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1.0 Introduction

1.1. City of Arcata Local Coastal Element

Approximately one-third of the City of Arcata lies within the Coastal Zone. The California Coastal Act of 1976 (California Public Resources Code Section 30000 *et seq.*) requires the City to have a Local Coastal Program (LCP) certified by the Coastal Commission that implements the Coastal Act at the local level. A Local Coastal Program consists of a Land Use Plan and an Implementation Plan.

This Local Coastal Element of the City of Arcata General Plan is a component of the Land Use Plan as described in the Coastal Act, Section 30108.5 and 30108.55. This Element identifies the policy to enact the Coastal Act locally and contains implementation measures where necessary to enact the provisions and policies of the Coastal Act that are not adequately implemented by the Coastal Zoning Ordinance.

The City of Arcata uses the Local Coastal Element as the standard of review for required Coastal Development Permits in the Coastal Zone under the City's permit jurisdiction. The Coastal Commission retains original permit jurisdiction over the immediate shoreline, tidelands, submerged lands, public trust lands, and land within a certain distance of wetlands, estuaries, streams, and coastal bluffs. In these areas, the standard for review is the Chapter 3 policies of the Coastal Act. The Local Coastal Element, however, may be used as guidance in the areas where the City retains jurisdictional authority (retained jurisdiction).

The Local Coastal Element is a legal mandate that governs both private and public actions. For purposes of administering the Coastal Act, the Local Coastal Element is at the top of the hierarchy of City laws regulating land use in the Coastal Zone. Unless explicitly exempted, other City laws and policies, such as specific plans, subdivision regulations, and zoning ordinances, are subordinate to, and must be consistent with, the Local Coastal Element as a whole.

Local Coastal Element and the Coastal Zoning Ordinance

As a component of the Land Use Plan, the Local Coastal Element indicates the kinds, location, and intensity of land uses and the applicable resource protection and development policies. The Local Coastal Element must include development and resource protection policies sufficient to carry out the policies of Chapter 3 of the Coastal Act. Arcata's Land Use Plan also includes the certified Coastal Land Use Map.

The Coastal Zoning Ordinance, chaptered in Title IX of the Arcata Municipal Code, is a component of the Implementation Plan. The Coastal Zoning Ordinance contains the land use and development regulations necessary to carry out the Local Coastal Element. The Coastal Zoning Ordinance includes specific regulation on the kinds, location, and intensity of land uses, while the Local Coastal Element primarily addresses the policy related to land use. These documents together meet the requirements of, and implement the provisions and policies

of, the Coastal Act at the local level.

Local Coastal Element Organization

Arcata's Local Coastal Element consists of 13 chapters, generally following the Coastal Commission's Local Coastal Program Update Guide. Each chapter contains a short introduction and a detailed policy section.

Public Participation in Creating the Plan

The City recognizes the importance of public participation in the development of the guiding principles, policies, and implementation measures that will frame land use within the City's Coastal Zone for years to come. In 2014 and 2015, the City Council held joint study sessions with the Planning Commission to discuss updates, goals, and schedules. Throughout the summer of 2015, the Planning Commission conducted six public scoping meetings advertised in the local paper, through standard noticing practices, and on social media in an effort to provide opportunities for the public to provide its vision on coastal issues, such as sea level rise, annexations, zoning changes, coastal hazards, and development in specific neighborhoods. Progress on the update was also provided to the public on the City's website where staff posted draft documents, maps, and meeting announcements.

Throughout 2016 and 2017, the City Council held study sessions and joint study sessions with the Planning Commission to provide feedback on key issues. In the summer and fall of 2017, public workshops were held to discuss sea level rise issues. The Planning Commission reviewed and commented on Element chapters in 2021. The Planning Commission and City Council held noticed public hearings to review and adopt the Local Coastal Element in early 2022.

Regional and Local Setting

Regional Setting. The City of Arcata is located on the Northern California coast, approximately 275 miles northwest of San Francisco, in the heart of the redwood region. It is in the west-central portion of Humboldt County, six miles north of the City of Eureka, the County seat. Arcata is situated at the north end of Arcata Bay, which is part of Humboldt Bay, the second largest marine embayment in California. The City is located on U.S. Highway 101, which connects to Eureka and the San Francisco Bay Area to the south, and to Crescent City and the Oregon Coast to the north. The City is at the western terminus of State Highway 299, which connects Arcata and the north coast to Redding and the Upper Sacramento Valley to the east. State Highway 255 also bisects the City west to east.

Local Setting. Arcata is situated on a coastal terrace, the lower portions of Fickle Ridge and the easterly portions of the Arcata Bottoms, between Arcata Bay and the Mad River. As shown in Figure 1-1, the area of Arcata within the Coastal Zone contains approximately 4.75 miles of Arcata Bay shoreline and consists of a mix of agricultural lands, commercial, light and heavy industrial uses, natural resource lands, and residential uses.

Coastal Commision

Coastal Zone Boundary

Post LCP Certification Permit and Appeal Jurisdiction

Appeal Jurisdiction

Permit Jurisdiction

This digital layer was digitized by the City of Arcata from this adopted Coastal Commission map.

Permit Appeal Jurisdiction Zone: Adopted 1/10/1990; revision 11/1/2001

Disclaimer: The areas shown were for informational purposes only, and did not constitute the official map.

Other Features

Parcel

Humboldt Bay

Arcata City Limits

Permit Jurisdiction

Appeal Jurisdiction

Appeal Jurisdiction

Appeal Jurisdiction

Permit Jurisdiction

Arcata

Humboldt Bay

Notes:

The data shown outside of the coastal zone is for informational, not regulatory, purposes, and the Ca Coastal Com's certification does not extend beyond the coastal boundary.

"The Coastal Zone Boundary depicted on this map is shown for illustrative purposes only and does not define the Coastal Zone. The delineation is representational, may be revised at any time in the future, is not binding on the Coastal Commission, and does not eliminate the possibility that the Coastal Commission must make a formal mapping determination."

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City of Arcata

Figure C-1-1

Coastal Zone Boundary

0 1,000 2,000 Feet

Date: 2/23/2022

Future Trends and Assumptions

The Local Coastal Element includes goals, policies and implementation measures that anticipate and help shape future changes to ensure that they reflect the community's shared sense of values. Future trends will reflect changes in social, economic, cultural, and environmental factors, but will be shaped locally by the guidelines expressed in this element.

Arcata embraces environmentally sustainable principles which encourage infill development, brownfield remediation, multi-modal transportation, and zoning districts that emphasize and encourage mixed-use developments where compatible. Arcata recognizes the value of natural resource lands, and has implemented strong regulatory protections that discourage sprawl and protect open spaces. Arcata aspires to preserve sufficient lands for both active and passive recreational activities and coastal access to serve the present and future needs of the community. The City has set aside a large amount of land for resource protection and must maximize the use of the remaining agricultural, industrial, commercial and residential lands. It is expected that there will be increased use of vacant and underdeveloped parcels within the City as opposed to outward expansion of the City limits.

Administering the Local Coastal Element

All land use and development decisions in the Coastal Zone must be consistent with the Local Coastal Program. Unless otherwise exempt, development in the Coastal Zone requires a Coastal Development Permit. A Coastal Development Permit may be issued by the City in its delegated jurisdiction if the City finds that the development conforms with the standards of the certified Local Coastal Program. The City must also make any other Local Coastal Element findings in the Coastal Zoning Ordinance.

1.2. Implementation Principles

1.2.1. Coastal Act Direction. The policies of Chapter 3 of the California Coastal Act (California Public Resources Code Sections 30210 through 30264) shall direct the interpretation of the Local Coastal Element.

1.2.2. Coastal Act Direction. The policies of Chapter 3 of the California Coastal Act (California Public Resources Code Sections 30210 through 30264) shall direct the interpretation of the Local Coastal Element.

1.2.3. Conflicts with General Plan. Where the policies of the Local Coastal Element appear to conflict with the provisions of any other element of the General Plan, the policies of the Local Coastal Element shall take precedence in the Coastal Zone.

1.2.4. Descriptive Text. Descriptive text outside of enumerated policies is for background information only and does not govern the issuance of Coastal Development Permits. If a perceived conflict occurs between the wording of the enumerated policies and the accompanying descriptive text of the Local Coastal Element, the enumerated policy language shall take precedence. Where enumerated policy language conflicts with maps

or graphics in the Local Coastal Element, the policy language shall take precedence.

1.2.5. Inconsistent Policies. Where policies within the Local Coastal Element overlap or seem inconsistent, the policy which is the most protective of coastal resources shall take precedence.

1.2.6. Conflicts with Coastal Zoning Ordinance. Where provisions of the Coastal Zoning Ordinance or other implementation measures appear to conflict with the policies of the Local Coastal Element, the policies of the Local Coastal Element shall take precedence.

1.2.7. Findings Required. Prior to the approval of any development permit, the City, or the Coastal Commission on appeal, shall make the finding that the development meets the standards set forth in all applicable Local Coastal Element policies and Coastal Zoning Ordinance regulations.

8.0 Sea Level Rise

8.1. Introduction

The City of Arcata's Coastal Zone includes areas of reclaimed, former tidelands of Humboldt Bay. In 1870, the shoreline was mapped by the USGS, and the bay inundated approximately the same footprint shown on projected sea level rise inundation extent maps. (Figure 8-1). The reclaimed tidelands were protected by a system of earthen dikes, which have been in service for over 100 years.

Development in the potential inundation zone was originally largely to establish agricultural uses. The dike network, which extends to Mad River Slough, allowed modified development patterns around Arcata Bay and lands on the Arcata Bottom. While most of this area was never filled, and is still in agricultural uses, the areas immediately south of Samoa Boulevard, and the lands extending to the City of Arcata Wastewater Treatment Plant (Treatment Plant) on South G Street, between G and I Streets, was developed for industrial purposes in the 1900s. This area forms a highly-developed urban 'peninsula' that extends into the diked former tidelands.

The urban peninsula includes a mix of land uses and is developed on a fill prism that is on average 1.78 feet higher in elevation than the surrounding bottomlands. This peninsula is the site of the Treatment Plant; the renowned Arcata Marsh and Wildlife Sanctuary (Arcata Marsh); a high-density lower-income residential neighborhood; and several industrial and commercial uses. These uses have changed over time, but the peninsula as a development has been in constant use and redevelopment for more than 100 years, with some areas having been diked and filled in the 1850s. This peninsula includes segments of dike that have been constantly repaired, enhanced, and maintained for decades.

By contrast, the lower lying bottomlands adjacent and surrounding the urban peninsula were not filled. Land uses in the City's Coastal Zone outside of the urban developed areas include agriculture, open space, recreation, and natural resources preservation. Historically, these lands were in agricultural production. The City has actively pursued conservation easements, land acquisition, and restoration partnerships (e.g., McDaniel Slough Restoration) to provide both current improvements to natural areas and hundreds of acres of natural buffer from sea level rise.

If the earthen dike system failed, these bottomlands would be inundated, while the peninsula would be protected by the elevated fill prism. This existing condition indicates the City's strategy for sea level rise: defend the peninsula to the extent practicable while planning to accommodate floodwaters and tidal inundation in lower lying areas that have been preserved for the purpose.

	2012	0.5-m	1.0-m	1.5-m	2.0-m
MMMW	8.4	10.0	11.7	13.3	15.0
MAMW	9.4	11.0	12.7	14.3	15.9
100-YR Event	10.7	12.3	13.9	15.5	17.2
2100 Probability*		54.0%	2.0%	0.2%	<0.1%

Lidar Extent

Lidar Extent

Lidar Extent

Lidar Extent

Arcata

Humboldt Bay

Foster Ave

17th St

Q St

Janes Rd

Alliance Rd

H St

G St

L K Wood Blvd

11th St

14th St

V St

K St

7th St

E 7th St

H St

G St

Samoa Blvd

Union St

Bayside Rd

Buttermilk Ln

S G St

Old Arcata Rd

Golf Course Rd

Bayside Cutoff Rd

Old Arcata Rd

255

101

101

DRAFT

- Coastal Zone Boundary
- Arcata City Limits

SLR amount	Elevation
2012 base year	-1.35 - 9.4'
0.7'	9.41 - 10.1'
1.4'	10.01 - 10.8'
4.3'	10.81 - 13.7'

*Elevation values derived from City of Arcata 2019 lidar DEM

Sources:
Topography: 2019 DEM
Planning Horizons: Northern Hydrology & Engineering, 2016

Notes:

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City of Arcata

Figure C-8-1
Sea Level Rise Scenarios

0 500 1,000 Feet

Date: 2/25/2022

The City recognizes the importance of the peninsula due to its natural resources, critical public infrastructure, significant industrial and commercial private investment, lower-income housing, and residential racial diversity. In addition, this area may be desirable for coastal recreational and visitor serving uses in the future. Since there is no feasible, socially equitable relocation option for these land uses currently, the City's sea level rise strategy includes both a protect in place and a measured retreat approach for the peninsula.

The City of Arcata will continue to add lands to its natural resource buffer inventory. Currently, the approximate XX acres of lowlands that are in mapped potential inundation zones include XX acres owned or controlled through easement and agreement for habitat values and open space, (879 acres are owned by the City of Arcata). These areas will be the first to transition as the tidal patterns change. Furthermore, the City's strategy does not include adding protective barriers to any developed or undeveloped areas that are not currently protected by the existing dike system around the Bay.

The City has worked to protect and enhance wetlands around the Arcata Bay for decades. In 1981, the City created the Arcata Marsh and Wildlife Sanctuary (75 acres including 30 acres of freshwater wetlands). In 1986, the City expanded the Sanctuary by realigning Butchers Slough to reestablish a more natural meandering course, restore salt marsh habitat, and create an adjacent freshwater wetland from the remains of an old log pond. The City then purchased a 74-acre property that is the core of the McDaniel Slough project area, and in 1999 worked with the Coastal Conservancy to prepare an enhancement plant for this area. In 2014 the McDaniel Slough enhancement project was built.

Furthermore, the City is positioned well for sea level rise adaptation due to acquisitions and actions dating back decades. The City has strategically invested in conservation easements, land acquisition and restoration, and land use limitations in areas subject to future inundation. Notably, the City owns the 322-acre Bayview Ranch, purchased in 2004. The City has since added 81.1 acres to its inventory. The principal first phase strategy for the City's future impacts related to sea level rise is to accommodate the higher water levels and increased inundation from flooding in these low-lying areas.

While relocating these uses and accepting the loss of public and private lands in these areas over time will not be easy, these land uses will adapt over time, until and unless the uses cannot be conducted at these sites. As a result, the City's policy in these areas is to continue to support conversion of uses to allow for adaptation and accommodation.

Though some parcels are in mapped potential inundation areas, sea level rise is an issue with city-wide implications that require city-wide solutions. The impacts of rising sea level will be felt beyond the boundary of the coastal zone as high tides back up into the City's creek system, causing potential flooding upstream. Utilities, roads, recreational opportunities, and major infrastructure that service the City at large will face impacts from sea level rise either directly or indirectly.

The overall goal to address sea level rise impacts is to provide feasible and sustainable adaptation that preserves the economic, cultural, and social functions for as long as practicable, taking into account ecological integrity and social justice and racial equity. This goal focuses on adaptation in the way that best maintains utility services and transportation capabilities, preserves cultural

resources, maximizes public access and recreational opportunities, maximizes agricultural viability, maximizes habitat values, and protects water quality. However, the City cannot value every policy area equally in all geographic areas, but will instead focus policy in various areas. Roughly ninety percent of lands in the City's projected inundation area will be preserved for ecological and other coastal resource functions. The remaining ten percent of the City's projected inundation area that contains the current urban interface will be primarily focused on preserving economic viability and promoting social/racial equity.

8.2. Overall Strategy

Climate change science and sea level rise projections are continually evolving. This assessment includes analysis of a wide range of possible scenarios between now and 2100, but it does not include the most extreme emerging science. Depending on future global climate mitigation efforts and the behavior of Antarctic ice sheets, the City may need to assess higher water levels in the future.

This assessment provides actionable information for near- and mid-term adaptation, but the work to increase the City's resilience to sea level rise is not complete. Adapting to sea level rise and other climate hazards and impacts will require ongoing monitoring of the science and local impacts, as well as applying lessons from the implementation of adaptation solutions within the City of Arcata and the larger Humboldt Bay Area region.

The City's sea level rise response is a mix of adaptation strategies including measured retreat of the built environment and accommodation where land uses and landforms allow. Structures, uses, and features that have higher adaptive capacity or lower sensitivity will remain in use in-place until such time as the environmental conditions impose changes to those uses. Adaptation is, in this way, a continuum with phases dictated by the interplay between environmental conditions and the adaptive capacity and sensitivity of the asset, feature, or landform.

The City's adaptation strategy considers the full range of impact factors. These factors include more than the individual asset's sensitivity and adaptive capacity. The adaptation strategy also considers economic, social justice, racial and social equity, and environmental impacts. In this way, the City has integrated planning across a variety of sectors involved or impacted by decisions related to sea level rise adaptation.

It is equally poor public policy to retreat without cause as it is to fail to adequately plan and implement measures to safeguard life and property. Given the uncertainty in timing and magnitude of sea level rise projections, the plan is flexible, allowing retreat strategies to be implemented based on monitoring input rather than arbitrarily conservative timeframes. This will result in the application of measures suited to the environmental conditions. Flexible timeframes for adaptation that plan for appropriate measures, which can be delayed or advanced as the evidence warrants, form the basis of the City's adaptation strategy.

The City plans to continue to protect and defend significant investments where feasible and practical, as long as the benefits of protection outweigh the costs. Accommodating and adapting to the rising seas will occur in areas where planned when it is infeasible to defend or relocate

development. Retreat will occur where and when it is not feasible to defend development or accommodate the rising seas.

Protect and Defend

Protection strategies employ some sort of engineered structure or other physical measure to defend development in place without changes to the development itself. Existing development endangered by flooding, such as the waste water treatment plant, South "G" Street commercial and industrial uses, working agricultural lands, and infrastructure shall be permitted to be protected by the least environmentally damaging means practicable. Where feasible, protective devices shall visibly blend into adjacent natural surroundings and form eco-levees. This strategy will afford continued public access to the coast line, agricultural practices, economic activities, residential uses, and critical infrastructure until and unless the means to maintain the uses becomes infeasible.

Recognizing the areas potentially subject to flooding from higher sea level is all currently protected from daily or periodic inundation by a network of anthropogenic structures, this strategy will continue to maintain and improve structures that are consistent with existing function.

Accommodate and Adapt

Accommodation strategies employ methods that modify existing developments or design new developments to decrease hazard risks and thus increase the resiliency of development to the impacts of sea level rise. Over time, sea level rise will result in conversion of habitat types, especially in low lying areas including former tidelands. Structures and other development within areas that experience tidal flooding may need to adapt to accommodate periodic flooding and eventually inundation. Accommodation can also take other forms such as addressing drainage issues and locating new development away from low lying areas.

Retreat

Retreat strategies result in relocation or removal of existing development out of hazard areas and limitation on the construction of new development in vulnerable areas. Retreat will be slow and measured, with a goal of minimizing economic impacts on both taxpayers and property owners and renters of development in the area of retreat. Explicit measures will be developed to preserve economic viability of existing and new development for as long as feasible, recognizing that in some cases, development in hazard areas will be safe from projected Sea Level Rise for its estimated design life.

Retreat will be initiated as a second phase in the Sea Level Rise Adaptation Zone 1. Zone 1 comprises urban development on historic fill prism dating to the early 1800s. This area includes residential, commercial, recreational, and industrial uses, as well as the City's wastewater treatment plant. The economic, financial, and social impact of a hasty and early retreat from this area significantly outweighs the benefits of an early retreat. Notwithstanding, the policies in this Local Coastal Element establish the framework for market driven retreat and conversion of uses to higher return and lower investment land uses. These land uses will more readily

accommodate periodic inundation and eventual removal than current uses.

Coastal Act Policies

The following Coastal Act policy is most relevant to sea level rise in Arcata:

Section 30253. Minimization of Adverse Impacts. New development shall do all of the following:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

(4) Minimize energy consumption and vehicle miles traveled.

(5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

Section 30236. Water Supply and Flood Control. 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 the public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

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

8.3. Local Coastal Element Policies

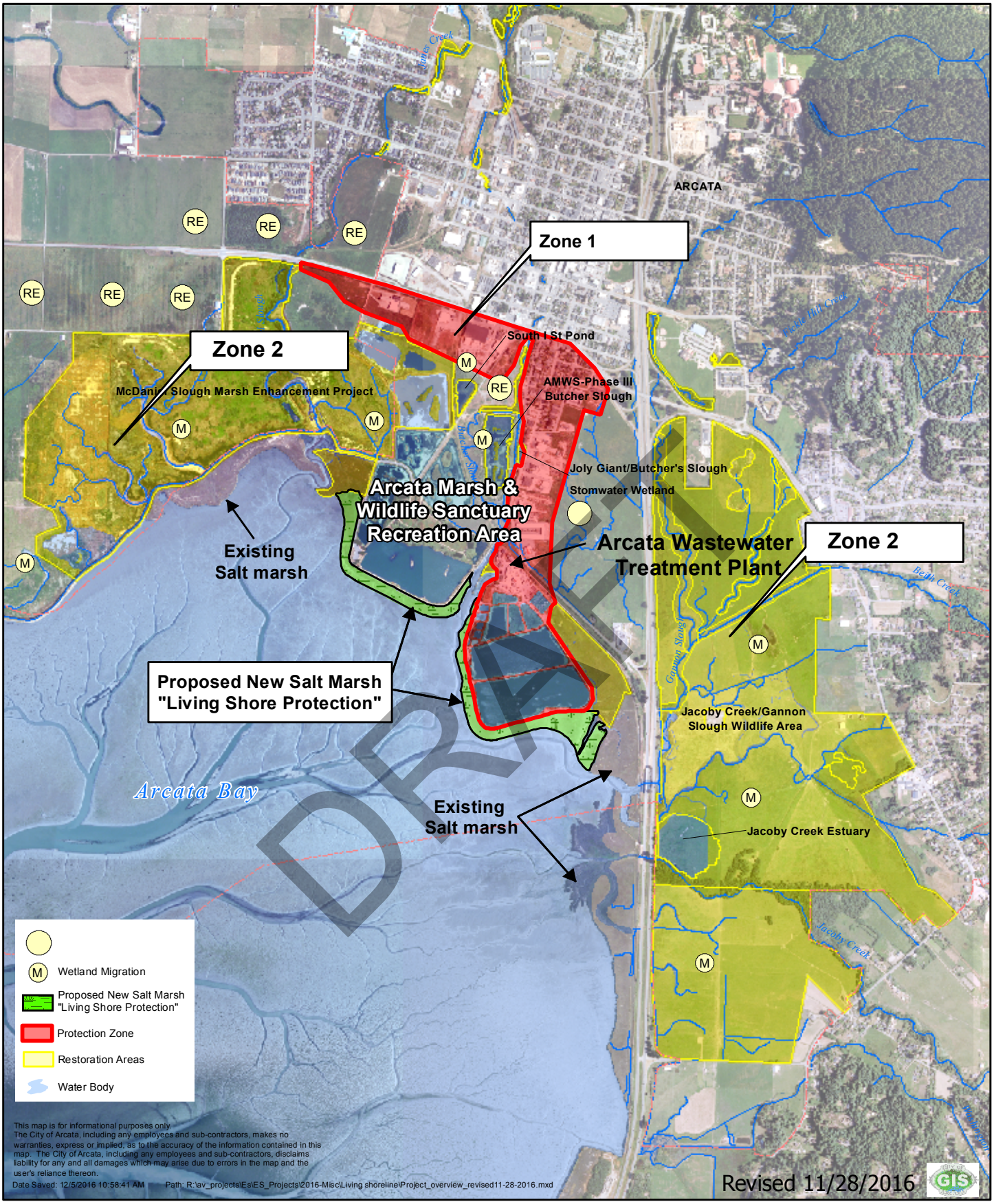
The following policies are not intended to be viewed as a stand-alone regulatory document. These regulations are one section of the City's overall Local Coastal Program. The City's Local Coastal Program includes many other policies related to development, environmentally sensitive habitat areas, public access, recreation, agriculture, and other coastal issues.

PLANNING AND LOCATING DEVELOPMENT

All Sea Level Rise Adaptation Zones

The following policies apply to development in all Sea Level Rise Adaptation Zones shown in Figure 8-2.

8.3.1. Siting and Design. Development shall be sited to avoid adverse impacts from sea level rise over the anticipated life of the development. Where complete avoidance of impacts is not feasible, development shall be designed to minimize impacts to the greatest extent feasible.



City of Arcata
Environmental Services

City of Arcata

Figure C-8-2 Sea Level Rise Adaptation Zones

NORTH

0 2,000 Feet

Existing Development

8.3.2. Innovative Development. To ensure continued economic, recreational, coastal dependent, and other beneficial uses of existing development, the City shall allow the use of innovative accommodation strategies that minimize flooding risk when consistent with all policies of the LCP. This may include elevating structures over water or over areas that are periodically inundated. For areas subject to the Public Trust doctrine of the State of California, the uses on those lands will be compatible with Chapter 1238 of the Statutes of 1989, including commerce, navigation, fisheries and other public trust purposes, including but not limited to preservation of the lands in their natural state for scientific study, open space, wildlife habitat, and recreational and visitor-oriented uses.

8.3.3. Long-Term Plan for Critical Facilities. The City shall develop a long-term management plan to address sea level rise evaluating options for adaptation or relocation and incorporates any potential maintenance, relocation, protection, or retrofits and structural changes to critical city-owned facilities to accommodate changes in sea level. The management plan shall include strategies to protect and defend existing facilities, accommodate and adapt to sea level rise, and retreat from sea level rise hazard areas as appropriate consistent with City's overall strategy for sea level rise adaption described in this chapter. The management plan shall be used to inform annual Capital Improvement Program (CIP) discussions and goal setting.

8.3.4. Retrofitting Inadequate Stormwater Infrastructure. The City shall identify and prioritize retrofits to inadequate stormwater infrastructure for existing development in low-lying areas over other less critical improvements when budgeting limited resources. The City shall work with property owners to retrofit these systems to better accommodate flooding due to sea level rise. The City shall encourage the use of green stormwater infrastructure strategies where feasible.

New Development

8.3.5. New Structures Design for Sea Level Rise. New development in the Sea Level Rise Adaptation Zones shown in Figure 8-2 shall meet all of the following criteria:

(1) Development shall be designed to ensure safety from anticipated hazard impacts caused by future sea level rise, including increased velocity of floodwaters, where applicable.
(2) Development shall be sited and/or designed in such a way to avoid flooding related to the current estimated 100-year storm event, plus three feet to finished floor elevation.
(3) If there is inadequate space to feasibly meet such siting and design requirements, development shall be sited on the portion of the site that best meets these requirements, and floodproofed and/or elevated to be resilient to sea level rise over the economic life of the development.
(4) Development shall provide for adequate ingress/egress and all applicable service connections (e.g., for water, wastewater, electricity, gas, etc.), all of which shall

be sited and designed to avoid impacts from flooding and to protect coastal resources to the maximum feasible extent.

8.3.6. Development Duration. Development shall be removed and the affected area restored to a natural condition if:

(1) A government agency declares the development unsafe for occupancy and/or use;
(2) The development encroaches onto public trust land (including as the public trust migrates) and its use is inconsistent with the public trust; and/or
(3) Access and utilities are no longer available to serve the development.

8.3.7. No New Hospitals and Public Safety Facilities. No new hospitals, public safety facilities, power generation plants, airports, public corporation yards, and schools, except for permitted coastal-dependent infrastructure, shall be developed within the area on the seaward side of Old Arcata Road/Samoa Boulevard. This policy shall not apply to new energy facilities covered by Policy 8.3.8.

8.3.8. Design Coastal-dependent Infrastructure to Accommodate Sea Level Rise. Coastal-dependent infrastructure, such as industrial, transportation, and energy facilities that must be sited in near-coast locations, shall be designed to withstand future impacts associated with sea level rise. Infrastructure shall minimize risks to other coastal resources through initial siting, design, and features that will allow for future adaptation to rising sea levels, based on the best available scientific data.

Shoreline Protective Devices

8.3.9. When Allowed. The development of new shoreline protective devices or the augmentation of existing shoreline protective devices beyond ordinary repair and/or maintenance is allowed when required to (1) serve a coastal-dependent use, or (2) protect a principal structure in existence prior to the effective date of the Coastal Act (i.e. January 1, 1977) that is in danger from erosion. Limitations on shoreline protective devices in this section should only apply to dikes, seawalls and other hard protective devices. This policy shall be interpreted to allow for "soft" shoreline protective devices to protect the Sea Level Rise Adaptation Zone 1 as described below.

8.3.10. No Feasible Alternative. Shoreline protective devices are permitted only if there are no other feasible and less environmentally damaging alternatives to address erosion hazards, minimize risk of flooding, and provide structural stability. Alternatives include non-structural options (e.g., relocation of threatened development, habitat restoration) and soft protection strategies (e.g., living shorelines).

8.3.11. Mitigation. Shoreline protective device projects shall be subject to proportional mitigation for all unavoidable coastal resource impacts.

8.3.12. Hard Coastal Protective Devices. When shoreline protection is needed, hard protective devices are allowed only when non-structural options or soft armoring are infeasible or more environmentally damaging. Hard coastal protection includes engineered features such as seawalls, revetments, dikes and levees, roads, and trails that block the landward retreat of the shoreline and provide little or no habitat value but may provide recreation and coastal access opportunities.

8.3.13. Soft Coastal Protective Devices. When choosing among shoreline protective devices, soft protective devices shall be used and prioritized over hard protective devices wherever possible. Soft protective devices may include the construction of engineered islands, reefs, marshes, living shorelines (horizontal levees) and other biotechnical habitat restoration approaches that mimic natural biological processes, and/or provide ancillary or incidental shoreline protection. If structural shoreline protection is needed in a particular location and soft protective devices are not possible, hard protective devices may be used when consistent with the City's Local Coastal Program.

8.3.14. Living Shoreline. The City may use an engineered living shoreline or fringe salt marsh to protect vulnerable City facilities when consistent with the City's Local Coastal Program. The City shall promote green infrastructure pilot projects (e.g. horizontal levees, dune restoration, etc.) with environmental benefits that may help protect assets from sea level rise and increased storm surges. Study and monitor such projects over time and share lessons learned with other jurisdictions.

8.3.15. Green Infrastructure Pilot Projects. The City shall promote green infrastructure pilot projects such as engineered islands, reefs, marshes, living shorelines (horizontal levees) and other biotechnical/habitat restoration approaches that may help protect assets from sea level rise and increased storm surges and provide ancillary or incidental shoreline protection. The City will study and monitor such projects over time and share lessons learned with other jurisdictions

8.3.16. Avoiding and Mitigating Impacts. A shoreline protective device shall be sited and designed to avoid coastal resource impacts to the maximum feasible extent, including visual and public access impacts.

8.3.17. Beneficial Reuse of Sediment through Dredging Management. The City shall work with other local jurisdictions and agencies to reuse clean sediment from bay dredging operations to create living shorelines where needed and appropriate, when consistent with the City's Local Coastal Program. Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation.

8.3.18. Re-Assessment of Need. If an existing shoreline protective device is reconstructed, expanded, and/or replaced, a re-assessment of the need for the device and the potential for removal based on changed conditions shall be required.

8.3.19. Maintenance of Shoreline Protection Structures. Routine monitoring and maintenance of shoreline protection structures shall be required as a condition of permit authorization for

construction, augmentation, or repair. Structures shall be examined for structural deterioration, excessive scour, or other damage, and repaired to maintain viability. Maintenance can only occur if properly permitted or determined to be exempt. Consider a requirement for a City-approved monitoring and maintenance program for shoreline protection structures.

WITHIN THE SEA LEVEL RISE ADAPTATION ZONE 1

The Sea Level Rise Adaptation Zone 1 as shown on Figure 8-2 is a starting point for where the City plans to continue to protect existing development endangered from flooding. As part of the City's adaptation strategy, given uncertainty regarding timing and rates of sea level rise, boundaries and protective devices will change over time as part of a measured retreat strategy. The City's objective is to retain existing development within this area, and to allow for redevelopment as well. The City will further study this area to determine where, specifically, to enhance protection and where to begin retreat. Triggers for different adaptations will be developed with associated monitoring by the City for all development within the Sea Level Rise Adaptation Zone 1. For all development within the Sea Level Rise Adaptation Zone 1, the following policies shall apply.

Existing Development

8.3.20. Wetland Fill Allowed to Protect Sea Level Rise Adaptation Zone 1. In the Sea Level Rise Adaptation Zone 1, if it can be shown that all less environmentally damaging feasible alternatives have been exhausted and impacts on coastal resources are mitigated, the City may fill wetlands for the installation of hard or soft protective structures. Wetland fill shall be the least amount practicable to provide necessary protection and meet the "least environmentally damaging and feasible alternative" requirement. Compensatory mitigation for wetland fill may include but is not limited to creating wetlands.

8.3.21. Wastewater Treatment Plant. The City will continue to protect and adapt the wastewater treatment plant with existing armoring and continual augmentation as necessary and additional soft armoring, pursuing the least environmentally damaging alternative that is economically feasible. The City will explore opportunities to shrink the footprint of the plant and the protective devices by transitioning to a new technology or a traditional wastewater treatment system.

8.3.22. Citywide Funding to Protect Wastewater Treatment Plant. The City shall pursue a funding mechanism to protect the wastewater treatment plant functionality and access to critical plant infrastructure. Funding sources could include a citywide assessment or other means.

8.3.23. Limits on Corporation Yard Expansion. Development of the City corporation yard facilities shall be restricted to the existing boundaries, or moved to an alternate location that is not subject to flooding impacts from sea level rise during the lifespan of the improvements.

New Development

8.3.24. Infill Development Allowed within the Sea Level Rise Adaptation Zone 1. New development and redevelopment that is protected from sea level rise impacts by dikes and other means shall be allowed within the Sea Level Rise Adaptation Zone 1. Property owners will be informed of the elevation to which the area is designed to be protected. If and when a property is no longer protected by dikes or other means, the property must obtain a CDP to address sea level rise hazards through alternative accommodation and/or retreat strategies.

8.3.25. Subdivisions. Subdivisions that increase development potential are not allowed within the Sea Level Rise Adaptation Zone 1.

Shoreline Protective Devices

8.3.26. Protective Devices. Shoreline protective devises may be constructed and maintained to protect development within the Sea Level Rise Adaptation Zone 1.

8.3.27. Existing Hard Protective Devices. Existing hard coastal protection may be augmented to protect existing development endangered from flooding, and gaps may be filled where planned to afford such protection when consistent with the Local Coastal Program. For the existing Industrial, Commercial, and Residential developments south of Samoa Boulevard, including the Arcata wastewater treatment facility as mapped on Figure 8-2, shoreline protection shall be retained, monitored, and augmented to protect existing developed areas to an elevation of at least 15 feet (NAVD 88 elevation), or to an alternative elevation given the best available science and economic feasibility of protecting the area. Saltwater and stormwater into the Wastewater Treatment Plant will be controlled through pumping.

8.3.28. Siting and Design of New Shoreline Protective Structures. The siting and design of shoreline protective structures should take into account anticipated future changes in sea level, based on the best available scientific information and projections or range of projections of future sea level, and be designed for anticipated sea level rise. When feasible, hard shoreline protective devices shall be designed to minimize impacts to public views by incorporating design features that mimic surrounding natural features.

8.3.29. Protective Device Funding. The City shall seek funding from state and federal programs to construct and maintain protective devices for the Sea Level Rise Adaptation Zone 1. A City-wide fee, tax, or other assessment may also be collected to construct and maintain protective devices in this area.

8.3.30. Easements for Adaptation Planning. The City shall work with property owners within and adjacent to the proposed Sea Level Rise Adaptation Zone 1 to secure easements for future sea level rise protective devices.

INSIDE SEA LEVEL RISE ADAPTATION ZONE 2

The following policies apply to development inside the Sea Level Rise Adaptation Zone 2 as shown

in Figure 8-2.

8.3.31. Resiliency to Sea Level Rise. New development in Sea Level Rise Adaptation Zone 2 shall be resilient to the effects of sea level rise without development of new protective devices except where planned to protect existing developed areas and coastal-dependent development.

8.3.32. Conditions Prohibiting Future Protective Structures. Non-coastal dependent new development or substantial improvement on parcels potentially subject to sea level rise inundation shall only be approved with conditions requiring that no shoreline protective structure be constructed in the future to protect the development from erosion or flooding.

8.3.33. Sea Level Rise Vulnerability Report. A sea level rise hazards report shall be prepared for new development in the Sea Level Rise Adaptation Zone 2 requiring a CDP. The report shall describe potential sea level rise impacts on the project, projects impacts on coastal resources given sea level rise, and recommended measures for the project to avoid or reduce sea level rise impacts consistent with the LCP.

8.3.34. Removal of Shoreline Protective Structures. Authorization and permitting of shoreline protective structures will have terms and conditions for maintenance, removal, or modification of the structures over time as conditions change. A shoreline protective device shall only be authorized until the time when the existing principal structure that is protected by such device (1) is no longer present; or (2) is no longer requires armoring. Permittees shall be required to submit a CDP application to remove the authorized shoreline protective device within six months of a determination that the shoreline protective device is no longer authorized to protect the structure it was designed to protect because the structure is no longer present or no longer requires armoring. Removal may not be authorized if flooding or other deleterious impacts would result to adjacent properties.

OTHER POLICIES RELATED TO COASTAL RESOURCES

VISUAL RESOURCES

8.3.35. Minimizing Impacts to Visual Resources. Shoreline protective structures and other sea level rise adaptation strategies shall minimize adverse impacts to visual resources to the extent feasible.

8.3.36. Strategies with No Impacts. The City shall encourage sea level rise adaptation strategies that will not impact visual resources, including short-term retrofits of existing structures and longer-term relocation or removal of structures within scenic areas.

ENVIRONMENTALLY SENSITIVE HABITATS

8.3.37. Sea Level Rise in Habitat Projects. Sea level rise impacts shall be addressed in management plans for coastal habitats. Such evaluations should consider both

topographic features as well as habitat and species sensitivities (for example, sensitivity to inundation and saltwater intrusion). Habitat management plans and/or other habitat projects should use an adaptive management approach with clearly defined triggers for adaptive actions, to ensure that coastal habitats are able to migrate and transition with changes in sea level.

8.3.38. Habitat Connectivity to Allow Species Movement. New structures such as highways, medians, bridges, culverts, walls, fences and other development in response to sea level rise shall be designed to facilitate movement of wild animals along wildlife corridors.

WATER QUALITY PROTECTION

8.3.39. Sea Level Rise in Stormwater Control Plans and Actions. Stormwater control plans for private development subject to MS4 requirements shall include measures to minimize impacts to water quality from pollutants, sediments, and nutrients entering water bodies through precipitation-generated runoff. Required stormwater control plans should address Sea level rise and extreme storm events. Metrics to establish minimization are identified in the Coastal Zoning Ordinance.

PUBLIC ACCESS

8.3.40. Protect Coastal Access Opportunities. When feasible, shoreline protective structures shall be designed to incorporate public access features. The City will pursue opportunities to secure easements over shoreline protective structures specifically for public access.

8.3.41. Coastal Trails. The City will work with Caltrans and applicable agencies to incorporate portions of the California Coastal Trail and other trails within rights of way using retrofit options to avoid impacts from future sea level rise (boardwalks, bridges, etc.). The California Coastal Trail will remain within sight of Humboldt Bay where feasible.

8.3.42. Designing New Public Access Sites. Newly proposed public access sites, segments of the California Coastal Trail, and recreation and visitor serving facilities shall be sited and designed to minimize impacts from flooding and coastal erosion due to sea level rise. For facilities that can be safely sited for the near term but future impacts are likely, an adaptive management plan detailing steps for maintenance, retrofitting and/or relocation shall be required.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

8.3.43. Sea-level Rise and Cultural, Archaeological and Paleontological Resources. The City will support local tribes' efforts to identify, document, and, where appropriate, preserve cultural resources threatened by the effects of sea level rise and coastal flooding.

AGRICULTURAL RESOURCES

8.3.44. City-Owned Agricultural Lands East of Highway 101. Sea level rise will eventually impact the city-owned agricultural lands east of Highway 101, south of Samoa Boulevard, and west of Old Arcata Road. Coastal wetland habitats will be allowed to migrate unto the City-owned Jacoby Creek/Gannon Slough Wildlife Area as part of the overall management of the wildlife area consistent with Coastal Act Section 30241-30242.

8.3.45. Saltwater Intrusion Conversion. Agricultural lands converted to marsh land by saltwater intrusion due to sea level rise or other natural conditions may be redesignated as Coastal Resource (:CR) lands at such time as agricultural uses are no longer viable.

8.3.46. Replacement of Recreation Areas. Sea level rise may eventually convert agricultural land west of Highway 101, south of Samoa Blvd. and west of Old Arcata Road to tidal lands. Once agricultural lands are converted to coastal wetland habitats, the City may provide recreational trails to replace other passive recreational areas lost to sea level rise.

8.3.47. Agricultural Water Quality Impacts. Agricultural practices may need to be updated or enhanced to ensure water quality protection as required by federal, state, or local regulations if climate change or other natural conditions result in more frequent flooding of agricultural lands.

8.3.48. Rising Groundwater. Clean fill material may be imported and placed on previously compacted or subsided agricultural lands to raise the surface elevation of these former tide lands to make them more resilient to rising groundwater and sea level rise as part of a permitted habitat restoration/enhancement project to allow for future migration of saltmarsh habitat. In areas where fill material is placed on existing wetlands, the depth of fill must allow continuation of wetland characteristics such that no net loss of wetlands shall occur.

8.3.49. Agriculture Protection, Maintenance and Adaptation of Dikes and Levees. Existing agricultural areas within the City's Coastal Zone are partially protected by a series of dikes and drainage structures. These dikes may be repaired, maintained, and enlarged/augmented to protect the agricultural lands from sea level rise impacts for as long as feasible. The method of repair, maintenance, and enlargement/augmentation shall be the least environmentally damaging feasible alternative and feasible mitigation measures shall be provided to minimize adverse environmental effects.

REGIONAL APPROACHES – COLLABORATION WITH REGIONAL PARTNERS

Sea level rise will affect all jurisdictions and agencies within the Humboldt Bay region. The City will work with the City of Eureka, the County of Humboldt, the Humboldt Bay Harbor Recreation and Conservation District, Caltrans, Pacific Gas and Electric, the North Coast Railroad Authority, landowners, and other stakeholders to collaborate on regional approaches to sea level rise.

8.3.50. Stakeholder Collaboration. The City will assist in developing collaborative stakeholder

group(s) that include: other jurisdictions, critical asset owners, property owners, shoreline protective structure managers, business owners, regulatory agencies, and interested public members. These stakeholders will assist in developing or reviewing bay-wide, watershed, drainage basin, and project specific, multipurpose sea level rise adaptation strategies and measures.

8.3.51. Collaboration with Regional Partners. The City will work with regional partners to explore and encourage innovative solutions to adapt to sea level rise. Potential regional solutions may include:

(1) Installing hard engineered tidal barriers at the Humboldt Bay entrance, Eureka Slough entrance, and/or between Indian, Woodley, and Daby Islands that allow continued navigation, fish passage, and sediment transport while allowing temporary sea gates, pump stations, and offshore structures to be put in place.
(2) Constructing soft engineered islands, reefs, marshes, living shorelines or other features which mimic natural processes and offer shoreline protection.
(3) Utilizing oyster shells, navigation channel dredge spoils and other safe, local, suitable material to implement adaptation measures inland, along the shoreline, and within the waters of Humboldt Bay.
(4) Identifying the areas where it is feasible and appropriate to protect dikes, railroads, highways and roads in place as a way of serving to protect existing development, and identifying those areas where elevating or relocating these features would be more appropriate to allow for wetland migration and restoration.
(5) Exploring a regional ocean outfall or other regional solutions for treated wastewater.
(6) Increasing the number and size of tide gates to enhance the drainage capacity of the lands behind the dikes.

8.3.52. Mitigation Program. The City supports development of a regional mitigation program to address the region's potential to fill wetlands in an effort to protect existing development. The program would involve creating wetland areas to be used as compensation for filling wetlands to create protective devices for existing development.

8.3.53. Education. The City will work with community partners to educate the community about sea level rise impacts, including how to implement best management practices throughout the City to reduce vulnerability and risk from flooding hazards associated with sea level rise.

8.3.54. Preserve Undeveloped Shorelines. The City shall encourage preservation and habitat enhancement of natural shoreline areas throughout Humboldt Bay that are vulnerable to future flooding, contain significant habitats or species, are suitable for ecosystem enhancement, and allow area for habitat migration as sea level rises.

8.3.55. Regional Adaptation Strategies. The City will promote and participate in development of a regional entity for protection of existing development, restoration of coastal habitats, and preservation of public access and recreational opportunities on Humboldt Bay. The

City will participate in regional efforts to seek funding for regional solutions to accommodate higher sea levels.

8.3.56. Acquisition and Buyout Program. The City will collaborate with regional partners to seek funding, and work with property owners to acquire property at risk from flooding or inundation due to sea level rise.

8.3.57. Retrofit Transportation Infrastructure. The City will work with Caltrans and the County of Humboldt to address sea level rise impacts to Highway 101, Highway 255, and adjacent County roads to maintain transportation functions as the sea level rise. The City will work with these entities to identify which existing roadways should be retrofitted to withstand flooding and provide a barrier to flooding inland and to plan for these projects to be completed over time as roads are maintained.

8.3.58. Phased Implementation of Transportation Projects. As sea level rises and existing roads are periodically flooded, alternate transportation routes shall be established to accommodate traffic. Recognizing that periodic flooding of low-lying roads could result in hazardous conditions or delays, transportation routes shall be maintained, retrofitted, and re-routed to accommodate sea level rise, until such time as retreat is the only viable option. The City will coordinate with Caltrans, the County of Humboldt, and the City of Eureka to ensure that planned transportation networks meet the needs of the City and the region.

13.0 Glossary

This section defines terms and phrases used in the Local Coastal Element that are technical or specialized, or that may not reflect common usage. If a definition in this section conflicts with a definition in the General Plan Glossary, the definition in in this chapter governs when interpreting and applying Local Coastal Element requirements. If a term or phrase is not defined in this section or int he General Plan Glossary, the Director shall determine the correct definition.

Aquaculture. A form of agriculture as defined in Section 17 of the Fish and Game Code. Aquaculture products are agricultural products, and aquaculture facilities and land uses shall be treated as agricultural facilities and land uses in all planning and permit-issuing decisions governed by the Local Coastal Element.

Coastal Access. The ability of the public to reach, use or view the shoreline of coastal waters or inland coastal recreation areas and trails.

Coastal Act. The California Coastal Act of 1976, as amended.

Coastal-dependent Development. Any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Coastal Development Permit. A permit for any development within the coastal zone that is required pursuant to Coastal Act Section 30600(a).

Coastal Hazards. Include, but are not limited to, episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, tidal scour, coastal flooding, liquefaction, and the interaction of same.

Coastal-related Development. Any use that is dependent on a coastal-dependent development or use.

Coastal Resources. Include, but are not limited to, public access and public access facilities and opportunities, recreation areas and recreational facilities and opportunities (including for recreational water-oriented activities), public views, natural landforms, marine resources, watercourses (e.g., rivers, streams, creeks, etc.) and their related corridors, waterbodies (e.g., wetlands, estuaries, lakes, etc.) and their related uplands, ground water resources, biological resources, environmentally sensitive habitat areas, agricultural lands, and archaeological and paleontological resources.

Coastal Zone. The geographic zone adjacent to the shoreline, the land and water area boundaries of which are determined by the California Coastal Act of 1976, as amended

Coastal Zoning Ordinance. Division 2 of Title IX of the Arcata Municipal Code, certified as part of the Implementation Plan of the City of Arcata Local Coastal Program.

Development. Any of the following, whether on land or in or under water:

1. The placement or erection of any solid material or structure.

2. Discharge or disposal of any dredged material or of any gaseous, liquid, solid or thermal waste.
3. Grading, removing, dredging, mining or extraction of any materials.
4. Change in the density or intensity of use of land, including, but not limited to, subdivisions, and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use.
5. Change in the intensity of use of water, or access thereto.
6. Construction, reconstruction, demolition or alteration in the size of any structure, including any facility of any private, public or municipal utility.
7. The removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973.

Energy Facility. Any public or private processing, producing, generating, storing, transmitting, or recovering facility for electricity, natural gas, petroleum, coal, or other source of energy.

Environmental Buffer Area (EBA). An area of land separating all permitted development from adjacent sensitive habitat, streams and wetlands. The purpose of the buffer area is to prevent any degradation of the ecological functions provided by the area as a result of the development. This term includes ESHA buffers as defined by the Coastal Commission.

Environmentally Sensitive Habitat Areas (ESHA). Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. In addition, the following areas are categorically ESHA as identified in Arcata's LCP:

1. Rivers, creeks, sloughs, and associated riparian habitats including Jacoby Creek, Beith Creek, Grotzman Creek, Campbell Creek, Jolly Giant Creek, Janes Creek, Gannon Slough, Butcher Slough, and McDaniel Slough.
2. Wetlands, estuaries, and associated riparian habitats including Arcata Bay, Mad River Slough, Liscom Slough, Butcher Slough, and the Arcata Marsh and Wildlife Sanctuary.
3. Other unique habitat areas including water bird rookeries; shorebird concentration sites; habitat for all rare, threatened, or endangered fully protected, and special concern plant and animal species and natural communities on federal or state lists; and plant species appearing on the California Native Plant Society List "1b" and "2" lists.

Erosion. The wearing away of land by natural forces. On a beach, the carrying away of beach material by wave action, currents or the wind.

Estuary. A coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the ocean and in which ocean water is at least

occasionally diluted by fresh water runoff from the land.

Farm Dwelling. A dwelling unit on an agricultural property owned by the farm owner or operator.

Farmed Wetland. A wetland that has been diked or drained to prevent the saturated soil conditions that would normally occur, to conduct agricultural activities (e.g., grazing), that do not require the most productive agricultural soils. These lands would typically revert to freshwater, brackish, or saltwater marsh should the dike barriers be removed. In their present state, these lands are frequently covered by shallow water during the rainy season.

Feasible. Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors. These factors may include topographic contour, orientation, grading, slope stability, tree preservation, access to existing streets, and others.

Fill. The deposit of earth material caused or placed by artificial means.

Flood Hazard Area. The floodplain boundaries for Special Flood Hazard Areas ash shown on the current FEMA Flood Insurance Rate Map (FIRM).

Geologic Hazard. A risk associated with geologic processes or events including fault line surface rupture, liquefaction, subsidence, landslides, and coastal erosion.

Habitat. The physical location or type of environment in which an organism or biological population lives or occurs.

Hard Shoreline Protective Device. Engineered features such as seawalls, revetments, dikes and levees, roads, and trails that protect against coastal hazards by blocking the landward retreat of the shoreline.

Incidental Public Service Purposes. Projects, such as burying cables and pipes, inspection of piers, etc., which may temporarily impact the resources of a habitat area.

Infill Development. Development, redevelopment or reuse of land that is either underutilized, brownfield or vacant, but substantially surrounded by existing urban development. In all instances, infill development occurs on sites that already have sufficient City services immediately available. Infill development may include new residential units on upper floors of commercial structures, development of second units on residential lots, and new or expansion of existing residential and commercial structures and uses consistent with the provisions of the applicable land use designations.

Land Use. The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the applicable land use designations.

Land Use Plan. the relevant portion of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions.

Lateral Access. A recorded dedication or easement granting to the public the right to pass and

repass over real property generally parallel to, and up to 25 feet inland from, the mean high tide line.

Local Coastal Element. The portion of a general plan applicable to the coastal zone which may be prepared by local government pursuant to this division, or any additional elements of the local government's general plan prepared pursuant to Section 65303 of the Government Code, as the local government deems appropriate.

Local Coastal Program. A local government's (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of, this division at the local level.

Low-impact Development. A stormwater management approach with the basic principle that rainfall be managed and retained at the source using uniformly distributed decentralized micro-scale controls to capture, treat and infiltrate stormwater runoff on site to maintain the site's pre-development runoff characteristics.

Mixed-Use. Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A "single site" may include contiguous properties.

Nonconformity. A legally-established lot, land use, structure, or other form of development that does not conform with the certified Local Coastal Program.

Non-prime Agricultural Land. Land suitable for agriculture that does not meet the definition of prime agricultural land.

Person. Any individual, organization, partnership, limited liability company, or other business association or corporation, including any utility, and any federal, state, local government, or special district or an agency thereof

Prime Agricultural Land. Those lands defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.

Public Access. The right or privilege for persons to visit an area or resource.

Public Trust Lands. Lands to which California received title upon its admission to the Union and that are held by virtue of its sovereignty under the authority of the California State Lands Commission. These are lands under navigable waters including the ocean and navigable streams, and include lands formerly under water.

Public Works.

1. All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission except for energy facilities.

2. All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations,

bridges, trolley wires, and other related facilities.

3. All publicly financed recreational facilities and any development by a special district.

4. All community college facilities.

Public Infrastructure. Roads, sidewalks, bikeways, trails, water delivery systems, stormwater facilities, sewer systems, gas and electric, and other similar facilities to serve the general public.

Recreational Facility. Non-commercial or commercial facilities that allow for the public to engage in outdoor and/or water-dependent leisure activities. Includes public parks and recreational facilities; public plazas; public marinas, boat launches, and piers; open space and wildlife areas; and trails. Also includes commercial facilities offering harbor cruises, fishing charters, eco tours, kayak and boat rentals, guided tours, carriage rides, and other similar activities.

Redevelopment.

Development involving an existing structure that consists of one or more of the following:

(1) Alteration (including interior and/or exterior remodeling and renovations, demolition or partial demolition, etc.) of 50 percent or more of major structural components (including exterior walls, floor and roof structure, and foundation) considered individually (i.e., percentages are calculated by the individual structural component being altered, and are not additive between different structural components);

(2) Additions and alterations to such development that lead to a 50% or more increase in floor area for the development; and/or

(3) Additions and alterations to such development that costs 50% or more of the market value of the existing structure before construction. Changes to floor area and individual major structural components and the costs of such changes are measured cumulatively over time starting from January 1, 1977, with deduction for inflation and depreciation (i.e., 50% in 1977 dollars less depreciation).

Scenic Resource. Aspects of the natural and built environment identified in Chapter 3: Visual and Scenic Resources of this Land Use Plan that contribute in a positive manner to Eureka's unique sense of place.

Shoreline. Intersection of the ocean or sea with land; the line delineating the shoreline on National Ocean Service nautical charts and surveys approximates the mean low water line from the time the chart was prepared.

Shoreline Protective Device. Constructed features such as seawalls, revetments, riprap, earthen berms, cave fills, deep piers/caissons, and bulkheads built in a way that protects land or structures or other features against sea level rise, erosional forces and other coastal hazards.

Soft Shoreline Protective Devices. Types of shoreline protection that use natural or "green" infrastructure such as beaches, dune systems, wetlands, and other systems to buffer coastal areas; may include strategies such as beach nourishment, dune management, and living shorelines.

Streams. Streams in the coastal zone, perennial or intermittent, which are mapped by the

United States Geological Survey (USGS) in the National Hydrographic Dataset. Includes streams and waterways governed by the Arcata Creeks Management Plan, as amended, including McDaniel Slough, Gannon Slough and Butcher Slough. This definition differs from the definition on the Land Use Code.

Tidelands. Lands located between the lines of mean high tide and mean low tide.

Vertical Access. A recorded dedication or easement granting to the public the privilege and right to pass and repass over dedicator's real property from a public road to the mean high tide line. Vertical accessways should be used for pass and repass and passive recreational use, unless specified otherwise.

Visitor. Any person visiting the coastal area for leisure and/or recreational purposes. Visitors to coastal areas include out-of-town guests and Arcata residents residing in locations outside of the coastal zone.

Visitor-Serving Facilities. Any land use that serves a visitor as defined by this Local Coastal Element. Visitor-serving facilities include restaurants, cafes, shops, hotels and motels, parks, trails, recreational facilities, leisure activities, and entertainment attractions.

Watercourse. Natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include manmade channels, ditches, and underground drainage and sewage systems.

Wetlands. Lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.