights of private property owners, the purpose of the Chapter shall be carried out “while protecting coastal resources.” It would also modify the second element of the Purpose section that requires new development in no way implement shoreline protective devices that alter landforms along bluffs and cliffs. As modified, Section 30.55.010 is consistent with Goal III-B and Policy III-9 of the LUP.

#### Re-insert language that was omitted during re-organization of the Chapter

The proposed amendment to Chapter 30.55 (Coastal Bluff Overlay Zone) includes some re-organization of language from the certified IP. Most of the certified language appears either word-for-word or is non-substantively rephrased in the reorganized sections of the proposed amendment. As described in Section V, Part C of this staff report, some language related to erosion control and protection of coastal resources was dropped, inconsistent with Policy III-2 and Policy III-9 of the LUP.

Policy III-2 requires “that future development minimizes the disturbance of existing or natural terrain and vegetation, and does not create soil erosion, silting of lower slopes, slide damage, flooding problems and/or cutting or scarring.” Therefore, **Suggested**

**Modification No. 14a** would add the omitted language back into Section 30.55.050.D, so that it requires all temporary erosion control measures proposed or required pursuant to the provisions of this Section shall be installed prior to the commencement of grading in the areas for which the erosion control measures are intended.

Policy III-9 requires all new development located on a coastal bluff or vulnerable slope to be set back from the coastal bluff edge a sufficient distance to ensure stability, ensure that it will not be endangered by erosion, and to avoid the need for protective devices during the economic life of the structure (minimum 75 years). Therefore, **Suggested Modification No. 14b** would add the omitted language back into Section 30.55.050.E.1, so that it requires that new subdivisions shall not be approved unless all parcels created meet the applicable coastal bluff edge and vulnerable slope setbacks and other resource protection measures required pursuant to this LCP.

Therefore, as suggested to be modified, the Section 30.55.050.D and Section 30.55.050.E.1 are consistent with Policy III-2 and Policy 9 of the LUP, respectively.

### **c. Findings for Approval of the Floodplain Overlay Amendment, if Modified**

#### Floodplain Overlay Zone map

The proposed IP amendment does not include references to the Flood Insurance Rate Maps (FIRMs) dated December 2019, which, through Modification No. 1, would be incorporated into the LUP in Policy III-13 and into sections of introductory text to Chapter III. In addition, the proposed IP amendment references Letters of Map Change (LOMCs) that can change the effective FIRMs. These LOMCs, if approved by FEMA, could cause the December 2019 FIRMs to no longer capture areas found to be at risk to sea level rise. Therefore, the proposed IP amendment is inconsistent with the LUP as modified.

**Suggested Modification No. 15** would modify Section 30.56.020.B of the IP to include appropriate references to the FIRMs dated December 2019 and clarify that Letters of Map Changes processed by FEMA shall not change the boundaries of the Floodplain Overlay Zone without an LCP Amendment.

Policy III-13 of the LUP, as modified, states, in part, "Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone. This overlay zone incorporates floodplain areas designated on the Federal Insurance Rate Map (FIRM) for the area as prepared by the Federal Emergency Management Agency. The floodplain areas are generally depicted on the FIRM maps dated December 2019. Updates to the FIRM maps shall be incorporated into the Land Use Plan and FP Overlay Zone through future LCP amendments within a reasonable time period." To be consistent with this policy, the IP must refer to the same FIRMs.

By modifying Section 30.56.020.B to refer to the areas of flood hazard in the December 2019 FIRMs, which include the Special Flood Hazard Areas and the Other Areas of Flood Hazard – and by specifying that LOMCs shall not change the boundaries of the Floodplain Overlay Zone without an LCP Amendment – it is consistent with Policy III-13.

Strike the proposed definition of existing development from Chapter 30.56 (Floodplain Overlay Zone)

In the proposed amendment to Section 30.55.030, the City defines “existing development” as “any structure or development that was lawfully established, altered, and maintained pursuant to the Del Mar Municipal Code (or preceding San Diego County ordinances” – in other words, anything that has been lawfully built, regardless of when it was built. As described in Section V, Part C of this staff report, the proposed definition is inconsistent with Policy III-13 of the LUP.

**Suggested Modification No. 16** would strike the definition of existing development altogether, effectively maintaining the certified LCP’s lack of a definition in this Chapter. There are several reasons for this suggested modification.

First, striking the definition would remove the inconsistency with Policy III-13 described in Section V, Part C of this staff report. The proposed definition of existing development would create a scenario where, if “existing development” is defined as proposed and that definition is applied to the interpretation of the Beach Overlay Zone regulations in areas where the Beach and Floodplain Overlay Zones overlap, any lawfully established, altered, and maintained structure would be considered “existing development” and thus meet one of the requirements for shoreline protective devices listed in Section 30.50.060 (Authorized Protection Structures) of the Beach Overlay Zone regulations. This scenario is inconsistent with Policy III-13, which states, in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs [...]” In other words, the proposed definition would not reduce the need for the construction of flood control facilities. The proposed definition would also contradict the specific requirement in Policy III-13, part m, that new development and substantial improvements in the Floodplain Overlay Zone not require the construction of protective works.

Second, striking the definition would remove an inconsistency with how the Coastal Commission has interpreted this term in its Sea Level Rise Policy Guidance and elsewhere. In the Commission’s adopted interpretive guidelines, the 2018 Sea Level Rise Policy Guidance, the following explanation is given (excerpted here):

The Coastal Commission has interpreted Section 30235 as a more specific overriding policy that requires the approval of Coastal Development Permits for construction intended to protect coastal-dependent uses or existing structures if the other requirements of Section 30235 are also satisfied. The Commission thus

will generally permit a shoreline protective device if (1) there is an existing structure, public beach, or coastal-dependent use that is (2) in danger from erosion; and (3) the shoreline protection is both required to address the danger (the least environmentally-damaging, feasible alternative) and (4) designed to eliminate or mitigate impacts on sand supply. In contrast to Section 30235, Coastal Act Section 30253 requires that “new development...assure stability and structural integrity, and neither create nor contribute significantly to erosion...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.” [...] Read together, the most reasonable and straight-forward interpretation of Coastal Act Sections 30235 and 30253 is that they evince a broad legislative intent to allow shoreline protection for development that was in existence when the Coastal Act was passed, but avoid such protective structures for new development now subject to the Act. In this way, the Coastal Act’s broad purpose to protect natural shoreline resources and public access and recreation would be implemented to the maximum extent when new, yet-to-be-entitled development was being considered, while shoreline development that was already entitled in 1976 would be “grandfathered” and allowed to protect itself from shoreline hazards if it otherwise met Coastal Act tests even if this resulted in adverse resource impacts. (Pages 164-165)

Traditionally, the City has interpreted the North Beach neighborhood as a whole to be “existing development.” The Commission has made the same finding because the neighborhood includes a mixture of development with various ages as well as existing public infrastructure, and because the general development pattern pre-dates the Coastal Act. Because the topography of the North Beach neighborhood is such that shoreline parcels are generally higher in elevation than inland parcels, shoreline protection is often found to be necessary along the shoreline in order to prevent flooding of the lower-lying inland area. Therefore, in the past, shoreline protective devices have been permitted along the shoreline because they were found to necessary to protect the neighborhood as a whole, which was considered to be “existing development.” This interpretation, however, is not consistent with the proposed definition of “existing development” included in the proposed definition in Section 30.55.030: the traditional interpretation finds the neighborhood as a whole to be “existing development” due to the mix of existing development and infrastructure with new development, whereas the proposed definition would define existing development to be anything lawfully constructed. Thus, the proposed definition is more expansive than the traditional interpretation of the term specifically in the context of the North Beach neighborhood.

In summary, while the Commission has interpreted existing development as development in existence prior to the effective date of the Coastal Act (January 1, 1977), at this time, the traditional interpretation of the North Beach neighborhood as “existing” is more protective of resources – including as required by Policy III-13 – than the proposed amendment; therefore, no further modifications are proposed other than striking out the proposed definition. The Commission finds that the suggested modification to reject the proposed, weaker language and adhere to the City’s current

standard for existing development is consistent with the City's direction in the Resolution No. 2018-72 (Exhibit 9, p. 4, item2b); specifically, that adhering to the currently certified language does not substantially conflict with how the City current regulates existing development, does not conflict with the voter approved initiative, and is consistent with the Del Mar Community Plan and the City's approach to adaptation at a local neighborhood scale.

#### Modify definition of "Substantial Improvement"

As described in Section C, above, because the definition of substantial improvement in the certified IP is a relatively narrow definition based on the cost of the proposed repair, reconstruction, or improvement, it does not capture all development that must be subject to the requirements of the Floodplain Overlay Zone in order to minimize risks to life and property. Therefore, the proposed definition is inconsistent with Goal III-D and Policy III-13 of the LUP.

**Suggested Modification No. 17** would expand the definition to include additional criteria. It would not change the language included in the proposed LCP amendment, but rather add additional criteria and state that if a development meets any of the criteria, that the development would then meet the definition. These new criteria would capture 50% or greater changes to any major structural component of the development, either in a single project, or cumulatively since the original date of certification of the LCP, September 11, 2001. While it might be possible to continue using the certified definition if the methods used to calculate the cost ratio of improvements were updated (the City's building valuation worksheet was last updated in 2003, Exhibit 10) to ensure they would result in the same conclusions as the method that relies on structural components, such updates have not been included in the proposed LCP amendment.

Specifically, Suggested Modification No. 17 would modify the definition to include (in addition to the development types described in the proposed amendment) development that involves replacement (including demolition, renovation, reinforcement, or other type of alteration) of 50% or more of any major structural component, including exterior walls, floor, roof structure or foundation; or, an 50% increase in gross floor area; or, work that meets either of the preceding two criteria when taking into consideration previous replacement work undertaken on or after September 11, 2001, the date of certification of the LCP. This development may occur through additions, renovations, or demolition and replacement of an existing home or other principal structure, where "principal structure" means a building or structure in which the primary use of the lot on which the building is located is being conducted.

Goal III-D of the LUP states, in part, "Minimize risks to life and property associated with flooding and flood waters by [...] taking appropriate action to reduce the risk and potential adverse effects." Policy III-13 states, in part, "A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone."

The suggested modification would provide the necessary detail to distinguish between development subject to Floodplain Development Permit requirements, and development not subject to such requirements. By expanding the definition to include developments where 50% of the structure is being altered, either in one project or cumulatively since the date of certification of the LCP, the definition will ensure that those developments comply with the requirements for Floodplain Development Permits which, as suggested to be modified in this staff report, ensure the development minimize risks to life and property associated with flooding.

Therefore, as suggested to be modified, the definition of “substantial improvement” in section 30.56.030 is consistent with Goal III-D and Policy III-13 of the LUP.

#### Modify development regulations for new subdivisions in the Floodplain Overlay Zone

The amendment to the Floodplain Overlay Zone does not include provisions related to new subdivisions on the Floodplain Overlay Zone. Such provisions are necessary to ensure the parcels that result from any subdivisions in the Floodplain Overlay Zone are consistent with Policy III-13 of the LUP, which states in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare [...] The following Floodplain (FP) Overlay Zone policies shall be applied to all applications for a Floodplain Development Permit. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone.”

**Suggested Modification No. 18** would add Section 30.56.045.D, which would state that no new subdivisions shall be approved unless all parcels created meet the standards for new development, including the applicable resource protection measures required pursuant to this LCP, and that the subdivision provide safe, legal, all-weather access to each parcel created.

This suggested modification will ensure that proposed subdivisions are capable of being consistent with Policy III-13, including its requirements to ensure development will not create a hazard to life, health, safety, or the general welfare. Thus, as modified, Add Section 30.56.045 is consistent with Policy III-13 of the LUP.

#### Modify recordation requirements for Floodplain Development Permits

As proposed, Section 30.56.050.E.1 allows for, but does not require, the decision maker to include permit conditions of approval as necessary and/or authorized to ensure a project’s continued compliance with the provisions of the Chapter. Section 30.56.050.E.2 of the proposed IP amendment states that all Floodplain Development Permits shall require that the applicant record a notice that acknowledges the property is located in the Floodplain Overlay Zone, but it does not require the applicant to record any information about SLR vulnerability.

Goal III-D, states in part, “Minimize risks to life and property associated with flooding and flood waters by [...] taking appropriate action to reduce the risk and potential adverse effects.” Policy III-13 states in part, “Ensure that development within the Floodplain Overlay Zone will not obstruct flood waters; will not create a hazard to life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs.”

Therefore, **Suggested Modification No. 19** would require, rather than allow, permit conditions to be imposed that ensure consistency with Chapter 30.56, and it would expand the detail required in the recordation of notices to include SLR information.

Specifically, Suggested Modification 19 would expand a requirement proposed by the City for recordation of notice on the title to the property (Section 30.56.050.E) to require the applicant to acknowledge and agree that the property is: 1) located in the Floodplain Overlay Zone and 2) that the development is located in a hazardous area, or an area that may become hazardous in the future; 3) that sea level rise could render it difficult or impossible to provide services to the site (e.g., maintenance of roadways, utilities, sewage or water systems); 4) that the boundary between public land (tidelands) and private land may shift with rising seas and the development approval does not permit encroachment onto public trust land; and 5) to acknowledge that additional adaptation strategies may be required in the future to address sea level rise consistent with the Coastal Act and certified LCP.

With language in Section 30.56.050.E.1 *requiring* the decision maker to include permit conditions of approval as necessary and/or authorized to ensure the project’s continued compliance with the provisions of the Chapter, Suggested Modification 19 ensures that development proposals in all circumstances will be subject to permit conditions necessary to ensure compliance with Goal III-D and Policy III-13. Additionally, with requirements in Section 30.56.050.E.2 that require applicants to assume the risks associated with SLR, those applicants will be able to make informed decisions that respond to SLR hazards and reduce the risk of adverse effects, and not create a hazard to life, health, safety, or the general welfare, consistent with Goal III-D and Policy III-13. Applicants will also be aware of the potential need to consider a range of SLR adaptation strategies (e.g., protection, accommodation, retreat strategies) in the future to respond to potential changes in hazard conditions as sea levels continue to rise.

Thus, as suggested to be modified, Section 30.56.050.E.1 and Section 30.56.050.E.2 are consistent with Goal III-D and Policy III-13 of the LUP.

#### Modify grounds for denial of Floodplain Development Permits

The proposed amendments to the Floodplain regulations in Sections 30.56.060 and 30.56.070 do not require SLR to be considered in design measures for projects in the Floodplain Overlay Zone; rather, they require new construction or substantial improvements adhere to a list of regulations related to design and construction that

address extreme flood events, which relate to FEMA requirements for present-day, not future, extreme flood events.

Policy III-6 states in part, “Require new development to incorporate design measures that will reduce and where feasible eliminate the risk of extreme flooding damage to people and property, public and private.” In order to be consistent with this policy, the effects of SLR on the risk of extreme flooding must be considered in development design. Policy III-13 requires new development to “have the lowest floor (including basement) of any residential structure elevated to or above the base flood elevation. When applicable studies of sea level rise demonstrate the need for elevation above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation or other adaptation strategies in the future.”

Therefore, **Suggested Modification No. 20a** adds a requirement to the list in Section 30.56.060 that requires new construction or substantial improvements to, if appropriate, incorporate siting and design modifications, such as elevation and flood proofing, to ensure safety from the impacts of sea level rise over the anticipated lifetime of the proposed structure, or at minimum, be designed such that those design modifications can be implemented in future if necessary. **Suggested Modification No. 20b** modifies Section 30.56.070 to state when applicable studies of sea level rise demonstrate the need for elevation of the lowest horizontal structural member of the lowest floor above the base flood elevation, that elevation shall be implemented in project design as feasible, or the project shall be designed such that it can accommodate additional elevation in the future.

Thus, as suggested to be modified, the proposed amendments to the Floodplain regulations in Sections 30.56.060 and 30.56.070 are consistent with Policies III-6 and III-13 of the LUP.

#### Exemptions from required permits in Floodplain Overlay Zone.

In the proposed amendment, Section 30.56.050.A states that development in the Floodplain Overlay Zone requires a Floodplain Development Permit and Coastal Development Permit unless the development is limited to interior modifications or repairs, or exterior repairs, alterations or maintenance that does not increase the footprint of an existing structure. This language is inconsistent with Policy III-13 of the LUP, which requires Floodplain Development Permits for all new development and substantial redevelopment within the Floodplain Overlay Zone.

Therefore, **Suggested Modification No. 21** would specify that development cannot be exempt from Floodplain Development Permit requirements if it qualifies as a substantial improvement. It would also cross reference Section 30.75.200 of the IP, which provides a thorough description of development types appropriate to exempt from permit requirements. As modified, Section 30.56.050.A is consistent with Policy III-13 of the LUP.

## **VI. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Section 21080.9 of the California Environmental Quality Act (CEQA) exempts local government from the requirement of preparing an environmental impact report (EIR) in connection with its local coastal program. Instead, the Commission's LCP review and approval program has been found by the Resources Agency to be functionally equivalent to the EIR process. Thus, under CEQA Section 21080.5, the Commission is relieved of the responsibility to prepare an EIR for each LCP submission. The City concluded that the proposed amendment is categorically exempt from CEQA (Guideline 15301 - Existing Facilities (Cal. Code of Regs., tit. 14) and will not have a significant impact on the environment.

Nevertheless, the Commission is required in an LCP submittal or, as in this case, an LCP amendment submittal, to find that the LCP, or LCP, as amended, does conform with CEQA provisions. In this particular case, the LCP amendment, with incorporation of the suggested modifications, will not have any significant adverse effects on the environment and there are no feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse impact on the environment. The suggested modifications will ensure that the LCP amendment conforms to the Chapter 3 policies of the Coastal Act in light of sea level rise. Therefore, the Commission finds the subject LCP, as amended, conforms with CEQA provisions.