CCC Revised Draft Residential Adaptation Policy Guidance List of Public Comments
Second Public Comment Period (closed April 30, 2018)

COUNTY OF SAN MATEO
COUNTY MANAGER'S OFFICE
OFFICE OF SUSTAINABILITY

Jim Eggemeyer
Director

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www.smcsustainability.org

April 30, 2018

Ms. Mary Matella
California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Comment Letter for the California Coastal Commission's Residential Adaptation Policy Guidance

Dear Ms. Matella,

We appreciate the opportunity to comment on the March 2018 draft of the California Coastal Commission's Residential Adaptation Policy Guidance (Guidance) on behalf of the County of San Mateo Office of Sustainability. The County's Office or Sustainability strives to improve the sustainability of the County's operations and the greater community through work in areas of renewable energy and energy efficiency; resource conservation; alternative transportation; and greenhouse gas emission reductions and climate adaptation.

Monitoring (p. 18)

The Guidance recommends monitoring at the site or community-scale. We suggest including language stating that monitoring data (and the suggested approach) should be standardized for use in local and regional sea level rise and hazard planning efforts and that data should be submitted to the California Coastal Commission or other relevant agency to use the data in regional planning efforts. By doing this, local governments without resources to develop monitoring approaches could benefit from this, while the use of standardized approaches would encourage regional collaboration.

Soft shoreline protection (p.26)

The Guidance notes high costs and uncertainty associated with soft shoreline protection, but not the high costs and ecosystem impacts associated with hard shoreline armoring. The Guidance could highlight the important benefits of living shorelines such as reduced impacts to neighboring properties, uptake and storage of nutrients, expanded fisheries

OFFICE OF SUSTAINABILITY
COUNTY OF SAN MATEO

habitat, carbon sequestration, the aesthetic value, and assisted migration of important coastal habitats and sensitive species at risk of being lost due to sea level rise – all important components of the Coastal Act. While the science is still under development for soft shoreline systems along coasts with heavy wave action, and additional structures may be necessary, providing residents and local governments with a menu of strategies is both a useful educational tool and an opportunity to spur the use of multi-benefit strategies. Additionally, there may be hybrid systems that bridge hard and soft structures such as the creation of new intertidal habitat and tidal pools – strategies being considered along the coasts of New York and Singapore. The Guidance would benefit from highlighting the types of soft shoreline protection projects that are being used under various conditions (e.g. bluffs, protected harbors, etc.) in coastal environments and examples within each typology identified in the Guidance to encourage residents and local governments to consider these approaches.

Regional coordination

The Guidance recommends coordinating at the watershed or littoral cell offshore scale. Communities would benefit from having examples of this approach or figures illustrating the location of the watersheds and littoral cells, and in having resources available for the creation of such collaborative efforts. For instance, the County of San Mateo plans to use the next update to Coastal Storm Modeling System for Southern California (CoSMoS 3.0) from U.S. Geological Survey, which will include watershed hydrology as a contributing factor for sea level rise impacts and erosion. Additionally, a number of regional collaboratives exist, including the San Diego Regional Climate Collaborative and the Central Coast Climate Collaborative, that could be highlighted as examples and resources for residents.

Redevelopment

In considering the definition of new development and redevelopment, the Guidance does not currently consider where Accessory Dwelling Units (ADUs) fit into the definition and guidance for redevelopment. The development of an ADU policy and guidance is a statewide issue and one that many Bay Area municipalities are currently considering as a key strategy to help solve the housing shortage. Developing and implementing ADU policies without the consideration of future sea level rise, flooding, erosion and other climate impacts could increase residential risk to sea level rise if additional units are placed on the seaward or bayside side of the property. The Guidance could include a case study and additional information about what communities could do to embed sea level rise risks into ADU planning and policy.

Model Policies - Moving hazards away from development (p. 67)

Section E.1 mentions the creation of sea level rise habitat buffers to allow migration of wetlands and shoreline habitats with sea level rise. This recommendation could be strengthened to include language stating that migration should allow for movement of the same type of ecosystem that was lost, or will be lost. The Guidance could include a

recommendation for ecological surveys to determine suitability for habitat migration and resources to support this, as well as strategies to begin the process before habitats are lost where assisted migration might be necessary for native plants.

Stormwater Management

Section E.3 includes language to avoid adverse impacts from stormwater and dry weather discharges, such as from leaky water or sewer pipes or industrial sources. The language in the Guidance could be strengthened and expanded to include the benefits of stormwater management to climate adaptation. Stormwater control measures provide multiple benefits with respect to flood risk management and sea level rise adaptation in context of climate resiliency, including water quality and quantity benefits. Distributed small-scale low impact development design (LID) measures for stormwater management, including rain gardens, rain barrels, pervious paving and redirecting runoff to landscaped areas, can reduce the impact of localized flooding, which is expected to have additive impacts with sea level rise. Therefore, we highly encourage LID site design measures for small residential projects be included in the adaptation strategies and model policy language of this guidance document. The attached fact sheets, developed by the Bay Area Stormwater Management Agencies Association (BASMAA), provide useful references for site design measures that should be considered for small residential projects that otherwise are not required to install stormwater control measures.

Thank you again for the opportunity to comment on this Guidance.

Sincerely,

Jim Eggemeyer
Director, Office of Sustainability

Attachments

cc: Hilary Papendick, Program Manager, Climate and Adaptation
Jasneet Sharma, Lead Resource Conservation Specialist

LANDSCAPE DESIGNS FOR STORMWATER MANAGEMENT

Stormwater Control for Small Projects

Bay Area Stormwater Management Agencies Association

Dry creek infiltrates and conveys runoff.

Designing landscaped areas to soak up rainfall runoff from building roofs and paved areas helps protect water quality in local creeks and waterways. These landscape designs reduce polluted runoff and help prevent creek erosion.

As the runoff flows over vegetation and soil in the landscaped area, the water percolates into the ground and pollutants are filtered out or broken down by the soil and plants.

This fact sheet shows how you can design your landscape to absorb runoff from impervious surfaces, such as roofs, patios, driveways, and sidewalks, with landscape designs that can be very attractive.

If you are interested in capturing and storing water for irrigation use, see the Rain Barrel fact sheet in this series.

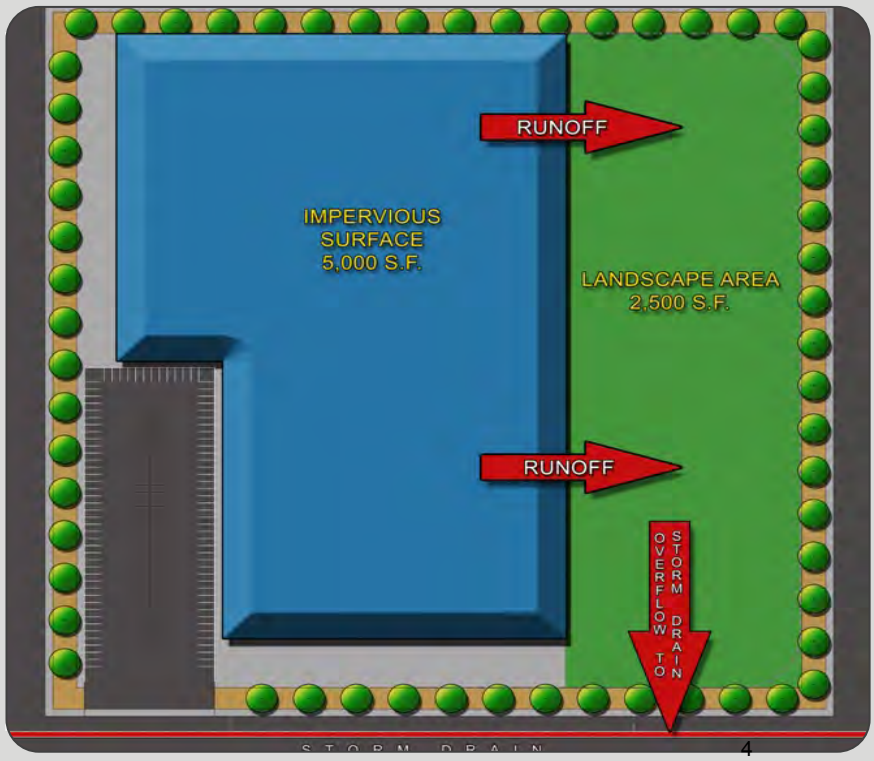
Can My Project Manage Stormwater in the Landscape?

Directing stormwater runoff to the landscape is suitable for sites with the following conditions:

- Roofs, driveways, parking areas, patios, and walkways that can drain to an existing landscape, or an area that may be converted to landscape.
- Areas of landscape with a slope of 5% or less are preferred; check with the municipality regarding requirements for steeper sites.
- Works best in well-drained soil; soil amendments may be used in areas with poor drainage.
- Landscaped areas that total at least 1/2 the size of the impervious area draining to it.
- Direct runoff away from building foundations.
- Runoff should not create ponding around trees and plants that won't tolerate wet conditions.

How Do I Size My Landscape?

The landscaped area should be 50% of the size of the contributing impervious surface. For example (see below), to manage runoff from a 5,000 square foot roof or paved surface, you should have 2,500 square feet of landscaping.



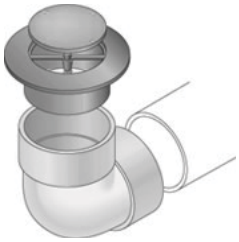
Approved August 23, 2012

Techniques to Manage Stormwater in Landscaping

Direct Roof Runoff to Landscape

- Use additional piping to connect the downspout to the landscape if needed.
- Direct runoff away from building foundation.
- Prevent erosion by installing:
  - Splash blocks,
  - Rain chains,
  - Gravel area under a gutterless roof,
  - Pop-up drainage emitter connected to a pipe that carries runoff away from the foundation, or
  - Other energy dissipation technique.

Splash block

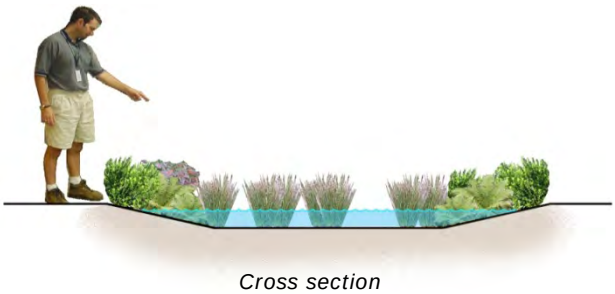


Pop-up emitter

Gravel area under a gutterless roof

Rain chain

Swales or Dry Creeks



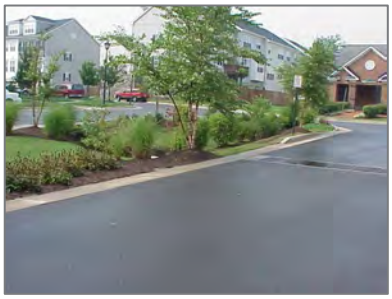
Cross section

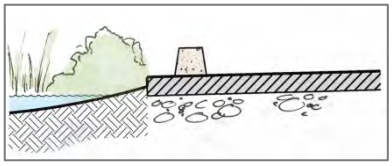
Swales and dry creeks are narrow, linear depressions designed to capture and convey water. Swales imitate a natural creek's ability to slow, infiltrate, and filter stormwater. To install a swale follow these steps:

- Excavate a narrow linear depression that slopes down to provide a flow path for runoff. The path length (10 to 15 feet or more) should meander to slow water and prevent erosion.
- Use plants from creek and river ecosystems to help reduce erosion and increase evaporation of runoff.
- The end of the swale requires an outlet for high flows (another landscaped area or a yard drain). Talk to municipal staff to identify an appropriate discharge location.
- Contact municipal staff for a local list of plants suitable for swales.

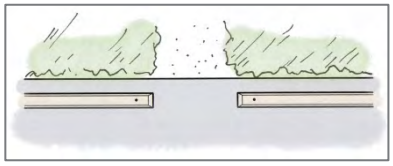
Techniques to Manage Stormwater in Landscaping

Direct Parking Lot Runoff to Landscape





Cross section



View from above

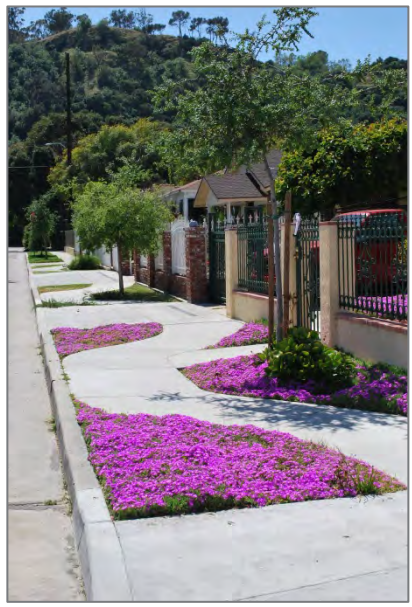
During storms, parking lots generate large amounts of runoff, which picks up oils, grease, and metals from vehicles. Landscaped areas can be designed to absorb and filter this runoff.

- Landscaped areas must be below the paved elevation. Allow an elevation change of 4 to 6 inches between the pavement and the soil, so that vegetation or mulch build-up does not block the flow.
- Grade the paved area to direct runoff towards the landscaping.
- If possible, provide a long path for runoff to infiltrate (while meeting the landscaped area sizing on page 1).
- Provide multiple access points for runoff to enter the landscape. Install curb cuts or separate wheel stops for the water to flow through. Provide cobbles or other permanent erosion control at points of concentrated flow.

Manage Runoff from Driveways/Small Paved Areas

Driveways, sidewalks, patios, walkways, and other small paved areas can offer creative opportunities to drain runoff to landscaping.

- Install landscape adjacent to the paved surface, and grade the paved area so runoff flows toward the landscaping.
- Landscaped areas must be below the paved elevation. Allow an elevation change of 4 to 6 inches between the pavement and the soil, so that vegetation or mulch build-up does not block the flow.
- Install cobbles or rocks where runoff enters the landscape to avoid erosion.
- Use sizing ratio described on page 1.
- Use drought-tolerant native or climate-adapted plants to reduce irrigation.



Design Checklist

- ❑ Maximize the use of landscaping and natural areas that already exist. Try to design new landscapes immediately adjacent to impervious surfaces.
- ❑ Water should flow evenly (without concentrating runoff into small streams) from the impervious surface to the landscape; this will maximize the filtration and settling of sediment and pollutants and prevent erosion. The design should avoid allowing straight channels and streams to form.
- ❑ Amend soils to improve drainage, when necessary.
- ❑ If the project is located next to standard asphalt or concrete pavement, and there is concern about water undermining the pavement, include a water barrier in the design.
- ❑ Use curb cuts to create places where water can flow through to the landscape.
- ❑ Disconnect roof downspouts and redirect flow to adjacent landscapes. Disconnected downspout systems should incorporate a splash block to slow the runoff flow rate; a landscape flow path length of 10 to 15 feet is recommended.
- ❑ Use drought-tolerant native or climate-adapted plant species whenever possible. Avoid invasive or pest species. A list of invasive species may be found at the California Invasive Plant Council website (www.cal-ipc.org). Contact municipal staff for a list of plants suitable for stormwater management areas.
- ❑ Design the landscape area so that overflow from large storms discharges to another landscaped area or the storm drain system to prevent flooding.

Maintain Your Landscape

The following practices will help maintain your landscape to keep it attractive and managing stormwater runoff effectively.

- ❑ During dry months, irrigate during the first year to encourage root growth and establish the plants. In subsequent years, irrigate as needed by the plant species to maintain plant health.
- ❑ Repair signs of erosion immediately and prevent further erosion by reinforcing the surrounding area with ground cover or using rocks for energy dissipation.
- ❑ If standing water remains in the landscaped area for more than 4 days, use soil amendments to improve infiltration.
- ❑ Inspect the locations where water flows into a landscaped area from adjacent pavement to ensure that there is positive flow into the landscape, and vegetation or debris does not block the entrance point.

The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text, formatting and various images used in this fact sheet. The Sonoma Valley Groundwater Management Program, San Mateo Countywide Water Pollution Prevention Program, City of San Jose, Sacramento Stormwater Quality Partnership, and the Purissima Hills Water District are acknowledged for images used in the fact sheet.

RAIN GARDENS

Stormwater Control for Small Projects

Bay Area Stormwater Management Agencies Association

Large Residential Rain Garden

Rain gardens are landscaped areas designed to capture and treat rainwater that runs off roof and paved surfaces. Runoff is directed toward a depression in the ground, which is planted with flood and drought-resistant plants. As the water nourishes the plants, the garden stores, evaporates, and infiltrates rainwater into the soil. The soil absorbs runoff pollutants, which are broken down over time by microorganisms and plant roots.

Rain gardens are a relatively low-cost, effective, and aesthetically pleasing way to reduce the amount of stormwater that runs off your property and washes pollutants into storm drains, local streams, and the San Francisco Bay. While protecting water quality, rain gardens also provide attractive landscaping and habitat for birds, butterflies, and other animals, especially when planted with native plants.

Is a Rain Garden Feasible for My Project?

Rain gardens are appropriate where the following site characteristics are present:

- Rain gardens should be installed at least 10 feet from building foundations. The ground adjacent to the building should slope away at a 2% minimum slope. A downspout extension or "swale" (landscaped channel) can be used to convey rain from a roof directly into a rain garden. Rain gardens can also be located downstream from a rain barrel overflow path.
- Rain gardens should be at least 3 feet from public sidewalks (or have an appropriate impermeable barrier installed), 5 feet from property lines, and in an area where potential overflow will not run onto neighboring properties.
- The site should have well-drained soil and be relatively flat. Soil amendments can improve infiltration in areas with poor drainage. Add about 3 inches of compost to any soil type and till it in to a depth of about 12 inches.
- A front or backyard can work well for a rain garden, especially in areas where the slope naturally takes the stormwater.

How Large Does My Rain Garden Need to Be?

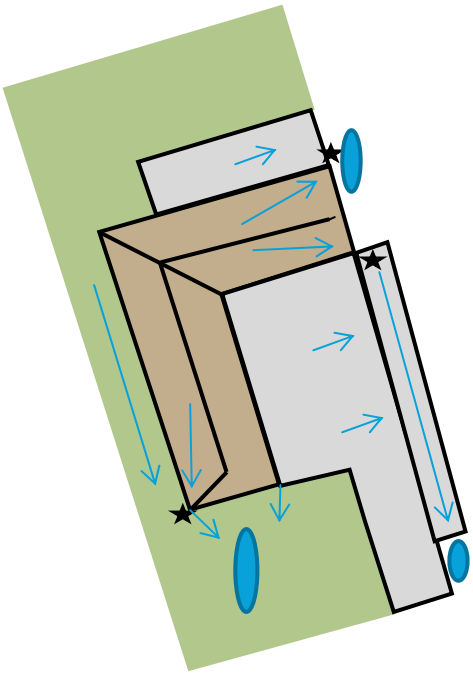
A general recommendation for a garden with a 6-inch ponding depth is to size the rain garden to approximately 4% of the contributing impervious area. Your soil type will affect how the rain garden should be sized because the water infiltration rate depends on the soil type; rain gardens should be larger in areas with slower infiltration. The following table can be used as general guidance.

Contributing Area (sq. ft.)	Rain Garden Area (sq. ft.)
500 – 700	24
701 – 900	32
901 – 1,100	40
1,101 – 1,300	48
1,301 – 1,500	56
1,501 – 2000*	70

*Projects adding roof or other impervious areas in excess of 2,000 sq. ft. should add 20 sq. ft. of rain garden surface area per every 500 sq. ft. of additional area.

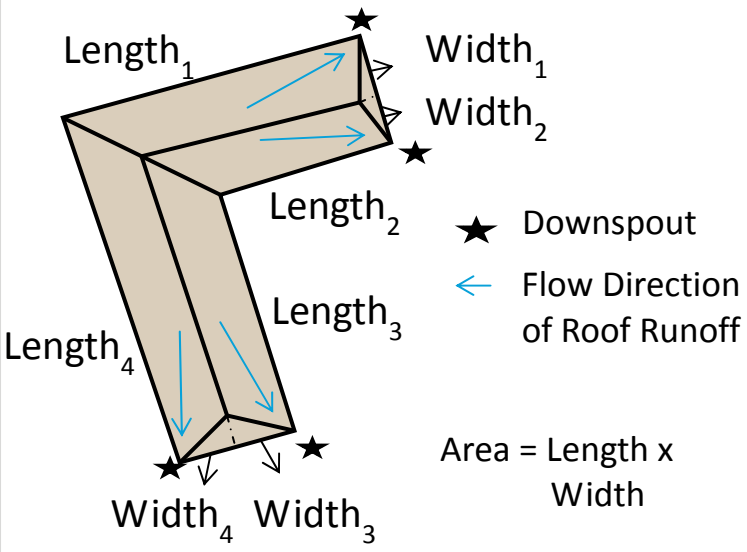
How to Plan and Install a Rain Garden

Select a Location and Plan for Overflow



- Before choosing the location of your rain garden, observe how rainwater is distributed across your home and yard. The ideal rain garden location is a flat or gently sloped area and is down slope from a runoff source.
- Site your garden at least 10 feet away from any structures (unless an impermeable barrier is used) and 5 feet from property lines.
- Avoid siting your garden over underground utilities and septic systems, near large trees, or next to a creek, stream or other water body.
- Your rain garden will overflow in large storms. Therefore, all garden designs should include an overflow system. One option is to build the perimeter of the garden so that it is perfectly level and to allow water to gently spill over the top during large storms. Another option is to build in a spillway that connects to another landscaped area, or the storm drain system.

Plan the Size of Your Rain Garden

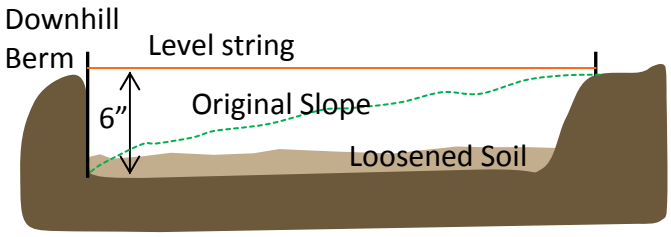


- Once you have determined where your garden will be sited, look at the surrounding area and identify which surfaces will contribute runoff to the garden. Is it all or just a part of the roof, patio, or driveway?
- Estimate the roof area by measuring the length and width of the building foundation and adding a few inches for the overhang. Multiply the length times the width to determine the contributing area. Once you have calculated the area of each contributing surface, add them up to obtain the total contributing area.
- Refer to the chart on page 1 to identify the size of the rain garden you will need to manage runoff from the contributing area.

If you do not have the space, budget, or interest in building a garden of this size, you may consider capturing some of your roof runoff in rain barrels to reduce the amount of runoff, or discharge the overflow to another landscaped area.

How to Plan and Install a Rain Garden

Install your Rain Garden



- Once you have selected a site and planned the size of your rain garden, lay out the shape using a string or tape to define the outline of where you will dig.
- If the yard is level, dig to a depth of 6-inches and slope the sides. If the site is sloped, you may need to dig out soil on the uphill side of the area and use the soil to construct a small berm (a compacted wall of soil) along the down slope side of the garden.
- Use a string level to help level the top of the garden and maintain an even 6-inch depth.
- Once the garden is excavated, loosen the soil on the bottom of the area so you have about 12 inches of soft soil for plants to root in. Mix in about 3 inches of compost to help the plants get established and improve the water-holding capacity of the soil.
- If water enters the garden quickly, include a layer of gravel or river rock at the entry points to prevent erosion.

Select Appropriate Plants


California Fuchsia


Common Rush


White Sage


Douglas Iris

You can design your rain garden to be as beautiful as any other type of garden. Select plants that are appropriate for your location and the extremes of living in a rain garden

Site Considerations:

- How much light will your garden receive?
- Is your property near the coast or located in an inland area (this affects sun and temperature)?
- Are there high winds near your home?

Recommended plant characteristics:

- Native plants adapted to local soil and climate,
- Drought tolerant,
- Flood tolerant,
- Not invasive weedy plants,
- Non-aggressive root systems to avoid damaging water pipes,
- Attracts birds and beneficial insects.

*Contact municipal staff to obtain a full list of recommended plants, provided in the countywide stormwater guidance.

Design Checklist

When installing a rain garden, the following design considerations are recommended.

- ❑ Locate the rain garden at least 10 feet from home foundation, 3 feet from public sidewalks, and 5 feet from private property lines. If rain gardens need to be located closer to buildings and infrastructure, use an impermeable barrier.
- ❑ Locate the rain garden to intercept and collect runoff from a roof downspout or adjacent impervious area.
- ❑ Size the rain garden appropriately based on the soil type and drainage area (see Page 1).
- ❑ Do not locate the rain garden over septic systems or shallow utilities. Locate utilities before digging by calling Dig Alert at (888) 376-3314.
- ❑ Locate the rain garden on a relatively flat area, away from steep slopes. If you plan on moving a large quantity of soil, you may need a grading permit. Contact your local municipality for further assistance.
- ❑ Consider installing an underdrain to enhance infiltration in very clayey soils. Contact municipal staff for guidance on how to properly install an underdrain.
- ❑ An overflow should been incorporated in the rain garden to move water that does not infiltrate to another pervious area and away from the home's foundation or neighboring property.
- ❑ Drought and flood resistant native plants are highly recommended and a variety of species should be planted. Avoid invasive plants. Contact municipal staff for a list of plants appropriate for rain gardens from the applicable countywide stormwater guidance. A list of invasive species may be found at the California Invasive Plant Council website (www.cal-ipc.org).

Maintenance Considerations

Once a rain garden is installed, the following steps will help the garden function effectively.

- ❑ Rain gardens should be irrigated periodically (as needed) during dry months, especially while plants are being established. Plants should be inspected for health and weeds should be removed as often as necessary.
- ❑ Apply about 2 inches of mulch and replace as needed. Mulch with a material that will not float away such as compost or a larger sized hardwood mulch (avoid microbark, for example).
- ❑ Areas of erosion should be repaired. Further erosion can be prevented by stabilizing the eroding soil with ground cover or using energy dispersion techniques (e.g., splashblock or cobbles) below downspouts.
- ❑ Avoid using synthetic fertilizers or herbicides in your rain garden because these chemicals are water pollutants.
- ❑ Standing water should not remain in a rain garden for more than 3 days. Extended periods of flooding will not only kill vegetation, but may result in the breeding of mosquitos or other vectors.

The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text, formatting and various images used in this fact sheet. Contra Costa County is acknowledged for an image used in the fact sheet.

RAIN BARRELS AND CISTERNS

Stormwater Control for Small Projects

Bay Area Stormwater Management Agencies Association

Daisy chained system of 205-gallon rain barrels
Courtesy of The City of Oakland

Rain barrels and cisterns can be installed to capture stormwater runoff from rooftops and store it for later use. They are low-cost systems that will allow you to supplement your water supply with a sustainable source and help preserve local watersheds by detaining rainfall.

Collected rainwater may be used for landscape irrigation. Subject to permitting requirements, harvested rainwater may be allowed for toilet flushing; contact municipal staff for more information. Capturing even a small amount of your roof runoff will have environmental benefits because it will reduce the quantity and speed of stormwater runoff flowing to local creeks.

Rain barrels typically store between 50 and 200 gallons. They require very little space and can be connected or "daisy chained" to increase total storage capacity.

Cisterns are larger storage containers that can store 200 to over 10,000 gallons. These come in many shapes, sizes, and materials, and can be installed underground to save space.

How Much Storage is Recommended?

The number of rain barrels recommended to capture runoff from a given roof (or other impervious area) is shown in the following table.

Are Rain Barrels or Cisterns Feasible for My Project?

Rain barrels and cisterns are appropriate for sites with the following characteristics:

- Roof areas that drain to downspouts.
- A level, firm surface is needed to support a rain barrel(s) or cistern to prevent shifting or falling over. A full 55-gallon rain barrel will weigh over 400 lbs.
- A landscaped area where the captured water can be used (and where it can be drained by gravity flow) should be located within a reasonable distance from the rain barrel(s).
- A landscaped area or safe path to the storm drain system that can handle overflow.

Roof or Impervious Area (sq. ft.)	Suggested Minimum Number of 55 Gallon Rain Barrels*
Up to 750	1-2
750 – 1,250	2-3
1,250 – 1,750	3-4
1,750 – 2,250**	4-5

* Or equivalent capture using larger rain barrels or a cistern.
** To harvest rainwater from an area greater than 2,250 sq. ft. install 1 additional rain barrel per each additional 500 sq. ft.

Components of a Rainwater Harvesting System

Roofing Materials

Wood shingle roof
Courtesy of Gutter Glove

Technically, any impervious surface can be used for harvesting rainwater; however, the surface materials will affect the quality of captured rainwater, which has implications for the recommended uses.

Although it is technically possible to harvest runoff from parking lots, patios, and walkways, it is more difficult since a subterranean cistern or a pump is usually needed to move the water into an above-ground rain barrel or cistern. Also, there are typically greater levels of debris and contaminants that must be filtered out of the runoff before it enters the storage system. Due to these complexities, it is more common to harvest rainwater from rooftops, which is the focus of this fact sheet.

When designing your system, consider the roofing material on the building.

- If you have asphalt or wooden shingles, use the harvested rainwater only for non-edible landscapes, unless the water is treated first. Petroleum or other chemicals from these roofing materials can leach into the rain water.
- Roofs with cement, clay, or metal surfaces are ideal for harvesting water for a wide variety of uses.

Gutters and Downspouts

Properly sized and maintained gutters and downspouts are essential to a rainwater harvesting system.

- Strategically locate any new downspouts in an area where the rain barrel or cistern will be most useful.
- Consider the height of the rain barrel and the first flush device. Existing downspouts may have to be shortened to make room for the rain barrel and first flush device.
- Install a fine mesh gutter guard on gutters to keep leaves and other debris from entering and clogging the gutters. This will reduce the need for cleaning gutters and the rain barrel or cistern.
- As needed, consult a professional roofer to aid in gutter and downspout installation.

This gutter is covered by a fine mesh gutter guard to keep debris out.
Courtesy of Gutter Glove

Components of a Rainwater Harvesting System

Rain Barrel and Cistern Accessories to Keep Water Clean

First flush and downspout diverter installation
Courtesy of The City of Oakland

Various accessories to rain barrels and cisterns help protect the quality of harvested water and reduce maintenance. These accessories include "first flush" diverters, filters, and screens.

Leaves, twigs, sediment, and animal waste are common in runoff, especially at the beginning of a storm ("first flush"). This debris can result in clogging and encourage bacterial growth. A first flush diverter helps remove debris and contaminants by directing the first few gallons of runoff from the roof to landscaping, away from the rain barrel or cistern.

The following tips will help you keep the water in your system clean.

- Install a first flush diverter directly under your downspout. You may have to cut the downspout to connect the first flush diverter above the rain barrel.
- Use the same diameter pipe for the first flush diverter, the downspout, and the connector to the rain barrel. Avoid changing diameters of pipes in order to keep the system from backing up.
- Design the first flush diverter to discharge the first flush to non-edible landscaping.
- Install mosquito-proof screens under the lid of the rain barrel and inside the overflow outlet.

Foundation and Overflow

Before installing a rain barrel or cistern, prepare the site so that the system will function safely.

- Find or create a level location near the downspout on which to place the rain barrel or cistern.
- A concrete or stone paver foundation may be appropriate for smaller rain barrels. A more substantial foundation will likely be required for large cisterns.
- Secure rain barrels and cisterns to your structure with metal strapping, or anchor to the foundation, to prevent tipping in an earthquake.
- Maintain clear access to the rain barrel outlets and cleaning access points.
- Design an overflow path, so that overflow from the rain barrel(s) will discharge safely to a landscaped area, or storm drain system.
- Where possible, direct overflow to a rain garden, swale, or other landscaped area to maximize retention of rainwater onsite.
- Direct the overflow away from the rain barrel, building foundation, and neighboring properties.
- Consult with the municipality to identify overflow locations.

Large unit installed at a single family residence.
Courtesy of Stephanie Morris

Design Checklist

When installing rain barrels and cisterns, consider the following criteria unless otherwise instructed by the municipality.

- ❑ Do not use flexible piping, to prevent mosquito breeding in water that may pool in flexible pipes. If irrigating edible landscapes, consider pipes that meet FDA food grade standards.
- ❑ When designing the overflow path, remember that in heavy storms rain barrels and cisterns *will* overflow. A 1,000-sq.-ft. roof will produce about 600 gallons of runoff during a storm that has produces a depth of 1 inch of rain.
- ❑ There shall be no direct connection of any rain barrel or cistern and/or rainwater collection piping to any potable water pipe system. Rainwater systems shall be completely separate from potable water piping systems.
- ❑ Place the bottom of the barrel at a higher elevation than the landscape, to use gravity flow.
- ❑ All rain barrels and cisterns should have a screen to ensure mosquitoes cannot enter.
- ❑ Allow overflow to drain to your landscape or a rain garden. Ensure that areas receiving overflow do not have standing water for more than 48-hours.
- ❑ The low water pressure from a small rain barrel will not operate in-ground sprinkler or low-volume devices. Consider using a soaker hose.
- ❑ If using a soaker hose, remove the pressure-reducing washer to increase the water flow.
- ❑ If the water is not needed for irrigation during the rainy season, consider releasing the water to a vegetated area between storms, so the barrels will be empty to catch rain from the next storm. This will help protect your watershed by reducing the quantity and speed of water entering local creeks during storms. Install a spigot and drip tape to allow the rain barrel or cistern to slowly drain between storms. You can store the water captured towards the end of the rainy season to irrigate your garden in the dry season.
- ❑ For more information, ask municipal staff to refer you to countywide stormwater guidance.

Operation and Maintenance

After installing your rain barrel or cistern, follow these tips for long-term safety and functionality.

- ❑ Regularly check the gutters and gutter guards to make sure debris is not entering the rainwater harvesting system.
- ❑ Inspect the screens on the rain barrel or cistern prior to the wet season to make sure debris is not collecting on the surface and that there are not holes allowing mosquitoes to enter the rain barrel. Inspect screens more frequently if there are trees that drop debris on the roof.
- ❑ Clean the inside of the rain barrel once a year (preferably at the end of the dry season when the rain barrel has been fully drained) to prevent buildup of debris. If debris cannot be removed by rinsing, use vinegar or another non-toxic cleaner. Use a large scrub brush on a long stick, and avoid actually entering the rain barrel. Drain washwater to landscaping.
- ❑ Clean out debris from cisterns once a year, preferably at the end of the dry season.

Daisy-chained system
Courtesy of Acterra

The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text and formatting used in this fact sheet. The City of Oakland, Acterra, Gutter Glove, and Stephanie Morris are acknowledged for images used in the fact sheet.

PERVIOUS PAVEMENT

Stormwater Control for Small Projects

Bay Area Stormwater Management Agencies Association

Permeable Interlocking Concrete Pavers

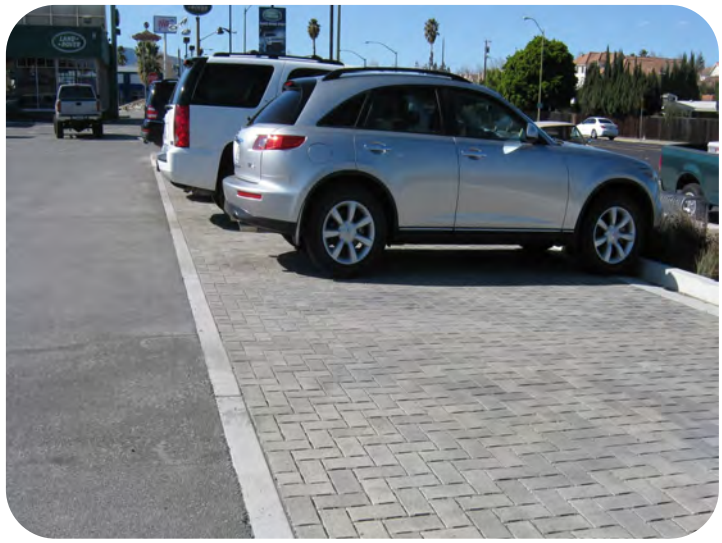
Pervious pavement, also referred to as permeable pavement, contains pores or separation joints that allow water to flow through and seep into a base material (typically gravel or drain rock). Types of pervious pavement include porous asphalt and concrete, open joint pavers, interlocking concrete or permeable pavers, and plastic or concrete grid systems with gravel-filled voids.

Pervious pavement systems allow infiltration of stormwater into soils, thereby reducing runoff and the amount of pollutants that enter creeks, San Francisco Bay, the Pacific Ocean, and other water bodies. This improves water quality, helps reduce creek erosion, and can facilitate groundwater recharge. Pervious pavement is available in many different types that offer environmentally-friendly and aesthetically pleasing options for driveways, walkways, parking areas, and patios.

Is Pervious Pavement Feasible for My Project?

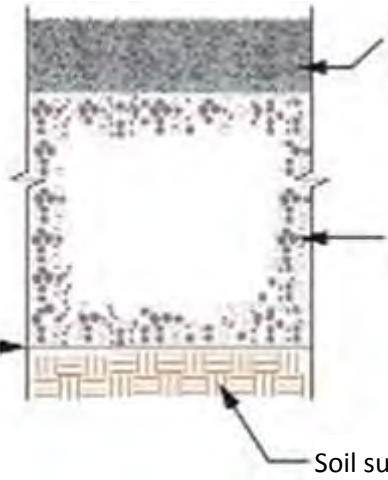
Pervious pavement is appropriate in locations with the following characteristics:

- The location is flat or nearly flat (a maximum 2% slope).
- The location is not in a seasonally wet area.
- The location is not close to a building foundation, unless measures are taken to prevent infiltration under the structure. (See Design Checklist.)

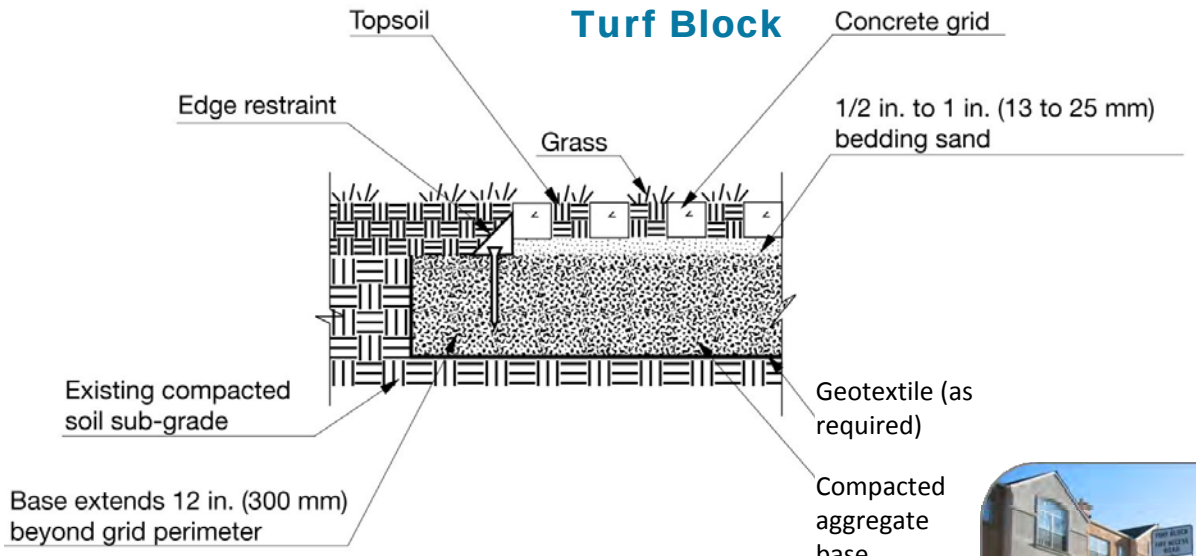


Typical Materials and Example Applications

Pervious Concrete

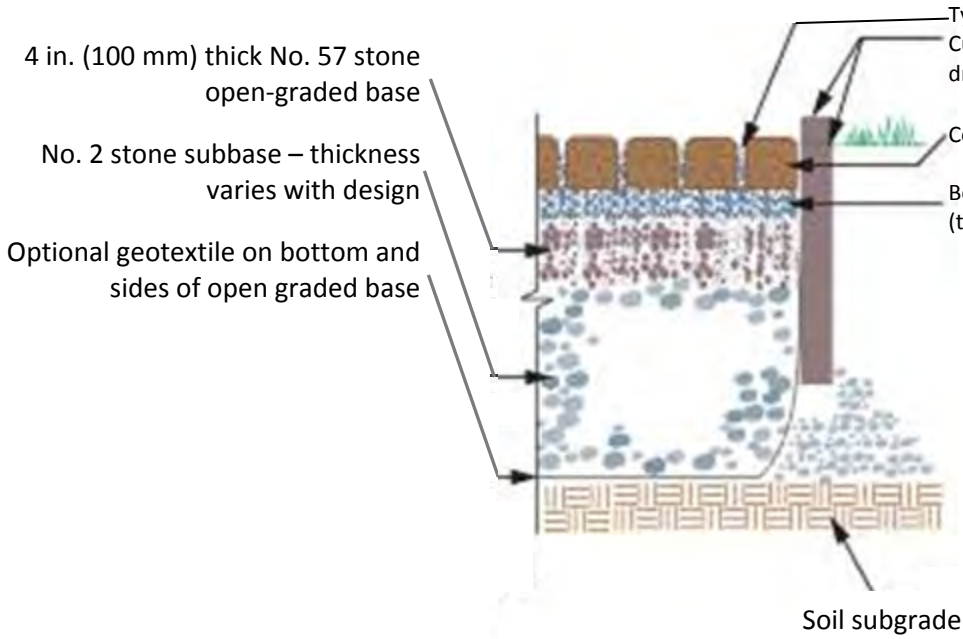


Turf Block



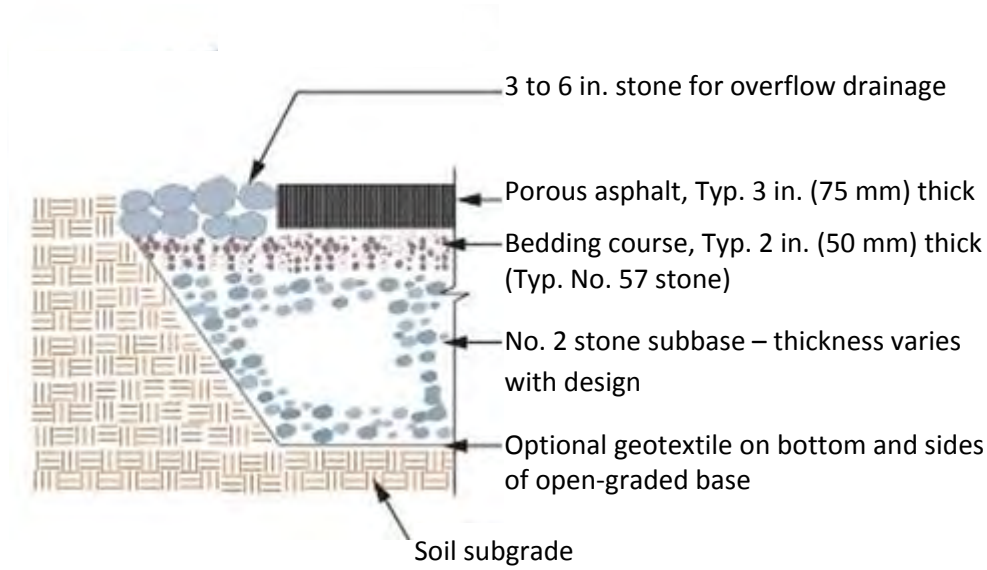
Typical Materials and Example Applications

Permeable Interlocking Concrete Pavers



Note: ASTM No. 3 or 4 stone may be substituted for No. 2 stone.
ASTM No. 89 or 9 stone may be used in the paver openings.

Porous Asphalt



Note: ASTM No. 3 or 4 stone may be substituted for No. 2 stone.
ASTM No. 89 or 9 stone may be used in the paver openings.

Design Checklist

When installing pervious pavement, the following design criteria should be considered.

- ❑ An open-graded base of crushed stone, which has 35 to 45 percent pore space, is installed below the surface pavement. The recommended base thickness is 6 inches for pedestrian use and 10 inches for driveways to provide adequate structural strength.
- ❑ Slope is flat or nearly flat (not greater than 2 percent).
- ❑ Flow directed to pervious pavement is dispersed so as not to be concentrated at a small area of pavement.
- ❑ No erodible areas drain onto the pavement.
- ❑ The subgrade is uniform and compaction is the minimum required for structural stability.
- ❑ If a subdrain is provided, its outlet elevation is a minimum of 3 inches above the bottom of the base course.
- ❑ A rigid edge is provided to retain granular pavements and unit pavers.
- ❑ If paving is close to a building, a barrier or impermeable liner may be required to keep water away from the building foundation.
- ❑ Pavers have a minimum thickness of 80 mm (3 1/8 inches) and are set in sand or gravel with minimum 3/8-inch gaps between pavers.
- ❑ Proprietary products must be installed per the manufacturer's specifications.
- ❑ The project complies with applicable sections of the current municipal code, including disabled access requirements and site drainage requirements, if applicable.

Maintenance Considerations

Once pervious pavement is installed, the following maintenance criteria should be followed:

- ❑ The use of leaf blowers on permeable pavement can force dirt and debris into pavement void spaces. Avoid blowing leaves, grass trimmings and other debris across permeable pavement.
- ❑ Remove weeds from pavement and replace missing sand or gravel between pavers as needed.
- ❑ Inspect subdrain outlets (if applicable) yearly to verify they are not blocked.
- ❑ Inspect pavement after rains for ponding or other visible problems. If there are problems with standing water, vacuum sweeping with specialized equipment may be required. Concrete grid pavers do not require sweeping.

Open Joint Pavers

The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text, formatting and various images used in this fact sheet. The Interlocking Concrete Pavement Institute is acknowledged for contributing pavement sections, design details and specifications. The San Mateo Countywide Water Pollution Prevention Program, Santa Clara Valley Urban Runoff Pollution Prevention Program, and City of San Jose are acknowledged for images used in the fact sheet.

April 30, 2018

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Cc: Jack Ainsworth and Madeline Cavelieri

Re: Comments on Draft Residential Policy Guidance

Dear Executive Director Ainsworth and Honorable Commissioners,

On behalf of the undersigned organizations (Organizations) representing hundreds of thousands of Californians, we submit the following comments for the Revised Draft Residential Adaptation Policy Guidance document (Guidance) as a follow up to our initial comments submitted on September 29, 2017. The Organizations are committed to protecting coastal habitat and public access in the face of sea level rise, and have worked toward the protection of California's iconic coastline for decades.

The Organizations applaud the California Coastal Commission (CCC) for its ongoing leadership on coastal adaptation and specifically for developing this residential adaptation guidance for local governments struggling to address the challenges and impacts of sea level rise (SLR). We appreciate the opportunity to review the Revised Draft.

Emergency Permits

The Revised Draft includes a new section, "Prepare for Emergency Permits," which includes the definition of an emergency permit and describes some parameters under which an emergency permit may be issued. This is a very important addition to the Guidance. The Organizations support the conditions described, including, any proposed emergency development should be the "minimum necessary to abate the emergency" and that the development be "temporary in nature," "easily removable" and include an expiration date. Further, model policy F.11 details those concepts well.

Unfortunately, under current interpretation, emergency permitting is acting as a loophole for development that would likely not otherwise be consistent with the Coastal Act. Often, less environmentally damaging alternatives exists but a thorough analysis is not done to sufficiently evaluate those options. Emergency structures are rarely the minimum necessary or easily removable.

We suggest including additional language in the Guidance within the Prepare for Emergencies section and in Model Policy F.11.

- **Define "emergency" as "a sudden unexpected occurrence demanding immediate action** to prevent or mitigate loss or damage to life, health, property or essential public services" per 14 Cal. Admin. Code Section 13009.
- **Further elaborate on what an "emergency" is *not***: "A bluff or structure that has been failing for years should not be accorded an emergency permit for repair or maintenance. Winter storms – and the associated erosion – are by no reasonable definition 'unforeseen.'" A property owner's lack of adequate planning should not be an excuse to force the CCC's hand.
- **Specifically recommend the use of softer solutions** for emergency armoring situations. Hard armoring should not be used in emergency permits.
- **Policy F.11 should include a special condition to evaluate alternatives including managed retreat** upon expiration of the emergency permit if a CDP is sought.

Existing Structure

The Organizations emphatically support the Revised Draft's inclusion of the definition of existing structure as development that existed as of January 1, 1977, which implies no development built after the Coastal Act is entitled to shoreline armoring and all new development must waive its rights to armoring. One of the most significant ways to protect our public beaches and coastal habitats for current and future generations is to include the definition of existing structures or development as it was originally intended by the Legislature and as included in the Revised Draft. It is the Coastal Commission other state and local governments' responsibility to protect public trust resources for public trust uses. While historical decisions may have included alternative interpretations of existing development, we commend the Coastal Commission for seeking to unify and standardize the definition across all jurisdictions.

The Coastal Commission reached the definition proposed in the Revised Draft through a robust and intentional analysis as part of the 2015 Sea Level Rise Guidance document development. The definition has become increasingly important given the emerging science on sea level rise and coastal hazards and the associated implications. A definition of existing development as any structure or development that exists at the time of a permit proposal would mean almost any structure on the coast of California is entitled to coastal armoring. More coastal armoring would allow more beaches and important coastal resources to disappear. Allowing more seawalls would not maximize access, protect beach ecology or protect public tidelands. Furthermore, mitigation is not equivalent to avoidance of impacts. There is simply no way to mitigate for the loss of public trust lands.

Beach recreation areas are typically free or low cost. They provide clean ocean air and cool temperatures to the general public that could be lost with coastal armoring, while private property owners would be able to still enjoy the coast. Furthermore,

the Revised Draft's definition will discourage new investment in coastal hazard zones. Ultimately, planned and phased withdrawal from the eroding shore is the best way to avoid the loss of public resources by allowing beach, dunes and wetlands to migrate inland.

Redevelopment

The Organizations appreciate the Revised Draft's expansion of the section, "Regulate Redevelopment." We wholeheartedly support the Guidance's inclusion of redevelopment in the Guidance. Structures that are redeveloped essentially constitute new development, extending the lifetime of a structure. Given that new development is not entitled to shoreline armoring under section 30235 of the Coastal Act, this is a very important distinction. It is imperative that local governments include the definition provided by the Guidance to evaluate and track structures and any development that may constitute or cumulatively add up to redevelopment. The definition fairly refers to major structural components that may extend the life of the structure. If the definition of redevelopment is not included as part of local jurisdiction's local coastal programs, existing development may be allowed to persist beyond the typical lifespan of a structure. This unfairly burdens the public by condemning coastal resources as subject to coastal armoring into perpetuity. The proposed definition of redevelopment is in line with the other recommendations laid out by the Revised Draft that include long term planning efforts such as restoration of natural coastlines and managed retreat.

The Organizations appreciate the Coastal Commission for their diligence and commitment to engaging local planners and the general public as part of the development of the Residential Guidance document. We strongly support the Coastal Commission's efforts to encourage proactive planning to prepare for and respond to sea level rise.

Sincerely,

Jennifer Savage
Surfrider Foundation

Susan Jordan
California Coastal Protection Network

Nancy Okada
Coastal Committee Co-Chair
Sierra Club California

Penny Elia

From: George Clyde
To: ResidentialAdaptation@Coastal
Subject: Comments re Patented Lands
Date: Monday, April 30, 2018 4:45:29 PM

Dear Coastal Commission Staff –

Below are my comments on the Draft Residential Adaptation Policy Guidance (March 2018). I am commenting as an individual.

I write to ask you to make clarifications in your discussion of the effects of sea-level rise as it affects ownership of patented lands. These are properties that by legislative act are privately owned, even though they include areas that are below the high-water mark, and in some cases below the low-water mark. Many of the coastal properties in Tomales Bay are in this category. Property descriptions are by metes and bounds and extend well below high-water mark.

Changes in the high-water mark as a result of sea-level rise will not affect the boundaries of these privately owned properties.

To be sure, the Public Trust Doctrine covers these private properties up to the high-water mark. However, the Public Trust Doctrine boundaries are different than property boundaries for these lands. Generally, the Public Trust Doctrine affects properties below the high-water mark regardless of the ownership. But, the Public Trust Doctrine boundaries, based on high-water marks, do not affect the ownership or boundaries of patented lands.

So, in your Responses to FAQs, Section 6, first paragraph, this statement is incorrect:

> *As described in the legal section of this Draft Guidance, the ordinary high-water mark, which is generally measured by the mean high tide line, delineates the boundary between public and private property.*

It is understandable that the responder to the FAQ misunderstood the law, as the legal section of the Draft Guidance has phrasing that confuses property boundaries with the Public Trust Doctrine, and never specifically addresses the effects of sea-level rise on patented lands. For example, this clause in the last paragraph of page 36 of the Revised Draft:

> *Accelerating sea level rise will likely lead to more disputes regarding the location of property boundaries along the shoreline, since lands that were previously landward of the mean high tide line have become subject to the state's ownership and protections of the public trust.*

For patented lands, ownership of the property is not affected by sea-level rise.

Likewise, the first sentence of the second paragraph on that page is not complete.

The public trust ensures that title to sovereign land is held by the state in trust for the people of the state.

In fact, the public trust doctrine ensures that all lands below the high-water mark, whether sovereign lands owned by the state or privately owned patented lands, are subject to a public trust easement.

My objective in writing this email is to ask you to revise that language in your legal

section, so the public does not make the same mistake. I suggest you separately address the effect of sea-level rise on patented lands.

If there is any doubt about this analysis, please review Marks v. Whitney, 6 Cal.3d 251 (1971), a landmark Public Trust Doctrine case based on Tomales Bay patented lands. Mark's and Whitney's fee ownership of their patented tidelands properties or the property boundaries was never questioned, even though they extended well below the high-water mark. But, still the Public Trust Doctrine easement applied.

In case it is useful, below are excerpts from Marin County's Marin Ocean Coast Sea Level Rise Adaptation Report[PDF], pp.. 80 and 81, which I believe addresses the issues clearly.

> *In a majority of cases, tidelands are owned by the State of California and managed by the State Lands Commission to promote and enhance the statewide public's enjoyment of the lands and ensure appropriate uses of public-trust lands. Even where tidelands have been granted to private parties or local governments, the state generally retains a public-trust easement and may limit the use of such tidelands.*
>
> *… .*
>
> *As mentioned previously, the general rule of state sovereignty in tidelands does not apply in all areas. In some parts of Tomales Bay, private ownership of the tidelands extends below the mean high tide line under patents issued pursuant to authority of the California legislature. These private-property owners own fee title to the tidelands that are within the deeded property boundaries, but the state owns any submerged lands below the mean low water line. Generally, the State Lands Commission requires leases for private piers or other improvements that extend either over submerged lands or in tidelands beyond the patented property boundaries. Additionally, the state retains its public trust easement over all privately owned tidelands.*
>
> Thank you for your consideration of these comments.
>
> George Clyde

From:	Lorraine Bannister
To:	ResidentialAdaptation@Coastal
Subject:	CCC's adaptation plan
Date:	Monday, April 30, 2018 11:39:36 PM

To whom it may concern

I have several comments and concerns, the following are just a few I would especially like considered:

Referencing:
A.7 Real Estate Disclosure pg.58
Has the real estate industry been contacted to review this policy? There are specific legal requirements for disclosures under current state law and this will have to be included once adopted.
What agency will deem real estate disclosures sufficient?
Cities & Counties typically do not track property transfers.
Does this policy intend to require a notice on each deed of properties within the Coastal Hazard area?
What will trigger an update of the real estate disclosures?

F.9 Limits on future shoreline armories Pg73
How would anyone get a loan or insurance on property with a deed restriction to prevent shoreline protection?

G.4 Sea Rise Hazard Overlay Zone pg.79
Will all property owners within the overlay zone receive certified mail notification of the new designation and rules that apply to their properties within the zone?

There are many more concerns in this 95 page draft the above just to name a few. I do hope concerns will be reviewed and responded to.
Thanks

Respectfully,
A concerned Pacifica Resident

Lorraine Bannister
Realtor #01119087
Better Homes and Gardens/JFF Realtors
650 455 1300 Mobile
Lorraine@gobhg.com
www.LorraineBRealEstate.com
Facebook | LinkedIn |Twitter |Yelp

From: Charles Caspary
To: ResidentialAdaptation@Coastal
Subject: Comments on Residential Adaptation 4/30/2018
Date: Monday, April 30, 2018 7:50:38 PM

Dear Coastal Commission,

1. Climate change projections are very consistent - more intense rainfall events are projected for the western United States, California in particular. In addition, more moisture is projected to fall as rain, vs snow in California. This means upcountry erosion is likely to increase due to higher runoff rates. Sediment loads that rivers and streams carry to the coast are going to increase. Because of higher flow rates, sediments will likely contain more coarse material which is known to be less subject to erosive power of waves at the coast. The Commission must insure that these sediments are returned to the coast to avoid sediment starvation. Flood control debris basins need to be excavated on a regular basis. The shame is that "scientists" on your staff prevent most of this material from being used for beach replenishment, saying "It's too fine", or "It's too coarse" This material always came to the beach before man interrupted the conveyance systems. (dammed up rivers, installed debris basins, etc.) In many parts of California this material consists of up-thusted marine sediments, aka "pre-historic beaches" Rather than pick on residential property to provide short sighted, one time, minimal amounts of beach replenishment, You MUST facilitate the restoration of up country sources and transport mechanisms of replenishment materials. This replenishment restoration will increase the success of so called "soft solutions" (Kelp forests, eel grass, etc.) that reduce wave intensity at the shoreline. (See USGS studies, the Bay Foundation, and others underway - reference them.)
2. Many coastal areas have developed coastal dunes through the use of groins to trap some of the littoral flows of sediment. Some of these areas now require sand to be hauled sway regularly to prevent roads, infrastucture, and yes, houses from being buried. See Ventura State Beach area for a case study. Dunes provide multiple benefits for wildlife habitat. The State has the power to implement construction of groins on an incremental basis. Much of the littoral sand that could be trapped by this method is lost into near shore deep canyons - See Port Hueneme area- just several miles below Ventura State Beach.
3. The Coastal Commission has issued many permits since inception. It has granted authority to local governments to do the same (See LCP-LUP) These permits are treated as contracts, The US Constitution and the California Constitution have protections on Contracts and protections of private property rights. The State (Coastal Commission) cannot unilaterally abrogate it's contract obligations by changing the law, or for example, re-interpreting what "existing" means.
4. I have observed that many grant funding requirements must show multi benefits and / or have a regional benefit that encompasses diverse stake holders. Grant qualifications change. The Coastal Commission has chosen to issue restrictive policy guidance on a very limited subset of coastal property types - RESIDENTIAL. This laser focus makes no sense.and may prevent regional solutions that have multiple approaches and property types, including residential. This short sighted approach will prove to be harmful to collaborative approaches / solutions. We all want projects where everybody wins.

5. I have not seen any economic analysis of these policy changes. Property owners and local governments may suffer substantial losses - at least a range of impacts should be discussed along with mitigation strategies.
6. The Coastal Commission treats much of the data it has accumulated as top secret. How many PRRs do you get by month and year? Open up your files - publish a list of everything - these files were accumulated / created at public expense. Your exceptions claimed as "deliberative process, enforcement action, or personnel records cover a very small percentage of the public record.

I appreciate the additional outreach you have conducted in this matter.

Sincerely

Charles Caspary

cfcaspary@gmail.com

cell 818-384-4074

HALF MOON BAY COASTSIDE
CHAMBER OF COMMERCE & VISITORS' BUREAU
It's your connection

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Half Moon Bay, CA 94019
(650) 726-8380
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www.hmbchamber.com
www.halfmoonbayecotourism.com

April 25, 2018

TO: California Coastal Commission

FROM: Half Moon Bay Coastside Chamber of Commerce & Visitors' Bureau

RE: Residential Adaptation Policy Guidance

On behalf of the Half Moon Bay Coastside Chamber of Commerce & VB, we respectfully request that you consider the following amendments to the Residential Adaptation Policy Guidance – March 2018 DRAFT (RAPG). This is a document that will alter the Coastline of California for years to come.

Let us first say that we embrace the idea of planning ahead and completely support the concept of being prepared for sea level rise. But, any guidance document that has the impact of providing guidelines to condemn homes and, ultimately businesses we presume, should include the highest level of public input.

One major item that must be addressed prior to the adoption of the RAPG is the fact that it re-defines "existing structures" as those that were built prior to January 1, 1977, the date the Coastal Act went into effect. This change will have a detrimental impact on property owners all along the coast, yet is something about which only a handful of coastal Californians are aware.

Another glaring problem is that the Residential Adaptation Policy Guidance only addresses residences. It is impossible to separate residential from commercial and public facilities. Looking at it from a residential-only perspective will serve to condemn thousands of homes prematurely that would have been protected by seawalls or other armoring for neighboring commercial or infrastructure purposes.

There are many more consequences of the RAPG that require your attention, most profoundly, the long term effect on not only residential structures, but businesses and public buildings as well for many generations to come. This document must be well thought out and have input from many sectors to avoid untold ramifications; ie, insurance agents, contractors, environmentalists, seismologists, etc.

Thank you for your consideration of this request.

Sincerely,

Ginger Minoletti
Chamber Board of Directors, Chair

Charise Hale McHugh, ACE
President/CEO

Matella, Mary@Coastal

Subject: FW: comments
Attachments: dlCCC SLR comments 3-19.docx; dlRAPG Facts.docx

From: Judy Taylor
Sent: Monday, April 30, 2018 5:16 PM
To: residentialadaptation@coastal.cal.gov
Subject: comments

My comments are attached.

Judy Taylor
BRE 00603297
Alain Pinel Realtors
42 N. Cabrillo Hwy
Half Moon Bay, CA 94019

The economy is a wholy owned subsidiary of the environment, not the other way around.
Gaylord Nelson

CCC'S RESIDENTIAL ADAPTATION POLICY GUIDANCE FACTS

- The Residential Adaptation Policy Guidance (RAPG) moves forward with guidelines on residential but not on commercial or public facilities. Our communities include all three and there is no clear delineation between them. Because of our development type, it is impossible to deal with one property type, ignoring the adjacent business or street that carries the sewer pipes.
- The RAPG states that any type of armoring is harmful, when, in fact, the berm in Pacifica provides a habitat for endangered species, in addition to protecting homes and the golf course.
- The RAPG was created by Coastal Commission staff without public input or consultation with the industries impacted, such as property and liability insurance and lenders.
- If a home or business is drawn into one of the vulnerability zones, and the owner would like to make modifications to his or her property, he or she will be forced to agree that the property will not be armored or protected. If a property is drawn into one of the vulnerability zones, it will be restricted in the amount of remodeling or modifications he or she can make to a property.
- If a property is drawn into one of the vulnerability zones, it could make it difficult to get a loan or obtain insurance.
- If a property is drawn into one of the vulnerability zones, the owner may be required to prove that he or she has sufficient resources to remove his or her home when the CCC and the city government decide it is necessary. According to the RAPG, hotels and multi-family properties will be required to provide a bond, letter of credit, cash deposit, lien agreement to prove there are resources to remove the building.
- If a home is drawn into one of the vulnerability zones, property values will decline. This could affect property values in adjacent neighborhoods and even the remainder of cities on the coast.
- Some of the properties that are drawn into any of the "vulnerability" zones will be condemned. The CCC and the local government will decide which properties will be condemned and when that will happen.
- If a property was built **after** January 1, 1977 – even though the owner received prior permission from the CCC to build – it is ineligible for any type of protection or armoring, even if neighboring properties are eligible.
- If a property was built **before** January 1, 1977, it might qualify for temporary shoreline armoring or other protections. But, this is <u>not</u> the case if the property has been remodeled or modified in the past 40 years.
- Taxes will be impacted as properties are condemned and public utilities are forced to be relocated, while tax-generating commercial properties are lost, as well.
- Increased litigation between property owners and governmental agencies will occur, at the expense of the taxpayers.
- The CCC has committed to "managed retreat," which will result in increased pressure on all property owners on the coast to surrender their property in the shortest timeframe legally possible.

Page 1, P3-not just residential, also private visitor serving, i.e. Mirada Rd

Page 1, P4, Page 4, P1-not following their own assertion of need for public input

Page 2, P1-not just for residential

Page 3, P2-disingenuous language…"advisory and not regulatory"

Page 4, P4-inadequate participation

Page5, P1, always detrimental? Situations where there is improvement?

Page 6, P3-environmental justice for property owners?

Page 7, P1, "can" threaten

Page 9, P3-will this document set the floor or the ceiling?

Page 17, P2-completely leave out private property rights, no issue with the bullet points

Page 17, P3-how to insure freedom to modify?

Page 17, P4-mapping conflicts, what happens when owner has more favorable than agency?

Page 18, P3-no mention of property owners and again calls for public participation. Disclosures, etc. needs expert input.

Page 19, P3-lots of requirements and musts.

Page 19, P5-50% of the cost of a structure could be very restrictive, whichever friendlier?

Page 20, P1-will CCC approve the disclosure language?

Page 20, P3-why only allow the proposal of the minimum if that will require redoing?

Page 24, P1-again, in very strong terms, calls for public participation

Page 27, P1-too restrictive?

Page 27, P4-Community character trumps private property rights?

Page 27, P5-"eventual structural relocation or removal may be needed" burden of proof needs to be on the denial, not the use.

Page 28, P5-that there will be options for communities to accept or reject and that there will be economic loss and displacement of residents needs to be wrote big.

Page 29, P1-will the CCC commit to being friendly to opening new areas to development?

Page 29, P2-remove TDRs. They will NEVER be approved by the CCC.

Page 32, P3-NO. No. No. January 1, 1977-"most reasonable"???

Page 33, P4&5-allow protection unless negative impact or a takings.

Page 34, P2-burden should not be on the property owner to prove it is not a takings.

Page 48, P4-needs to be stressed.

April 30, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
Attn: Mary Matella
45 Fremont Street, Suite 2000
San Francisco, CA 94105
Via Electronic Mail Only: ResidentialAdaptation@coastal.ca.gov

Re: Comments on *March 2018 Revised Draft Residential Adaptation Policy Guidance*

Dear Ms. Matella and members of the Sea Level Rise Working Group:

The Environmental Action Committee of West Marin (EAC) commented on the California Coastal Commission (Commission)'s *July 2017 Draft Residential Adaptation Policy* (2017 Draft Guidance) and appreciates that the Commission staff's efforts to incorporate many of our comments into the *March 2018 Revised Draft Residential Adaptation Policy Guidance* (2018 Revised Guidance). EAC offers the following additional comments on the 2018 Revised Guidance and appreciates the Commission's continued guidance on this important and complex topic.

As background, EAC continues our extensive involvement with the Marin County Local Coastal Program (LCP) Amendment process, which has informed our knowledge of environmental hazards. EAC also continues our involvement with Marin County's Collaboration: Sea-level Marin Adaptation Response Team (C-SMART) process, as well as the Bolinas Lagoon North End project.

As an overall comment, the 2018 Revised Guidance presents many strong proposed approaches and policies for local municipalities to

address sea-level rise (SLR) through LCPs. The revised version contains many improvements and helpful elaborations.

Definition of "Existing" and "Redevelopment"

An area of sea-level rise planning that may require some additional clarification for the community and Marin County planners are the definitions of "existing" structure and "redevelopment." EAC offers a suggested clarification regarding the definition of "existing" structure and its relationship to Marin County's Certified LCP.

Regarding the definition of "existing" structure with respect to shoreline protective devices, there is a contradiction in the April 10, 2018 comments submitted to your Commission by Marin County's Community Development Agency (CDA). The CDA's comments discuss investment-backed expectations, saying that they are based on the "plain meaning" of "existing" as something that is there at the time of a coastal development permit application:

> The investment-backed expectations with which local governments are concerned today, are the expectations resulting from forty-plus years of permitting development as if 'existing' were used in its plain meaning. That is, if something is already there when an application is made for a permit or LCP, then it is existing.[1]

The problem with the above statement is that Marin County's Certified LCP precisely defines what existing means: "…protect existing structures (constructed before adoption of the LCP)…."[2] Moreover, CDA takes the concept of investment-backed expectations, which are typically associated with taking claims, out of context and extrapolates it to an extreme. The decision to grandfather existing structures at the time the Coastal Act was enacted, in order to avoid wholesale taking claims, was a discrete instance. It does not follow, as CDA argues, that all subsequent permitting creates the same expectations.

As a general point, EAC is supportive of the Commission's interpretation of "redevelopment." In particular we note that some commenters, purposefully or not, appear to conflate redevelopment with repair and maintenance in order to challenge the Commission's definition of the former. We support the Commission's FAQ Response 4 on this point.

Successes of the 2018 Revised Guidance

In our September 27, 2017 comment letter to the Commission regarding the 2017 Draft Guidance, we listed positive examples from the 2017 Draft Guidance. The 2018 Revised Guidance builds on many of these points.

[1] *See* Marin County CDA, Comments submitted to the Commission, dated April 10, 2018, page 3, available at: https://www.marincounty.org/~/media/files/departments/cd/planning/local-coastal/newdocs/180409marincofinallettercccresidentialadaptationpolicyguidance.pdf?la=en

[2] *See* Marin County Certified LCP, Unit I, page 42, policy 5; *see also* Marin County Certified LCP, Title 22I, Zoning (Interim), page 78, pp. 109-10 & 117.

EAC is supportive of an emphasis on nature-based adaption solutions rather than coastal armoring, as is included in the 2018 Revised Guidance[3]. The additional language added on page 26 is helpful.

Both the 2017 Draft Guidance and 2018 Revised Guidance successfully:

- Emphasize use of the best available science.[4] The additional language in the 2018 Revised Guidance strengthens the document.
- Emphasize the importance of maximum public access[5] and protection of coastal resources[6] in light of SLR and the Coastal Act[7], ensuring that the California coast is protected for both present and future generations.[8] The increased references to the importance of Coastal Act compliance makes the guidance stronger.
- Encourage policies that seek to avoid the "coastal squeeze" and preserve important intertidal and low-lying habitats[9], which are especially important for shorebirds and other species. EAC appreciates the additional detail that was added regarding the importance of our coastal resources and the reference to the Pacific Americas Shorebird Conservation Strategy.
- Employ a suite of strategies and offers flexibility for different municipalities and geographic types (i.e. typologies).
- Employ a proactive and phased approach to SLR adaptation.
- Emphasize the need for regional collaboration, especially around infrastructure and transportation planning.[10]
- Place emphasis on the need for "enhanced community participation" and a community-based approach.[11]

In our September 27, 2017 comment letter, we also provided some recommendations regarding additional elaboration on the typologies and potential funding sources. The revisions to Table 1[12] and the example sections are helpful and easier to understand, including the addition of photograph of Marshall on page 10. The funding source table in Appendix A is also a very good addition, as it provides helpful resources for communities.

Thank you for your consideration of our comments and your continued dedication to SLR adaptation and community participation.

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[3] *See* 2018 Revised Guidance, page 26.
[4] 2018 Revised Guidance, page 52, A.1. *Identifying and Using Best Available Science*
[5] *See* 2018 Revised Guidance, p. 46
[6] 2018 Revised Guidance, passim
[7] 2018 Revised Guidance, pages 31-33
[8] *See* 2018 Revised Guidance, pages 17 & 76
[9] *See* 2018 Revised Guidance, pages 5 & 26
[10] *See* 2018 Revised Guidance, pages 7-8 & 49-50
[11] *See* 2018 Revised Guidance, page 8 & 20
[12] See 2018 Revised Guidance, page 9

Respectfully,

Morgan Patton
Executive Director

Ashley Eagle-Gibbs
Conservation Director

From:	Jim Nakagawa
To:	ResidentialAdaptation@Coastal
Cc:	Hall, Andy@City of Imperial Beach; Edward Spriggs; Dush, Steve@City of Imperial Beach; Bragado, Nancy S; Wiggins, Ryan; Carney, Kaitlin@Coastal; Lee, Deborah@Coastal
Subject:	RE: Revised Draft Residential Adaptation Policy Guidance
Date:	Monday, April 30, 2018 5:28:31 PM
Attachments:	IB"s CCC Residential Adaptation Policy Guidance Comments Final 9-29-17.pdf

The City of Imperial Beach is providing comments submitted previously in response to an earlier version of the Residential SLR Guidance. We feel that this revised version does not completely address issues raised with the previous comments.

The guidance document explains the Commission's rationale and position on sea level rise planning. We found the Commission's rationale for their previous 2015 SLR Guidance somewhat weak. If one of goals of the Coastal Act (through the Coastal Commission) is to maintain a sandy beach so that visitors (particularly disadvantaged populations) can have access to coastal resources, why should coastal dependent uses be allowed hard protection of the back beach that would cause passive erosion? We believe a more fair way of addressing this issue would be to require any new development (coastal dependent or residential) that proposes hard protection to mitigate for sand loss through fees, sand replenishment, or soft structures such as a living shoreline or artificial dunes.

We are heartened to see the document identify Adaptation Pathways (what we called "triggers" in our SLR study) as an helpful approach to consider.

Jim Nakagawa, AICP
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From: California Coastal Commission [mailto:california@coast4u.ccsend.com] **On Behalf Of** California Coastal Commission
Sent: Friday, April 27, 2018 11:30 AM
To: Jim Nakagawa <jnakagawa@imperialbeachca.gov>
Subject: Revised Draft Residential Adaptation Policy Guidance

Public Comment Period ends 4/30/18

Revised Draft
Residential Adaptation Policy Guidance

Comment Period ends 4/30/18

Download the
Revised Draft Residential Adaptation Policy Guidance

This is a reminder that the Coastal Commission's public comment period for the Revised Draft Residential Adaptation Policy Guidance closes **Monday, April 30th.**

The new policy guidance is a next step and builds on the Coastal Commission's 2015 Sea Level Rise Policy Guidance, which set forth broad principles related to planning for sea level rise. The Residential Adaptation Policy Guidance provides a more in-depth discussion of sea level rise adaptation policies specifically related to residential development and sample policy language that cities and counties could modify for use in different community and geologic contexts.

Past webinar recordings, Coastal Commission hearing presentation, and downloadable documents are available at our guidance **webpage.**

Questions?
Please contact the Coastal Commission Sea Level Rise Working Group at ResidentialAdaptation@coastal.ca.gov

Submit Comments

Please submit written comments to CCC by April 30, 2018, by email to ResidentialAdaptation@coastal.ca.gov or by US Mail to the address:

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Visit our website

COMMENTS ON RESIDENTIAL SEA LEVEL RISE GUIDANCE

Ed Spriggs Councilmember, City of Imperial Beach
Southern Area Representative to Leadership Committee
Coastal Cities Interest Group, League of California Cities

September 29, 2017

Dear Coastal Commission Staff:

Thank you for the opportunity to comment on the Draft Residential Sea Level Rise Guidance. This Guidance is very important for residents of Imperial Beach, over 80 percent of whom live in the coastal zone, for the municipality itself, given that it is surrounded on three sides by tidelands and has already experienced periodic nuisance flooding during king tides combined with storm surges and rainfall, and for coastal residents and businesses in Imperial Beach, all of whom currently are protected by seawalls or revetments that run the entire length of Imperial Beach's developed shoreline.

I am also grateful to serve as the League's southern area representative on its CCIG Leadership Committee, which covers coastal San Diego County. These coastal communities face conditions both similar to and different from those of Imperial Beach, and in addition include extensive bay and harbor development, bluff development and related protections and, like Imperial Beach, valuable wildlife habitats, public beaches and related visitor serving infrastructure and services. Every coastal community that I am familiar with very much wants to protect and preserve its attractive natural environment, including beaches, while also addressing the economic and recreational needs of the municipality, and its residents and visitors.

My comments are supplemental to those submitted by the City of Imperial Beach, and are fully compatible. My perspective is that of an elected who is deeply involved in the LCP amendment process, SLR issues and the issues and concerns of Imperial Beach residents, including those in hazard zones.

Among the strong points within the draft are its acknowledgment that the document represents "guidance" rather than regulation which, in addition to the several coastal typologies and case studies it contains, is a welcomed recognition of just how diverse California's developed coastal communities, and their environmental and geological settings, are. The inclusion of a section on community scale adaptation planning is a very useful and positive step away from the more parcel-oriented approach we seem to have fallen into, possibly as a result of years of Commission (rather than local) processing individual permit applications. Recognition of the importance of phasing adaptation strategies and use of trigger-based approaches should be helpful for communities with complex, diverse conditions and threats. Another very favorable aspect of the draft is its apparent recognition of the need for flexibility in allowing adaptation approaches that address unique community circumstances. The key implication of this stated flexibility for coastal communities facing the complex challenges of SLR is that we each may need to address coastal development as well as LCP amendments and updates in manners that may not always fall within the precise framework of the final residential guidance, more so if it is written, interpreted or applied in an ironclad manner.

Given this more permissive or flexible approach reflected in much (but not all) of the narrative, I would hope that Commission staff particularly would see the guidance, once finalized, not as an ironclad framework or checklist, but rather as a starting point. Such an approach would be consistent with the new partnership between Commission and cities suggested by Executive Director Jack Ainsworth during the afternoon he spent with the League's CCIG Leadership Committee back on August 14 of this year, a partnership that reflects a recognition that cities, too, want to preserve their beaches and other environmental assets for the benefit of their residents, businesses, visitors/tourists and, of course, city revenues.

Accordingly I will focus my specific comments on the sections of the draft that appear to me to be inconsistent with these core values: "guidance" not law; flexibility, and partnership that includes a reasonable deference to local municipal conditions, analyses, good intentions and professionalism). Specific comments:

1. Guidance, not law. The preamble to the guidance ("How to Use this Document") makes it clear that the guidance is advisory and not a regulatory document or legal standard of review for Commission or local government actions under the Coastal Act – that is, not an elaboration or interpretation of the Coastal Act. The highlighted "Note" at the end of the Introduction (p.2) is a more detailed statement as to the flexible use of the guidance. However, the wording of several provisions in the guidance seems to cloud this key principle:
    a. Reference to "formal adoption" by the Commission (p. 1, para 1) clearly seems to imply that the guidance will become Commission policy, as opposed to helpful, suggested guidance to Commission clients;
    b. Reference to LCP amendments needing to "reflect the recommendations in this document" (p.4) reinforces a mandatory or checklist use of the guidance in the context of LCP updates;

2. Overstating the Conflict Between Residential Development and Public Access. The second paragraph (p.1) clearly frames the challenge presented by coastal development in the context of the Coastal Act, but assumes there is an inherent conflict requiring "existing" development to eventually give way in order to preserve public access. Vertical access is provided by public infrastructure in many communities and horizontal access can be preserved, or in some cases reestablished, through natural adaptation measures, or through enhancements to public access elsewhere within the same community. In the case of Imperial Beach and other communities (and State-wide), only a portion of the total beachfront is developed.
3. Typologies. Inclusion of "Shore development typology groups" (p.5) seems intended to be helpful, but could tend to make everyone (including Commission staff) try to "fit" their project or LCP into these categories, which will not work in many cases. California's coastal variety and complexity (Imperial Beach fits two categories, plus one not included – Bayfront) make such typologies illustrative and non-all-inclusive, which should be more clearly stated.
4. Policy Options. Table 2 (p.6) needs a preamble noting that the list is not exhaustive and localities may choose others (e.g., groins in sec. F). See Imperial Beach staff comments.

5. Policy Options -- Beach Management Plan. Table 2 (p.7) item G.8 while well-meaning is a new "requirement" as well as being somewhat redundant with all of the other provisions in community scale planning having to do with the beach itself. Also, beach management plans would need to incorporate adjacent commercial or public recreational areas, not just residential areas of the beach. Also, establishing minimum beach widths should be optional or tailored to local variable conditions since everything can change with one storm event and one or more full seasonal cycles may be required before beach width is restored to prior condition. Recommend you add this plan requirement in the future only if needed.
6. Policy Recommendations -- Use Best Available Science. A good principle (p.7) that can become problematic when new SLR estimates come out after a recent vulnerability assessment using the best science at the time (say 2-5 years ago). Analyzing "the high projections" of SLR, which are now beyond 2 meters by 2100, could, if communities are forced (strongly encouraged) to use it, be inconsistent with the phased or trigger approaches to adaptation planning, causing undue harm to values and revenues decades before new planning and implementation may be required. A related point: there is not yet a State or national consensus on the SLR challenges that coastal California is addressing, and therefore no major allocation of State or federal funding or financing mechanisms that spread the financial burden of adaptation implementation beyond the coastal communities themselves, most of whom are small and unable to fund infrastructure, beach replenishment, or buy-outs on their own. Phasing will enable the political consensus to catch up to the scientific and on the ground realities, eventually. So, forcing a planning process NOW for the maximum SLR under the rubric of using the best available science is a trap the guidance – and its later interpretation by the Commission and its staff -- should clearly avoid. The draft guidance seems consistent with this point on p. 11, Analyzing Alternative Adaptation Strategies, 3rd paragraph.
7. Policy Recommendations – Regulate Redevelopment. The redevelopment concept (p.8) seems to be a relatively new hybrid to cover the area between new development and renovations, repairs, improvements, and not clearly covered in the Coastal Act, making this a potential quasi-regulatory expansion of Act requirements if we are not careful. Local jurisdictions should have the maximum flexibility to address this gap area, based on local conditions and a coherent LCP approach. Again, interim or phased solutions should be encouraged, such as elevation of properties on an individual scale, or improved seawall or revetment protection combined with beach replenishment or soft protections on a community scale, with the latter creating space for property improvements (including possibly "redevelopment") so long as full disclosure is provided and public access interests are protected.
8. Siting New Development. This section (pp. 11-12) refers to "all types of development" not just residential development. Applicability to residential should be clarified to avoid broadening this guidance beyond its intended purpose, and to recognize that other development (e.g., hotel or other quasi-public uses) may contain inherent justifications for exception. Please see Imperial Beach staff comment.
9. Developing Adaptation Strategies for Specific Areas. This discussion (pp 9-14) is generally very helpful, particularly when tempered by the statement that for purposes of implementing the Coastal Act, "no single category [protect, accommodate, retreat] or even strategy should be considered the 'best' option as a general rule." Regarding the

managed retreat portion (p.14), my comment as a locally elected official is that although this will be inevitable at certain points in the future that vary from area to area, even possibly *within* a community as small as Imperial Beach, municipalities and their citizens, as a general proposition, have a right to exist and to remain economically, socially and environmentally as viable as possible for as long as feasible. The statement that retreat is more cost effective than armoring over timescales greater than 25 years, may apply to less dense areas where the retreat options do not involve moving an entire low-lying municipality. Moreover, the cost of buyout, demolition, and restoration to sandy beachfront, of urbanized coastal areas needs much more study before this statement can be considered applicable to many coastal cities in California.

10. Legal Considerations -- Protection of "Existing" Structures. The Commission's interpretation of the Coastal Act, that essentially grandfathers in the legality of revetments and seawalls protecting structures built before January 1, 1977, while making the protection of more recent structures legally suspect, flies in the face of the fact that much of California's coastal development (perhaps most of it in terms of value) has occurred *since* that date. This is a matter of great concern to coastal cities. The Commission should let go of this forced interpretation and allow LCP's to address adaptation on a community-wide basis that can include consistent treatment of revetments and seawalls within a broader community-based strategy of "mitigating adverse impacts on local shoreline sand supply." This should eliminate current uncertainties and inconsistencies inherent in a property by property approach. See also Model Policy Language F-1. F-4 restrictions on improving and strengthening shoreline protective devices should not be precluded per se, particularly when the LCP contains a community wide mitigation arrangement.
11. Model Policy Language—A.7 Real Estate Disclosure of Hazards. This appears to be covered already by established real estate industry disclosure requirements. Matters already covered should not be added to LCP requirements.

Thank you for the opportunity to comment and best regards,
Ed Spriggs
Councilmember
City of Imperial Beach

City of Imperial Beach Staff Comments Regarding California Coastal Commission Residential Adaptation Policy Guidance

IB Staff would suggest that the following guiding principles be added to the Introduction of the Document:

1. Emphasize the document is not regulatory and that only when a municipality's LCP is silent on an issue, would guidance to assist in decision making be sought from these guidelines.
2. All protective devices should be permissible under the right circumstances. The absolute prohibition of any device or technique does not provide maximum flexibility for local coastal community needs. For example, Imperial Beach's LCP currently permits both hard and soft armoring and in order to address its local needs and community resiliency, both hard and soft armoring options need to be tools available.
3. Certainty and reliance for development activities necessary for the overall community health need to be assured, so the ability to rely upon an adopted LCP and the science upon which it was developed need to be static until consensus on new science is achieved or an update to the LCP is performed.

Table 2, page 6 –"List of model policy options": Add a preamble, suggested language: "The following policy options are not absolute and shall be determined at a Local Level and predicated upon locally adopted triggers"

Page 8 - Disclose Risks to Property Owners section: the last sentence should be reworded as following: Thus, LCP updates that account for the intent of Policies A.1-A.7 and G.1-G.2 may be considered.

Page 11-12 – Siting New Development section – the last sentence should be reworded as follows: "Providing for exceptions where there is a need to permit new development in a hazardous area to ensure community vitality and resiliency may be accommodated provided coastal access is maintained and enhanced.

Page 14 – Managed Retreat – The study cited that asserts retreat is more cost effective than maintaining armoring – to make this assertion for one of the basis of retreating seems cavalier in light of the complexities associated with individual community economics, land use, physical community development, geography, armoring techniques, etc. Staff would suggest this statement be eliminated as it does not account for the aforementioned complexities.

Page 27 – Legal framework flow chart: The term "economically viable" should be defined, should be defined by the local community and consider the community's overall economic health.

Page 29 – Adaptation Pathways – great concept as it establishes an approach that is locally based and inclusive of "event triggers". This trigger approach as depicted by Figure 3 on page 31 – is based upon events, which are local, and as such provide an incremental and pragmatic method to address SLR that will most likely have greater community support. This is one reason why all shoreline protection devices and techniques need to be permissible for each community because of its individual and unique complexities may determine through its LCP which approach is best.

Page 43 – B. Avoid siting new development… - This entire section should incorporate a preamble that recognizes the individual community's economic health and adaptation pathways.

Page 46 – B.* Nonconforming Structures: This section is problematic as it seems to leave only retreat as an option to address SLR. There should be an acknowledgement that these structures may remain in the context of an overall adaptation strategy that is trigger based. If the "event triggers" are not happening, then redevelopment and development and non-conforming structures should remain.

Page 47 – Exceptions – the definition of reasonable economic use should be defined by the community and take into account its overall community's economic health.

Page 48 – managed retreat D.1 – this section is problematic. It would severely limit any development opportunities by requiring a deed restriction for removal. Again, managed retreat seems to be the only option and does not offer an alternative approach.

Page 49: see previous comments regarding managed retreat.

Pages 50-53: F. Building Barriers to Protect From Hazards: Shoreline armoring and protective devices should be permissible as determined through the LCP and not precluded outright. It is one tool that may serve to protect a larger system and a community's economic health and public access.

Pages 53-58 – Community Scale Adaptation Planning: Agreed with note that a parcel level action is too limited and that a community wide approach is necessary, which is precisely why a local approach that can use all tools, if appropriate, should be permissible and established at the local level.

From:	Cynthia Mills
To:	ResidentialAdaptation@Coastal
Subject:	Comments for "Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs"
Date:	Monday, April 30, 2018 4:02:41 PM

To Whom It may Concern,

A.) My first concern is that residents be given more time to review and comment this document. There should have been and should still be more information provided to the public. CA CC provided no publications or study sessions to educate the public.

Please consider these comments:
1.) The document only addresses residential properties. Not addressing public, commercial and municipal properties together with residential is not cohesive. It will make it nearly impossible to implement an LCP which is based on the cohesion of residential, municipal and commercial, not beingdisconnected from important infrastructure.

2.) RE: Improvements, Alterations and Additions to Existing Structures. pg 62.
"local governments should also define additions that result in an enlargement of more than 50% as redevelopment that requires the whole structure to be brought into conformance with the LCP.", based on January 1, 1977 value.

a.) Locally, an average home sold for an average of $23,000 in 1977. In 2006, the same home sold for $650,000. Today, that home sells for $980,000.

The problem is for example: If a roof were to need replacement at a cost of $15,000, that would be much more than 50% off the 1977 value. This would usually be a normal repair that a homeowner could complete without complication. CCC guidelines would prevent those immediate repairs to be completed timely and create a hardship for the homeowner.

b.) Based on the above devaluation of residential property, the inability to make timely needed repairs and the possibility of the properties being "assumed", or taken by the CCC, most lenders will refuse to lend money for the purchase of any home within the designated retreat zones.

c.) Designating these areas as hazardous before the hazard, exists will create another risk for home insurers. They could refuse to insure these residences an==or make it an added expense to carry insurance.

Cheers,
Cynthia Mills
650 219-4770

www.oceanviewsetc.com

Home Sales Team, Inc.
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Presto Mortgage Company
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City of Santa Barbara

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93102-1990

April 30, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Draft Residential Adaptation Policy Guidance dated March 2018

Dear California Coastal Commission Sea Level Rise Working Group:

The City's Local Coastal Program (LCP) Land Use Plan (LUP) and Implementation Plan were certified by the California Coastal Commission (CCC) in 1981 and 1986, respectively. The City is currently undergoing a comprehensive update to its existing certified Coastal LUP. In addition, the City is in the process of developing a Sea Level Rise Adaptation Plan with CCC grant funding.

City staff reviewed the Draft Residential Adaptation Policy Guidance, dated March 2018, and offers the following comments on the issue of "existing structures" as it relates to the interpretation of Section 30235 of the Coastal Act.

Coastal Act Section 30235 states:

> *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.*

Page 32 of the Draft Residential Adaptation Policy Guidance, dated March 2018, states:

> *As described in the Commission's 2015 Sea Level Rise Policy Guidance, the Commission interprets the term "existing structures" in Section 30235 as meaning structures that were in existence on January 1, 1977—the effective date of the Coastal Act. In other words, Section 30235's directive to permit shoreline armoring in certain circumstances applies to development that existed as of January 1, 1977. This interpretation is the most reasonable way to construe and harmonize Sections 30235 and 30253, which together evince a broad legislative intent to allow armoring for development that existed when the Coastal Act was passed, when such development is in danger from erosion, but avoid*

such armoring for new development now subject to the Act. This interpretation, which essentially "grandfathers" protection for development that predates the Coastal Act, is also supported by the Commission's duty to protect public trust resources and interpret the Coastal Act in a liberal manner to accomplish its purposes.

The Coastal Act does not explicitly define "existing structure" for the purposes of Section 30235. As discussed in the California Coastal Commission Sea Level Rise Policy Guidance (August, 12, 2015) and the Draft Residential Adaptation Policy Guidance Revisions and FAQ Responses, dated March 2018, the CCC has issued coastal development permits (CDPs) in the past with findings that interpret "existing structure" as that which exists legally at the time the permit is issued. As recently as 2006, the CCC argued in *Surfrider Foundation v. California Coastal Commission* that "existing structures" as it relates to Section 30235 means any pre– or post–Coastal Act structure currently in existence.

While we appreciate that the meaning of "existing structures" in Section 30235 needs to be better defined, clarification is best accomplished through an amendment to the Coastal Act by the State legislature that would provide an explicit definition of this provision for consistent use throughout the State's coastal zone. Insertion of the January 1, 1977, standard into the policy language of individual LCPs raises significant legal concerns given that the CCC itself and many local jurisdictions, including the City of Santa Barbara, have previously issued CDPs with the presumption that "existing structure" meant any pre– or post–Coastal Act structure currently in existence.

Thank you for the opportunity to comment on the Draft Residential Adaptation Policy Guidance dated March 2018.

Sincerely,

George Buell
Community Development Director
City of Santa Barbara

Cc: Jack Ainsworth, Executive Director, CCC
Paul Casey, City Administrator, City of Santa Barbara
Renee Brooke, City Planner, City of Santa Barbara
Debra Andaloro, Principal Planner, City of Santa Barbara
Melissa Hetrick, Project Planner, City of Santa Barbara

City of Del Mar

April 30, 2018 VIA EMAIL AND MAIL

Mary Matella and Sea Level Rise Working Group
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

SUBJECT: Coastal Commission Draft Residential Adaptation Policy Guidance

Dear Mary Matella and the Members of the Coastal Commission Sea Level Rise Working Group,

Thank you for the opportunity to comment on the revised draft Residential Adaptation Policy Guidance. We appreciate the on-going coordination and opportunity to comment. After a multi-year, local sea level rise planning process and robust public dialogue in regards to the challenges of planned retreat as an adaptation approach, on May 21, 2018, Del Mar is scheduled to adopt its Adaptation Plan. The City remains concerned that the Commission's evolving discussion of planned retreat, which lacks supporting implementation tools, could ultimately affect Del Mar residents, owners, and the long-term viability of the City.

Del Mar strongly agrees with the Coastal Commission's stated intent to customize adaptation to local conditions. In Del Mar, we have unique neighborhood features and vulnerabilities relating to coastal bluffs, the San Dieguito Lagoon, low lying floodplains affected by the San Dieguito River, and a century-old beach-level neighborhood with associated public facilities and infrastructure subject to coastal and river flooding. It is imperative that jurisdictions with plans that meet State law requirements be afforded the opportunity to account for unique circumstances and constraints in the local context, particularly in regards to planned retreat.

In response to unique local characteristics, Del Mar's proposed Adaptation Plan:

- Closely follows the Coastal Act requirements and State policy guidance
- Identifies the community's goals and long-term vision
- Provides a full toolbox of near-term, mid-term, and long-range adaptation options
- Identifies a favored strategy to pursue a combination of beach nourishment/management and flood management programs and projects to maintain the quality beach and public access
- Relies on the certified LCP allowance for seawalls of a certain design to be built, repaired, and maintained per Del Mar's "Beach Preservation Initiative"(BPI)- the community's desired regulations to protect the beach for present & future generations, protect existing structures in the beach neighborhood and that successfully removed prior beach encroachments and set the approved build-to line for future development

- Explains that beach front seawalls serve a key functional role in Del Mar to protect structures and coastal access from flooding in adjacent low lying floodplain areas
- Explains that implementation of planned retreat in Del Mar's North beach neighborhood is "infeasible" and includes eight findings in the plan to support this conclusion

As mentioned, Del Mar thoughtfully considered planned retreat as an option, and concluded it is infeasible due to the associated economic, environmental, engineering, social, political, and legal uncertainties. Based on our experience, it is concerning that the State's guidance represents planned retreat as simply a recommended policy approach; while in practice, Coastal Commission staff has indicated it not only expects the City of Del Mar to include planned retreat as a long-term option, but also expects the City to begin planning for retreat now. The Commission's approach in this regard is unreasonable given the City's conclusion and supporting findings that planned retreat is infeasible in this LCPA planning timeframe. There appears to be a problematic disconnect between the policy guidance regarding planned retreat as a long-term option and the fact that staff instead considers it a required policy element.

While Del Mar recognizes that our particular situation can be successfully justified and explained based on the definition of "feasible" under the Coastal Act; it is important to note the effect the State's mixed-messaging is having on the public dialogue. Distrust of the State's intent regarding existing development has greatly complicated local planning efforts. Given the high stakes at play in terms of property rights and untested legal scenarios, it is extremely important that the State work as a partner to facilitate local adaptation planning and avoid pushing approaches that the public considers infeasible and unreasonable to pursue.

In closing, the City would like to emphasize the importance of accounting for the local context in the Commission's policy guidance. This is an untested area of the law with many uncertainties and unknown variables. Local jurisdictions must be afforded flexibility to consider a phased approach that allows for conflict resolution at the local level. It is crucial that we work together to maintain a predictable process for development review with reasonable requirements that can adapt to changing environmental conditions and that will allow owners, including the City, to nimbly move forward if and when the level of severity and risk becomes significant. Thank you for your consideration.

Sincerely,

Dwight Worden
Mayor

City of Pismo Beach

Jeff Winklepleck, AICP
Community Development Director
760 Mattie Road
Pismo Beach, CA 93449
(805) 773-4568
jwinklepleck@pismobeach.org

Department of Community Development

April 27, 2018

Email: ResidentialAdaptation@coastal.ca.gov

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: City of Pismo Beach Comments on Draft Residential Adaptation Policy Guidance

Dear Sea Level Rise Working Group:

Thank you for the opportunity to comment on the Draft Residential Adaptation Policy Guidance. The comments from the Planning Division focus primarily on the Legal Considerations section of the Draft Residential Adaptation Policy Guidance.

Under the City of Pismo Beach's current LCP, which was originally approved in 1983 and updated in 1993, many coastal properties have utilized shoreline protection in a manner consistent with the approved LCP, including residential projects that were built after January 1, 1977. The City is beginning the process to comprehensively update its LCP which will include updating the General Plan Land Use Element and Zoning Code as well as other key components. It is the intent of the City to incorporate updated policies to address future sea level rise through creative project solutions and conditions that will continue to allow appropriate protections for properties consistent with the Coastal Act.

There is concern with the interpretation proposed in the draft policy document that "existing structures" means structures that were in existence on January 1, 1977 along with stating that the new interpretation is the *'most reasonable way to construe and harmonize Sections 30235 and 30253'.* We believe this new interpretation would change over 25 years of past practices consistent with the approved LCP and significantly impact the City's future ability to achieve desired outcomes included in the policy document, such as internalizing the costs of future removal/restoration on affected properties, mitigating existing impacts and impacts of future sea level rise.

As indicated at the beginning of the draft document, the *Guidance* is *'advisory'* and is '*not a regulatory document or legal standard of review for actions that the Commission or local governments may take under the Coastal Act'*. Therefore, to address the concerns stated above, the proposed new definition/ interpretation of existing structure should be clearly identified as either a new or alternative direction to previous policy guidance. Additionally, the document should be modified to allow local jurisdictions more flexibility to incorporate appropriate guidelines into LCP updates. This would allow inclusion of effective local policies that better address future sea level rise while maintaining a reasonable level of future protection and certainty for property owners.

The City looks forward to working closely with the Coastal Commission and Coastal staff on the comprehensive update of our LCP.

Sincerely,

Jeff Winklepleck, AICP
Community Development Director

BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT

BCPUD BOX 390 270 ELM ROAD BOLINAS CALIFORNIA 94924 415 868 1224

April 30, 2018

via email: ResidentialAdaptation@coastal.ca.gov

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street
Suite 2000
San Francisco, California 94105

Re: BCPUD Comments on the California Coastal Commission Staff's Revised Draft Residential Adaptation Policy Guidance

Dear Commissioners:

On behalf of the Board of Directors of the Bolinas Community Public Utility District ("BCPUD"), a small special district on the West Marin coast providing water, sewer, solid waste disposal and related utility services to the unincorporated community of Bolinas, I am submitting this second letter of comment on the California Coastal Commission ("CCC") Staff's Draft Residential Adaptation Policy Guidance ("Draft Policy Guidance"), as revised in March 2018. **We renew our request that the Commission *not* adopt the Draft Policy Guidance as "interpretive guidelines" (or otherwise) by which coastal communities' updates to their Local Coastal Plans ("LCPs") will be assessed.** Instead, again, we urge you to continue to follow the clear mandate of the Coastal Act and limit your review of coastal communities' LCP updates to an "administrative determination that the land use plan submitted by the local government does, or does not, conform with the requirements of Chapter 3." *Coastal Act Section 30512.2(a).* As the Act further provides: "[i]n making this review, the commission is not authorized by any provision of this division to diminish or abridge the authority of a local government to adopt and establish, by ordinance, the precise content of its land use plan." *Id.*

We hereby re-assert *all* of the objections to the Draft Policy Guidance set forth in our letter of September 29, 2017 with regard to the first draft because none of those objections have been cured in the revised version. In addition, we join in *all* of the comments submitted by the Marin County Community Development Agency's Planning Division in a letter dated April 10, 2018 and signed by Planning Manager Jack Liebster. Marin County's comments eloquently address the problematic features of the revised Draft Policy Guidance with regard to: (1) the stated intent of the Guidance as "advisory" vs. CCC staff's historic administration of its guidelines as regulations; (2) the tortured effort in the Guidance to backtrack on more than 40 years of the Commission's own interpretation of the term "existing" with regard to structures in the Coastal Zone; (3) the new concept of "redevelopment", which is inconsistent with the Coastal Act, unwarranted and likely illegal; and, (4) the "heavy-handed, regulatory approach" in the Guidance document concerning the "strategy" of managed retreat, an approach that ignores the potentially devastating impacts thereof on one of the state's most precious coastal resources – the affected communities. For all of these reasons, we urge the Commission ***not*** to adopt the deeply flawed Draft Policy Guidance.

Very truly yours,

Jennifer Blackman

Jennifer Blackman
General Manager

THE JON CORN LAW FIRM

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CARDIFF BY THE SEA • CALIFORNIA 92007
www.joncornlaw.com • 760-944-9006

Coastal Property Rights, Land Use & Litigation

TO: California Coastal Commission c/o Sea Level Rise Working Group
FROM: Jon Corn Law Firm
RE: Comments on the March 2018 revised *California Coastal Commission Residential Adaptation Policy Guidance*
DATE: April 30, 2018

For your consideration, please find below our firm's comments on the most recent draft of the revised *California Coastal Commission Residential Adaptation Policy Guidance.*

Intent of the Guidance:

- The Commission staff's response, titled "Intent of Guidance" does not address the intent of the Guidance, but rather the Commission's authority to pass guidelines. However, the Commission's authority to pass guidelines is not in question as much as its use of the guidelines. **The Commission has clear authority to pass guidelines granted by Public Resources Code Section 30620(a)(3), Section 30333, and established in case law. The Commission does not have authority to administer guidelines as if they are regulations.**
- Throughout the draft Guidance, the Commission sites the SLR Guidance as a source for its authority to require certain policies. This is circular logic. **The Commission may not bypass the process for approval of new standards of application that expand the Commission's authority and then call the new standards "guidelines."** It further may not site those "guidelines" as the source of its authority to approve new guidelines.

Redevelopment Definition:

- **The concept of "redevelopment,"** where a structure is modified to an extent that it must be considered new development, was never envisioned in the Coastal Act. Until recently, the Commission did not interpret the Coastal Act to include redevelopment provisions. In fact, the Coastal Act explicitly allows property owners to rebuild after a disaster from a coastal hazard. (pursuant to Section 22.68.050.C, existing structures that are destroyed by a disaster, defined as "any situation in which the force or forces which destroyed the structure were beyond the control of its owner," may be reconstructed in their entirety [and even expanded by up to 10 percent] without any Coastal Permit approval.). Likewise, the Commission has incorporated into the SLR Guidance and the Draft Guidance a new definition of "existing" structures: those structures are now determined to be structures that existed as of January 1, 1977. The Commission's stated reasoning is that the legislative intent was to grandfather development that existed at the time the Coastal Act went into effect. When combined with the new concept of redevelopment, this new interpretation of existing structures has far reaching consequences that are well outside the original scope of the Coastal Act. **They constitute a *new standard of application that enlarges the Commission's authority* and the Commission should.**

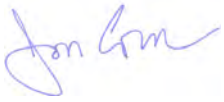
Existing Development Definition:

- The Commission's assertion that existing structures are those that existed when the Coastal Act was enacted is largely based on its findings in the SLR Guidance regarding shoreline protection devices. "Read together, the most reasonable and straight-forward interpretation of Coastal Act Sections 30235 and 30253 is that they demonstrate a broad legislative intent to allow shoreline protection for development that was in existence when the Coastal Act was passed…." Commission staff added in Response 2, "[g]randfathering existing structures and allowing owners to protect those structures—subject to the restrictions in Section 30235—would have been allowed in order to protect investment-backed expectations related to existing development that predated the Coastal Act's requirements." **The investment-backed expectations, with which local governments are concerned today, are the expectations resulting from forty-plus years of permitting development as if "existing" were used in its plain meaning.** That is, if something is already there when an application is made for a permit or LCP, then it exists. These are today's realistic expectations because this has been the Commission's interpretation of the Coastal Act and/or approach to permit and LCP evaluations since it was enacted in 1976. Moreover, development that occurred after Jan. 1, 1977 was directly subject to the Coastal Act, whether through the Commission's direct permitting, or later, permitting under an LCP. Such development does not only exist, it has been through the coastal permitting process. **It is improper if not illegal for the Commission to reach back now and try to subject such development to conditions that were not applied in the original coastal permitting process.**
- Where the Commission's new interpretation of existing structures is most concerning, is in its coupling with the new concept of redevelopment. In its definition of redevelopment, **the Commission lays a heavy burden on local governments and/or permit applicants to track repair, maintenance, structural, and nonstructural, outside and inside improvements made to a structure over time in order to identify when a of the 50% trigger is reached**. With the new definition of existing, those improvements must be tracked over the forty-plus year period since 1977.
- **Refer to Page 20 -** Per CCR Section 13252(b), the 50% threshold does not specify that calculation should apply to each "major structural component". This interpretation prohibits work (such as replacing a roof or foundation) that would otherwise logically be considered to fall below the more general "50% of structure" threshold required by Commission regulations.
- **Refer to Page 35 -** The Coastal Act regulates "development," not existing authorized structures and uses. There is no nexus to require a property owner to remove an existing legal shoreline protective device because the proposed definition of "redevelopment" requires a Coastal Development Permit for replacing a portion of the homes subfloor, foundation or siding. Similarly, the Coastal Act does not provide that the retention of existing bulkheads can be made subject to the conditions enumerated here. Without a convincing legal analysis as to how these types of substantive changes clearly comport with the Coastal Act. The legal analysis provided in the Response to FAQ is insufficient.

Managed Retreat:

- **Implementing managed retreat is more than simply imposing regulations.** It is a process that, although potentially necessary, can break up communities, destroying the social fabric that provides support, sense of place, and a meaningful existence. For many families, their home is their one major investment. Managed retreat can push them into financial ruin. If not planned carefully, it threatens historic structures and cultural resources just as much as sea level rise. Finally, it can also threaten a local government's tax base if not planned carefully.
- The Commission is a Coastal Management Agency and, as such, it does seem that sea level rise planning would fall within its purview. But, the Commission is also a regulatory agency and, while some regulations may be appropriate for managed retreat, this heavy-handed approach is not. What is needed is statewide agreement on an approach and statewide collaboration on its implementation. When the time comes, the state needs to have the support and processes in place for a successful managed retreat program.
- **Page 24 -** The description of accommodation includes language that is more commonly used to describe retreat. This includes "building structures that can easily be moved and *relocated*" and "clustering development in less vulnerable areas". Accommodation refers to strategies that allow assets to remain in place, while retreat refers to relocating assets to less vulnerable areas.

Sincerely,



Jon Corn
THE JON CORN LAW FIRM

From: Keith Adams
To: ResidentialAdaptation@Coastal
Subject: Draft Residential Adaptation Policy Guidance
Date: Monday, April 30, 2018 9:55:22 AM

To: Sea Level Rise Working Group:

The Coastal Property Owners Association of Santa Cruz County represents the interests of the 2,000 coastal property owners in Santa Cruz County with a membership of 477 property owners.

We believe this "policy guidance"undermines the intent of the 1972 Coastal Act and the voters of the State of California by encouraging Local Coastal Plans (LCP's) to adopt:

1) A definition for homes built after 1976 as new development
2) Defining homes build before 1977 as new development if previously expanded by 50%
3) Establishing "planned retreat" as an alternative to shoreline protection
4) A "taking" of property without just compensation
5) A non-comprehensive policy focusing only on residential homes.

It is appears disingenuous to say this is "only guidance" as the California Coastal Commission (CCC) historically does not approve Local Coastal Plans (LCP's) which do not confirm to their agenda and language. This also undermines the intent of the 1972 Coastal Act which is to have local governments establish LCP's without the State of California's (CCC) continuing interference.

This policy guidance tempts local governments to adopt a "cut and paste" policy without comprehensive local analysis. It promotes further erosion of the remaining California private property rights in contrast to the protections guaranteed by the State Constitution.

This "policy guidance" should not be adopted due to the CCC bias against private home ownership on the coast and an unbalanced approach in addressing sea level rise concerns.

Sincerely,

Keith Adams
President
Coastal Property Owners Association of Santa Cruz County

CITY OF PACIFICA
170 Santa Maria Avenue • Pacifica, California 94044-2506
www.cityofpacifica.org

Scenic Pacifica
Incorporated Nov. 22, 1957

April 30, 2018

Chair Dayna Bochco
California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Subject: Draft California Coastal Commission Residential Adaptation Policy Guidance

Dear Chair Bochco:

Thank you for the opportunity to comment on the Draft California Coastal Commission Residential Adaptation Policy Guidance document. This draft guidance document is intended to be "advisory and not a regulatory document or legal standard of review" (page 3). The intent of the guidance document is for local agency use in drafting Local Coastal Plans (LCP). The City of Pacifica is currently in the process of updating its Draft LCP with an Adaptation Plan, funded by a grant from the Coastal Commission and Coastal Conservancy. The City has completed a draft vulnerability assessment and is now in the process of drafting adaptation policies. As required by the grant and good public policy development practices, City staff and consultants are engaged with the community through a robust public education and input plan that includes public meetings, website enhancements, electronic messaging, and direct mailings. In fact, the City Council recently directed additional City funds to this project to expand community engagement.

As a City that has experienced recent and historic erosion on our coastline, the community is well aware of the importance of planning for the future to be prepared for coastal emergencies as reasonably as possible. Throughout our robust community engagement process for our LCP Update, the City regularly has heard concerns from the community about the Coastal Commission's guidance document, how it will be used, and the lack of Coastal Commission outreach in the community. Specifically, citizens are fearful that Coastal Commission decisions will be made based on the guidance document and that the guidance will actually be used as a regulatory tool and affect their private property rights. The most frequent concerns heard are regarding how the Commission will interpret the definition of existing development and redevelopment and how the guidelines treat repair and maintenance of existing structures.

The City encourages the Coastal Commission to expand engagement with residents and businesses prior to adoption of the guidance document. Through expanded engagement the Commission will be able to hear from stakeholders directly. Ultimately, the guidance document is intended to be a helpful resource to local agencies. However, due to the lack of community engagement from the Commission, the draft guidance document has had the opposite effect in Pacifica and has made our LCP Update process longer and more costly. We encourage Commissioners, as well as Commission staff, to engage directly with constituents regarding the guidance document.

Thank you for considering these suggestions prior to considering for adoption the Residential Adaptation Policy Guidance.

Sincerely,

KEVIN WOODHOUSE
City Manager

cc: Coastal Commission
Pacifica City Council
John Ainsworth, Coastal Commission Executive Director
Tina Wehrmeister, Pacifica Planning Director

From:	Teresa Hoskins
To:	ResidentialAdaptation@Coastal
Subject:	Coastal Residential Adaption Pacifica California
Date:	Monday, April 30, 2018 3:27:21 PM

I am urging the Commission to take more time performing due diligence before adopting these guidelines. All affected parties must be included, and notified directly, and urged to come forward with their comments.

As a licensed real agent and longtime Pacifica resident, I anticipate very important and impactful consequences going forward.

1. Will Designating a property in a zone/area/geographical effect that property owner's ability to insure, finance or sell their property?
2. Have all owners in these areas been personally informed of this important decision.
3. Predicting future weather patterns is a difficult and complicated task that is prone to error by the very nature of the complexity. Is the science being used to make these decisions reliable, accurate, extensive, and accepted by a clear majority of the scientific community?

These are but a few of the potential impacts/concerns I have around this matter. I urge the Coastal Commission to continue the comment period and directly contact the real estate community, owners and qualified scientists requesting input. Policy guidelines not thoroughly vetted could have severe and unanticipated impacts on California's economy and individual property owners.

Thank you,
Teresa

Teresa M. Hoskins
(415) 519 – 9729 c
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www.teresahoskins.com

http://teresa.remaxstarhomes.com
Zillow Five Star Agent

Testamonial that made me smile. I'm so happy when my clients are happy!!!
"It seems to me that you do much more than most realtors to give your clients a realistic picture of what they might face when putting their property on the market. I wish I had another house to sell so I could have your wise advice and help in marketing the property. I often think about the way you represented me to the market. Thank you Teresa"

From: Theresa Cossman
To: ResidentialAdaptation@Coastal
Cc: Marian Bennett; Richard Bennett
Subject: Sea Level rise comments
Date: Monday, April 30, 2018 2:09:07 PM

These are some of the most significant problems with the current Residential Adaptation Policy Guidance:

- "Maximum public input" appears and is deemed essential 15 times in the Residential Adaptation Policy Guidance. Yet, extraordinarily little public input has actually taken place with either the RAPG or the 2015 document from which it descends. Prior to finalization, the CCC needs to send the RAPG to the cities and counties and strongly encourage them to each hold a minimum of two public hearings – with public comment – on the RAPG.

- The CCC needs to notify all of the residents within its jurisdiction by mail about the Residential Adaptation Policy Guidance and proide the website where the 95 page document can be viewed by the public prior to finanlization.

- In the Guidance, the restricting of priate property rights automatically takes precedence over a property owner's quiet enjoyment of his or her home because it will always lead to a public or environmental benefit. This is not the case. A property owner should have the right to enjoy his or her property until such a point that the CCC can establish that restrictions are reasonable and necessary to protect the public's interest, including the environment. The governmental agency "taking" the property or restricting the property's use should have the burden of proof that the taking of private property is necessary. Limitations should not be placed on property owners on the basis of what might or might not happen in 100 years, 50 years, or even 30 years.

- The CCC has re-defined the word "existing" in the sense of "existing" structures. No longer does "existing" mean houses in existence now. It means those existing at the time the Coastal Act went into effect – January 1, 1977. For decades, the CCC has approved building permits with the understanding that these structures could be protected. By re-defining the word "existing" to mean **not existing now, at the publication of the Residential Adaptation Policy Guidance, but rather existing 41 years ago when the Coastal Act went into effect** – the CCC has, in effect, taken the property rights of thousands of people, undermining decades of its precious decisions.

- The RAPG is being written in a acuum, without the corresponding commercial and public works guidance documents. For the purpose of land use and planning, the three pieces, commercial, residential, and public are inextricably intertwined. There is no way to separate them. However, CCC staff has said that they intend to finalize the RAPG prior to writing the other two guidance documents. This does not make sense. The commercial and public works guidance documents should be written and analyzed together with the

Residential Guidance, prior to any of their finalizations.

- The Residential Adaptation Policy Guidance should not be interpreted as mandatory policy, but rather, a guiding document. Local Coastal Programs (LCPs) that do not adhere to the "suggested" policies should not be denied, merely on that basis. The public needs reassurance from the CCC that these policies will not be mandated but are rather a guidance tool for local goernments when considering sea level rise.

CAL BRE# 01963004
Assistant to Marian S. Bennett Realtor®
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650-339-2865

April 9, 2018

Mary Matella, et al.
Sea Level Rise Working Group,
California Coastal Commission
45 Fremont St, Suite 2000,
San Francisco, CA 94105

Dear Members of the CCC Sea Level Rise Working Group,

Marin County Community Development Agency (CDA) staff have reviewed the March 2018 revised *California Coastal Commission Residential Adaptation Policy Guidance* (*Guidance*) and are providing these comments. We appreciate the work of the California Coastal Commission (CCC staff) to address challenging issues surrounding sea level rise and coastal development. CCC staff input has been critical in both the update of our Local Coastal Program Environmental Hazards section and ongoing adaptation planning for West Marin through the Collaboration: Sea Level Marin Adaptation Response Team (C-SMART) program. However, we do have concerns about the *Guidance* and particular implications it could have for existing coastal development in California. CDA staff had submitted similar comments on the July 2017 *Guidance*. Coastal Commission staff responses to our comments were not integrated into the March 2018 revision. Rather, the staff provided responses to frequently asked questions in a separate document along with a broad explanation of the changes made throughout the Draft Residential Adaptation Policy Guidance (Draft Guidance). This has created a situation where it is often unclear how the material in the FAQ modifies the Guidance. We recommend the next version integrate the two documents. This letter includes comments on both the Commission staff's FAQ Responses and the Draft Guidance.

Concerns regarding the FAQ Responses:

Response 1: Intent of Draft Guidance

The Commission staff's response, titled "Intent of Guidance" does not address the intent of the Guidance, but rather the Commission's authority to pass guidelines. However, the Commission's authority to pass guidelines is not in question as much as its use of the guidelines. The Commission has clear authority to pass guidelines granted by Public Resources Code Section 30620(a)(3), Section 30333, and established in case law. The Commission does not have authority to administer guidelines as if they are regulations.

THE ADMINISTRATIVE PROCEDURES ACT (APA)
Section 111342.600 of the APA provides a definition of a regulation.

> 'Regulation' means every rule, regulation, order, or standard of general application or the amendment, supplement, or revision of any rule, regulation, order, or standard adopted by any state agency to implement, interpret, or make specific the law enforced or administered by it, or to govern its procedure.

Both the 2015 Sea Level Rise Guidance (SLR Guidance) and the Draft Guidance reinterpret the Coastal Act and revise standards adopted by the Commission through its more than

forty years of permit and LCP approvals. The concept of “redevelopment,” where a structure is modified to an extent that it must be considered new development, was never envisioned in the Coastal Act. Until recently, the Commission did not interpret the Coastal Act to include redevelopment provisions. In fact, the Coastal Act explicitly allows property owners to rebuild after a disaster from a coastal hazard. (pursuant to Section 22.68.050.C, existing structures that are destroyed by a disaster, defined as “any situation in which the force or forces which destroyed the structure were beyond the control of its owner,” may be reconstructed in their entirety [and even expanded by up to 10 percent] without any Coastal Permit approval.). Likewise, the Commission has incorporated into the SLR Guidance and the Draft Guidance a new definition of “existing” structures: those structures are now determined to be structures that existed as of January 1, 1977. The Commission’s stated reasoning is that the legislative intent was to grandfather development that existed at the time the Coastal Act went into effect. When combined with the new concept of redevelopment, this new interpretation of existing structures has far reaching consequences that are well outside the original scope of the Coastal Act. They constitute a *new standard of application that enlarges the Commission’s authority* and the Commission should, accordingly, go through the proper procedures for such an act.

CIRCULAR LOGIC. Throughout the draft Guidance, the Commission sites the SLR Guidance as a source for its authority to require certain policies. This is circular logic. The Commission may not bypass the process for approval of new standards of application that expand the Commission’s authority and then call the new standards “guidelines.” It further may not site those “guidelines” as the source of its authority to approve new guidelines.

TRUST AND INTENT. In the County’s experience, the Commission administers guidelines as requirements, or regulations. The County was developing its LCP update for several years prior to the Commission’s approval of the SLR Guidance. The LCP was developed with extensive public involvement and community visioning. Despite that, when the County’s LCP was submitted for Commission approval, the Commission staff report and modifications relating to coastal hazards included language taken almost word-for-word from the SLR Guidance. There was no effort to modify the SLR Guidance language to fit the context and structure of the County’s proposed LCP or to fit the County’s environmental conditions. Rather Commission staff changed the structure of the County’s LCP to accommodate the new policy language. Commission staff recommended denial of the LCP, unless the Commission approved it with the significant staff modifications. The County was forced to withdraw the hazards sections of its LCP. The SLR Guidance was not used as guidance, but rather it was interpreted as a requirement. The County was required to use specific language with no room for discussion. Calling a document guidance is not what makes it guidance. The SLR Guidance was used as a requirement and this diminished the powers and authority of Marin County, an act that is inconsistent with Public Resources Code Section 30620(3) and Section 111342.600.

Since the Draft Guidance includes specific policy language, the question of how it will be used is important. Based on a comparison of the language used in Commission modifications to the County’s proposed LCP to date, and the language used in the Draft Guidance, it appears that the Draft Guidance is already being used as a prescription for the County’s LCP. The language is nearly identical. Based on the County’s experience, there is little basis for faith that the Draft Guidance will be used as such, but rather as a rule, a regulation, or a standard condition of approval.

<u>Response 2: Shoreline Protection for Existing Structures</u>

EXISTING STRUCTURES

Marin County submitted comments on the Commission's new definition of "existing" in its earlier comments. The Commission staff addressed them generally in the FAQ Response. The County disagrees and is raising these additional issues.

INVESTMENT-BACKED EXPECTATIONS

The Commission's assertion that existing structures are those that existed when the Coastal Act was enacted is largely based on its findings in the SLR Guidance regarding shoreline protection devices. "Read together, the most reasonable and straight-forward interpretation of Coastal Act Sections 30235 and 30253 is that they demonstrate a broad legislative intent to allow shoreline protection for development that was in existence when the Coastal Act was passed…." Commission staff added in Response 2, "[g]randfathering existing structures and allowing owners to protect those structures—subject to the restrictions in Section 30235—would have been allowed in order to protect investment-backed expectations related to existing development that predated the Coastal Act's requirements." The investment-backed expectations with which local governments are concerned today, are the expectations resulting from forty-plus years of permitting development as if "existing" were used in its plain meaning. That is, if something is already there when an application is made for a permit or LCP, then it is existing. These are today's realistic expectations because this has been the Commission's interpretation of the Coastal Act and/or approach to permit and LCP evaluations since it was enacted in 1976. Moreover, development that occurred after Jan. 1, 1977 was directly subject to the Coastal Act, whether through the Commission's direct permitting, or later, permitting under an LCP. Such development is not only existing, it has been through the coastal permitting process. It is improper if not illegal for the Commission to reach back now and try to subject such development to conditions that were not applied in the original coastal permitting process.

Additionally, Commission staff acknowledges that it previously took the position that "existing" means any structure that existed pre- or post-1976. In fact, in the 2006 Surfrider case, the Commission argued that it has consistently interpreted Section 30235 to refer to structures that existed at the time of application and that "the Commission is not aware of a single instance in the history of the Coastal Act in which it has determined that 'existing structure' in Section 30235 refers only to structures that predated the Coastal Act." Nevertheless, staff now asserts that the advent of accelerated sea level rise makes it necessary to "comprehensively consider its position on the meaning." Forty years of implementing the Coastal Act consistently holding that *existing* means *existing* at the time an application is submitted, is a comprehensive body of carefully considered Commission decisions. Actual history of these decisions cannot be considered unimportant. It is inappropriate and detrimental to deny legal and procedural realities to change the plain meaning of the Coastal Act.

This is but one of many, many examples of the problems with the Guidance. Previous commenters invested a great deal of time in suggesting changes to the Guidance. It appears little has changed as a result. In documenting the response to comments for the Commission, we would like to request a detailed table of how each comment is addressed, as was done for the 2015 SLR Guidance, which is more appropriate than FAQ Responses.

<u>Response 3: Redevelopment</u>

The Commission staff's response, titled "Redevelopment" is addressed here along with issues specific to the combination of the new concept of "redevelopment" and the new interpretation of "existing structures."

Redevelopment and the Coastal Act

In the first round of comments on the Draft Guidance, Marin County commented and explained that the new concept of "redevelopment" being enacted by the Coastal Commission is not consistent with the Coastal Act. The County disagrees with the Commission staff's response and has additional issues with the implementation of redevelopment.

Definition of Redevelopment

The proposed definition of redevelopment is a significant problem given its critical importance in defining the point at which all new LCP provisions and requirements with respect to environmental hazards are "triggered". The FAQ document acknowledges that "redevelopment" is not explicitly defined in the Coastal Act but cites the 2015 Sea Level Rise Policy Guidance which states that, at a minimum, redevelopment should be defined as the replacement of 50% or more of an existing structure. While the SLR Guidance notes that other **options** include limiting the extent of replacement of major structure components, the definition provided in Model Policy B.7 more restrictively limits the alteration of 50% or more of any single major structural component, a provision which would automatically qualify foundation work associated with building elevation as "redevelopment". Although the discussion contained in the FAQ document appears to provide some flexibility, staff is concerned that the model policy included in the Guidance will be cited as an established definition and applied regardless of local conditions.

It is imperative that if a local government adopts a rebuild policy (the term most local governments would use rather than redevelopment, which typically has a different meaning), that the Coastal Commission treats the definition as a guideline and does not impose the definition as it appears in the Draft Guidance. Many local governments already address rebuilds consistent with their overall policy framework and/or through their FEMA CRS programs. To the extent possible, adaptation measures should fit into the context of their existing programs.

Redevelopment and Existing Structures

Marin County has already commented that the Commission's adoption of a new definition of "existing structures" is inconsistent with the Coastal Act and the forty-plus years of LCP and permit approvals by the Commission. The Commission staff responded, and the County disagrees with its position. The Commission's new interpretation identifies existing structures as those that existed when the 1976 Coastal Act went into effect as of January 1, 1977.

Where the Commission's new interpretation of existing structures is most concerning, is in its coupling with the new concept of redevelopment. In its definition of redevelopment, the Commission lays a heavy burden on local governments and/or permit applicants to track repair, maintenance, structural, and nonstructural, outside and inside improvements made to a structure over time in order to identify when a of the 50% trigger is reached. With the new definition of existing, those improvements must be tracked over the forty-plus year period since 1977.

This is an unnecessarily burdensome requirement and places undue hardship on local governments and/or property owners. Under the County's certified LCP and zoning in effect since 1982, structural alterations or additions resulting in an increase of less than 10% of the internal floor area of an existing structure are exempt from Coastal Permit requirements. In addition, the County's Building Permit records are incomplete over that considerable stretch of time and would not consistently provide a clear record of work done to a structure that did not require a separate discretionary approval. Therefore, in many cases, it is quite unlikely that a current owner would have access to records regarding "any previous changes to major structural components" since 1976 unless they had owned the property since that time.

Finally, it should be noted that, during review of Marin's LCP, Commission members did not support the requirement to track structural changes for all work undertaken since the adoption of the Coastal Act, and Commission staff stipulated on the record that the appropriate starting date for cumulative tracking of work with respect to "redevelopment" should be adoption of the LCP itself, not the Coastal Act.

Response 8: Managed Retreat

Commission staff summarized the comments on managed retreat as follows: "Many commenters state that retreat is not a feasible option for adaptation in their communities." Commission staff go on to explain several reasons why managed retreat is the Commission's chosen approach and admits that "no single category or even specific strategy should be considered the "best" option as a general rule. Different types of strategies will be appropriate in different locations and for different hazard management and resource protection goals." Irrespective of the Commission staff near dismissal of the needs of "many commenters," the response ignores some essential components of a managed retreat strategy. The Commission's approach is a heavy-handed, regulatory approach to managed retreat. However, if managed retreat is going to succeed (assuming that it is even consistent with the needs of a local government) it must be a robust program that includes outreach and education as well as assistance and support for those who need it. Implementing managed retreat is more than simply imposing regulations. It is a process that, although potentially necessary, can break up communities, destroying the social fabric that provides support, sense of place, and a meaningful existence. For many families, their home is their one major investment. Managed retreat can push them into financial ruin. If not planned carefully, it threatens historic structures and cultural resources just as much as sea level rise. Finally, it can also threaten a local government's tax base if not planned carefully.

If the State of California truly wants to impose managed retreat on all coastal, local governments, then it needs to produce a robust plan that considers all the potential risks and benefits associated with managed retreat and identifies ways to provide logistical and financial support. It must conduct an aggressive public outreach and education campaign that supports the efforts of local governments. It needs to examine other state programs, such as New Jersey's Blue Acres program (as it existed pre-Hurricane Sandy) and explore the options available through FEMA.

The Commission is a Coastal Management Agency and, as such, it does seem that sea level rise planning would fall within its purview. But, the Commission is also a regulatory agency and, while some regulations may be appropriate for managed retreat, this heavy-handed approach is not. What is needed is statewide agreement on an approach and statewide

collaboration on its implementation. When the time comes, the state needs to have the support and processes in place for a successful managed retreat program.

Key concerns regarding the Draft Guidance:

Page 1

- Please describe the best available science about the loss of beach due to "drowning," increased erosion from more intensive storms and other mechanisms of beach loss and narrowing as compared to losses from "coastal squeeze?"

- If existing and new accessways continue to exist, both the general public and local residents have the same access to the beach that they do now. Please explain how this is a new environmental justice issue.

Page 19

- Requirements for hazard disclosures at time of sale should be addressed at the state level to ensure consistency and respond to resistance from the real estate industry.

Page 20

- Per CCR Section 13252(b), the 50% threshold does not specify that calculation should apply to each "major structural component". This interpretation prohibits work (such as replacing a roof or foundation) that would otherwise logically be considered to fall below the more general "50% of structure" threshold required by Commission regulations.

- Newly added Footnote 19 acknowledges relevancy of categorical exemptions, but this should be more prominently noted.

Page 23

- "Soft" protection adaptation alternatives have generally been experimental in nature, particularly for protecting coastal areas subject to high wave velocity. Making this point could help emphasize that there is a need for more demonstration projects, which hopefully could lead to more widespread use of such strategies throughout the state.

Page 24

- The description of accommodation includes language that is more commonly used to describe retreat. This includes "building structures that can easily be moved and *relocated*" and "clustering development in less vulnerable areas". Accommodation refers to strategies that allow assets to remain in place, while retreat refers to relocating assets to less vulnerable areas.

- Also under the accommodation description is "requiring mitigation actions to provide for protection of natural areas even as development is protected". This sounds more like protection with "soft alternatives" more than accommodation.

Page 26

- It is great that public involvement is discussed pursuant to the coastal act. However, to include the public in a truly meaningful way, the costs and benefits of all strategies should be objectively laid out for their consideration. This document seems biased in favor of green infrastructure and retreat, and against accommodation and hard protection.

Page 29

- Under Adaptive Design (Accommodation), it states that elevation of homes can detract from community character. However, community character Is an ambiguous term that varies from place to place and thus may not always apply. Elevated homes and affiliated features are prevalent in coastal architecture throughout the world and thus a counter argument could be made that they contribute rather than detract from community character. Furthermore, is community character static, or is it something that can adapt to changing conditions? Clearer definitions of this term need to be developed, on a community-by-community basis, with community members central to the process. Marin County CDA worked with community members on an exercise which concluded that Stinson Beach is a 'funky' and eclectic' community due to diverse architecture of varying styles, shapes, sizes, features and more.

Page 30

- There are numerous potential negative impacts of retreat not identified in this section such as breaking up existing communities, loss of sense of place, loss of irreplaceable cultural resources, displacement of lower income residents who cannot afford to move, environmental impacts of new construction including GHG emissions which exacerbate climate change, straining existing community infrastructure with influx of new relocated residents, and more.

Page 34

- This *Guidance* should more clearly articulate that under current law eliminating existing development is not the only option and that minimizing or lessening adverse impacts is also permitted.

- The standard in 30235 is "to eliminate or mitigate adverse impacts on local shoreline sand supply". However, the last sentence of the top fill paragraph states that such protection is only allowed if it is required and is "the least environmentally-damaging alternative to abate the danger." It is quite a leap to expand the standard to the least environmentally damaging alternative and opens 30235 to a broad range of interpretations.

- In this draft, 30240(b) is quoted more accurately than it was in the first draft, but the reference to the future is still added. Arguably, "the continuance of those areas" implies some future for them. The addition of "in the future" here, is either simply redundant or an attempt to place an unlimited future potential for "those areas" that is not implied by "continuance."

- This seems to suggest that elevation and floodproofing are appropriate short-to-medium-term strategies to accommodate SLR, but not appropriate long-term strategies. Please provide sufficient deliberation regarding if and how flood proofing and elevating structures will be prohibited under the Coastal Act based on foreseeable future circumstances. How will "foreseeably" be determined, under what time frame and set of assumptions? Will it be determined by the hazards analysis submitted by the permit applicant? Rather than basing current decision making on a future worst-case scenario, shouldn't this be an area of the Guidance where adaptive management is recognized as a means of addressing future conditions as they become better known and more predictable?"

Page 35

- Section 30233 creates standards for coastal waters, wetlands, estuaries, and lakes. It is clearly intended to regulate water areas or generally those areas below the Mean High Tide Line. The discussion, however, is about placing fill for revetments, dune restoration, and beach nourishment, most of which occurs above the Mean High Tide Line and generally not in wetlands.

- The Coastal Act regulates "development," not existing authorized structures and uses. There is no nexus to require a property owner to remove an existing legal shoreline protective device because the proposed definition of "redevelopment" requires a Coastal Development Permit for replacing a portion of the homes subfloor, foundation or siding. Similarly, the Coastal Act does not provide that the retention of existing bulkheads can be made subject to the conditions enumerated here. Without a convincing legal analysis as to how these types of substantive changes clearly comport with the Coastal Act. The legal analysis provided in the Response to FAQ is insufficient.

- Marin County does not accept the new definition of "existing".

- Developed areas protected by preexisting bulkheads do not only occur in "urban" areas (the term "urban" should be deleted).

- The footnote on maintaining bulkheads to benefit public access is an important caveat that should be state more prominently in the document, not as a footnote.

Page 36

- Please address whether denying the elevation of a house above the hazard Base Flood Elevation to increase the likelihood of flooding, storm related damage and eventual loss would allow enough economically viable use to avoid a taking? This is an important issue to local governments if they are expected to adhere to and defend this legal conclusion through their local permit decisions. The rationale that "there is already an existing economic use of the property" seems flimsy without more legal analysis.

- Section 30235 does not make this distinction. It simply applies to "existing" structures.

Page 38

- Regarding the discussion on the location of the Mean High Tide Line and the historical MHTL, especially where it meets fill or structures, it is necessary to explain how a local government or a permit applicant would operationally determine the historical MHTL. Are there survey reports delineating that line at the time the structure was built or some other way to determine where the line was? Given the difficulties of establishing a line on the shore, it is nearly impossible to determine where the historical MHTL was located or would have been located prior to development of shoreline structures. Where is the Commission's authority to require a local government to in turn require a permit applicant to provide a property survey that assumes an existing structure is not existing? The Milner case is not sufficient evidence to require local governments, which do not own the tidelands, to demand such a survey. Rather, if the Commission desires to pursue its jurisdiction in this manner, it can request such a survey.

Page 41

- Regarding the Public Trust and sea level rise adaptation, we previously commented that the State Lands Commission should weigh in with an opinion and determination of how it will respond to SLR. We are aware that Commission staff are beginning to work with the SLC. Having an opinion from them would validate the Commission's Public Trust assertions.

- The Public Trust discussion and the takings discussion that follows it belong together. Local governments must balance the Public Trust and private property rights in every decision. For example, Commission staff writes that "it is important for LCP policies to protect public trust resources by ensuring that adjacent development does not…interfere with future migration of the public trust boundary." Along with this statement should be an explanation of how local governments ensure protection of PT resources while still avoiding a "takings." Striking this balance within your guidance document would make it more useful to local governments attempting to strike the same balance with every permit decision.

Page 44

- Regarding the discussion on takings concerns, the County's previous comment still stands. It asks, are there cases that address what happens when the action that reduces property value (e.g. severe building restrictions) and the intended outcome (providing for future protection of a beach) are widely separated in time?

- Policies requiring assumption of risk, disclosure of hazards, waiver of rights to SPDs, etc., will in many cases apply to **existing** property owners (not just new owners) whose "investment-backed expectations" were based on past regulations in place at the time of purchase. The Guidance should specifically address the investment backed expectations of **existing** owners, particularly those who purchased post 1977 Coastal Permitted residences, which would not qualify as "existing" under the Commission's new interpretation of that term.

Page 46

- Regarding the first sentence on this page about property owners adjusting their investment-backed expectation, does this refer to new purchases? Investment backed expectations are established at the time the investment (purchase of the home) is made based on governing land use laws in effect at that time, not when government changes established rules. In this case, the Commission is changing the rules after 40 years of implementing them a differently.

Page 52

- Marin's BayWAVE Vulnerability Assessment used scenarios under 3 different time frames (near, medium and long term), based on state level guidance and included inundation from SLR with and Without storms. Coastal Storm Modeling System (CoSMoS) was used as the model. Both scenarios and models were chosen by the program's technical advisory committee. Perhaps spotlight BayWAVE as a model in the identification and use of the best available science?

- Using 100 years as a minimum duration of development may not be possible as most sea level rise models and projections due not extend 100 years in the future. While

recent state-level guidance includes 2150 projections, models may not necessarily include the high-end projections. Additionally, with all the inconsistency amongst various models, and uncertainties with high end scenarios, it may be very difficult to determine what the “worst-case “high” projection” is. Furthermore, science is constantly evolving and this figure would thus be constantly changing.

Page 53

- Unclear how to set planning horizons for 100-150 years when sea level rise models don’t extend that far, or don’t necessarily coincide with the scenarios. NOAA’s maximum scenario is six feet, while COSMOS’s jumps from 6.6 to 16.4 feet.

Page 55

- Regarding A.4 Site-specific Coastal Hazard Report Required, the first sentence directly contradicts the two notes immediately above the sample policy. If hazard maps can be used in lieu of site-specific reports (in some circumstances), then all development would not require site-specific hazard reports. Determining whether a site-specific hazard report is required should depend on the type of hazard, the project location (including siting and design), and the specificity of the hazard maps. Some hazards are more readily mapped than others and, in the case of sea level rise, where maps are regularly updated as the Commission will require in any LCP, a site-specific report will not provide any additional, useful information and will cost property owners a substantial sum of money.

- Regarding A.5 Coastal Hazard Report Contents, establishing beach and bluff erosion rates are generally outside the capabilities of most local governments and certainly of most property owners. The Coastal Commission should work with the State Lands Commission, the California Coastal Sediment Management Workgroup, and other responsible agencies, including academic institutions, to provide such information as part of the Guidance. Similarly, for projecting future conditions at a site for shoreline, dune, or bluff edge erosion over the long term, such information can best be determined by monitoring programs over a suitable timeframe. The Commission should assist in recruiting the appropriate agencies to establish a program, especially for the portion within the State Public Trust? Additionally, some of the federal coastal management funds should be allocated to this purpose.

Page 66

- A.5.c requires identification of a safe building envelope on the site that avoids hazards. The Coastal Act does not require a two-step process. In most dense to medium dense areas the parcels are of a size such that one part of the site will likely be as hazardous as another. The Coastal Act does not require avoidance of hazards. It requires that development “eliminate or mitigate adverse impacts on local shoreline sand supply” and “minimize risks to life and property in areas of high geologic, flood, and fire hazard.” A more appropriate sample condition, one that is more consistent with the standards set in the Coastal Act, would read: “Identification of options to avoid or minimize hazards.” The County also made this comment on the previous draft.

- Regarding A.5.f which addresses flood hazards associated with wave impacts, runup, and uprush, how will these estimates be developed? Does the Commission have

examples of such studies completed and the costs associated with them? Does the Commission accept the FEMA science in this regard?

- Note that the comments on pages 55 and 56, though specific to certain requirements in A.4 and A.5, the general feedback here is that these policies are unrealistic in their requirements. Property owners are unable to provide the type of studies the Commission is requesting on a per project basis. Rather, the Commission should recognize the science and reports that already exists and make some effort to rely on those. For example, the County has already conducted a vulnerability assessment. The County has overlaid its sea level rise maps with the FEMA flood maps to denote flood areas, future flood areas, and flood areas subject to wave activity. Why would it be necessary to require a property owner to do more sea level rise analysis? The requirements here are simply too burdensome and unnecessary.

Page 57

- Regarding assumption of risk, the term "property owners" should be replaced with "coastal permit applicants" in the first sentence.

- In A.6 item 2): does the sentence "to assume the risks of injury and damage from such hazards in connection with the permitted development" imply that property owners must forego federal disaster assistance and funding other than what is contractually obligated through FEMA insurance?

Page 58

- In A.6 item 2), would elevating a structure to include BFE + SLR freeboard be considered shoreline armoring? Furthermore, it is up to the State Lands Commission to determine what rights a property owner may have.

- In A.6 item 9): the sentence "…the structure may be required to be removed…if removal is required pursuant to…" is ambiguous. Does "no longer on private property" refer to a government purchase, or subject to the public trust, in which the property is still private, but encumbered? What "adaptation planning requirements" would require removal – wouldn't those instead be LCP regulations? The guidance on the waiver should be more specific.

Page 59

- Previous County comments expressed concern regarding extensive use of the term "redevelopment" throughout the document since the term is not contained in the Coastal Act or Administrative Regulations.

Page 62

- The *Guidance* notes that additions that result in the enlargement of more than 50% of a structure should be considered "redevelopment". However, it is not clear how this percentage trigger was derived.

- The *Guidance* specifies that calculations of "cumulative work" should consider all work undertaken after the date the Coastal Act went into effect. The Commission did not support this approach with respect to Marin's LCP update. Instead, there appeared to be a consensus that a more reasonable and realistic approach would be to track

cumulative improvements starting at the date of adoption of a particular LCP. This direction should be reflected in the *Guidance.*

- The downzoning of properties has major financial and legal implications for many developed areas throughout California where the resiting or setting back of development is not an option due to lot size and/or the character of the hazard. Accordingly, the Guidance should acknowledge that downzoning is an optional approach which may or may not be an appropriate or feasible adaptation strategy.

Page 63

- The Guidance should clearly acknowledge that the definition of "redevelopment" proposed in Section B.7 does not appear in the Coastal Act nor its Administrative Regulations. The division of a structure into component parts and then the application of a 50% trigger to each of those parts is arbitrary, may be inconsistent with provisions currently used by local governments or agencies such as FEMA, and in Marin's case, conflicts with Commission-approved Categorical Exclusions. Some of these issues have been partly addressed in the FAQ document prepared for the Guidance. Given their critical importance, a discussion of these issues should be incorporate into the Guidance itself, not in a separate FAQ document.

Page 67

- Adding a sea level rise buffer area to a habitat buffer would require a change to Marin's Biological Resources LCPF section that has already been approved by the Coastal Commission.

- How would limitations of use and development within sea level rise buffer areas be supported by the Coastal Act?

Page 69

- The legislature, not the Coastal Commission would change the law regarding shoreline armoring.

Page 70

- Shoreline protective devices section should specify if piers and caissons are included.

- Language on shoreline protective devices is not required by the plain language of PRC 30235., which specifically states the requirements ("local sand supply") and does not reference other such standards. The specific rule should not get lost in the general policy statement.
  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.
  The CCC FAQ (Response 5) responds to this concern. In sum, the CCC states that in addition to 30235, other provisions of the Coastal Act, its implementing regulations

(i.e. Cal Code Regs 135053.5, 13540(f), and CEQA apply. It is these other provisions that require analysis of alternatives to shoreline protection and to adopt an alternative that is less environmentally damaging. Further, court rulings give the CCC broad authority to adopt measures to mitigate significant impacts.

- F.2 identifies caisson foundation systems, though previous CDA comments said to exempt piers used to elevate structures.

- F.3 lists a number of requirements not supported by law for siting and designing new shoreline protective devices including protecting and enhancing public recreational access; protecting and enhancing public views; minimizing alteration of, and being visually subordinate to, the natural character of the shoreline; and avoiding or mitigating impacts to archeological resources.

Page 71

- In-Lieu fees to mitigation of impacts to public recreational access, public views, natural landforms, beach ecology, and water quality goes beyond 30235.
- Previous Marin County comment letter asked for explanation on what part of the Coastal Act 30253 supports CFBF this and the following provisions. No change has been made.
- F.6 refers to redevelopment. The County still objects to the definition of redevelopment included in this document.
- Marin County CDA made previous comments to F.6, which were not addressed, as follows:
    - Rather than “determination”, use “presumably determined by monitoring in F8”
    - This will leave the structure unprotected from shoreline hazards. Is that the intent or is elevating structure to meet BFE in addition to sea level rise factor into the solution on small lots with no opportunity for relocation?

Page 73

- Existing bulkheads and necessary feasible augmentation of them not altering natural shoreline processes along bluffs or cliffs or causing adverse impacts to public access, marine habitat, aesthetics or other coastal resource is not required by 30235.

Page 74

- By eliminating the possibility of “refacing” a failing bulkhead, this requirement will make repair and replacement much more complicated and expensive.
- Marin County CDA’s previous comment letter asked how this applies to existing structures, and no change has been made:
    - The principal structure(s) should be set back a sufficient distance 1) to allow for repair and maintenance of that bulkhead including access to any subsurface deadman or tiebacks and 2) to allow for realignment of necessary bulkheads as far landward as possible and in alignment with bulkheads on either side.
- The new F.11 Emergency Services section mirrors IP 22.70.140 word for word.

Page 76

- The Coastal Act does not regulate or require adaptation planning. It should be noted that a local government's adaptation planning program, while they may benefit from the Commission's recommendations in this guidance document, are not subject to Commission review of its Local Coastal Program.

- While community scale adaptation plans could be improved through accounting for other climate change impacts, such as fire and precipitation changes, models would need to be developed of these hazards to fully assess vulnerabilities to inform adaptation. Additionally, more information on mitigation strategies for other hazards, such as fires, need to be developed.

- Other types of resources that support the recreation/tourism economy could include built structures such as lodging, restaurants and shops, as well as housing for hospitality industry staff. Such assets should also be considered when planning to maintain California's coastline as a recreational destination in the face of sea level rise.

- "High projections on expected sea level rise" is ambiguous and could vary depending on the discretion of the local jurisdiction. Additionally, sea level rise models may not have a scenario that matches with the high-end projection.

Page 77

- Item G.1.d. discusses exploring a managed retreat program. While this is one option for adaptation, there are other means of adapting natural and built assets to coastal hazards. A planning process that is truly community driven should objectively lay out the pros and cons of different adaptation strategies for the decision-making process. Adaptation strategies generally span four categories: protection (grey infrastructure), projection (green infrastructure), accommodation and retreat; which should be overviewed in any adaptation planning guidance document.

- While this section lays out potential mechanisms and incentives for managed retreat, it does not address the myriad of challenges that such an effort could pose. This could include legal challenges with acquiring public property, unintended consequences of acquiring public parkland, and lack of additional land to absorb new residents who could be displaced through managed retreat.

- Managed retreat can be environmentally impactful as well. Demolishing existing buildings and new development can include materials production and transport, building construction, and demolition waste disposal. Such activities can contribute to greenhouse gas emissions thus further exacerbating sea level rise and could be avoided and minimized through preserving/protecting existing buildings.

Page 78

- Beach nourishment may be effective in some areas, though more pilot projects are necessary to demonstrate feasibility. Such a project could be resource intensive, and not financially sustainable, particularly in high hazardous areas with high wave velocity.

- Sea Level Rise Overlay Zones with downzoning, redevelopment restrictions and structure removal could lead to takings claims. Unintended legal consequences of managed retreat need to be further explored.

Page 81

- As the Coastal Commission does not require managed retreat, such a program would have to be voluntary at the discretion of the local government.

Page 82

- As we have noted, the programs under "Community Scale Adaptation Planning" are voluntary, since the Commission does not have authority to regulate programmatic adaptation planning efforts by local governments. However, in the interest in making this the best possible Guidance, it would be very helpful to include a more thorough discussion of TDR programs. They are complex programs that require many planning elements to come together at the right time in order to be implemented. A detailed discussion of successful TDR programs would be great.

- Good to list funding sources, but state and federal grants are quite limited. More discussion/case studies on community approaches such as local assessment districts would be helpful to catalyze such projects.

- While aligning LCPs and LHMPs make sense, objectives of the two programs vary. LCPs largely focus on protecting public access, while LHMPs are about reducing harm to life and property. Mitigation strategies to achieve these goals can be shared though FEMA has numerous guidebooks and grant programs to support building elevation, which may not be supported through LCPs as reflected in this document.

The enclosed annotated copy of the *Guidance* provides additional detail in margin comments placed within the context of the document's text.

Thank you for your consideration of Marin County's vital concerns. As you know, we have practical and analytical experience with these issues through our work on our *Vulnerability Assessment*s and *Adaptation Report*, participation with other SLR practitioners and scientist throughout the Bay Area and in other areas of the state and the significant work we have already invested in our two LCP Hazards Amendments. These comments come out of that experience, and hope they will lead to substantial changes in alignment with the comments in the version presented to the Commission.

Sincerely,

Jack Liebster

Jack Liebster
Planning Manager
County of Marin
Community Development Agency

April 20, 2018

Mary Matella, et al.
Sea Level Rise Working Group,
California Coastal Commission
45 Fremont St, Suite 2000,
San Francisco, CA 94105

Dear Members of the CCC Sea Level Rise Working Group,

We are sorry to say the review process for the *Revised Draft Residential Adaptation Policy Guidance* has had significant flaws that have made the work more difficult and time consuming than it needed to be. On April 4, 2018, one day prior to the original comment deadline, and with the *Guidance* website inaccessible, CDA was sent the "redline" version of the *Guidance* showing changes from the previous draft that the county had requested on March 15. Then on April 12, 2019, after CDA had already submitted its comments, the CCC staff posted a Response to Comments on the earlier ***July 2017*** Draft.

Why was this important information not made available at the outset of the review period? Or alternately, why was the review period not deferred until these crucial items were completed?

CDA spent many hours searching the revised Draft Guidance to determine how the document had changed, and whether and how the first set of CDA comments had been addressed. For our rigorous review, the generalized Response to FAQs did not substitute for the redline and detailed replies. While CDA acknowledges and appreciates the CCC staff time spent on the Response to Comments Table, unfortunately, its late posting required CDA to again spend hours of staff time determining how and whether each *original* CDA comment was addressed and whether an additional similar CDA comment had been made on the *revised* Draft. CDA is now submitting this second set of comments on the revised Draft Guidance.

The CDA table below identifies our comments that correspond to those made on the original Draft. The first column refers to our April 9th margin comments on the Draft document. We have not changed the bulleted summary comments in our accompanying letter. The third column provides notes that correspond to your April 12 Response to Comments Table. Please be aware that a note of "response noted" **does not** imply CDA agreement with the CCC response. Please incorporate this letter and table with the first set of CDA comments on the revised *Guidance*.

Thank you for your consideration of Marin County's vital concerns.

Jack Liebster

Jack Liebster
Planning Manager
County of Marin
Community Development Agency

CDA Comments Submitted 4/9/2018 (those *assumed unaddressed by CCC staff after CDA's 9/29/2017 submittal*)	CCC Staff Response to Comment Table *(Response to comments submitted 9/29/2017)*		Notes on Comments
Page and Comment No.	Table Page No.	CDA Comment No.	
P. 30 CDA 33	50	CDA 51	Response noted
P. 30 CDA 36	50	CDA 52	Response noted
P. 35 CDA 43	55	CDA 60	Response noted
P. 44 CDA 61	61	CDA 78	This CDA comment pertains to the potential for a "regulatory takings" when regulating for a future impact with a high degree of uncertainty. The CCC staff response is inadequate. If the Commission is requiring local governments to pass regulations that might expose them to a takings, the Commission should provide adequate information about how local governments might be protected from such takings. The Commission has at its disposal, several staff attorneys and an appointed attorney from the State Attorney General's office. Most local governments do not have access to such extensive legal resources.
P. 45 CDA 66	62	CDA 80	Response noted
P. 46 CDA 68	62	CDA 81	CDA disagrees with CCC staff's explanation of "investment-backed expectations." See CDA discussion on investment-backed expectations in 4/9/18 letter on Response to FAQs.

CDA Comments Submitted 4/9/2018 (those *assumed unaddressed by CCC staff after CDA's 9/29/2017 submittal*)	CCC Staff Response to Comment Table *(Response to comments submitted 9/29/2017)*		Notes on Comments
Page and Comment No.	Table Page No.	CDA Comment No.	
P. 46 CDA 69	63	CDA 82	This CCC staff response did not explain how the Mitigation Fee Act relates to the Coastal Act and, therefore, how conformance with it can be required by the Commission.
P. 55 CDA 82 & 83	70	CDA 12 & 13	Response noted
P. 56 CDA 85	71	CDA 17	CCC staff's response doesn't address the specific NFIP maps mentioned in the CDA comment. The model policy should include language that offers those maps as a possible resource.
P. 57 CDA 86	72	CDA 18 & 19	Responses noted
P. 57 CDA 86	72	CDA 20	Please, just state whether or not the Commission will accept FEMA mapping products.
P. 57 CDA 87	72	CDA 21	Response noted
P. 57 CDA 89	72	CDA 22	Response noted
P. 58 CDA 90	72	CDA 23	Response noted
P. 58 CDA 94	73	CDA 26	Response noted
Comments Below Pertain to State Lands Commission (SLC) and Mean High Tide Line (MHTL) Migration CDA asserts that the SLC is the agency to determine whether or not a structure will be allowed to remain in place once it lies within the Public Trust. Furthermore, determining the location of the MHTL as it migrates is not the responsibility of the property owner or the local government. Determinations should be made by the state, using a sanctioned methodology, so that determinations are made consistently statewide and are handled by state agencies prepared to address the consequences of those determinations.			
P. 35 CDA 54	58	CDA 68	Response noted
P. 41 CDA 59	50	CDA 74	Response noted
P. 58 CDA 93	72	CDA 25	Response noted
P. 59 CDA 98	74	CDA 29	Response noted

CDA Comments Submitted 4/9/2018 (those *assumed unaddressed by CCC staff after CDA's 9/29/2017 submittal*)	CCC Staff Response to Comment Table *(Response to comments submitted 9/29/2017)*		Notes on Comments
Page and Comment No.	Table Page No.	CDA Comment No.	
P. 66 CDA 116	79	CDA 36	Response noted. Although, please note that Appendix A is a good place to provide additional information about how local governments use specific tools for contingency funding.
P. 67 CDA 118	79	CDA 52	Response noted
P. 67 CDA 119	79	CDA 53	Response noted
P. 69 CDA 124 & 125	80	CDA 54	Response noted. CDA asserts that the reinterpretation of the Coastal Act amounts to a new regulation and should be processed as such. See CDA comments in 4/9/18 letter regarding the Response to FAQs.
P. 71 CDA 134	82	CDA 64	Response noted
P. 72 CDA 135	82	CDA 65	Response noted
Comments Below Pertain to Removal Requirements for Shoreline Protection Devices (SPDs) CDA asserts that there is not a sufficient nexus to require removal of an existing legal SPD when "redevelopment" is triggered. This is especially the case where the Commission requires a restrictive definition of "redevelopment" and redefines "existing" development. See CDA comments on Response to FAQs dated 4/9/2018.			
P. 35 CDA 46	56	CDA 62	Response noted
P. 60 CDA 100, 101, 102	75	CDA 31, 32, 33	Responses noted
P. 60 CDA 103	75	CDA 34	Response noted
P. 61 CDA 105	75	CDA 36	Response noted

CDA Comments Submitted 4/9/2018 (those *assumed unaddressed by CCC staff after CDA's 9/29/2017 submittal*)	CCC Staff Response to Comment Table *(Response to comments submitted 9/29/2017)*		Notes on Comments
Page and Comment No.	Table Page No.	CDA Comment No.	
The Comments Below Pertain to "Redevelopment" See CDA comment letter dated 4/9/18 regarding redevelopment in the Response to FAQs. Here, as in other table cells, we note that the comments have been addressed, but we disagree with CCC staff's interpretation and don't believe the Commission has the authority to reinterpret the Coastal Act through a set of guidelines that it imposes on local governments as requirements.			
P. 18 CDA 8 & 12	42	CDA 18	Response noted
P. 59 CDA 97	74	CDA 28	Response noted
P. 61 CDA 104	75	CDA 35	Response noted
P. 71 CDA 133	81	CDA 63	Response noted
The Comments Below Pertain to Section 30235 of the Coastal Act CDA asserts that the plain language of the Act narrowly sets the standard as, "to eliminate or mitigate adverse impacts on local sand supply." The Commission's broad interpretation of this language and the addition of a new standard to "the least environmentally-damaging alternative to abate the danger" does not satisfy the law. The County further holds that the Commission's new interpretation of "existing structures" requires review as a new regulation, not as guidance. See CDA comments dated 4/9/18 on the Response to FAQs.			
P. 34 CDA 39-40, 42-43	51	CDA 55-59	Responses noted
P. 70 CDA 127-128, 130-132	80	CDA 55-59, 61-62	Responses noted

Marin County Key concerns regarding the Draft Guidance

Page 1
• Please describe the best available science about the loss of beach due to "drowning," increased erosion from more intensive storms and other mechanisms of beach loss and narrowing as compared to losses from "coastal squeeze?" • If existing and new accessways continue to exist, both the general public and local residents have the same access to the beach that they do now. Please explain how this is a new environmental justice issue.
Page 19
• Requirements for hazard disclosures at time of sale should be addressed at the state level to ensure consistency and respond to resistance from the real estate industry.
Page 20
• Per CCR Section 13252(b), the 50% threshold does not specify that calculation should apply to each "major structural component". This interpretation prohibits work (such as replacing a roof or foundation) that would otherwise logically be considered to fall below the more general "50% of structure" threshold required by Commission regulations. • Newly added Footnote 19 acknowledges relevancy of categorical exemptions, but this should be more prominently noted.
Page 23
• "Soft" protection adaptation alternatives have generally been experimental in nature, particularly for protecting coastal areas subject to high wave velocity. Making this point could help emphasize that there is a need for more demonstration projects, which hopefully could lead to more widespread use of such strategies throughout the state.
Page 24
• The description of accommodation includes language that is more commonly used to describe retreat. This includes "building structures that can easily be moved and *relocated*" and "clustering development in less vulnerable areas". Accommodation refers to strategies that allow assets to remain in place, while retreat refers to relocating assets to less vulnerable areas. • Also under the accommodation description is "requiring mitigation actions to provide for protection of natural areas even as development is protected". This sounds more like protection with "soft alternatives" more than accommodation.
Page 26
• It is great that public involvement is discussed pursuant to the coastal act. However, to include the public in a truly meaningful way, the costs and benefits of all strategies should be objectively laid out for their consideration. This document seems biased in favor of green infrastructure and retreat, and against accommodation and hard protection.
Page 29

- Under Adaptive Design (Accommodation), it states that elevation of homes can detract from community character. However, community character Is an ambiguous term that varies from place to place and thus may not always apply. Elevated homes and affiliated features are prevalent in coastal architecture throughout the world and thus a counter argument could be made that they contribute rather than detract from community character. Furthermore, is community character static, or is it something that can adapt to changing conditions? Clearer definitions of this term need to be developed, on a community-by-community basis, with community members central to the process. Marin County CDA worked with community members on an exercise which concluded that Stinson Beach is a 'funky' and eclectic' community due to diverse architecture of varying styles, shapes, sizes, features and more.

Page 30

- There are numerous potential negative impacts of retreat not identified in this section such as breaking up existing communities, loss of sense of place, loss of irreplaceable cultural resources, displacement of lower income residents who cannot afford to move, environmental impacts of new construction including GHG emissions which exacerbate climate change, straining existing community infrastructure with influx of new relocated residents, and more.

Page 34

- This *Guidance* should more clearly articulate that under current law eliminating existing development is not the only option and that minimizing or lessening adverse impacts is also permitted.
- The standard in 30235 is "to eliminate or mitigate adverse impacts on local shoreline sand supply". However, the last sentence of the top fill paragraph states that such protection is only allowed if it is required and is "the least environmentally-damaging alternative to abate the danger." It is quite a leap to expand the standard to the least environmentally damaging alternative and opens 30235 to a broad range of interpretations.
- In this draft, 30240(b) is quoted more accurately than it was in the first draft, but the reference to the future is still added. Arguably, "the continuance of those areas" implies some future for them. The addition of "in the future" here, is either simply redundant or an attempt to place an unlimited future potential for "those areas" that is not implied by "continuance."
- This seems to suggest that elevation and floodproofing are appropriate short-tomedium-term strategies to accommodate SLR, but not appropriate long-term strategies. Please provide sufficient deliberation regarding if and how flood proofing and elevating structures will be prohibited under the Coastal Act based on foreseeable future circumstances. How will "foreseeably" be determined, under what time frame and set of assumptions? Will it be determined by the hazards analysis submitted by the permit applicant? Rather than basing current decision making on a future worstcase scenario, shouldn't this be an area of the Guidance where adaptive management is recognized as a means of addressing future conditions as they become better known and more predictable?

Page 35

- Section 30233 creates standards for coastal waters, wetlands, estuaries, and lakes. It is clearly intended to regulate water areas or generally those areas below the Mean High Tide Line. The discussion, however, is about placing fill for revetments, dune restoration, and beach nourishment, most of which occurs above the Mean High Tide Line and generally not in wetlands.
- The Coastal Act regulates "development," not existing authorized structures and uses. There is no nexus to require a property owner to remove an existing legal shoreline protective device because the proposed definition of "redevelopment" requires a Coastal Development Permit for replacing a portion of the homes subfloor, foundation or siding. Similarly, the Coastal Act does not provide that the retention of existing bulkheads can be made subject to the conditions enumerated here. Without a convincing legal analysis as to how these types of substantive changes clearly comport with the Coastal Act. The legal analysis provided in the Response to FAQ is
insufficient.
- Marin County does not accept the new definition of "existing".
- Developed areas protected by preexisting bulkheads do not only occur in "urban" areas (the term "urban" should be deleted).
- The footnote on maintaining bulkheads to benefit public access is an important caveat that should be state more prominently in the document, not as a footnote.

Page 36

- Please address whether denying the elevation of a house above the hazard Base Flood Elevation to increase the likelihood of flooding, storm related damage and eventual loss would allow enough economically viable use to avoid a taking? This is an important issue to local governments if they are expected to adhere to and defend this legal conclusion through their local permit decisions. The rationale that "there is already an existing economic use of the property" seems flimsy without more legal analysis.
- Section 30235 does not make this distinction. It simply applies to "existing" structures.

Page 38

- Regarding the discussion on the location of the Mean High Tide Line and the historical MHTL, especially where it meets fill or structures, it is necessary to explain how a local government or a permit applicant would operationally determine the historical MHTL. Are there survey reports delineating that line at the time the structure was built or some other way to determine where the line was? Given the difficulties of establishing a line on the shore, it is nearly impossible to determine where the historical MHTL was located or would have been located prior to development of shoreline structures. Where is the Commission's authority to require a local government to in turn require a permit applicant to provide a property survey that assumes an existing structure is not existing? The Milner case is not sufficient evidence to require local governments, which do not own the tidelands, to demand such a survey. Rather, if the Commission desires to pursue its jurisdiction in this manner, it can request such a survey.

Page 41

- Regarding the Public Trust and sea level rise adaptation, we previously commented that the State Lands Commission should weigh in with an opinion and determination of how it will respond to SLR. We are aware that Commission staff are beginning to work with the SLC. Having an opinion from them would validate the Commission's Public Trust assertions.
- The Public Trust discussion and the takings discussion that follows it belong together. Local governments must balance the Public Trust and private property rights in every decision. For example, Commission staff writes that "it is important for LCP policies to protect public trust resources by ensuring that adjacent development does not…interfere with future migration of the public trust boundary." Along with this statement should be an explanation of how local governments ensure protection of PT resources while still avoiding a "takings." Striking this balance within your guidance document would make it more useful to local governments attempting to strike the same balance with every permit decision.

Page 44

- Regarding the discussion on takings concerns, the County's previous comment still stands. It asks, are there cases that address what happens when the action that reduces property value (e.g. severe building restrictions) and the intended outcome (providing for future protection of a beach) are widely separated in time?
- Policies requiring assumption of risk, disclosure of hazards, waiver of rights to SPDs, etc., will in many cases apply to **existing** property owners (not just new owners) whose "investment-backed expectations" were based on past regulations in place at the time of purchase. The Guidance should specifically address the investment backed expectations of **existing** owners, particularly those who purchased post 1977 Coastal Permitted residences, which would not qualify as "existing" under the Commission's new interpretation of that term.

Page 46

- Regarding the first sentence on this page about property owners adjusting their investment-backed expectation, does this refer to new purchases? Investment backed expectations are established at the time the investment (purchase of the home) is made based on governing land use laws in effect at that time, not when government changes established rules. In this case, the Commission is changing the rules after 40 years of implementing them a differently.

Page 52

- Marin's BayWAVE Vulnerability Assessment used scenarios under 3 different time frames (near, medium and long term), based on state level guidance and included inundation from SLR with and Without storms. Coastal Storm Modeling System (CoSMoS) was used as the model. Both scenarios and models were chosen by the program's technical advisory committee. Perhaps spotlight BayWAVE as a model in the identification and use of the best available science?
- Using 100 years as a minimum duration of development may not be possible as most sea level rise models and projections due not extend 100 years in the future. While recent state-level guidance includes 2150 projections, models may not necessarily include the high-end projections. Additionally, with all the inconsistency amongst various models, and uncertainties with high end scenarios, it may be very difficult to determine what the "worst-case "high" projection" is. Furthermore, science is constantly evolving and this figure would thus be constantly changing.

Page 53

- Unclear how to set planning horizons for 100-150 years when sea level rise models don't extend that far, or don't necessarily coincide with the scenarios. NOAA's maximum scenario is six feet, while COSMOS's jumps from 6.6 to 16.4 feet.

Page 55

- Regarding A.4 Site-specific Coastal Hazard Report Required, the first sentence directly contradicts the two notes immediately above the sample policy. If hazard maps can be used in lieu of site-specific reports (in some circumstances), then all development would not require site-specific hazard reports. Determining whether a site-specific hazard report is required should depend on the type of hazard, the project location (including siting and design), and the specificity of the hazard maps. Some hazards are more readily mapped than others and, in the case of sea level rise, where maps are regularly updated as the Commission will require in any LCP, a site-specific report will not provide any additional, useful information and will cost property owners a substantial sum of money.
- Regarding A.5 Coastal Hazard Report Contents, establishing beach and bluff erosion rates are generally outside the capabilities of most local governments and certainly of most property owners. The Coastal Commission should work with the State Lands Commission, the California Coastal Sediment Management Workgroup, and other responsible agencies, including academic institutions, to provide such information as part of the Guidance. Similarly, for projecting future conditions at a site for shoreline, dune, or bluff edge erosion over the long term, such information can best be determined by monitoring programs over a suitable timeframe. The Commission should assist in recruiting the appropriate agencies to establish a program, especially for the portion within the State Public Trust? Additionally, some of the federal coastal management funds should be allocated to this purpose.

Page 66

- A.5.c requires identification of a safe building envelope on the site that avoids hazards. The Coastal Act does not require a two-step process. In most dense to medium dense areas the parcels are of a size such that one part of the site will likely be as hazardous as another. The Coastal Act does not require avoidance of hazards. It requires that development "eliminate or mitigate adverse impacts on local shoreline sand supply" and "minimize risks to life and property in areas of high geologic, flood, and fire hazard." A more appropriate sample condition, one that is more consistent with the standards set in the Coastal Act, would read: "Identification of options to avoid or minimize hazards." The County also made this comment on the previous draft.
- Regarding A.5.f which addresses flood hazards associated with wave impacts, runup, and uprush, how will these estimates be developed? Does the Commission have examples of such studies completed and the costs associated with them? Does the Commission accept the FEMA science in this regard?
- Note that the comments on pages 55 and 56, though specific to certain requirements in A.4 and A.5, the general feedback here is that these policies are unrealistic in their requirements. Property owners are unable to provide the type of studies the Commission is requesting on a per project basis. Rather, the Commission should recognize the science and reports that already exists and make some effort to rely on those. For example, the County has already conducted a vulnerability assessment.
The County has overlaid its sea level rise maps with the FEMA flood maps to denote flood areas, future flood areas, and flood areas subject to wave activity. Why would it be necessary to require a property owner to do more sea level rise analysis? The requirements here are simply too burdensome and unnecessary.

Page 57

- Regarding assumption of risk, the term "property owners" should be replaced with "coastal permit applicants" in the first sentence.
- In A.6 item 2): does the sentence "to assume the risks of injury and damage from such hazards in connection with the permitted development" imply that property owners must forego federal disaster assistance and funding other than what is contractually obligated through FEMA insurance?

Page 58

- In A.6 item 2), would elevating a structure to include BFE + SLR freeboard be considered shoreline armoring? Furthermore, it is up to the State Lands Commission to determine what rights a property owner may have.
- In A.6 item 9): the sentence "…the structure may be required to be removed…if removal is required pursuant to…" is ambiguous. Does "no longer on private property" refer to a government purchase, or subject to the public trust, in which the property is still private, but encumbered? What "adaptation planning requirements" would require removal – wouldn't those instead be LCP regulations? The guidance on the waiver should be more specific.

Page 59

- Previous County comments expressed concern regarding extensive use of the term "redevelopment" throughout the document since the term is not contained in the Coastal Act or Administrative Regulations.

Page 62
• The *Guidance* notes that additions that result in the enlargement of more than 50% of a structure should be considered “redevelopment”. However, it is not clear how this percentage trigger was derived. • The *Guidance* specifies that calculations of “cumulative work” should consider all work undertaken after the date the Coastal Act went into effect. The Commission did not support this approach with respect to Marin’s LCP update. Instead, there appeared to be a consensus that a more reasonable and realistic approach would be to track cumulative improvements starting at the date of adoption of a particular LCP. This direction should be reflected in the *Guidance.* • The downzoning of properties has major financial and legal implications for many developed areas throughout California where the resiting or setting back of development is not an option due to lot size and/or the character of the hazard. Accordingly, the Guidance should acknowledge that downzoning is an optional approach which may or may not be an appropriate or feasible adaptation strategy.
Page 63
• The Guidance should clearly acknowledge that the definition of “redevelopment” proposed in Section B.7 does not appear in the Coastal Act nor its Administrative Regulations. The division of a structure into component parts and then the application of a 50% trigger to each of those parts is arbitrary, may be inconsistent with provisions currently used by local governments or agencies such as FEMA, and in Marin’s case, conflicts with Commission-approved Categorical Exclusions. Some of these issues have been partly addressed in the FAQ document prepared for the Guidance. Given their critical importance, a discussion of these issues should be incorporate into the Guidance itself, not in a separate FAQ document.
Page 67
• Adding a sea level rise buffer area to a habitat buffer would require a change to Marin’s Biological Resources LCPF section that has already been approved by the Coastal Commission. • How would limitations of use and development within sea level rise buffer areas be supported by the Coastal Act?
Page 69
• The legislature, not the Coastal Commission would change the law regarding shoreline armoring.
Page 70

- Shoreline protective devices section should specify if piers and caissons are included.
- Language on shoreline protective devices is not required by the plain language of PRC 30235., which specifically states the requirements ("local sand supply") and does not reference other such standards. The specific rule should not get lost in the general policy statement.

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.

The CCC FAQ (Response 5) responds to this concern. In sum, the CCC states that in addition to 30235, other provisions of the Coastal Act, its implementing regulations 14
(i.e. Cal Code Regs 135053.5, 13540(f), and CEQA apply. It is these other provisions that require analysis of alternatives to shoreline protection and to adopt an alternative that is less environmentally damaging. Further, court rulings give the CCC broad authority to adopt measures to mitigate significant impacts.

- F.2 identifies caisson foundation systems, though previous CDA comments said to exempt piers used to elevate structures.
- F.3 lists a number of requirements not supported by law for siting and designing new shoreline protective devices including protecting and enhancing public recreational access; protecting and enhancing public views; minimizing alteration of, and being visually subordinate to, the natural character of the shoreline; and avoiding or mitigating impacts to archeological resources.

Page 71

- In-Lieu fees to mitigation of impacts to public recreational access, public views, natural landforms, beach ecology, and water quality goes beyond 30235.
- Previous Marin County comment letter asked for explanation on what part of the Coastal Act 30253 supports CFBF this and the following provisions. No change has been made.
- F.6 refers to redevelopment. The County still objects to the definition of redevelopment included in this document.
- Marin County CDA made previous comments to F.6, which were not addressed, as follows:
  - Rather than "determination", use "presumably determined by monitoring in F8"
  - This will leave the structure unprotected from shoreline hazards. Is that the intent or is elevating structure to meet BFE in addition to sea level rise factor into the solution on small lots with no opportunity for relocation?

Page 73

- Existing bulkheads and necessary feasible augmentation of them not altering natural shoreline processes along bluffs or cliffs or causing adverse impacts to public access, marine habitat, aesthetics or other coastal resource is not required by 30235.

Page 74

- By eliminating the possibility of "refacing" a failing bulkhead, this requirement will make repair and replacement much more complicated and expensive.
- Marin County CDA's previous comment letter asked how this applies to existing structures, and no change has been made:
  - The principal structure(s) should be set back a sufficient distance 1) to allow for repair and maintenance of that bulkhead including access to any subsurface deadman or tiebacks and 2) to allow for realignment of necessary bulkheads as far landward as possible and in alignment with bulkheads on either side.
- The new F.11 Emergency Services section mirrors IP 22.70.140 word for word.

Page 76

- The Coastal Act does not regulate or require adaptation planning. It should be noted that a local government's adaptation planning program, while they may benefit from the Commission's recommendations in this guidance document, are not subject to Commission review of its Local Coastal Program.
- While community scale adaptation plans could be improved through accounting for other climate change impacts, such as fire and precipitation changes, models would need to be developed of these hazards to fully assess vulnerabilities to inform adaptation. Additionally, more information on mitigation strategies for other hazards, such as fires, need to be developed.
- Other types of resources that support the recreation/tourism economy could include built structures such as lodging, restaurants and shops, as well as housing for hospitality industry staff. Such assets should also be considered when planning to maintain California's coastline as a recreational destination in the face of sea level rise.
- "High projections on expected sea level rise" is ambiguous and could vary depending on the discretion of the local jurisdiction. Additionally, sea level rise models may not have a scenario that matches with the high-end projection.

Page 77

- Item G.1.d. discusses exploring a managed retreat program. While this is one option for adaptation, there are other means of adapting natural and built assets to coastal hazards. A planning process that is truly community driven should objectively lay out the pros and cons of different adaptation strategies for the decision-making process. Adaptation strategies generally span four categories: protection (grey infrastructure), projection (green infrastructure), accommodation and retreat; which should be overviewed in any adaptation planning guidance document.
- While this section lays out potential mechanisms and incentives for managed retreat, it does not address the myriad of challenges that such an effort could pose. This could include legal challenges with acquiring public property, unintended consequences of acquiring public parkland, and lack of additional land to absorb new residents who could be displaced through managed retreat.
- Managed retreat can be environmentally impactful as well. Demolishing existing buildings and new development can include materials production and transport, building construction, and demolition waste disposal. Such activities can contribute to greenhouse gas emissions thus further exacerbating sea level rise and could be avoided and minimized through preserving/protecting existing buildings.

Page 78

- Beach nourishment may be effective in some areas, though more pilot projects are necessary to demonstrate feasibility. Such a project could be resource intensive, and not financially sustainable, particularly in high hazardous areas with high wave velocity.
- Sea Level Rise Overlay Zones with downzoning, redevelopment restrictions and structure removal could lead to takings claims. Unintended legal consequences of managed retreat need to be further explored.

Page 81

- As the Coastal Commission does not require managed retreat, such a program would have to be voluntary at the discretion of the local government.

Page 82

- As we have noted, the programs under “Community Scale Adaptation Planning” are voluntary, since the Commission does not have authority to regulate programmatic adaptation planning efforts by local governments. However, in the interest in making this the best possible Guidance, it would be very helpful to include a more thorough discussion of TDR programs. They are complex programs that require many planning elements to come together at the right time in order to be implemented. A detailed discussion of successful TDR programs would be great.
- Good to list funding sources, but state and federal grants are quite limited. More discussion/case studies on community approaches such as local assessment districts would be helpful to catalyze such projects.
- While aligning LCPs and LHMPs make sense, objectives of the two programs vary. LCPs largely focus on protecting public access, while LHMPs are about reducing harm to life and property. Mitigation strategies to achieve these goals can be shared though FEMA has numerous guidebooks and grant programs to support building elevation, which may not be supported through LCPs as reflected in this document.

CALIFORNIA COASTAL COMMISSION
RESIDENTIAL ADAPTATION POLICY GUIDANCE

Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs

Photo Credit: Mary Matella

MARCH 2018

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DRAFT RESIDENTIAL ADAPTATION POLICY GUIDANCE

March 2018

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How to Use this Document

Use this document as:	This document is NOT:
Interpretive Guidelines	**Regulations**
This Guidance is advisory. It provides the Commission's direction on how local governments can address sea level rise issues in Local Coastal Programs consistent with the Coastal Act. The guidance is not a regulatory document or legal standard of review for the actions that the Commission or local governments may take under the Coastal Act. Such actions are subject to the applicable requirements of the Coastal Act, the federal Coastal Zone Management Act, certified Local Coastal Programs, and other applicable laws and regulations as applied in the context of the evidence in the record for that action.	
Examples to modify	**A substitute for consultation with CCC staff**
This Guidance contains model policies that may need to be customized before they can be incorporated into individual LCPs. In addition, not all policies are applicable in every jurisdiction. Commission staff can assist local governments with using the Guidance to develop policies that help prepare for sea level rise impacts in their communities.	
Policy options for consideration	**A checklist**
Not all of the content will be applicable to all jurisdictions. Jurisdictions should consider the policy options that are relevant to their specific situation, rather than view the options as a checklist of requirements.	

Table of Contents

List of Tables and Figures

Summary

This Residential Adaptation Policy Guidance (Guidance), which will be presented to the Coastal Commission for consideration and formal adoption as interpretive guidelines,[1] is intended to assist local governments in planning for sea level rise adaptation. The Guidance follows up on, and is meant as a companion document to the Commission's 2015 Sea Level Rise Policy Guidance, which set forth broad principles related to planning for sea level rise.

Since the adoption of the 2015 Sea Level Rise Policy Guidance, science has revealed growing sea level rise threats resulting from thermal expansion of ocean waters and melting ice sheets.[2] While the magnitude and timing of sea level rise impacts (e.g., coastal erosion, flooding, saltwater intrusion) are not precisely known, the trend is clear, and the need to incorporate sea level rise in planning, permitting and investment decisions is increasingly evident. Thus, while erosion and flooding are not new hazards to shoreline development, accelerating sea level rise will create greater risks for development in many shoreline areas.

Residential development is the foundation of many of California's coastal communities. However, as sea levels rise, and beaches and bluffs migrate inland, maintaining residential development adjacent to the shoreline will in many cases cause the narrowing and eventual loss of beaches, dunes and other shoreline habitats as well as the loss of offshore recreational areas. This narrowing, often referred to as 'coastal squeeze,' can occur when shoreline protection or other fixed development prevents the landward migration of the beach that would have otherwise occurred, and it can also occur when the beach migrates up to and underneath elevated structures.[3] Failure to address impacts related to coastal squeeze has the potential to result in significant conflicts with the Coastal Act, which was enacted for the purpose of protecting California's coastal resources. It also presents challenges for carrying out the public trust doctrine. Furthermore, coastal squeeze presents a significant environmental justice issue if private residents adjacent to the shoreline continue to enjoy shoreline access, while the general public is blocked from accessing the shore.

Given the severity of impacts that could occur as a result of sea level rise, and the uncertainties surrounding projections of sea level rise over the expected life of many coastal projects, communities, planners, coastal managers and project applicants will need to use adaptation strategies to effectively address coastal hazard risks and protect coastal resources over time. In California, Local Coastal Programs (LCPs) provide the planning mechanism for implementing sea level rise adaptation strategies. Local governments structure their LCPs (through their Land Use Plans and Implementation Plans) in a variety of ways, with some local governments including significant policy detail in the LUP, and some reserving such detail for the IP. Because the degree of specificity in the model policies presented in this Guidance vary, local governments should customize the model policies to align with their community's approach and work with Commission staff to facilitate timely development of adaptation strategies. Additionally, maximizing public participation in the adaptation planning process is critical and will help local

Commented [CDA1]: Please describe the best available science about the loss of beach due to "drowning," increased erosion from more intensive storms and other mechanisms of beach loss and narrowing as compared to losses from "coastal squeeze?" March 09, 2018

Commented [CDA2]: . This state that residents will enjoy access while the public is blocked. But If existing and new accessways continue to exist, both the general public and local residents have the same relative access to the beach that they do now – until the beach disappears and everyone loses equally.

Commented [CDA3]: There are other, in many ways better, mechanisms for sea level rise adaptation strategies, as has already been demonstrated by several local governments.

[1] Pursuant to Public Resources Code Section 30620. All references to Coastal Act sections are to the Public Resources Code.
[2] Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group). Rising Seas in California: An Update on Sea-Level Rise Science. California Ocean Science Trust, April 2017.
[3] In areas with relatively hard geologic features, sea level rise may occur faster than erosion, resulting in a loss of beach area, regardless of the presence of shoreline development.

governments understand how adaptation policies may have disproportionate impacts on different populations. Public participation in the process also serves to educate residents, visitors and other stakeholders about sea level rise vulnerability, and can help ensure adaptation planning reflects the community's vision, objectives and goals.

This Guidance provides an in-depth discussion of sea level rise adaptation strategies specifically related to residential development, and it provides examples of policies that cities and counties should consider when drafting LCP policies and reviewing individual permit decisions within their communities. The specific local and regional context and existing development patterns must be considered when developing a long-term strategy that appropriately avoids risk, minimizes hazards, and protects coastal resources. Not all model policies will apply in each community, and local governments may want to consider modifications to the language provided herein, depending on the specific community and geologic contexts of the area. Decisions on individual permits prior to adoption of a comprehensive plan for a region should not preclude or prejudice implementation of long-term adaptation strategies that protect coastal resources over time. Commission staff is available to assist with understanding and applying the Guidance in specific communities. An overview of this Guidance document is as follows:

In Section 1, the Guidance explains how Local Coastal Program (LCP) planning for sea level rise can provide for resilient shoreline residential development while protecting coastal resources. Section 1 also presents background on LCP planning, residential development, and the challenges that sea level rise presents for different types of hazards and development.

Section 2 identifies LCP policies that address sea level rise hazards appropriate for all hazardous areas, while Section 3 details considerations for developing adaptation strategies in specific areas and contexts. As described in Section 4, these adaptation strategies will need to be evaluated, identified and implemented within a relevant set of laws, including the Coastal Act, public trust doctrine, and takings law. Section 5 on Implementation presents a summation of how LCP Planning Steps interact with specific adaptation policies (identified in Section 6). The Implementation Section also presents ways of phasing in adaptation strategies over time as sea levels rise.

Finally, Section 6 presents model policies for cities and counties to consider for use in different community and geologic contexts. There are a number of options for how to address the risks and impacts associated with sea level rise in the shorter term, through evaluation of coastal development permit applications, and in the longer term, through development of management plans and LCP updates. In most cases, the strategies for addressing sea level rise hazards will require proactive planning to ensure protection of coastal resources and development. Such proactive adaptation strategies generally fall into the following categories, though some strategies combine elements of more than one:

1) Avoid Siting Development in Hazard Areas;
2) Design for the Hazard (accommodation);
3) Move Development Away from Hazards (managed realignment/retreat);
4) Move Hazards Away from Development (soft or natural protection)
5) Build Barriers to Protect from Hazards (hard protection)

Commented [CDA4]: This is a poor way to describe this option. The classifications beginning on Page 23 are much clearer.

The LCP model policy language is organized according to these general adaptation approaches, and many policies provide language that local governments may incorporate into conditions of approval for development they approve through the coastal development permit process. Additionally, a section on community scale planning presents multiple adaptation approaches within individual policies.

The Guidance is advisory and not a regulatory document or legal standard of review for the actions that the Commission or local governments may take under the Coastal Act. The Guidance is a tool to be used to help achieve the development of LCP policies that are consistent with the Coastal Act, in light of sea level rise. The Guidance is provided pursuant to Public Resources Code Section 30620(a)(3), which allows the Commission to adopt "[i]nterpretive guidelines designed to assist local governments, the commission, and persons subject to this chapter in determining how the policies of this division shall be applied in the coastal zone prior to the certification, and through the preparation and amendment, of local coastal programs. However, the guidelines do not supersede, enlarge, or diminish the powers or authority of the Commission or any other public agency." Thus, the Guidance is not a regulation or a mandate; however, it does provide the Commission's direction to local governments and other interested parties on how LCPs could address sea level rise.

Commented [CDA5]: Before any are adopted, each of the proposed guidelines should be evaluated in writing for compliance with this section of the Coastal Act, and the resulting analysis should be provided to the public and to the Commission for review in advance of action.

It is worth noting that some elements of the Guidance closely track existing statutory and regulatory requirements that must be adhered to in order to achieve Coastal Act consistency. Other elements of the Guidance provide the Commission's direction on policy approaches that can be used to ensure Coastal Act consistency. And finally, some elements are suggestions to be considered and utilized where appropriate. Model policies are provided as a tool to assist local governments in developing their own LCP policies that will be subject to public review through the local planning process before being finalized. Using the model policies, where relevant, can help achieve Coastal Act consistency, but jurisdictions remain free to modify the policies or develop different policies, so long as they are consistent with the Coastal Act.

Note: The model policies presented in these interpretive guidelines are intended to provide guidance for the development of LCP policies, with an emphasis on applicability to residential development. **Not all approaches listed here will be appropriate for every jurisdiction, nor is this an exhaustive list of options**. In addition, looking at a single policy does not indicate how the entire LCP achieves compliance with the Coastal Act. Similarly, in this Policy Guidance, many of the model policies work together. For example, policies on setbacks rely on a policy requiring the site-specific hazard report that is needed to calculate the setback. Therefore, users of the model policies should consult all sections of this Guidance for assistance in understanding how the policies work together.

1. Background

Accelerating sea level rise will create greater risks for development and coastal resources in many of California's shoreline areas. While the Coastal Act requires minimizing risks to life and property from coastal hazards, it also mandates the protection of coastal habitats and other sensitive resources, maximization of public access and recreation along the coast, as well as the provision of priority visitor-serving and coastal-dependent or coastal-related development. The Coastal Act also calls for maximum public participation in the coastal planning process. The Coastal Commission's Sea Level Rise Policy Guidance, adopted in August 2015, can help planners, decision makers, project applicants, and other interested parties continue to achieve these goals in the face of sea level rise by addressing its effects in Local Coastal Programs and Coastal Development Permits. The intent of this Guidance is to build on the 2015 Sea Level Rise Policy Guidance to provide more specific details on how a community can address sea level rise impacts in Local Coastal Programs (LCPs), which are essential planning tools for fully implementing sea level rise adaptation efforts.[4] Careful planning is crucial to ensure that sea level rise adaptation actions such as hard armoring do not adversely impact coastal resources along the shoreline.

The Coastal Commission has made it a high priority to support LCP updates that address climate change, as demonstrated by the numerous goals, objectives and specific actions in the Commission's 2013 - 2018 Strategic Plan and in the agency's investment in the LCP Grant Program. The content of this Guidance is also aligned with other state-wide climate change and adaptation directives and efforts. For example, *Safeguarding California*[5] recommends hazard avoidance for new development, calls for protection of coastal resources, supports innovative designs and adaptation strategies for structures in areas vulnerable to sea level rise hazards, and encourages addressing climate impacts in Local Coastal Programs and General Plan updates. *Safeguarding California* also identifies the need for state agencies to produce guidance documents—such as this one—addressing climate adaptation.

The State of California, led by the Ocean Protection Council (OPC), is also in the process of updating the *State of California Sea-Level Rise Guidance*[6] to reflect recent advances in sea level rise science and to assist state agencies and local governments in incorporating sea level rise into their planning, permitting, and investment decisions. As such, the updated *State of California Sea-Level Rise Guidance* should be considered a resource for users of this Guidance for information on best available science and opportunities for coastal adaptation.

This Guidance reflects the input of public commenters, local governments, and state agencies. To solicit and encourage comments on the Draft Guidance, Commission staff conducted three public webinars, three conference calls with local governments, and multiple meetings with Commission district staff. Over a 2-month public comment period, 27 comment letters were received from private citizens, non-governmental agencies, local governments, state agencies, and others. Coastal Commission staff coordinated directly with State Lands Commission and OPC staff on their review of the Guidance as well.

[4] The California Climate Adaptation Strategy (CNRA 2009) and Safeguarding California (CNRA 2014) specifically identify LCPs as a mechanism for adaptation planning along the California coast.
[5] http://resources.ca.gov/climate/safeguarding/
[6] http://www.opc.ca.gov/

Coastal Resources at Risk

Sea level rise has a number of effects, including increasing the risk of flooding, coastal erosion, and saltwater intrusion into freshwater supplies, which have the potential to threaten many of the resources[7] found along the California coast, including coastal access and recreation areas, 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, some sea level rise adaptation strategies, such as construction of barriers or armoring, can have adverse impacts on coastal resources. When hard structures are used to protect backshore development, they become barriers that impede the ability of beaches and habitats to naturally migrate inland over time and reduce sources of sand supply created by erosion that contribute to beach accretion. This process is commonly referred to as "coastal squeeze" and leads to the narrowing of beaches or shoreline coastal habitats. As sea level rises, coastal squeeze will eventually result in the loss of vulnerable intertidal and low-lying habitats, recreational beach areas and surfing resources if hardened shorelines are constructed and allowed to remain in the future as a way to protect existing development (See Figure 1).

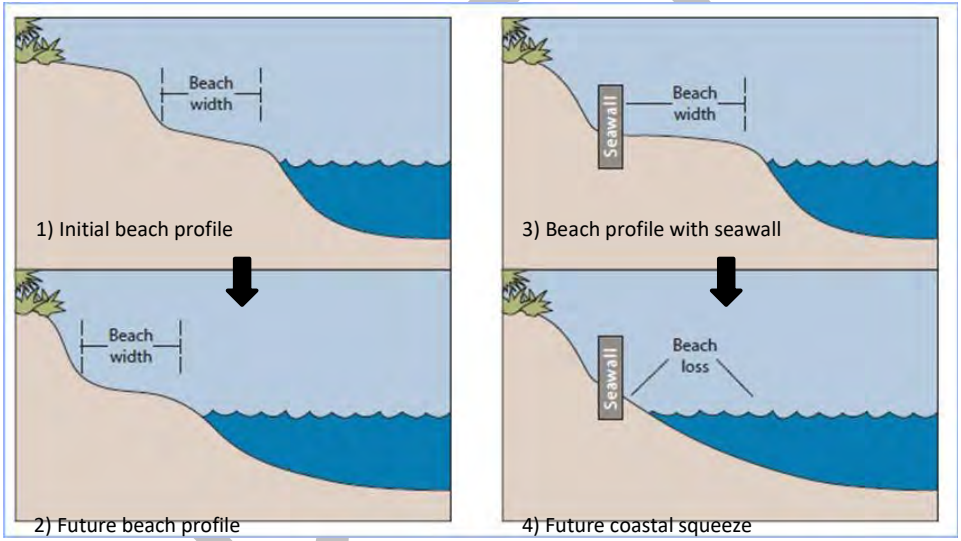


Figure 1. Coastal squeeze process resulting in beach loss due to future erosion and shoreline armoring[8]

Large scale impacts from sea level rise have only just begun, but the potential for future habitat loss is considerable. A recent USGS study found that 31-67% of beaches in southern California could be completely lost by the year 2100 without new management actions.[9] In addition to habitat loss, coastal squeeze could also result in the loss of coastal wildlife, including special

[7] These resources are generally referred to in this Guidance as "coastal resources."

[8] Adapted using U.S. Army Corps of Engineers, 1991. Beach response to the presence of a seawall: Comparison of field observations. Technical Report CERC-91-1, 63 pp.

[9] Vitousek, S., Barnard, P.L, Limber, P., Erikson, L., Cole, B., 2017. *A model integrating longshore and cross-shore processes for predicting long-term shoreline response to climate change*. J. Geophysical Research Earth Surface, 122, 25pp.

status, rare and endangered species. As sea levels rise, any blocked migration of natural low-lying shoreline that supports special status species or protected habitats[10] could result in local species loss and have far reaching effects on wildlife populations[11]. For example, the California least tern, the Western snowy plover, and Ridgway's rail are just a few of the threatened and endangered species–already limited by resource extraction and development along the coast–that will be impacted by loss of habitat areas.

Sandpipers forage for food in the sand in Bodega Bay. Photo Credit: Kathleen Scavone

The loss or alteration of wetlands, which provide an array of ecosystem services and serve as important reservoirs of species diversity, is of particular concern. In addition to buffering the shoreline against wave action, many species only exist in these unique gradients of tidal inundation, salinity, flow velocity and elevation. Wetlands are also economically important in that they provide nurseries for commercial fish species, and habitat for special status pelagic fish, such as tidewater goby and steelhead. As with beach habitat, if wetland areas are unable to migrate inland as sea levels rise, due to barriers like armoring or development, this important habitat area will eventually be inundated, resulting in the loss of these associated benefits.

Furthermore, the consequences associated with coastal squeeze present a significant environmental justice issue. As described above, if private property owners armor their property to prevent damage associated with sea level rise, the armoring and perpetuation of development will result in the eventual loss of beach area in many places. In such cases, these actions will benefit a few private citizens at the cost of the larger beach-going public.

Importance of LCPs

Addressing anticipated impacts of sea level rise in California falls directly within state and local governments' planning and regulatory responsibilities under the Coastal Act. State and local jurisdictions also have a responsibility to protect public trust resources (e.g., protection of public

Commented [CDA6]: But also under the LHMP, the General Plan and free-standing Adaptation efforts.

[10] Under the Coastal Act, many coastal wetlands and all dune habitats are considered environmentally sensitive habitat areas (ESHA).

[11] See more information at Pacific Americas Shorebird Conservation Strategy, Audubon, (December 2016), available at: https://www.fws.gov/migratorybirds/pdf/management/PASCS_final_medres_dec2016.pdf .

trust lands for public trust purposes, including maritime commerce, navigation, fishing, boating, water-oriented recreation, visitor-serving facilities and environmental preservation and restoration). Shoreline protection, especially when coupled with impacts of sea level rise, can threaten public access and coastal resources in a manner that conflicts with the Coastal Act. Enacting policies to preserve and enhance California's beaches, public access, shoreline ecology, and other shorefront resources is especially important because these resources might be threatened by impacts of sea level rise sooner than development located behind shoreline armoring or located further inland. Thus, planning for sea level rise will require an array of adaptation strategies that can be implemented in different contexts and over different timescales.

LCPs contain the standards that govern future development and protect resources in the coastal zone, and development located between the first public road and the sea must also be consistent with the public access and recreation policies of the Coastal Act. Each LCP includes a Land Use Plan (LUP) and an Implementation Plan (IP). The LUP specifies the kinds, locations, and intensity of uses, and contains a required public access component to ensure that maximum recreational opportunities and public access to the coast are provided. The IP includes measures to implement the LUP, such as zoning ordinances. LCPs are prepared by local governments and submitted to the Coastal Commission for review and certification for consistency with Coastal Act requirements.[12]

To be consistent with the Coastal Act hazard and resource protection policies, it is critical that local governments with coastal resources at risk from sea level rise certify or update Local Coastal Programs to provide a means to prepare for and address these impacts. Although the existing LCP certification and update processes are still the same, sea level rise calls for new regional planning approaches, new strategies, and enhanced community participation. Accordingly, the impacts of accelerated sea level rise should be addressed in LCP chapters pertaining to hazard and coastal resource analyses, public access, community outreach, public involvement, and regional coordination. This Guidance is designed to assist jurisdictions in creating or updating their LCPs by providing model policy language and recommendations pertaining to residential shoreline development.

While the document is intended to guide LCP planning and development decisions to ensure effective coastal management actions, **it is advisory and does not alter or supersede existing legal requirements, such as the policies of the Coastal Act and certified LCPs**. Since many existing LCPs were certified in the 1980s and 1990s, it is important that future amendments of the LCPs consider sea level rise and adaptation planning at the project and community level, as appropriate. One of the Commission's top priorities is to coordinate with local governments to complete and update LCPs in a manner that adequately addresses sea level rise.

Shoreline Residential Development Types/Patterns

This Guidance focuses on residential development because it is one of the most prevalent community development patterns along California's coast, and thus poses one of the more frequent hazards management challenges. Much of this challenge results from the overall pattern

[12] In addition, there are other areas of the coast where other plans may be certified by the Commission, including Port Master Plans for ports governed by Chapter 8 of the Coastal Act, Long Range Development Plans for state universities or colleges, and Public Works Plans for public infrastructure and facilities. Following certification of these types of plans by the Commission, some permitting may be delegated pursuant to the Coastal Act provisions governing the specific type of plan.

of residential development along California's coast that, for the most part, was established before the Coastal Act. Within many of these residential areas there is typically a mixture of structures built before and after enactment of the Coastal Act. In addition, many of California's urban coastal areas were built out during the post-WWII development boom that also coincided with a relatively "calmer" coastal period that had fewer, less intense storms. Thus, when the Coastal Act was passed in 1976, the State inherited many fixed development patterns in inherently hazardous coastal locations, perhaps due to an artificially low appreciation of the inherent risks in these locations at the time they were developed. The El Niños of 1977-78 and 1982-83 marked the end of the "calm" period and caused enormous amounts of property damage, shoreline erosion, and also often led to emergency shoreline armoring.

Policymakers seeking effective responses to sea level rise in California must confront the inherent complexity of the challenge: California has more than 1271 miles of main coastline, with a diversity of physical environments, ranging from high cliffs to low river mouths; rocky substrates to sandy dunes; high wave energy exposed beaches to lower energy estuarine and bay environments.[13] The vulnerability of urban infrastructure that supports residential development further complicates sea level rise planning challenges. In many cases, local jurisdictions will need to consider adaptation strategies for infrastructure, including roads, as they develop their community vision for addressing impacts of sea level rise on their shorelines. While outside the scope of this Guidance, the Commission plans to provide future guidance on sea level rise planning for infrastructure.

Categorizing California's residentially-developed areas in a typology can help organize approaches for sea level rise adaptation. Typologies are systematic classifications of groups that have characteristics in common. Many fields use typologies to facilitate ordering of information for communication and outreach, from linguistics to natural resource management to climate adaptation.[14] In the case of hazards management, using a typology to describe residential development on the California coastline affirms the diversity of development contexts in California, and thus the complexity of the planning challenge, but it can also help frame the variety of key planning issues important for addressing sea level rise in particular places. Table 1 describes a conceptual grouping of shoreline residential development types.

Table 1. Shore development typology groups with associated subtypes

Shore Development Type		Subtype			Example (See Box 1)
1	Urban blufftop	a) Low	b) High		Solana Beach
2	Urban beachfront	a) Beach	b) Dune		Broad Beach
3	Low density blufftop	a) Low	b) High		Big Lagoon
4	Low density beachfront	a) Beach	b) Dune		Stinson Beach
5	Urban estuary	a) Bay	b) River	c) Marsh	Newport Beach
6	Low density estuary	a) Bay	b) River	c) Marsh	Bodega Bay

Considering the shoreline, backshore landscape and residential intensity patterns, this conceptual typology can describe the most common settings that bound the diverse development patterns

[13] *See generally,* LIVING WITH THE CHANGING CALIFORNIA COAST (Gary Griggs et al. eds., 2005).

[14] Y. T. Maru, J. Langridge & B. B. Lin, *Current and Potential Applications of Typologies in Vulnerability Assessments and Adaptation Science* (CSIRO Climate Adaptation Flagship, Working Paper No. 7, 2011), https://research.csiro.au/climate/wp-content/uploads/sites/54/2016/03/7_Typologies-Adaptation_CAF_pdf-Standard.pdf.

along the California shoreline. Subtypes represent the geomorphic landscape for developed neighborhoods that are located on the beachfront, blufftop, or in other low-lying environments. The estuary type broadly covers low-lying shorelines characterized by some mixing of freshwater and saltwater, as seen at river mouths, lagoons, bays, and saltmarsh. The shore development type in combination with subtype gives a more useful level of detail to planners who are identifying the policies and ordinances to apply to development in their communities.

The variations of residential development patterns along California's coast affirm the importance of understanding context when developing policy. The presence of armoring to protect existing structures signifies a hazardous condition already exists that may be exacerbated over time. It also illustrates it may be difficult to generalize how to implement "adaptation" along the shoreline in specific places. In fact, multiple shoreline types and existing development patterns, with and without armoring, are often found within single jurisdictions (Figure 2). Box 1 presents examples of how current and future coastal hazards in California are being addressed for the shore development types presented in Table 1.

Communities will need to consider more than just geomorphic types when planning for sea level rise. For example, the presence of public accessways, critical infrastructure like roads and sewer lines, sensitive habitat, and socioeconomic factors are also important considerations when adaptation strategies are being identified for any stretch of vulnerable shoreline. Depending on the presence of these factors, adaptation planning might engage different stakeholders or adjust outreach strategies. Moreover, planning for sea level rise in an LCP context will require multiple policies and phased approaches. In some cases, a near term strategy might involve shoreline protection for existing structures, while in others new development and redevelopment should be set back from the shoreline to avoid armoring entirely. A list of model policies a community might consider for different shoreline types follows in Table 2. While not exhaustive, and while not every solution will fit each local context, jurisdictions should consider these policies as they begin their LCP planning process for insight and ideas on how to address sea level rise in their own communities in a manner that is consistent with the Coastal Act.

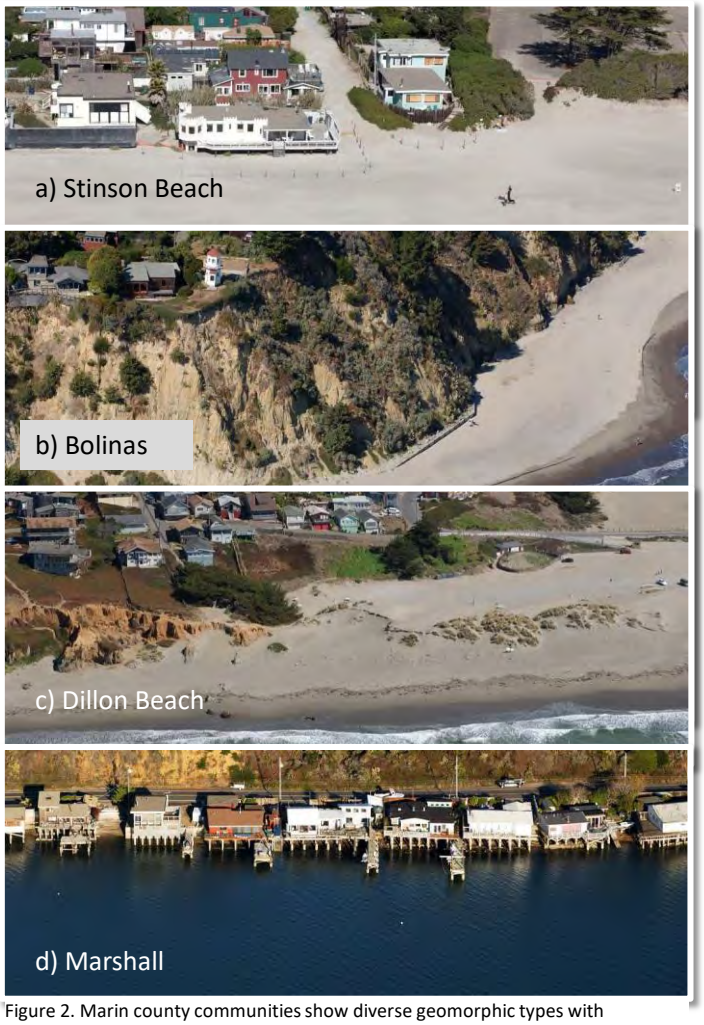


Figure 2. Marin county communities show diverse geomorphic types with residential development – a) beach, b) bluff, c) dune, and d) estuary. (Photos from Coastal Records Project)

Box 1. Examples of typology groups

1. URBAN BLUFFTOP: SOLANA BEACH, SAN DIEGO COUNTY

The Solana Beach community is built out along the shoreline, and the beaches below the existing blufftop residential development are highly valued public access and recreational resources. They are also subject to constant wave attack and long-term erosional trends. The cliffs themselves are high and do not provide stable development sites without reliance on measures such as significant setback distances (with the 100-year geologic setback located in the street for some lots), or structural options such as substantial foundation development such as deep caissons (subterranean concrete piers), or beach-level seawalls and mid- and upper-bluff retention structures. The primary adaptation challenge in Solana Beach has been how to protect existing blufftop development while not losing the beach below or the aesthetic of the natural cliff form. Much of this development is now protected by seawalls and upper bluff retention structures that prevent natural retreat of the beach and result in loss of beach resources. However, maintaining the existing development pattern will likely lead to long-term loss of beach resources without significant retreat of blufftop development or measures such as sand replenishment. Given the current extent of shoreline armoring in Solana Beach, mitigation strategies for the impacts of shoreline protective devices, and limitations on redevelopment in non-conforming locations, will be critical to effective long-term protection of the beach environment. The Cities of Solana Beach and Encinitas also are hoping to benefit from a federally-sponsored, 50-year beach replenishment effort slated to begin sometime in 2018-19.

Solana Beach, Coastal Records Project.

2. URBAN BEACHFRONT: BROAD BEACH, LOS ANGELES COUNTY

More than 100 homes first constructed in the 1930's and redeveloped over the decades sit along Broad Beach just inland of the ocean. Over the last several decades, Broad Beach has eroded significantly and this has placed the homes, backyards and septic systems in danger. A 0.8 mile-long emergency rock revetment was constructed to protect the homes, resulting in the loss of significant beach area and covering many existing public lateral access dedications previously required by the Coastal Commission and now held by the State Lands Commission. The homeowners formed a Geological Hazard Abatement District (GHAD) to address the shoreline erosion and beach management problem collectively. The GHAD is a type of local assessment district that can enable communities to pool resources to conduct hazards studies and fund adaptation measures. Among other strategies, the Broad Beach GHAD proposes a 20-year beach replenishment program to maintain the beach in front of the revetment, which would be buried under a restored coastal dune complex. The Broad Beach project raises significant issues about the long-term impacts of the beach homes and associated revetment on

Broad Beach, Coastal Records Project.

the beach; public access and recreation; and ecological value of the dune and beach complex, which will

likely require frequent maintenance. Concerns also exist about the potential impacts of the proposed sand replenishment on beach and marine habitats, including sensitive offshore habitats in the Point Dume State Marine Conservation Area. Therefore, adaptive management relying on a series of monitoring thresholds has been proposed to ensure resources are being adequately protected.

3. LOW DENSITY BLUFFTOP: BIG LAGOON, HUMBOLDT COUNTY

The Big Lagoon area illustrates how a relatively less dense, more rural development context allows for the use of managed retreat and relocation for both existing and new development. Big Lagoon is in the northern part of Humboldt County, composed of an uplifted marine terrace approximately 40-90 feet above mean sea level. Many of the parcels in the area are used for commercial timber harvesting and rural residences. Bluff erosion and geologic instability currently pose risks to many existing structures located on bluff edges, and sea level rise will increase erosion rates in the future. Sudden catastrophic bluff failure events have already led to emergency relocations of homes (starting in the 1940s) along the bluffs between Big Lagoon and Patrick's Point. One recent example of planning for retreat and relocation occurred in 2015 when Humboldt County submitted an LCP amendment to reconfigure the boundary lines between existing Residential Estates (RE) and Coastal Commercial Timberland (TC) land use and zoning designations to allow relocation of 14 existing cabins away from the bluffs. The proactive planned relocation of development in Big Lagoon was also mirrored in a case of proposed new development in a hazardous blufftop area of Humboldt County. At the parcel-scale, just downcoast of the Big Lagoon cabin development on the same high eroding bluff formation, the Coastal Commission relied on a "takings override" finding to approve a new house in February 2014 (Winget project). The agency used the best available scientific projections for sea level rise and erosion rates to determine that the proposed house would last about 50 years before it needed to be removed to avoid falling to the beach below. Rather than deny the project entirely, the Commission conditioned it to incorporate adaptive measures that allow for an economic use of the site as long as possible, by requiring the property owners to monitor the bluff edge as erosion continues to encroach on the development until bluff retreat reaches a point at which the authorized structure must be removed. In this way, the property owners can maximize the amount of time they can safely stay in their residence, while ensuring that new development will minimize hazards and remain structurally stable for its useful life.

Big Lagoon, Coastal Records Project.

4. LOW/MEDIUM DENSITY BEACHFRONT: STINSON BEACH, MARIN COUNTY

There is significant residential development along the shoreline of Marin County's Stinson Beach community that is subject to long term erosion, wave run-up, coastal flooding, septic failure, and water distribution pipe failure. Calle del Arroyo, a principal access road to the Calles, Patios, and Seadrift neighborhoods of Stinson Beach, may also experience increased flooding and eventual permanent inundation, severely limiting access and utility infrastructure to portions of the community. Flooding from Bolinas Lagoon and Easkoot Creek already occurs and will likely worsen with future rising sea levels. In the past, Marin County has generally

Stinson Beach, M. Matella

allowed redevelopment of beach homes if they comply with FEMA flood elevation rules, but this has resulted in some elevated structures that raise concerns about visual resources and community character, as well as beach access and recreation. The county is currently recommending a policy of requiring structures to be raised 3 feet above FEMA's Base Flood Elevation to account for sea level rise. Over the longer-run there is a concern that the mean high tide line, and thus public trust lands, will migrate to and eventually under elevated homes on the beach. This eventuality demonstrates the need to more comprehensively address the potential conflict between coastal hazard mitigation and coastal resource protection, including protection of the public trust interest in tidelands.

5. DEVELOPED ESTUARY: NEWPORT BEACH, ORANGE COUNTY

Estuarine environments present a different set of sea level rise policy concerns compared to developed bluffs or beaches. The development of Newport Bay Harbor was authorized in 1934 and carried out by the Army Corps of Engineers. Islands within Newport Bay were built-up using dredged sediments within the estuary, and now residences and small piers are common in the bay. Increased erosion, loss of coastal wetlands, permanent or periodic inundation of low-lying areas, increases in coastal flooding, and salt water intrusion are all expected sea level rise impacts facing

Newport Beach, Coastal Records Project.

Newport Beach. Structures on islands within Newport Bay and the bayside of Balboa Peninsula typically rely on bulkheads (retaining wall structures similar to seawalls but typically not designed for wave impacts) to ensure protection against coastal flooding and shoreline retreat. Most immediate sea level rise adaptation measures in Newport Bay will be to reinforce and elevate those existing bulkheads. However, protection of the public tidelands for public use is a primary concern and must be addressed on a comprehensive basis.

6. LOW DENSITY ESTUARY: BODEGA BAY, SONOMA COUNTY

The Sonoma County coast supports agricultural lands, timber preserves, open space areas, recreational lands, and low-density community development. In contrast to Newport Bay, Bodega Harbor is a small shallow natural harbor in Sonoma County, protected from the larger expanse of Bodega Bay to the south by a narrow spit of land. The area has relatively low density residential development, and large expanses of natural habitat, both in tidal mudflats and salt marsh, presenting different policy questions than the highly urbanized context of Newport Bay. For example, in one recent coastal permit application, the Coastal Commission found that there was a policy conflict and applied the conflict resolution provision of the Coastal Act to provide protection of wetlands (considered environmentally sensitive habitat area [ESHA]) in Bodega Bay while allowing redevelopment of the existing Lundberg residence. The residence was moved out of ESHA and special conditions put in place to mitigate the impacts from the development. These conditions included a revised habitat restoration and monitoring plan; restrictions on future development, including a prohibition on development within sensitive habitat areas; and a restriction on future shoreline protective devices.

Bodega Bay, Coastal Records Project.

Table 2. List of model policy options (see Section 6 for full model policy language). Note, this list is not exhaustive and selected policies should be customized for each local context.

UNDERSTANDING SEA LEVEL RISE HAZARDS
A.1 Identifying and Using Best Available Science
A.2 Identifying Planning Horizons
A.3 Mapping Coastal Hazards
A.4 Site-specific Coastal Hazards Report Required
A.5 Coastal Hazards Report Contents
A.6 Assumption of Risk
A.7 Real Estate Disclosure of Hazards
AVOID SITING NEW DEVELOPMENT OR PERPETUATING REDEVELOPMENT IN HAZARD AREAS
B.1 Siting to Protect Coastal Resources and Minimize Hazards
B.2 Removal Plan Conditions for New Development in Hazardous Areas
B.3 Reliance on Shoreline Armoring
B.4 Bluff Face Development
B.5 Determining Bluff Setback Line
B.6 Minor Development in Hazardous Areas
B.7 Definition of Redevelopment
B.8 Nonconforming Structures in Areas Subject to Coastal Hazards
B.9 Restrict Land Division in Hazardous Areas
B.10 Takings Analysis
DESIGN FOR THE HAZARD
C.1 Adaptive Design
C.2 Design Guidelines to Reduce Greenhouse Gas Emissions
MOVING DEVELOPMENT AWAY FROM HAZARDS
D.1 Removal Conditions/Development Duration
D.2 Contingency Funds
D.3 Mean High Tide Line Survey Conditions
MOVING HAZARDS AWAY FROM DEVELOPMENT
E.1 Habitat Buffers
E.2 Non-structural Shoreline Armoring
E.3 Avoid Adverse Impacts from Stormwater and Dry Weather Discharges
E.4 Flood Hazard Mitigation
BUILDING BARRIERS TO PROTECT FROM HAZARDS
F.1 Shoreline and Bluff Protective Devices
F.2 Prioritization of Types of Shoreline Protection
F.3 Siting and Design to Avoid and to Mitigate Impacts
F.4 Repair and Maintenance of Shoreline Armoring
F.5 Evaluation of Existing Shoreline Armoring
F.6 Shoreline Armoring Duration
F.7 Shoreline Armoring Mitigation Period
F.8 Shoreline Armoring Monitoring

F.9 Limits on Future Shoreline Armoring
F.10 Bulkheads for Waterfront Development
F.11 Emergency Permits
COMMUNITY SCALE ADAPTATION PLANNING
G.1 Management of Sea Level Rise Hazards
G.2 Adaptation Plan
G.3 Adaptation Plan for Highly Vulnerable Areas
G.4 Sea Level Rise Hazard Overlay Zone
G.5 Beach Open Space Zone
G.6 Beach Nourishment
G.7 Improve Drainage on Bluffs to Reduce Erosion
G.8 Repetitive Loss
G.9 Beach Management Plan
G.10 Managed Retreat Program
G.11 Transfer of Development Rights Program
G.12 Geologic Hazard Abatement Districts (GHADs) and County Service Areas (CSAs)
G.13 Aligning LCPs with Local Hazard Mitigation Plans (LHMPs)

2. Policy Recommendations for All Hazardous Areas

Broadly, communities planning for sea level rise will need to embark on a process to learn about 1) the increasing hazards that threaten their communities and its coastal resources, 2) what options exist for protecting their threatened built and natural assets, and 3) what adaptation pathway choices are suitable given social, economic, legal, coastal resource, and environmental justice concerns. This planning process includes identifying how and where to apply different adaptation mechanisms based on Coastal Act requirements, other relevant laws and policies, acceptable levels of risk, and community priorities. The list of model policies above (Table 2) and the discussion below is not exhaustive, but provides an introduction to a variety of options that are potentially applicable in most communities.

Commented [CDA7]: Where do the Guidelines acknowledge that communities are able to establish their own acceptable levels of risk and priorities, or are these to be dictated by the other requirements of the guidelines?

By planning ahead, communities can reduce the risk of costly damage from coastal hazards, can ensure the coastal economy continues to thrive, and can protect coastal habitats, public access and recreation, and other coastal resources for current and future generations. While adaptation strategies should be chosen based on the specific risks and vulnerabilities of a particular region or project site, in the context of applicable Coastal Act and LCP requirements, there are some policy concepts that are likely needed to ensure compliance with the Coastal Act in all hazardous areas. These policy concepts include:

- using the best available science to evaluate and understand sea level rise hazards and adaptation responses;
- requiring risks to be disclosed;
- avoiding and minimizing hazards through siting and design;
- planning for removal of threatened development in some circumstances;
- regulating redevelopment;
- preparing for emergency permits; and
- developing adaptation plans.

Commented [CDA8]: The Coastal Act has no policies on "redevelopment." We do not believe the word is even in the Act, especially as it relates to remodeling or additions.

These policy concepts are presented in the model policies. As described above, utilizing the model policies can help ensure Coastal Act consistency, but jurisdictions remain free to modify the policies or develop different policies, so long as they are consistent with the Coastal Act and other applicable laws and regulations.

Evaluate and Communicate Risks Using Best Available Science

The Coastal Act requires new development to minimize hazards and protect coastal resources. In addition, the Coastal Act calls for the use of sound science to guide its decision making and to support public understanding and participation in coastal planning.[15] To ensure development of policies that are consistent with these Coastal Act requirements in the local context, it is important that all local governments undertake vulnerability assessments and begin the adaptation planning process. These steps will provide the information needed to allow local governments to develop policies that can ensure that new development is safe, and that coastal resources and public access are protected consistent with the Coastal Act as the sea level rises. As a general matter, all communities should embrace the best available science and analyze a range from moderate to high projections of sea level rise in their planning for coastal hazards. Vulnerability assessments and hazards maps should be regularly updated as best available science develops. If detailed local

[15] See for example Coastal Act Sections 30006.5 and 30335.5.

vulnerability assessments have not been completed, the planning and project design process can rely on increasingly available mapping tools.[16] Model Policies A.1 – A.5 demonstrate model options for integrating best available science on sea level rise into LCP planning through use of sea level rise scenarios, mapping, and technical reports.

Ongoing monitoring of conditions on the ground will also be important for implementing adaptation strategies at the appropriate time; thus, communities should consider developing monitoring programs. Monitoring can occur on a site-specific basis (e.g., Model Policy F.8 – Shoreline Armoring Monitoring) or on a community scale, through adaptation programs that rely on specific thresholds to trigger implementation of adaptation phases (e.g., Model Policy G.9 – Beach Management Plan). Since regional, state and federal monitoring is being done in some locations throughout California, there may be existing monitoring with which this site-specific or community scale monitoring could coordinate.

Commented [CDA9]: If the CCC truly seeks to provide useful coordination and information, it should provide listing of the types, frequency, location and contacts for these monitoring programs and take the lead in making arrangements that would make their monitoring information in a way that local governments can use the data. Failing that, the CCC should at least try to recruit another agency to carry out that responsibility.

Disclose Risks and Require Property Owners to Assume Risks

The Coastal Act requires hazards to be minimized. It also calls for the "orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state."[17] It further requires maximum public participation in decision-making, including through the support of public education and understanding of coastal resource issues. Thus, all communities should be considering planning horizons and phased approaches that inform property owners and the public about foreseeable hazard and planned adaptation through such mechanisms as hazard overlay zones, deed restrictions, real estate disclosures, and assurances or waivers of rights based on defined triggers sensitive to the specific planning context. Local governments should consider LCP updates that account for the intent of Model Policies A.1 – A.7 and G.1 – G.2 when addressing sea level rise. Disclosing risks to current and future property owners helps ensure that property owners will plan with these hazards in mind and will help set reasonable economic expectations for future development. Similarly, requiring property owners to assume the risks of developing in hazardous locations will help avoid the need to spend public funds on disaster recovery for private development and will ensure future owners are aware of limits on the use of shoreline armoring that harms coastal resources.

Commented [CDA10]: Risk disclosure as part of the Coastal Permit process would be relatively straightforward. However, if intent is disclosure to all property owners at time of sale, SLR disclosure requirements should be addressed at the state level for consistency. April 2, 2018

Commented [CDA11]: Please elaborate on the mechanism for implementing this measure. Is the CCC advocating that payments under the NFIP be somehow blocked, or that federal and state community disaster funds be withheld? Please provide more clarity to this suggestion.

Avoid and Minimize Hazard Risks through Siting and Design

The Coastal Act requires development to be resilient and safe, while assuring the protection of shoreline recreational resources and ecological values. Avoiding and minimizing flooding risk and erosion impacts through setbacks, siting, and design decisions that locate development at safe distances from potential hazards should be the first consideration for all types of new development. Greater setback distances can provide safer locations for new development as sea levels rise in the future, so these types of policies are important planning tools to accompany the use of best available science for understanding future hazards. Restricting land division in hazard zones can also help avoid increasing hazard risks to coastal development.

The long-term effectiveness of avoidance strategies depends on the level of vulnerability a property experiences and whether existing development patterns (densities, lot sizes, etc.) allow for siting to avoid hazards. These strategies are low cost compared to armoring solutions or other

[16] For a list of available mapping tools, see CCC Sea Level Rise Policy Guidance, Appendix C.
[17] See Section 30001.5

adaptation strategies. Model Policies B.1 – B.6 and E.4 should be considered to promote the safe location of new development.

Plan for Future Removal of Threatened Development

Although siting and design measures should minimize risks, ensure the stability of development, ensure the provision of adequate services (e.g., roads, water and sewer), and protect coastal resources over the expected life of the development, coastal hazards are not entirely predictable. Thus, to address residual uncertainty and risks, it will sometimes be necessary to plan for future adaptation or removal of development in order to achieve consistency with the Coastal Act. Model Policy D.1 suggests language that would ensure future removal when needed, including when development is threatened, or becomes located on public trust property and impairs public trust resources at the site.[18]

Regulate Redevelopment

Communities updating their LCPs to address sea level rise must require new development, including redevelopment, to meet standards to assure safety and structural stability and protect coastal resources under expected future conditions. However, because redevelopment often occurs incrementally, it can be hard to distinguish redevelopment from repair and maintenance, and from improvements to an existing structure that fall short of redevelopment. The Commission's regulations indicate that the replacement of 50% or more of a structure constitutes a new replacement structure (CCR Section 13252(b)). Thus, LCP policies must, at a minimum, define development that exceeds this 50% threshold as redevelopment that must meet all relevant, current LCP standards.

Generally, routine repair and maintenance of, and improvements to, residential structures are exempt from coastal development permitting requirements unless the structures are located in sensitive areas or include certain components, as specified in the Commission's regulations.[19] Repairs or improvements that are not exempt, and that do not constitute redevelopment, generally may be allowed if the new development is consistent with relevant LCP and Coastal Act policies and does not increase the non-conformity of the existing structure. However, at a certain point, substantial alterations to a home can no longer be considered repair and maintenance, but instead must be evaluated as new development. Including redevelopment standards in LCPs is crucial to ensure that existing, non-conforming structures in hazardous locations are not allowed to be replaced—either all at once or piece by piece—unless the new structures are brought into conformity with LCP policies, including policies that address coastal hazards.

At a minimum, redevelopment should be defined as work that includes replacement of 50% or more of the major structural components of the building. Local governments may also use additional definitions, such as limits based on improvements costing more than 50% of the assessed or appraised value of the existing structure. Under these definitions, cosmetic repairs, interior renovations, and routine external repairs such as re-shingling a roof or replacing worn siding, generally do not constitute redevelopment.

[18] See section 4, Legal Considerations, below, for additional discussion related to the issue of removing residential development that becomes located on public trust lands.

[19] See Coastal Act § 30610(a), (d), 14 Cal Code Regs §§ 13250, 13252, 13253, and corresponding LCP provisions. Some jurisdictions may also have categorical exemptions that have been certified by the Commission that exempt other types of development from permitting requirements.

Commented [CDA12]: CCR Section 13252(b) makes no mention of redevelopment; the Guidelines cannot create new law or rewrite the Coastal Act or adopted Regulations by creating an extra-legal term "redevelopment."

Commented [CDA13]: As noted in the paragraph above, CCR Section 13252(b)). . already defines when alterations are and are not "development."

Commented [CDA14]: The "50% threshold" noted above (per CCR Section 13252(b) does NOT specify that calculation should apply to each "major structural component". This interpretation prohibits work (such as replacing a roof or foundation) that would otherwise logically be considered to fall below the more general "50% of structure" threshold required by Commission regs. The regulation states "50 percent or more of a single family residence" – of the entirety of the residence as a whole. March 14, 2018

Commented [CDA15]: New footnote acknowledges relevancy of categorical exemptions, but this should be noted more prominently (not be buried in a footnote). March 14, 2018

Redevelopment definitions can be used to provide a foundation for implementing additional adaptation strategies in vulnerable areas and to ensure that new development is built in safer locations. Rebuilding and redevelopment restriction strategies could be used to limit the ways a property owner can rebuild or renovate a structure located in a sea level rise hazard zone or non-conforming location subject to risk. If the site allows, a structure, or portions of it, could be set back from the coastal hazard as it redevelops. Other more design-based approaches (such as elevation) that attempt to maintain development in such areas while still minimizing hazards risks in conformity with the LCP and Coastal Act, may also be appropriate in certain circumstances. Redevelopment policies should be coupled with real estate disclosures (Model Policy A.7) to inform buyers of the sea level rise hazards and future development restrictions.

These strategies are generally low cost compareof d to armoring solutions, and they allow property owners to continue use of their property until rebuilding restrictions, insurance cost, or safety concerns might phase out high-risk and high-impact development over time.[20] Model Policies B.7
– B.8 offer examples of redevelopment and nonconforming structure policies.

Prepare for Emergency Permits

When known hazards are avoided, the need for shoreline protective devices and emergency action should diminish. Nevertheless, as sea level rise exacerbates or creates new hazards along the shoreline, there may be increasing requests for emergency permits to construct shoreline protection or other development to abate an emergency. An emergency is defined as a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property, or essential public services. If the local government finds that such a situation exists and the proposed development is the minimum necessary to abate the emergency, it may issue an emergency permit. Property owners who file for emergency permits should propose emergency measures that are temporary in nature, the minimum required to address the imminent threat, and the least environmentally damaging feasible alternative for addressing the immediate emergency episode. For example, emergency development should be easily removable, if feasible. Emergency permits must include several conditions, including an expiration date for the permit and the requirement to apply for a follow up regular coastal development permit. A model policy with procedures for granting emergency permits is included as policy F.11.

Commented [CDA16]: Please provide examples of what is being advocated here. In particular, id a home is being damaged by storm waves, what kind of "emergency development [that is] easily removable" is being suggested?

Develop Adaptation Plan

The Coastal Act requires protection of coastal resources, including provision of maximum public access, prioritizes coastal-dependent and coastal-related development over residential and other uses, and calls for maximum public participation in decision-making. A community visioning process and development of an adaptation plan are key to scoping the appropriate strategies a community will implement over time to address sea level rise hazards consistent with the Coastal Act. By using Model Policies such as G.1-G.3, communities can assess vulnerabilities and explore adaptation options before threats become imminent. In preparing an adaptation plan, communities should consider a range of adaptation approaches (see below, "Developing Adaptation Approaches for Specific Areas") and evaluate them according to their impact on coastal resources, effectiveness at reducing risk, costs, and feasibility (technical, legal, social and political).

Commented [CDA17]: Will the Commission give substantial consideration to plans developed by the Community, recognizing there are multiple ways to meet the policies of the Coastal Act?

[20] McGuire, C. J. Adapting to sea level rise in the coastal zone: Law and policy considerations. CRC Press, 2013.

A challenge that local governments face in convening public forums to discuss adaptation is engaging all stakeholder groups in the public process, including capturing the input of both inland residents who recreate at local beaches as well as local shoreline property owners. It is important to coordinate with partners and include all relevant stakeholders in these processes, particularly those who are typically isolated, such as residents of low-income or underserved communities. Sustained education and outreach with information on sea level rise science and potential consequences may motivate stakeholders to take an active role in updating the LCP for sea level rise adaptation. Additionally, education efforts regarding the risks of sea level rise as well as possible adaptation strategies may encourage people to take proactive steps to retrofit their homes to be more resilient or to choose to build in less hazardous areas.

An adult Western Snowy Plover and its chick nest on the beach at Coal Oil Point in Santa Barbara County. Western Snowy Plovers are threatened due to loss of habitat. Photo Credit: Chuck Graham

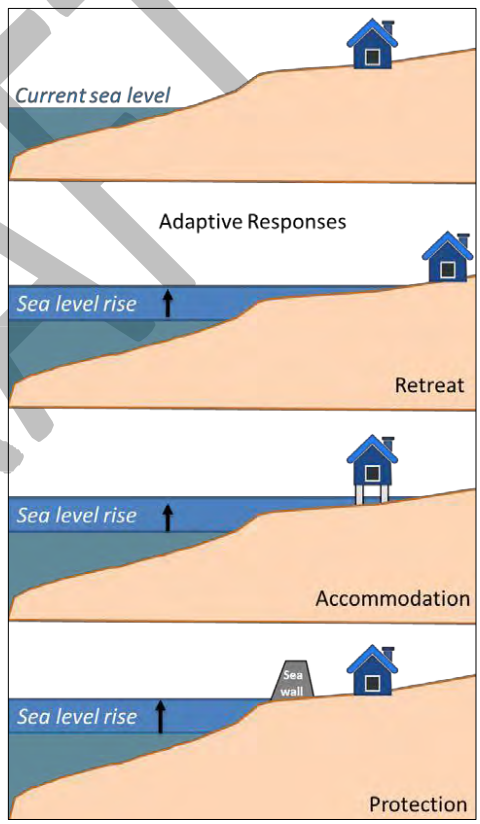
3. Developing Adaptation Strategies for Specific Areas

After evaluating vulnerability and establishing policies to be used throughout hazardous areas, communities can begin the process of identifying and evaluating adaptation strategies for specific areas. In most cases, especially for LCP land use and implementation plans, multiple adaptation strategies will be needed and every community will need to assess their risks and their potential options. In some cases, there will be more than one option for how to address the risks and impacts associated with sea level rise consistent with the Coastal Act. However, choosing to "do nothing" or following a policy of "non-intervention" will likely lead to unacceptable exposure to hazards and impacts to coastal resources, and can place a strain on community resources following a major storm or other disaster. Many strategies for addressing sea level rise hazards will require proactive planning to ensure protection of coastal resources and development. Adaptation strategies generally fall into three main categories: protect, accommodate, and retreat (Figure 3).

Commented [CDA18]: This is an important statement.

Commented [CDA19]: This classification is much more useful

Protect: Protection strategies refer to those strategies that employ some sort of engineered structure or other measure to defend development (or other resources) in its current location, oftentimes without changes to the development itself. Protection strategies can be further divided into "hard" and "soft" defensive measures or armoring. "Hard" armoring refers to engineered structures such as seawalls, revetments, caissons[21], and bulkheads that defend against coastal hazards like wave impacts, erosion, and flooding. "Soft" alternatives refer to the creation or enhancement of natural or "green" infrastructure like beaches, dune systems, wetlands, and other systems to buffer coastal areas. Strategies like beach nourishment, dune enhancement, or the construction of "living shorelines" capitalize on the natural ability of these systems to protect coastlines from coastal hazards while also providing benefits such as habitat, recreation area, more natural aesthetics, and the continuation or enhancement of ecosystem services. However, to date such strategies have generally been experimental in nature, and more pilot projects which demonstrate their effectiveness could help catalyze more widespread implementation.



Accommodate: Accommodation strategies refer to those strategies that employ methods that modify existing developments or design new developments to decrease hazard risks and thus increase the resiliency of development to

Figure 3. Strategies for adaptation to sea level rise.

[21] The Commission has often found caissons and other similar types of foundation 'superstructures' located along bluff tops and shorelines to be a form of shoreline armoring.

Commented [CDA20]: This should not include the fundamentally different kind of piers and caissons used to elevate structures for safety reasons consistent with FEMA's National Flood Insurance Program objectives or the Flood Protection Ordinances adopted by the vast majority of local governments to comply with the NFIP.

the impacts of sea level rise. On an individual project scale, these accommodation strategies include actions such as floodproofing retrofits and/or the use of materials meant to increase the strength of development, building structures that can easily be moved and relocated, elevating structures, or using larger setbacks. On a community-scale, accommodation strategies include any of the land use designations, zoning ordinances, or other measures that require the above types of actions, as well as strategies such as clustering development in less vulnerable areas or requiring mitigation actions to provide for protection of natural areas even as development is protected. Many accommodation options might also be considered protection (i.e., caissons and elevation).

Retreat: Retreat strategies are those strategies that relocate or remove existing development out of hazard areas and limit the construction of new development in vulnerable areas. These strategies include land use designations and zoning ordinances that encourage building in more resilient areas or gradually removing and relocating existing development. Acquisition and buy-out programs, transfer of development rights programs, and conditioning the approval of new development to be removed upon the occurrence of future triggers are examples of strategies designed to encourage managed retreat.

For purposes of implementing the Coastal Act statewide, no single category or even specific strategy should be considered the "best" option as a general rule. Different types of strategies will be appropriate in different locations and for different hazard management and resource protection goals. In addition, the effectiveness of different adaptation strategies will vary across both spatial and temporal scales. In some cases, a hybrid approach that uses strategies from multiple categories will be necessary. Also, the suite of strategies chosen may need to change over time to address increased sea level rise and associated increased exposure to hazards as sea level rise exacerbates storm surge and high waves. The legal context of various options will also need to be considered in each situation and ultimately, adaptive responses will need to be consistent with the Coastal Act and other legal principles. Figure 4 shows the basic conceptual stages that communities can step through when developing an adaptation plan: 1) Evaluate hazards and vulnerable areas; 2) Identify the assets at risk (built and natural environments); 3) Analyze alternative adaptation strategies; 4) Apply a legal framework to inform feasible adaptation strategies (*See* Section 4. Legal Considerations); and 5) Identify feasible, preferred adaptation strategies. Determination and selection of feasible, preferred adaptation options should also include an analysis of costs, benefits, and other factors such as how adaptation strategies will impact socially vulnerable groups of people both in and outside the community. Analyzing adaptation strategy alternatives is discussed in more detail below.

Commented [CDA21]: sounds more like retreat then accommodate
March 14, 2018

Commented [CDA22]: Also sounds like retreat. March 14, 2018

Commented [CDA23]: Unclear how this is accommodate
March 14, 2018

Commented [CDA24]: This is an important statement.

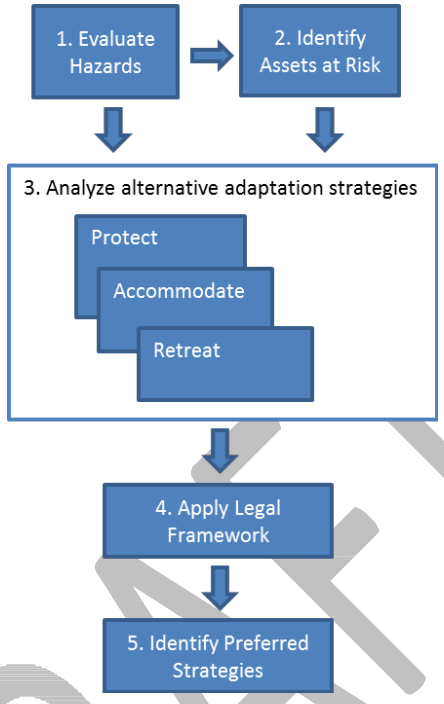


Figure 4. Planning Framework

Analyzing Alternative Adaptation Strategies

The Coastal Act requires maximum public participation in coastal planning, including in Section 30006, which states:

> *The Legislature further finds and declares that the public has a right to fully participate in decisions affecting coastal planning, conservation, and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation.*

To comprehensively address sea level rise, communities must effectively communicate future vulnerabilities to the public, property owners, local governments, and other stakeholders. This can be done by involving the public and decision makers in early discussions regarding coastal hazards, assets at risk, and potential cost estimates of various adaptation options, and conducting a visioning process to plan for the future shoreline using short- and long-term adaptation goals. This process can educate stakeholders and help decision makers prioritize certain actions that are quickly identified as advantageous. From an economic perspective, understanding the costs and benefits of adaptation strategies will help communities identify and prioritize LCP policy approaches that will address sea level rise impacts. In addition, existing statutory and regulatory requirements will inform the selection of options, and any LCP policies ultimately must conform

Commented [CDA25]: Good that this document mentions involving the public in adaptation decision making. However, this guideline's descriptions of strategies seem biased in favor of green infrastructure and retreat, and against accommodation and hard protection. If a process is truly stakeholder driven, it should objectively lay out the options for community members to decide what they think is best for them. March 15, 2018

to the goals and objectives of the Coastal Act.

When adaptation can address a large risk of near term harm immediately, and still provide benefits in the future, the economics can provide incentives for action. [22] In some cases, beach replenishment, wetland protection, or even elevating structures might provide these benefits. By addressing risk with adaptation strategies that protect ecosystems, ensure public access, and avoid hazards, communities can work to enhance their coastal resources before resource loss occurs. Additionally, strategies that have a small cost to reduce risk should be a part of a community's adaptation framework. Some of these policies might include setback requirements, designing structures so they can be moved, and requiring larger storm drainage systems. Investments for the community and property owners that reduce risk in the present and still provide immediate value are a first tier of adaptation policy considerations.

In the case of expensive or complex adaptation strategies, another approach that community scale adaptation policies offer is one of reserving expenditure until certain triggers are met. Policies that apportion risk over time allow for the use of adaptation options closer to the time they are needed, rather than building now for the worst case future condition. When on-site or regional conditions cross a threshold (such as a designated beach width reduction or occurrence of flooding), policies could call for specified actions (such as sediment management activities). Other triggers, such as repetitive loss of properties or mean high tide line encroachment, might be used to shift risk to property owners through higher insurance rates, prohibiting hard armoring, or implementing rolling easements that specify how development must adapt as the public trust boundary moves inland.

Commented [CDA26]: We appreciate the recognition of this fundamental principle.

Siting New Development (Avoid)

The Coastal Act requires new development to be sited to avoid and minimize hazards, including from future flooding and erosion. This can be achieved for all types of residential development through setbacks, siting, and design decisions that minimize risks from potential hazards. However, the details for determining setback distances and trigger conditions will need customization to local conditions. Local governments can plan for protection of coastal resources without a total loss of economic use of a residential property by providing for exceptions where there is a need to permit some form of new development in a hazardous area in order to avoid an unconstitutional taking of private property. Model Policies B.1 – B.10 provide examples of relevant siting and takings policies.

Hard Shoreline Armoring (Protect)

The Coastal Act requires new development to minimize risks from flooding and other hazards and to assure structural stability without reliance on shoreline protective devices that alter natural landforms. It allows shoreline protection for existing structures or coastal-dependent uses that are in danger of erosion only if certain conditions are met[23]. Nevertheless, traditional approaches to managing coastal erosion and flood risk have often relied on hard armoring of the shoreline. The type of armoring chosen (e.g., revetments or seawalls) depends on geomorphic context. In addition, different types of armoring structures have varying costs and environmental impacts. "Holding the line" strategies using various types of hard armoring are often implemented on a parcel by parcel basis, but in some cases neighborhood scale implementation could be proposed.

[22] McGuire, C. J. Adapting to sea level rise in the coastal zone: Law and policy considerations. CRC Press, 2013.
[23] See Section 4 (Legal Considerations) for more discussion about shoreline protection for existing structures.

Shoreline armoring can serve to protect critical infrastructure and public access, and maintain community services for some period of time, after which it may be appropriate to begin planning for the orderly relocation of development. However, while shoreline armoring can protect built assets and an associated property tax base, it can also cause adverse impacts to coastal resources, including beaches, and sand supply, which will need to be mitigated.

Commented [CDA27]: Elaborate on March 14, 2018

California beaches, both wide sandy beaches and pocket beaches, as well nearshore coastal areas, are significant financial assets to coastal communities and the state.[24] Beaches and other shoreline areas also provide remarkable ecological value, including unique and important ecological services such as filtering water, recycling nutrients, buffering the coast from storm waves, and providing critical habitats for hundreds of species. When habitats backed by fixed or permanent development are not able to migrate inland as sea level rises, they will become permanently inundated over time, which presents serious concerns for future public access and habitat protection. The process of "coastal squeeze" caused by hardened shorelines will eventually result in the "drowning" of intertidal and low-lying habitats, and potential loss of certain surfing resources, if this adaptation strategy is perpetuated into the future.

Hard armoring can also result in nuisance conditions for neighbors who suffer increased flooding or erosion as a result of nearby armoring, as well as reduced public access along the shoreline. Other detrimental impacts may include negative visual impacts, recreation impacts (e.g., surfing limitations, reduced beach access), and interference with ecosystem service functions. The effectiveness of hard armoring to protect development will also be reduced as sea level rises and storm intensity and frequencies increase. Relatedly, shoreline armoring costs will increase over time as coastal hazards and storms cause elevated levels of damage and increasing need for repair and maintenance. Model Policies F.1 – F.11 provide examples of policies that comply with the statutory and regulatory requirements of the Coastal Act that can be used to define the appropriate circumstances for hard armoring and that promote transition from hard protection strategies to others that are more protective of coastal resources.

Soft Shoreline Protection (Protect)

The Coastal Act allows shoreline protective devices only if they are the least environmentally damaging feasible alternative to protect a structure that is threatened with erosion. In some cases, "soft shoreline protection" is a feasible alternative that can reduce impacts on coastal resources. Design of shoreline protection using "soft" measures or nature based solutions can protect both development and coastal resources such as beaches. Strategies like beach nourishment, dune enhancement, or the construction of "living shorelines" capitalize on the natural ability of these systems to protect coastlines from coastal hazards while also providing benefits such as habitat, recreation areas, more pleasing aesthetics, and the continuation or enhancement of ecosystem services. These approaches are often considered a way of extending the useful life of existing development. However, some of the living shoreline options involve somewhat newer concepts in high energy wave environments, and many soft shoreline projects are in the early phases of implementation, so their effectiveness and impacts will need additional monitoring. The cost of many nature based solutions can be high, and the longevity of engineered habitats with sea level

[24] In recent years, California tourism and recreation in the shore adjacent zip codes accounts for 39 percent of the ocean economy's GDP ($17.6 billion), 75 percent of its employment (368,000) and 46 percent of its wages paid ($8.7 billion) in 2012. (NOAA Report on the National Significance of California's Ocean Economy. 2015. https://coast.noaa.gov/data/digitalcoast/pdf/california-ocean-economy.pdf)

rise remains to be observed.

In addition, it should be noted that the term "soft" protection can refer to shoreline restoration projects or to shoreline armoring that includes an engineered component, such as a revetment that could form the core of a vegetated dune. While the former may be a permissible restoration project in many circumstances, the latter constitutes shoreline armoring that can generally be approved only if it is necessary to protect an existing structure or coastal dependent use and is the least environmentally damaging feasible alternative, as required by the Coastal Act.

Model Policies E.2 (Soft Shoreline Protection), F.2 (Prioritization of Types of Shoreline Armoring), and G.6 (Beach Nourishment) provide examples relevant to soft shoreline protection.

Adaptive Design (Accommodate)

Building codes and adaptive home designs can provide resiliency when development in hazardous areas cannot be avoided. Design requirements related to building type and hazard zone type are common in Federal Emergency Management Agency (FEMA) flood zones. Local governments could adopt similar policies in LCPs to require elevating structures, floodproofing designs, or siting structures in ways that accommodate flooding and erosion. Adaptive design can add to the cost of building in a hazardous area, but can extend the time that the building can avoid or minimize damages due to sea level rise impacts. Implementing adaptive design that is in sync with FEMA risk reduction criteria also offers adaptation incentives for property owners in FEMA flood zones who might reduce their flood insurance rates.[25]

Although these accommodation strategies can minimize risk and help to ensure the safety and stability of new development, they can also lead to adverse impacts on coastal resources. For example, elevation of homes can cause visual impacts by blocking coastal views or detracting from community character. Elevation can lead to a circumstance where houses are safe but utilities, including roads, water and sewer services may be compromised. Pile-supported structures may, through erosion, develop into a form of shore protection that interferes with coastal processes and access, and, at the extreme, results in structures looming over or directly on top of the beach. Finally, elevation, floodproofing, and other accommodation measures can also lead to a scenario where the beach and public trust lands migrate up and underneath or around the structure, thus impeding public access, the migration of habitat, and the use of public trust lands.

The strategy of using adaptive design to protect coastal resources and enable new development may require coupling with restrictions on hard armoring and the imposition of future removal conditions in order to minimize the coastal squeeze and other coastal resource impacts, consistent with the Coastal Act. In the short term, design accommodation might prevent structural damages, but in the long term these structures might have impacts on migrating habitats and public access and/or be damaged by storms. In these cases, eventual structural relocation or removal may be needed to protect coastal resources, life and safety.

Model Policies C.1 (Adaptive Design) and E.4 (Flood Hazard Mitigation) provide examples of adaptive design policies.

[25] Communities that participate in the Community Rating System, a voluntary incentive program for FEMA's National Flood Insurance Program (NFIP) communities, can receive flood insurance discounts for adopting flood protection measures stricter than the minimum NFIP requirements.

Commented [CDA28]: However, without a clear definition of community character it is difficult to conclude. Elevated homes and affiliated features are prevalent in coastal architecture throughout the world and thus a counter argument could be made that they contribute rather than detract from community character. Furthermore is community character static, or is it something that can adapt to changing conditions? Clearer definitions of this term need to be developed, on a community-by-community basis, with community members central to the process. March 14, 2018

Commented [CDA29]: Please describe how pile supported structures "interfere with coastal processes and access" in a way that the same structure resting on the ground does not?

Commented [CDA30]: The same public accessways would still be available.

Commented [LL31R30]: I don't understand this comment. Do you mean that they would be available for many years before the MHTL reaches the structures?

Commented [CDA32]: Where does the Coastal Act require future removal conditions? To the contrary, **Section 30235 provides that "**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."

Managed Retreat (Relocation/Realignment)

An alternative to holding the line, protecting shorelines with armoring, or adaptive design is a retreat-based approach. Managed retreat refers to varying approaches to respond to coastal hazard risk by relocating structures and/or abandonment of development.[26] These strategies can result in a landward redevelopment pattern and a managed realignment of development along the coast so that natural erosion and other coastal processes, including beach formation/creation and habitat migration, can continue.

Support for implementation of retreat-based approaches is embodied in the application of the Coastal Act policies on ensuring development is safe from hazards. Coastal Act Section 30235 permits shoreline protection when necessary to protect existing residential structures in danger from erosion and when designed to mitigate adverse impacts on local shoreline sand supply. But Section 30253 requires new and redeveloped residential structures to minimize risk from flooding and coastal hazards, and to assure structural stability, without the need for shoreline protection that substantially alters natural landforms. Thus, as sea levels rise and hazardous areas migrate inland, the Coastal Act will require new development to be located further inland, essentially resulting in managed retreat on a parcel scale. On a neighborhood or community scale, there may also be cases where a managed retreat program may be the best and most feasible way to comply with Coastal Act policies that require minimizing hazards, protecting coastal resources and maximizing public access.

It should be noted that although in most cases managed retreat will be the best strategy available to protect beaches, habitat and public access, in some cases, relocation of development alone will not ensure that beach or wetland formation will occur in its wake. These processes might require time and additional management strategies, such as dam removal, thin layer sediment augmentation, or beach nourishment, to ensure preservation of coastal habitats in the longer term.

Benefits of managed retreat strategies include allowing for the natural landward migration of the beach, dunes and wetlands as sea levels rise; decreasing hazard risk to structures; protecting coastal resources on the water's edge; maintaining public access; and potential cost savings on construction, maintenance, and repair of shoreline protective devices. In England, for example, managed retreat strategies for adapting to sea level rise have been found to be more cost-effective than maintaining armoring over timescales greater than 25 years. [27] Further, while the cost-effectiveness to the community of hard armoring will depend on the beneficial value of protected development to the local property tax base, and who is paying (private versus public entity), the costs of maintaining hard armoring strategies will increase over time. Local governments might also need to use public funds to protect infrastructure that serves adjacent residential development, such as roads, bridges or sewer lines. This then places a financial burden on an entire community for maintaining protection of that development over time.

The effectiveness of managed retreat and realignment strategies depends on a number of factors,[28] and retreat may not be feasible in all areas. The willingness of a community/local government to consider this approach and the costs of buyout programs also pose significant challenges for

Commented [CDA33]: What about the possible negative impacts of retreat? Breaking up existing communities, loss of sense of place, loss of cultural resources, displacement of lower income residents who cannot afford to move, environmental impacts of new construction including GHG emissions which exacerbate climate change, straining existing community infrastructure with influx of new relocated residents, and several other consequences. Cons were described for the other strategies, why not this one?
March 14, 2018

Commented [CDA34]: There is no mention of "redeveloped residential structures" in 30253. Moreover 30253 creates a distinction between "New development" and "development" This distinction should be explained.

Commented [CDA35]: Please clarify that existing development that does not fall under CCR Section 13252(b) or exceed the 10% increase in size per section 30212 is not subject to such alleged managed retreat policies.

Commented [CDA36]: This sentence should be further revised to specify study was done in a rural area of northern England (i.e much lower land values than coastal California)
March 29, 2018

[26] Hino, M., Field, C.B. and Mach, K.J., 2017. Managed retreat as a response to natural hazard risk. *Nature Climate Change*.
[27] Turner, R.K., Burgess, D., Hadley, D., Coombes, E. and Jackson, N., 2007. A cost–benefit appraisal of coastal managed realignment policy. *Global Environmental Change*, 17(3), pp. 397-407.
[28] Some factors influencing feasibility for managed retreat include shoreline development density, projected short- and long-term financial impacts on the jurisdiction, displacement of residents, and environmental justice concerns.

implementation. Managed retreat strategies could result in temporary or permanent local economic loss and displacement of residents.

To build support for consideration of the retreat and realignment approach, communities may need to engage in such actions as community visioning, economic analysis and comparison of multiple adaptation options, and offering incentives for participation in voluntary programs. Communities and planners could explore new and innovative solutions to make retreat strategies more feasible, such as finding safe areas to relocate residents within the community out of hazardous areas and creating new parks, open space areas and recreational assets[29] along vulnerable shoreline areas.

Commented [CDA37]: Will the Commission be able to accept the results if the community visioning shows a deep desire to stay in place and the economic analysis shows retreat is infeasible?

Selecting, financing, and implementing a managed retreat program will likely require a community scale approach to managing coastal hazards (Model Policy G.1) and creation of an Adaptation Plan (Model Policies G.2-G.3). Managed retreat programs (Model Policy G.10) can be structured using a variety of triggers and mechanisms. Acquisition and buyout programs, transfer of development rights programs, repetitive loss triggers (Model Policy G.8), and beach width triggers nested within a Beach Management Plan (Model Policy G.9) are some examples of potential managed retreat program components. Again, a community visioning process is the first step for communities to take in order to explore the potential for such an adaptation approach. In addition, communities might want to consider coordination and implementation of these adaptation strategies across multiple jurisdictions or on a region-wide or watershed scale as a way to maximize the efficacy of a retreat-based approach.

A key part of retreat-based adaptation strategies is that advanced planning is needed to ensure consideration of this option before opportunities for implementation are lost. For example, as a part of the process for developing a comprehensive adaptation strategy to managing sea level rise vulnerabilities conducted through an LCP planning exercise, communities could also consider changing land use designations to support future implementation of a retreat-based strategy. In addition, advanced planning for retreat-based approaches might provide the opportunity to take advantage of certain funding opportunities for communities already doing LCP development to address sea level rise. See Section 5 on Funding Opportunities for more information on potential funding sources.

[29] For example, see San Francisco Ocean Beach Master Plan. http://www.spur.org/featured-project/ocean-beach-master-plan and *Floodplain Buyouts: An Action Guide for Local Governments on How to Maximize Community Benefits, Habitat Connectivity, and Resilience*. https://www.eli.org/research-report/action-guide-floodplain-buyouts

Box 2. Example of retreat, City of Monterey

Historically, large storms have flooded the City of Monterey's waterfront planning area along Del Monte Avenue. Significant wave events in 1943, 1958, 1982–83, 1997–98 and 2002 caused substantial flood damage. The City's 2016 Vulnerability Assessment[30] found a minor escalation of coastal flooding vulnerabilities for this area by 2030, then in 2060 and 2100 risks to both the commercial and residential sectors increase substantially. As a result, the city proposed a program to develop a multi-phased mitigation plan for sea level rise and coastal erosion relying on short- and long-term adaptation measures in its 2016 Waterfront Master Plan[31].

The city's Waterfront Master Plan acknowledges a long history of planning efforts that have emphasized development of the area as a fishing community and tourist destination. What started as a city beautification effort in the Waterfront area in 1983 is today recognized as managed retreat. By using fee simple acquisition in the 1980s, 1990s, and 2000s from willing sellers, the city removed a number of structures to open up views to the ocean and to develop Monterey Bay Park (also known as Window on the Bay Park) for public use. More recently, the city has prioritized a second area to the east of the park for fee simple purchase of parcels to expand the open space and support additional recreational uses (Waterfront Master Plan, 2016).

This adaptation strategy serves multiple purposes for the City of Monterey—by expanding its shoreline access and recreation, improving the visual quality of the waterfront, and preserving natural resources, the city can also reduce coastal hazard risks to life and structures. The city has used various funding partnerships with the state, county, Packard Foundation, Coastal Conservancy, Regional Park District, and Regional Transportation Agency, as well as private citizen donations, to accomplish this work.

Waterfront area in City of Monterey, Coastal Records Project

[30] In 2014 the City of Monterey received a grant from the California Coastal Commission and Ocean Protection Council to explore its sea level rise vulnerability and update its Local Coastal Program (LCP). (2016 City of Monterey Final Sea Level Rise and Vulnerability Analyses, Existing Conditions and Issues Report. Submitted to City of Monterey by Revell Coastal, LLC. March 10, 2016.)

[31] As a part of its planning process for the LCP, the city developed the Waterfront Master Plan to serve as an implementation tool for the General Plan and Local Coastal Land Use Plan to address the waterfront area. https://monterey.org/Portals/0/Policies-Procedures/Planning/WorkProgram/WFMP/16_0216_Final_Waterfront_Master_Plan.pdf

4. Legal Considerations

As part of fully evaluating available adaptation strategies, communities should analyze their ability to implement those strategies consistent with applicable legal constraints. The most relevant legal considerations in coastal California include the Coastal Act, the public trust doctrine, and potential takings of private property interests.

Commented [CDA38]: FEMA's NFIP is a significant regulatory program just as the Coastal Act is, and should be discussed here.

Relevant Coastal Act Policies

A variety of Coastal Act policies related to sea level rise adaptation strategies need to be considered when evaluating LCP policy options. For example, in addition to other Coastal Act Chapter 3 policies, Sections 30210 through 30224 protect public access and recreational opportunities; Sections 30230 and 30231 protect marine habitats and water quality; Section 30233 regulates and restricts the placement of fill or other materials in waterways, including open coastal waters; Section 30250 requires development to have adequate public services; and Section 30251 protects visual resources. In addition, Sections 30235, 30253, and 30240(b) relate to ensuring safe development that limits impacts to coastal resources, as discussed below. Certified local coastal programs should have policies that implement these Coastal Act requirements.

Section 30233 states in part:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> . . .
>
> *(6) Restoration purposes.*
>
> *(7) Nature study, aquaculture, or similar resource dependent activities.*

Section 30235 states:

> *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.*

Section 30253 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...

Section 30240(b) states:

> *(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.*

Section 30253 requires new development to minimize risks from hazards, to avoid creating or contributing significantly to erosion and geologic instability, and to not in any way require construction of armoring that substantially alters natural landforms along bluffs and cliffs. A common way to achieve these requirements is through establishing bluff-top and shoreline setbacks. Despite this strict limitation on shoreline armoring for new development, Section 30235 allows armoring that alters natural shoreline processes when it is needed to protect existing development, coastal dependent uses, or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. However, such protection is only allowed if it is *required* – i.e., if the existing structure is in fact in danger, and the proposed shoreline protection is the least environmentally-damaging alternative to abate the danger.

As described in the Commission's 2015 Sea Level Rise Policy Guidance, the Commission interprets the term "existing structures" in Section 30235 as meaning structures that were in existence on January 1, 1977—the effective date of the Coastal Act. In other words, Section 30235's directive to permit shoreline armoring in certain circumstances applies to development that existed as of January 1, 1977. This interpretation is the most reasonable way to construe and harmonize Sections 30235 and 30253, which together evince a broad legislative intent to allow armoring for development that existed when the Coastal Act was passed, when such development is in danger from erosion, but avoid such armoring for new development now subject to the Act. This interpretation, which essentially "grandfathers" protection for development that predates the Coastal Act, is also supported by the Commission's duty to protect public trust resources and interpret the Coastal Act in a liberal manner to accomplish its purposes.

In cases where development is subject to Section 30235, the Commission has generally permitted shoreline armoring that meets the criteria specified in that provision, though imposed conditions to address impacts to coastal resources protected by other Coastal Act provisions. For residential development that does not qualify as an "existing" structure, shoreline armoring is generally disallowed because it is normally inconsistent with Section 30253 and/or other Chapter 3 policies of the Coastal Act.

Section 30240(b) requires the siting and design of development to prevent significant degradation of adjacent sensitive habitats and recreation areas and to allow the continuance of those areas in the future. New residential development relying on long-term accommodation through elevation or floodproofing could foreseeably lead to a circumstance in which the residence is located on pilings above, or in the middle of, the migrated public sandy beach or public trust lands. Such development would likely degrade that recreational area and be incompatible with the continuance of the public recreational area as it migrates inland. It could also prevent continuance

Commented [CDA39]: As we pointed out in the first draft of this guidance, the standard is eliminate OR MITIGATE. The Draft Policy Guidance should more clearly articulate that under current law eliminating existing development is not the only option and that minimizing or lessening adverse impacts is also permitted.
March 15, 2018

Commented [CDA40]: The standard in 30235 is just as stated above, "to eliminate or mitigate adverse impacts ON LOCAL SAND SUPPLY." It's quite a leap to expand the standard to the least environmentally-damaging alternative to abate the danger. Please explain this departure from the law as written.
March 15, 2018

Commented [CDA41]: See Marin County's comments on the *Revisions and FAQ Responses*.
March 15, 2018

Commented [CDA42]: This is a specious argument as the Commission had the authority and obligation to condition any development permitted after Jan.1, 1977 to comply with the Act. It is not just for the permitted party to be penalized for any Commission failures or omissions in not properly conditioning the original permits, nor is it plausible this was the Legislative intent.

Commented [CDA43]: In this draft, 30240(b) is quoted more accurately than it was in the first draft, but the reference to the future is still added. Arguably, "the continuance of those areas" implies some future for them. The addition of "in the future" here, is either simply redundant or an attempt to place an unlimited future potential for "those areas" that is not implied by "continuance."
March 15, 2018

of the habitat as that area migrates inland. Shoreline armoring is also often inconsistent with Section 30240(b). Thus, to achieve Coastal Act consistency when accommodation measures are used, jurisdictions may need to adopt policies or impose conditions to protect coastal resources, such as provisions requiring soft shoreline protection, such as dune restoration or beach nourishment, as well as future removal of development when impacts reach a certain threshold, or certain triggers are met.

Section 30233 disallows the filling of coastal waters unless there is no feasible less environmentally damaging alterative, mitigation measures are provided, and the fill is for one of seven enumerated purposes – e.g., for certain coastal-dependent structures, restoration purposes, or aquaculture or other resource dependent activities. Placement of rock or other fill material for revetments or most shoreline armoring is not a resource dependent use, and would therefore generally be disallowed. However, dune restoration and some beach nourishment/restoration projects might qualify as permitted restoration activities. In addition, notwithstanding Section 30233, fill may also be allowed in narrow circumstances when required in order to protect "existing" development or coastal dependent uses under Section 30235. Permits for shoreline armoring should also include conditions to address compliance with other applicable Coastal Act or LCP requirements.

These policies, and LCP policies based on them, will limit the allowable adaptation strategies in certain cases. For example, new residential development generally may not rely on existing or new shoreline armoring to address coastal erosion, sea level rise, and related coastal hazards. This is because such shoreline armoring generally has negative impacts on natural shoreline processes, public access, visual resources, recreational resources, and intertidal and other important habitat, and is therefore not allowed pursuant to various Chapter 3 policies of the Coastal Act.

Adaptation Strategies for Development Constructed after January 1, 1977

For development that does not qualify as "existing," jurisdictions should take steps to evaluate a range of adaptation strategies to address sea level rise before development becomes threatened by coastal hazards. For example, appropriate strategies might include non-structural protective methods, such as beach nourishment and dune restoration, as well as accommodation and retreat. For development already subject to a coastal development permit, jurisdictions should also determine whether conditions of that permit already limit or describe the manner in which hazards should be addressed.

In some cases, it might be possible to permit shoreline protection for new development (i.e., development built after January 1, 1977). For example, it may be appropriate for new development in developed urban areas that are protected by preexisting bulkheads to rely on retention and/or expansion of those bulkheads for an appropriate period of time if such retention/expansion is technically feasible (including considering rising groundwater levels), will provide adequate protection for the anticipated life of the project, and will not: (1) alter natural shoreline processes along bluffs or cliffs, (2) impair public access or impede public trust uses,[32] (3) cause significant adverse visual impacts, (4) negatively impact marine habitat, or (5) otherwise

[32] In some cases, maintaining bulkheads may benefit public access by helping to maintain publicly accessible, navigable waterways, or public paths on top of the bulkheads. However, in general, any seaward expansion or encroachment by a bulkhead on shoreline area used by the public would constitute a negative impact to public access.

Commented [CDA44]: Does this mean that elevation and floodproofing are appropriate short-to-medium-term strategies to accommodate SLR, but not appropriate long-term strategies? Please provide sufficient discussion regarding if and how flood proofing and elevating structures will be prohibited under the Coastal Act based on foreseeable future circumstances. How will "foreseeably" be determined, under what time frame and set of assumptions? Will it be determined by the hazards analysis submitted by the permit applicant? Rather than basing current decision making on a future worst-case scenario, shouldn't this be an area of the Guidance where adaptive management is recognized as a means of addressing future conditions as they become better known and more predictable?"
March 15, 2018

Commented [CDA45]: Section 30233 creates standards for coastal waters, wetlands, estuaries, and lakes. It is clearly intended to regulate water areas or generally those areas below the Mean High Tide Line. The discussion, however, is about placing fill for revetments, dune restoration, and beach nourishment, most of which occurs above the Mean High Tide Line and generally not in wetlands. What point is being made here?
March 15, 2018

Commented [CDA46]: The Coastal Act regulates "development," not existing authorized structures and uses. There is no nexus to require a property owner to remove an existing legal shoreline protective device because the proposed definition of "redevelopment" requires a Coastal Development Permit for replacing a portion of the homes subfloor, foundation or siding. Similarly, the Coastal Act does not provide that the retention of existing bulkheads can be made subject to the conditions enumerated here. Without a convincing legal analysis as to how these types of substantive changes clearly comport with the Coastal Act. The legal analysis provided in the Response to FAQ is insufficient.
March 15, 2018

Commented [CDA47]: See Marin County's comments on the *Revisions and FAQ Responses* regarding the Commission's new definition of "existing." We do not accept this new definition. Additionally, all development after Ja. 1 1977 was subject to compliance with the Coastal Act either through the Commission, or a LCP (much of which was subject to CCC appeal). Such development is legal and approved under the Coastal Act, and no Guideline can take that away.
March 15, 2018

Commented [CDA48]: Developed areas protected by preexisting bulkheads do not occur only in "urban" areas. This word should be deleted.
April 2, 2018

Commented [CDA49]: Other shoreline devices could meet these criteria.

Commented [CDA50]: We made this comment on the first draft. It's worth making again…" This is an important caveat that should be stated clearly in the document, not relegated to a footnote."
March 15, 2018

conflict with Chapter 3 resource protection policies. Figure 5 presents a flow chart of some of the criteria to consider when determining whether shoreline armoring is a feasible adaption strategy for residential areas.

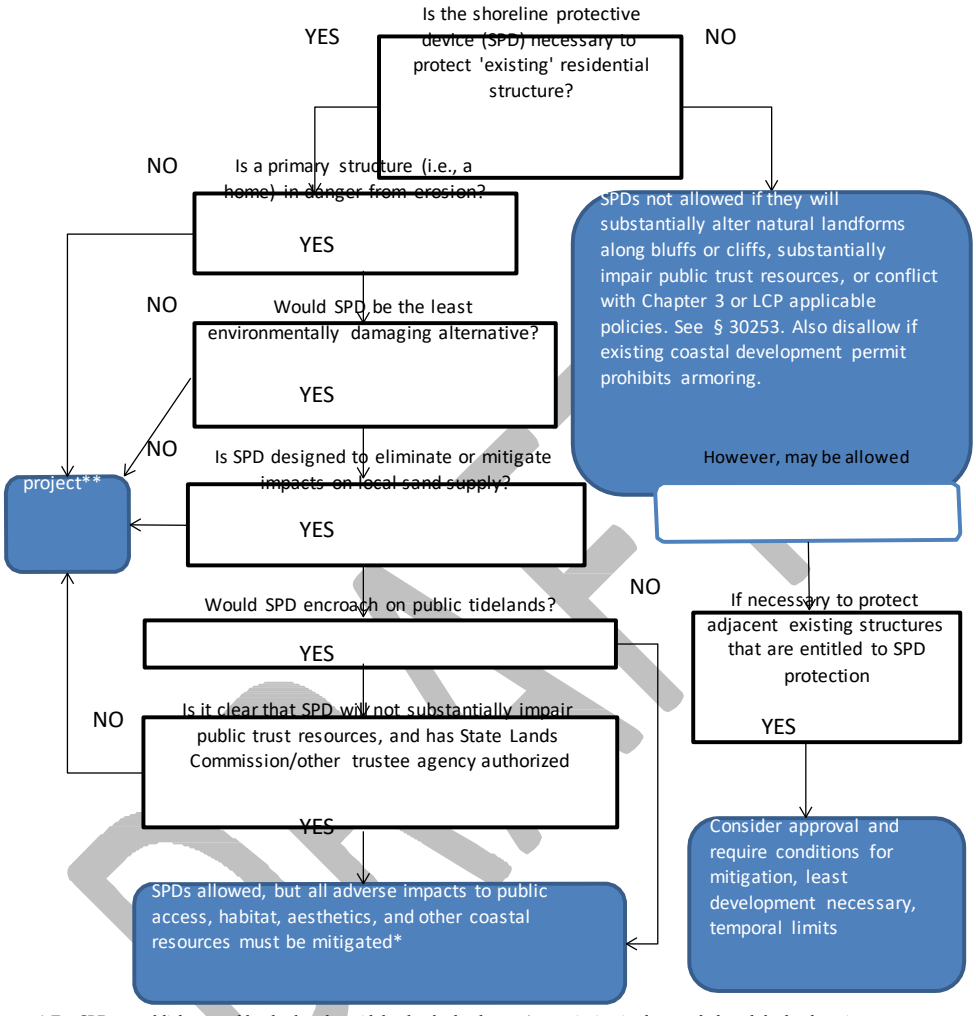
In addition, shoreline armoring may be an allowable adaptation strategy, at least in the short-term, in order to protect areas where new and existing (i.e., pre-Coastal Act) residential development are intermingled and it is not feasible to have the shoreline armoring only protect the existing development. Likewise, it may be permissible in some cases to allow new development to rely on existing or new armoring if disallowing such development would constitute an unconstitutional taking of private property without just compensation (see section on Addressing Takings Concerns, below).[33] However, local governments should consider whether any existing structure or use on the property already provides a reasonable economic use, and therefore permitting new development or redevelopment may not be necessary to avoid a taking. As described in Chapter 8 of the Commission's Sea Level Rise Policy Guidance, local jurisdictions will need to consider the specific legal context and circumstances that apply to each area or case when undertaking shoreline armoring-related LCP updates or approving individual development projects that include shoreline armoring.

Although coastal armoring generally has significant adverse impacts on coastal resources, there are situations—as described above—where armoring may be lawfully allowed and may represent a reasonable short- to mid-term adaptation strategy at a street/neighborhood-level or community-scale. This may be especially true in urbanized areas where existing residential development and/or critical infrastructure exist, where development is already protected by armoring, where the impacts of armoring on natural shoreline processes will be minimal due to the geology of the area and where the armoring is the least environmentally damaging alternative for adaptation. However, to the extent that LCP policies—or projects approved pursuant to them— allow for shoreline armoring, local governments must ensure that such policies and projects safeguard coastal access, mitigate for all impacts to coastal resources affected by armoring, protect public trust resources, and ensure equitable access to and benefits from coastal resources. Again, as described in Chapter 8 of the Commission's Sea Level Rise Policy Guidance, local jurisdictions will need to consider the specific legal context and circumstances that apply to each area or case when undertaking shoreline protection-related LCP updates or approving individual development projects that include shoreline protection. When deciding on and developing policies to support an adaptation strategy that may include armoring in an LCP, local governments should consider working closely with Coastal Commission staff in crafting such land use policy language to address this unique and special circumstance and to be consistent with Coastal Act policies.

Commented [CDA51]: Please address whether denying the elevation of a house above the hazard Base Flood Elevation to increase the likelihood of flooding, storm related damage and eventual loss would allow enough economically viable use to avoid a taking? This is an important issue to local governments if they are expected to adhere to and defend this legal conclusion through their local permit decisions. The rationale that "there is already an existing economic use of the property" seems flimsy without more legal analysis
March 15, 2018

Commented [CDA52]: Section 30235 does not make this distinction. It simply applies to "existing" structures.
March 15, 2018

[33] Pub. Res. Code § 30010.



* For SPD on publicly owned land other than tidelands, the landowner's permission is also needed, and the landowning agency is not obligated to give permission.

** In rare circumstances, agencies may need to consider whether denial of armoring would constitute a taking of property. However, denial of SPD should not be a taking if SPD impairs public trust or would constitute a nuisance.

Figure 5. Analytical steps for considering shoreline armoring to protect residential structures (note, this flow chart simplifies the analytical process for illustrative purposes. Planners should consult their legal staff for definitions or case specific questions.)

Public Trust Doctrine

Background on Public Trust Doctrine

The State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The state holds and manages these lands for the benefit of all people of the state for statewide purposes consistent with the common law public trust doctrine ("public trust"). The public trust ensures that title to sovereign land is held by the state in trust for the people of the state. Public trust uses include maritime commerce, navigation, fishing, boating, water-oriented recreation, visitor-serving facilities and environmental preservation and restoration. Non-water dependent uses such as residential and general office or commercial uses are generally inconsistent with public trust protections and do not qualify as public trust uses.

In coastal areas, the landward location and extent of the state's sovereign fee ownership of these public trust lands are generally defined by reference to the ordinary high water mark,[34] as measured by the mean high tide line;[35] these boundaries remain ambulatory, except where there has been fill or artificial accretion. More specifically, in areas unaffected by fill or artificial accretion, the ordinary high water mark and the mean high tide line will generally be the same. In areas where there has been fill or artificial accretion, the ordinary high water mark (and the state's public trust ownership) is generally defined as the location of the mean high tide line just prior to the fill or artificial influence. It is important to note that such boundaries may not be readily apparent from present day site inspections.[36]

The mean high tide line is the intersection of the shoreline with the elevation of the average of all high tides calculated over an 18.6-year tidal epoch. This property line is referred to as "ambulatory" for two reasons: first, gradual changes to the shoreline due to factors such as variations in the height and width of sandy beaches, shoreline erosion or accretion, and uplift or subsidence of land can change the location of where the mean high tide line meets the shoreline. Second, the elevation of the mean high tide line itself changes over time and is likely to increase at an accelerating rate in the future due to sea level rise. Over time, sea level rise will continue to gradually cause the public trust boundary to move inland. Boundaries between publicly-owned waterways and adjoining private properties (referred to as littoral if they are along lakes and seas and riparian if along rivers and streams) have always been subject to the forces of nature and property boundary law reflects these realities.

Accelerating sea level rise will likely lead to more disputes regarding the location of property boundaries along the shoreline, since lands that were previously landward of the mean high tide line have become subject to the state's ownership and protections of the public trust. These disputes, in turn, will affect determinations regarding what kinds of structures and uses may be allowed or maintained in areas that, because of sea level rise, either are already seaward of the mean high tide line, are likely to become seaward of the mean high tide line in the future, or would be seaward of the mean high tide line if it were not for artificial alterations to the shoreline.

[34] Civil Code § 670.
[35] *Borax Consolidated v. City of Los Angeles* (1935) 210 U.S. 10.
[36] *Carpenter v. City of Santa Monica* (1944) 63 C. A. 2nd 772, 787.

Commented [CDA53]: Residential does occur on public trust lands. Please describe how much area, and the number of jurisdictions in which this condition occurs in order for the public to judge the accuracy of this "do not qualify" statement.

Commented [CDA54]: It is necessary to explain how a local government or a permit applicant would operationally determine the historical MHTL. Are there survey reports delineating that line at the time the structure was built or some other way to determine where the line was, and under law then now exists? Also, just a note: Mean High Tide Line is a proper noun defined by the specific calculation you describe in the next paragraph
March 15, 2018

Commented [CDA55]: …or a permitted shoreline protection device (the CCC and local governments through approved LCPs have permitted many SPDs in its 41-year history). Given the difficulties of establishing a line on the shore, it is nearly impossible for local governments and permit applicants to determine where the historical MHTL was located or would have been located under other circumstances.
March 15, 2018

Commented [CDA56]: Actually, establishing the historical MHTL as if a SPD or other structure doesn't exist is what will lead to disputes. It appears to be a grab for greater Commission permit jurisdiction. Some legal analysis here would be helpful. Where is the Commission's authority to require a local government to in turn require a permit applicant to provide a property survey that assumes an existing structure is not existing? The Milner case is not sufficient evidence to require local governments, which do not own the tidelands, to demand such a survey. Rather, if the Commission desires to pursue its jurisdiction in this manner, it can request such a survey.
Also, the State Lands Commission still has not determined how it will act in matters pertaining to changes in the MHTL
March 15, 2018

Development in Malibu abuts the sea and is particularly vulnerable to beach erosion. Photo Credit: Lesley Ewing

California case law does not explicitly address how shoreline structures such as seawalls that artificially fix the shoreline temporarily and prevent inland movement of the mean high tide line affect property boundaries, if at all. The Ninth Circuit Court of Appeals, however, has interpreted federal common law as allowing the owner of tidelands to bring a trespass action against a neighboring upland property owner who built a revetment that prevented the natural inland movement of the mean high tide line. The court ruled that the actual property boundary was where the mean high tide line would have been if the revetment were not there and that the owner of the tidelands could require the upland owners to remove the portions of the revetment that were no longer located on the upland owners' properties.[37]

Coastal Commission and Local Government Public Trust Authority and Duties

The public trust gives the state the authority to manage tidelands and also imposes a duty to protect the public's interests in those tidelands.[38] The Legislature has broad authority to implement the public trust and to delegate authority over tidelands to state agencies or local governments. The State Lands Commission has exclusive jurisdiction over ungranted tidelands owned by the state,[39] as well as residual jurisdiction over tidelands granted to local trustees.[40] The Legislature has also granted to the Coastal Commission the authority to regulate and permit development within California's coastal zone, including development on tidelands or that may affect tidelands.[41] In cases where development is proposed on tidelands, the applicant will need to obtain a lease or other appropriate authorization from the State Lands Commission or the appropriate tidelands grantee in addition to an appropriate development approval from the Coastal Commission.

[37] *United States v. Milner* (9th Cir. 2009) 583 F.3d 1174, 1189-1190.
[38] *Nat'l Audubon Soc'y v. Superior Court* (1983) 33 Cal.3d 419.
[39] Pub. Res. Code §§ 6301, 6305, 6009.
[40] *State of Cal. ex rel. State Lands Com. v. County of Orange* (1982) 134 Cal.App.3d 20.
[41] Pub. Res. Code §§ 30000 et seq., 30519(b).

Local governments have a responsibility to protect public trust resources associated with tidelands, and they must carry out this responsibility when drafting LCPs and considering coastal development permit applications. Although the Coastal Commission retains the authority to issue coastal development permits for development located on tidelands,[42] local governments are obligated to have policies that regulate development on adjacent uplands in a manner that protects tidelands.[43] Local governments also play a critical role in protecting uplands that will likely become tidelands in the future due to sea level rise.

Commented [CDA57]: Where is this explicit obligation found in the Coastal Act?

In describing the state's duty to protect public trust lands, the California Supreme Court has ruled that state agencies have a duty to "exercise […] continuous supervision and control over the navigable waters of the state and the lands underlying those waters."[44] Thus, when considering whether to approve projects that may affect public trust lands, agencies must consider the effects that the projects will have on "interests protected by the public trust, and attempt, so far as feasible, to avoid or minimize any harm to those interests."[45] Development located *on* tidelands must generally be water dependent or otherwise consistent with the public trust. As the State Lands Commission has articulated: "[u]ses that are generally not permitted on public trust lands are those that are not trust use related, do not serve a public purpose, and can be located on non-waterfront property, such as residential and non-maritime related commercial and office uses."[46] If there are competing trust-related uses of public trust lands, trustee agencies have significant authority to choose which use or uses to allow, though should attempt to reconcile competing trust uses or allow multiple uses when feasible.[47] For development located *near* tidelands, agencies must ensure that the development does not impair trust resources by, for example, impeding public access.[48]

Another underpinning of the public trust doctrine is that "[t]idelands subject to the trust may not be alienated into absolute private ownership; an attempted conveyance of such land transfers 'only bare legal title,' and the property remains subject to the public trust easement."[49] Although the state may lease trust lands for trust-consistent purposes, or may grant trust lands to public entities that will serve as trustee agencies for the land, or may lease to private entities subject to the public trust, courts will not interpret legislative action as fully alienating trust interests unless no other interpretation is reasonably possible.[50] This doctrine may affect landowners' ability to

[42] Pub. Res. Code § 30519(b).
[43] E.g., Pub. Res. Code §§ 30230, 30231, 30232, 30235, 30240, 30253.
[44] *Nat'l Audubon Soc'y,* 33 Cal.3d at 425.
[45] *Id*. at 426.
[46] CALIFORNIA STATE LANDS COMMISSION, PUBLIC TRUST POLICY FOR THE CALIFORNIA STATE LANDS COMMISSION, available at http://www.slc.ca.gov/About_The_CSLC/Public_Trust/Public_Trust_Policy.pdf; see also *Lechuza Villas West v. Cal. Coastal Comm'n* (1997) 60 Cal.App.4th 218 (upholding Coastal Commission's denial of permit for residential development due to concern that it would be located partly on tidelands).
[47] *Carstens v. Cal. Coastal Comm'n* (1985) 182 Cal.App.3d 277, 289; *Nat'l Audubon Soc'y,* 33 Cal.3d at 440; *State of California v. San Luis Obispo Sportsman's Assn*. (1978) 22 Cal. 3d 440, 448.
[48] See Pub. Res. Code § 30211; *Nat'l Audubon Soc'y*, 33 Cal.3d at 435-37 (agencies have duty to consider how use of non-trust resources affect public trust waters).
[49] *City of Berkeley v. Superior Court* (1980) 26 Cal.3d 515, 537 (quoting *Long Beach v. Mansell* (1970) 3 Cal.3d 462, 482); see also Cal. Const. art. X, § 3; Cal. Pub Res. Code § 7991. However, California courts have carved out a narrow exception allowing alienation of tidelands when the tidelands: 1) are valueless for trust purposes, 2) are dedicated to a highly beneficial public purpose, and 3) constitute a relatively small part of the whole trust area. *Mansell*, 3 Cal.3d at 485-86; *see also* Pub. Res. Code § 6307 (allowing exchange of tidelands for other lands if numerous factors are met).
[50] *People v. California Fish Co.* (1913) 166 Cal. 576, 597.

construct shoreline armoring that prevents the migration of tidelands, as approval of such armoring could be viewed as allowing the conveyance of what would be public tidelands into private use. At the least, it supports the idea that lawfully permitted shoreline armoring may temporarily prevent the *physical* migration of the shoreline but would not affect the *legal* migration of the boundary between private property and public tidelands.

No court has explicitly ruled on whether the Coastal Commission's or local governments' compliance with the Coastal Act fully satisfies their duty to consider and protect the public trust.[51] However, courts have ruled that compliance with other laws, such as the California Environmental Quality Act ("CEQA"), does not necessarily satisfy an agency's independent obligation to consider public trust impacts.[52] On the other hand, if agencies do in fact consider their public trust duties when analyzing a project's compliance with other environmental laws, that may well satisfy the agency's public trust obligations.[53]

Because the Coastal Act requires protection of public access, coastal habitats, recreation, and other public trust-related resources, analysis of a project's consistency with the Coastal Act (and, by extension, an LCP) may serve as an adequate analysis of a project's consistency with public trust principles. However, to ensure protection of the public trust, local governments should explicitly consider their public trust obligations when crafting LCP policies that govern development adjacent to tidelands and when considering whether to approve individual development projects that may affect public trust resources. In addition, the public trust doctrine should inform the interpretation of Coastal Act and LCP provisions to ensure that they are carried out in a manner that fully protects the public trust.

The Public Trust and Sea Level Rise Adaptation

Local jurisdictions should take their public trust duties into consideration when drafting sea level rise adaptation policies. Because the Coastal Commission has permitting authority for development on public trust lands, and because the Coastal Act, rather than LCPs, constitutes the standard of review for development on trust lands, LCPs should not include policies that directly apply to development on public trust lands. However, it is important for LCP policies to protect public trust resources by ensuring that adjacent development does not harm public trust resources or interfere with future migration of the public trust boundary. For example, adaptation policies must ensure protection of public trust lands for public trust purposes, including maritime commerce, navigation, fishing, boating, water-oriented recreation, visitor-serving facilities and environmental preservation and restoration. Because private residential development is not considered a public trust use, policies specific to residential adaptation must ensure that residences and any ancillary development, including shoreline armoring, will not substantially impair or be inconsistent with public trust needs in those lands.

[51] But see *Carstens,* 182 Cal.App.3d 277 (holding that Coastal Commission properly exercised its duty to consider various uses of tidelands and to protect public access to such lands when it analyzed a permit amendment's consistency with Coastal Act public access provisions); *Citizens for East Shore Parks v. State Lands Comm'n* (2012) 202 Cal.App.4th 549, 577 (stating that the *Carstens* "court essentially made no distinction between compliance with the [Coastal A]ct and the public trust doctrine.").

[52] Compare *Citizens for East Shore Parks*, 202 Cal. App.4th 549 (agency's CEQA review, which analyzed public trust issues, satisfied the agency's duty to consider public trust issues) with *San Francisco Baykeeper, Inc. v. State Lands Comm'n* (2015) 242 Cal.App.4th 202 (complying with CEQA does not necessarily demonstrate compliance with public trust duties and, where agency failed to explicitly consider public trust obligations during CEQA review, it violated its public trust duties).

[53] *Id*.

Commented [CDA58]: Please describe the law or cases law the states this.

Commented [CDA59]: We made this comment on the first draft and it's worth making again here: the State Lands Commission should weigh in with an opinion and determination of how it will respond to SLR. We are aware that Commission staff are finally working with the SLC. Having an opinion from the SLC would validate these assertions. Sea level rise is relatively new and uncertainty about the degree to which it will impact the shoreline is high. Any state action that lessons the degree of uncertainty is helpful.
March 15, 2018

Commented [CDA60]: The Public Trust discussion and the taking discussion that follows belong together. Local governments must balance the Public Trust and private property rights in every decision. For example, along with a statement like this, should be an explanation of how local governments ensure protection of PT resources while still avoiding a "takings." Striking this balance within your guidance document would make it more useful to local governments attempting to strike the same balance with every permit decision.
March 15, 2018

For development located on land subject to sea level rise and migrating public trust land boundaries, policies should ensure that applicants are aware of the risk of building in a location where the property boundary may change, that the development is not authorized to encroach on public trust land, and that private residential development (including shoreline armoring for such development) will need to be relocated or removed before it significantly impairs use of public trust land for public trust purposes.[54] Jurisdictions may also want to adopt a policy that requires, as a condition of a permit for new, shorefront development subject to sea level rise, that the landowner submit periodic evidence that the development remains on private property. Model Policies A.6 (Assumption of Risk), D.1 (Removal Conditions), D.3 (Mean High Tide Line Survey Conditions), F.8 (Shoreline Armoring Monitoring), and G.9 (Beach Management Plan) provide examples of how local governments could implement these requirements through their LCPs.

For a more in-depth discussion of the public trust doctrine in California and how it relates to sea level rise, see Center for Ocean Solutions, Stanford Woods Institute for the Environment, the Public Trust Doctrine: a Guiding Principle for Governing California's Coast under Climate Change (2017).[55]

General Principles of Takings Law

Please refer to the 2015 CCC SLR Policy Guidance for more background on the legal context of adaptation planning (Chapter 8. Legal Context).

The United States and California constitutions prohibit public agencies from taking private property for public use without just compensation. Section 30010 of the Coastal Act similarly prohibits public agencies implementing the Coastal Act from granting or denying a permit in a manner that takes or damages private property for public use without payment of just compensation. The classic "takings" scenario arises when a public agency acquires title to private property in order to build a public facility or otherwise devote the property to public use. In 1922, however, the United States Supreme Court ruled that, in certain circumstances, regulation of private property can constitute a taking even if the regulation does not involve acquisition of title to the property. As Justice Oliver Wendell Holmes stated, "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking," (*Pennsylvania Coal Co. v. Mahon* (1922) 260 U.S. 393, 415.)

In the century since then, Courts have struggled to give agencies and property owners a more definite sense of exactly when a regulation "goes too far." The Supreme Court has identified three basic categories of takings that can occur in the context of land use regulation. Different legal standards apply depending on what kind of taking is at issue. (See, generally, *Lingle v. Chevron USA, Inc.* (2005) 544 U.S. 528).

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[54] See *Lechuza Villas West,* 60 Cal.App.4th at 225, 243 (describing how a landowner who wishes to construct homes near the shoreline "risk[s] building on land it has legal title to today but which may become tidelands as a result of natural forces," and upholding Coastal Commission's denial of a permit to construct homes near a beach because the applicant "failed to meet its burden of showing that the project would not encroach on [existing] public tidelands.").

[55] Center for Ocean Solutions, Stanford Woods Institute for the Environment. 2017. The Public Trust Doctrine: a Guiding Principle for Governing California's Coast under Climate Change. Available at http://centerforoceansolutions.org/sites/default/files/publications/The%20Public%20Trust%20Doctrine_A%20Guiding%20Principle%20for%20Governing%20Califonia%2527s%20Coast%20Under%20Climate%20Change.pdf.

The most straightforward test applies to what is variously called a categorical, total, *per se*, or *"Lucas"* takings, which occurs when a regulation deprives an owner of all economically beneficial use of the property (see *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003). An agency that completely deprives a property owner of all economically beneficial use of the property will likely be found liable for a taking unless background principles of property law, such as nuisance[56] or the public trust doctrine,[57] independently restrict the owner's intended use of the property. Courts have generally been very strict about when they apply this test. If any economically beneficial use remains after application of the regulation, even if the value of that use is a very small percentage of the value of the property absent the regulatory restriction, a *Lucas* taking has not occurred.

Where a regulation significantly reduces the value of private property but does not completely deprive the owner of all economically beneficial use, the multi-factor "*Penn-Central"* test applies.[58] This test has no set formula, but the primary factors include the economic impact of the regulation, the extent to which the regulation interferes with distinct, reasonable investment-backed expectations, and the character of the governmental action. When evaluating the character of the governmental action, courts consider whether the regulation amounts to a physical invasion or instead more generally affects property interests through a program that adjusts the burdens and benefits of economic life for the common good. Whether a regulation was in effect at the time an owner acquired title is also a relevant factor, but is not by itself dispositive.[59] Because this test takes such a wide range of factors into account, case law does not provide clear guidance about the situations in which a regulation is likely to qualify as a "*Penn-Central"* taking. A *Penn-Central* claim is unlikely to succeed, however, unless the plaintiff can establish that the regulation very substantially reduces the value of the property.

The third category of takings claims applies to "exactions," that is, government permitting decisions that require a property owner either to convey a property interest or to pay a mitigation fee as a condition of approval.[60] Under the *Nollan/Dolan* line of cases, the agency must establish a "nexus" between the condition requiring a property interest or payment and the effects of the project that that property interest or payment is mitigating. That property interest or payment must also be roughly proportional to the impact that it is intended to mitigate. In California, the *Ocean Harbor House* case is a good example of a shoreline structure impact mitigation requirement that was found by the courts to meet the relevant standards of nexus and proportionality.[61]

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[56] See *Scott v. City of Del Mar* (1997) 58 Cal.App.4th 1296 (city ordered removal of seawalls that were encroaching onto public beach; court held there was no compensable taking because the seawalls, which obstructed a public right-of-way, were public nuisances).

[57] No published California case has held that the public trust doctrine is a "background principle" that defeats a takings claim. However, given the doctrine's long-standing roots in state law and its basis in the common law, state constitution, and statutory law, commentators have argued that it is an established background principle of property law in the state. *See e.g.*, BILL HIGGINS, INSTITUTE FOR LOCAL GOV'T, REGULATORY TAKINGS AND LAND USE REGULATION: A PRIMER FOR PUBLIC AGENCY STAFF 14. Other states have also found the public trust to be a "background principle" for purposes of takings analysis. *Esplanade Properties, LLC v. City of Seattle* (9th Cir. 2002) 307 F.3d 978, 985; *McQueen v. S.C. Coastal Council* (2003) 354 S.C. 142, cert denied 124 S. Ct. 466 (2003).

[58] *Penn Central Transportation Co. v. City of New York* (1978) 438 U.S. 104.

[59] See *Murr v. Wisconsin* (2017) 137 S. Ct. 1933, 1945 ("The reasonable expectations of an acquirer of land must acknowledge legitimate restrictions affecting his or her subsequent use and dispensation of the property"); *Palazzolo v. Rhode Island* (2001) 533 U.S. 606, 632-633 (O'Connor, J., concurring).

[60] See *Nollan v. California Coastal Comm'n* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374; *Koontz v. St. Johns River Water Management Dist.* (2013) 133 S.Ct. 2586.

[61] *Ocean Harbor House Homeowners Assn. v. California Coastal Com*m'n (2008) 163 Cal.App.4th 215.

Addressing Takings Concerns

Because the determination of whether a particular policy or regulation may in some circumstances be applied in a way that constitutes a taking is so fact-intensive and context-specific, this Guidance cannot provide a simple set of parameters for when agencies should either allow exceptions to a land use regulation or consider purchasing a property interest. However, because sea level rise adaptation policies may potentially give rise to takings claims, the Guidance does provide policy recommendations that could address ways to avoid an unconstitutional taking.

First, local governments have broad authority to regulate land use. Even actions that may significantly reduce property value, such as rezoning or downzoning in hazardous areas, are possible without generating a successful takings claim, especially if it is clear that the regulation serves a public purpose, such as protecting an existing public recreational beach area, and does not unfairly single out particular property owners. Likewise, legislatively imposed, generally applicable development standards that do not require dedication of private property for public use or payment of money to the public should not be considered "exactions" that are subject to the heightened scrutiny of *Nollan*/*Dolan*.[62] Accordingly, adopting generally applicable development standards through an LCP—such as bluff setbacks, floor elevation requirements, recorded notices of coastal hazards, or specific restrictions on shoreline armoring—may provide a lesser risk of successful takings claims than if such restrictions are imposed on an ad-hoc, permit-by-permit basis.

In addition, local governments can adopt policies that reduce the risks of takings claims. For example, policies requiring assumption of risk, disclosure of hazards, waiver of rights to shoreline protective devices, and disclosure of possible sea level rise and migrating public trust boundaries can ensure that new property owners are on notice regarding the limitations of the property. This, in turn, will help ensure that any such owners have an appropriate, "reasonable investment backed expectation" for the use of the property: namely, that such use will be limited by future hazards, exacerbated by sea level rise.[63]

Land use restrictions that prevent all economically beneficial use of the entirety of a property[64] are vulnerable to *Lucas* takings claims unless those uses would qualify as a nuisance or are prohibited by property law principles such as the public trust doctrine. Agencies can minimize the risk of these claims by allowing economically beneficial uses on some of the property or for a certain amount of time, and by exploring whether legal doctrines regarding nuisance or the public trust independently allow for the potential limitations on the use of the property.[65] For example, if a home or seawall would impede public access along the coast, it may be a nuisance, and denial of a permit for the home or seawall—or conditioning of the permit to allow access—should therefore not constitute a taking.[66] Establishing a buyout, leaseback, or transferrable development rights program for properties that are subject to significant development restrictions may also

[62] *Cal. Building Industry Assn. v. City of San Jose* (2015) 61 Cal.4th 435, 461-62.

[63] See *Murr*, 137 S. Ct. at 1946 (owners' expectations about what they may do on their land may be influenced by the fact that it is sensitive coastal land, which may be more heavily regulated by the state).

[64] What qualifies as the entirety of a property can also be the subject of dispute. The property will normally include all legal lots on which the proposed development would be located, but may also include other lots that are in common ownership and adjacent to, or in close proximity with, the lots that would be developed. See *Murr*, 137 S. Ct. at 1946; *Norman v. United States* (Fed. Cir. 2005) 429 F.3d 1081, 1091; *District Intown Properties Limited Partners hip v. District of Columbia* (D.C. Cir. 1999) 198 F.3d 874, 880).

[65] See, e.g., *Scott v. City of Del Mar* (1997) 58 Cal.App.4th 1296.

[66] *Id.*; Civ. Code § 3479.

Commented [CDA61]: This comment is also worth restating: Are there cases that address what happens when the action that reduces property value (eg. severe building restrictions) and the intended outcome (providing for future protection of a beach) are widely separated in time and/or are not yet facts on the ground?
March 15, 2018

Commented [CDA62]: The cited policies will apply in many if not most cases to **existing** property owners whose "investment-backed expectations" are based on the regulations in place at the time of purchase. Accordingly, the Guidance should address the investment backed expectations of existing property owners, particularly those who purchased properties for which Coastal Permit approval was obtained, but do not qualify as "existing" under the Commission's new interpretation of that term.
April 2, 2018

Commented [CDA63]: Please provide case law substantiating this assertion.

Commented [CDA64]: Without knowing the particulars of the cases cited, it should be noted that this would be an extremely aggressive position for a local jurisdiction to take (i.e. prohibiting development of a coastal property would not be a takings if the owner has another property nearby).
April 2, 2018

minimize potential exposure to takings claims.

Pacifica during a King High Tide. Photo credit: Jack Sutton

Where a proposed development would not be located on public trust property and would be safe from hazards related to sea level rise in the near future, but cannot be sited so as to avoid those risks over the anticipated life of the structure, agencies may consider allowing the structure, but requiring removal once it is threatened or is no longer on private property (See Model Policy G.3 Adaptation Plan for Highly Vulnerable Areas). Property owners may argue that they have a right to protect threatened structures even if they have waived rights to shoreline armoring under the Coastal Act, but a recent federal court of appeal ruling casts significant doubt on the existence of any common law right to attempt to fix an ambulatory shoreline boundary through artificial structures such as seawalls.[67] In addition, a California case has held that a homeowner did not have a fundamental right to build a new revetment to protect his home from coastal hazards; rather, any right to build such a structure was subject to legitimate regulation under the Coastal Act.[68]

Local governments could also downzone areas vulnerable to sea level rise to reduce densities and limit development expectations, and they could manage nonconforming structures in order to bring them into conformance with LCP policies within a reasonable period of time. The long-term effectiveness of such a redevelopment-based adaptation strategy depends on at least two factors. First, policies should include clear measures that define the threshold of improvements that constitute "redevelopment." This is critical because, with "redeveloped" properties, the entire structure must be brought up to current LCP standards. In contrast, if the improvements qualify as "repair and maintenance," or other minor improvements, a landowner could maintain the structure for its remaining life and make minor improvements that meet current standards, but the whole structure need not meet current standards so long as the improvements do not increase the degree of non-conformity of a structure in a hazardous area. Additionally, in some cases, development that qualifies as repair and maintenance may be exempt from permitting requirements.[69] Second, an adaptation strategy should include downzoning of hazardous areas so

Commented [CDA65]: See comments on redevelopment in Response to FAQ and in this Guidance.
March 15, 2018

Commented [CDA66]: "Repair and maintenance" typically IS exempt (unless ON a beach or within 50 feet of a bluff edge). Sentence should read "in most cases…repair and maintenance IS exempt…"
March 15, 2018

[67] *United States v. Milner* (9th Cir. 2009) 583 F.3d 1174, 1189-1190.
[68] *Whaler's Village Club v. Cal. Coastal Comm'n* (1985) 173 Cal.App.3d 240, 253-54 (abrogated on other grounds).
[69] Pub. Res. Code § 30610(d); 14 Cal. Code Regs. § 13252. See also any corresponding LCP provisions.

that buildings destroyed by disasters are not allowed to be rebuilt in place.[70] Instituting rebuilding restrictions in advance of damage will give property owners time to adjust their investment backed expectations and help local governments avoid takings challenges.

If an agency is contemplating requiring property owners to dedicate open space easements or other property interests, or requiring payment to mitigate project impacts, the agency should be careful to adopt findings explaining how requiring the property interest or payment is both logically related to mitigating an adverse impact of the project and roughly proportional to that impact. Legislatively adopting rules that establish the exact criteria for determining when to require these exactions and, if so, their magnitude, may also reduce an agency's exposure to takings claims.[71] With respect to mitigation fees, California cities and counties should also comply with applicable requirements of the Mitigation Fee Act.[72]

Navigating the balance between coastal resource protection and private property rights will require careful consideration of relevant precedent, nexus and rough proportionality, background principles of property law, and distinguishing government takings from takings by the forces of nature.[73]

Takings Analysis Policy

As described above, this Guidance and several of the model policies provide a framework for avoiding future instances of takings; however, there may still be circumstances where a taking of private property would be unavoidable when applying the Coastal Act. In those cases, to help carry out Section 30010 of the Coastal Act by avoiding an application of the Coastal Act or an LCP that would cause an unconstitutional takings of private property, a local government may adopt an LCP policy that allows some development in a sea level rise hazard zone even though that development would normally be prohibited pursuant to other LCP policies. Such a policy can specify that a certain amount of development in hazard zones may be allowed if the following criteria are met: (a) the amount, type, and duration of development allowed are the minimum necessary to avoid a taking; (b) all impacts to the coastal resources in the sea level rise hazard zone are avoided to the maximum extent feasible; and (c) all adverse impacts to the coastal resources in the sea level rise hazard zone will be fully mitigated (See Model Policy B.10 Takings Analysis). The Commission's approval of the Winget project in Humboldt County, in February, 2014, provides an example of using a takings override to allow development of a home in a hazardous location while ensuring that the home will be relocated or removed if and when it is threatened in the future.[74]

Commented [CDA67]: As part of the Guidance, please provide any case law interpreting "conform to applicable existing zoning requirements" in 30610(g)(1).

Commented [CDA68]: Does this refer to new purchases? Investment backed expectations are established at the time the investment (purchase of the home) is made based on governing land use laws in effect at that time, not when government changes established rules. In this case, the Commission is changing the rules after 40 years of implementing them a differently.
March 15, 2018

Commented [CDA69]: Elaborate to provide guidance about how this specifically relates to coastal planning and the Coastal Act.
March 15, 2018

[70] See Pub. Res. Code § 30610 (g)(2)(A) (only allowing reconstruction of structures destroyed by natural disaster if the new structures conform to existing zoning requirements).
[71] The California Supreme Court has ruled that courts should be more deferential towards agencies when reviewing fees imposed pursuant to legislatively enacted rules of general applicability than when reviewing fees imposed on an ad hoc basis (see *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854, 881). The rationale is that fees imposed pursuant to rules of general applicability that involve little discretion are less likely to impose disproportionate burdens on property owners than fees determined on an ad hoc basis.
[72] Govt. Code, § 66000 *et seq.*
[73] Michael Allan Wolf, Strategies for Making Sea-Level Rise Adaptation Tools 'Takings-Proof', 28 J. Land Use & Envtl. L. 157 (2013), available at http://scholarship.law.ufl.edu/facultypub/404 (arguing that the Takings Clause of the United States Constitution applies to takings by government actors, not the forces of nature).
[74] https://documents.coastal.ca.gov/reports/2014/2/W15b-2-2014.pdf.

It should be noted that even without such a policy, the local government can approve development when necessary to avoid a taking, pursuant to Public Resources Code Section 30010. However, by adopting such a policy, local governments can more systematically assess those specific circumstances when applying particular sea level rise adaptation policies in specific circumstances would likely result in a regulatory taking of private property without just compensation and, if so, in those specific instances, allow a certain amount of development in order to avoid such a taking.

5. Implementing Adaptation Strategies

After identifying appropriate adaptation strategies for each planning area, communities can look to the policy compendium in Section 6 for policy language that can help implement those strategies. For protection, look at policies F.1 – F.10. For accommodation, look at policies C.1, E.1– E.2, and E.4. And for retreat, look at policies D.1 – D.3. Community scale adaptation strategies (policies G.1– G.11) include all types of adaptation and hybrid approaches. These various policies fit into different stages of the LCP Planning Steps that culminate in LCP implementation and re-evaluation.

LCP Planning Steps

The steps below from the CCC Sea Level Rise Policy Guidance provide the broadest framework for addressing sea level rise in an LCP. All communities should step through this framework when planning to update their LCPs to address sea level rise.

Commented [CDA70]: Since Marin County and others have at significant expense already completed steps 1-4, the guidance should state that this work need not be redone prior to continuing with the subsequent steps.

1. **Determine a range of sea level rise projections relevant to LCP planning area/segment** using best-available science.
2. **Identify potential physical sea level rise impacts in the LCP planning area/segment**, including inundation, storm flooding, wave impacts, erosion, and/or saltwater intrusion into freshwater resources.
3. **Assess potential risks from sea level rise to coastal resources and development in the LCP planning area/segment,** including those resources addressed in Chapter 3 of the Coastal Act.
4. **Identify adaptation measures and LCP policy options** to include in the new or updated LCP, including both general policies and ordinances that apply to all development exposed to sea level rise, and more targeted policies and land use changes to address specific risks in particular portions of the planning area.
5. **Draft updated or new LCP for certification with California Coastal Commission**, including the Land Use Plan and Implementing Ordinances.
6. **Implement the LCP and monitor and re-evaluate strategies as needed** to address new circumstances relevant to the area, including updating policies to address changed circumstances through future LCP amendment.

Local governments should maximize public participation throughout the LCP planning process. In particular, Steps 3 and 4 would benefit from public participation and engaging stakeholders in education about vulnerability and forward-looking adaptation planning through events such as stakeholder meetings, public workshops, or conferences. A community visioning and adaptation planning process could include discussion of options for vulnerable areas that reflect a community's risk tolerance, local hazard conditions, and community character. This process can also encourage community support for innovative adaptation strategies and targeted pilot projects.

The model policies presented in Section 6 of the Guidance provide a suite of options for communities to consider when creating or updating their LCPs to address sea level rise. Local governments structure their LCPs (through their Land Use Plans and Implementation Plans) in a variety of ways, with some local governments including significant policy guidance in the LUP, and reserving regulatory detail for the IP, and others providing detailed provisions in the LUP. Local governments should customize the model policies to align with their communities'

Commented [CDA71]: Consistent with the Introduction, clarify that local governments are not restricted to the model policies or combinations thereof.

approach and to facilitate timely development of adaptation strategies. Table 3 shows a crosswalk of Residential Adaptation Policies to the steps of the CCC Sea Level Rise Policy Guidance.

Implementing adaptation strategies will be strengthened by tying policies to monitoring and enforcement of permit conditions. Actual policies and permits issued should be clear and identify benchmarks to evaluate implementation, so as to avoid any misunderstandings and to increase compliance.

Table 3. Crosswalk of policies and LCP planning steps

Step for addressing sea level rise in LCP planning		Applicable residential adaptation policy #
Step 1	Determine a range of sea level rise projections relevant to LCP planning area/segment using best-available science	A.1 Identifying and Using Best Available Science A.2 Identifying Planning Horizons
Step 2	Identify potential physical sea level rise impacts in the LCP planning area/segment	A.3 Mapping Coastal Hazards A.4 Site-specific Coastal Hazards Report Required A.5 Coastal Hazards Report Contents
Step 3	Assess potential risks from sea level rise to coastal resources and development in the LCP planning area/segment	G.1 Management of Sea Level Rise Hazards G.2 Adaptation Plan
Step 4	Identify adaptation measures and LCP policy options	B.1-4 New Development B.5-6 Setbacks B.7-8 Redevelopment B.9 Land Division C.1 Adaptive Design D.1-3 Managed Retreat E1-4 Moving Hazards away from Development F.1-11 Shoreline Armoring G.1-3 Developing Adaptation Planning Information G.6-9 Community Scale: Beach and Dune/Bluff/River Adaptation G.11 Transfer of Development Rights
Step 5	Draft updated or new LCP for certification with CCC	
Step 6	Implement the LCP and monitor and re-evaluate strategies as needed	A.3 Mapping Coastal Hazards D.3 Mean High Tide Line Survey Conditions G.4-5 Sea Level Rise Overlay Zones ~~G.8-10 Trigger-Based Adaptation Approaches~~ G.12-13 GHADs and CSAs, Aligning LCPs with LHMPs

Adaptation Pathways

A helpful approach for coastal communities to consider when planning for sea level rise involves phasing in short- and long-term adaptation strategies over time. This concept of adaptation

planning pathways[75] provides a structure for sequencing adaptation measures using the time horizon of expected sea level rise impacts. One way to think about this approach is through integrating LCP Planning Steps 4 and 6 in the framework outlined in Table 3 above.

Many Section 6 model policies facilitate implementation of this approach. For example, distinguishing between short- and long-term actions and triggers is inherent in such model policies as D.1 Removal Conditions/Development duration; G.6 Beach Nourishment; G.8 Repetitive Loss; and G.9 Beach Management Plan. To put this in context, urban and less developed coastal communities could choose these same policy options (e.g., setbacks) and still follow different pathways based on timing of impacts (e.g., the level of asset vulnerability to increments of sea level rise), designated triggers (e.g., beach width), investment resources (e.g., capital improvement funds), and availability of inland parcels (e.g., for transfer of development rights). Vulnerability assessments (and re-assessments) planned through A.3 (Mapping Coastal Hazards) and G.1 (Management of Sea Level Rise Hazards) can also potentially provide the shoreline monitoring feedback to inform phasing of adaptation approaches. Beyond vulnerability assessments, local governments may also choose to grapple with prioritizing protection of certain habitats or stretches of coastline, given that some resource losses due to sea level rise might be unavoidable.

Commented [CDA72]: …Or certain areas will be threatened earlier.

The planning pathway approach for community scale adaptation also offers a way to manage uncertainty in timing and extent of sea level rise impact by incorporating triggering actions in the planning or implementation stages of adaptation strategies. For example, triggers based on extent of flooding, frequency of damages, distance from bluff edge, or periodic mean high tide line surveys might be selected to initiate new phases of adaptation. These triggers should be informed by local community involvement, and will reflect a community's risk tolerance, local hazard conditions and geography, and adaptation vision. Figure 6 shows some hypothetical trigger examples.

Triggers could also be used to specify a minimum planning horizon for community services that support residential development in some areas. Some of the model policies reference the temporary loss of community services (utilities, roads, water treatment, etc.) as potentially triggering implementation of the next phase of adaptation. Communities should also plan for the potential costs for implementation of adaptation programs now and in the future, especially as trigger conditions begin to emerge. Education and outreach, and enforcement or monitoring activities, might be a significant part of these transition times.

While adaptation options are typically designed to last for particular amounts of time, the coastal environment is dynamic and adaptation measures are not guaranteed to work forever. Communities should look for signs that some options have run their course and plan adaptation pathways to transition actions as needed, despite any predicted impact timeframe. Finally, analyzing a worst-case "high" projection for the planning horizon or expected life of the proposed development provides a conservative upper bound for planning pathways based on current information. It is important to note that not all development will be designed to withstand the sea level rise impacts projected in the planning horizon, but analysis of high sea level rise scenarios over the typical anticipated life of development types will help in adaptation planning. In areas

[75] An adaptation pathway can be defined as a decision-making strategy that is comprised of a sequence of decision-points over time. More explanation and case studies can be found at the CoastAdapt web site: https://coastadapt.com.au/pathways-approach.

subject to future hazards, the life of any particular development will be limited by site conditions. In some cases, it may be appropriate to design for the local hazard conditions that will result from more moderate sea level rise scenarios, as long as decision makers and project applicants plan to implement additional adaptation strategies if conditions change more than anticipated in the initial design. It might also be appropriate to allow some development on constrained parcels where investment backed expectations are appropriately limited by having permit conditions that acknowledge future coastal hazard risks and include plans for future adaptation measures or structure removal.

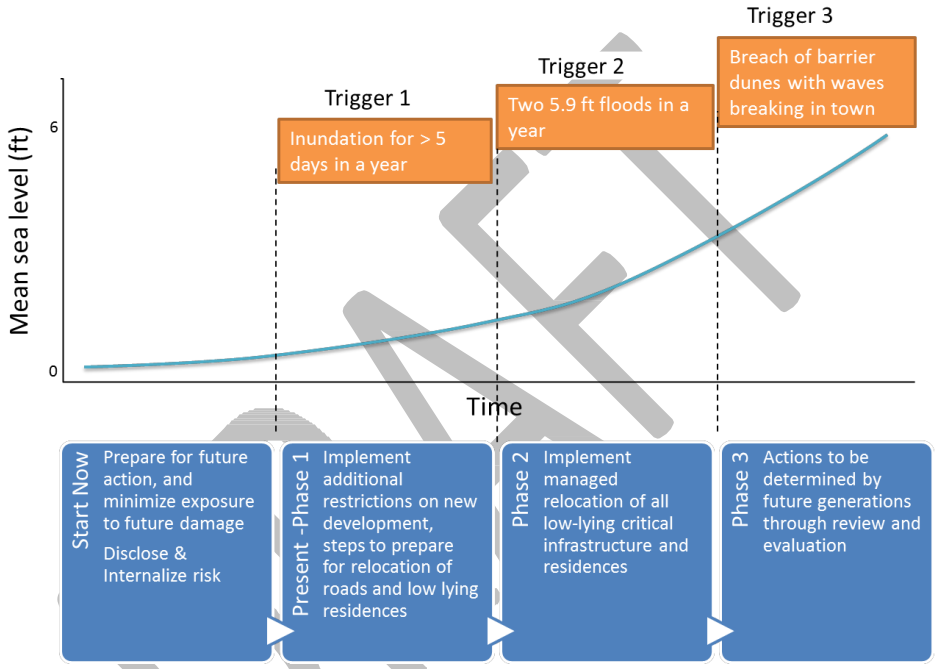

Figure 6. Hypothetical example of adaptation pathway using flood duration and flood extent triggers (based on Barnett et al. 2014)[76]

Regional Coordination

Many impacts of sea level rise will transcend jurisdictional boundaries. Similarly, the adaptation decisions made by coastal communities could themselves have consequences that affect areas outside the local jurisdiction. For these reasons, regional coordination will often enhance the effectiveness of local adaptation decisions and planners should coordinate regionally where appropriate and possible. For a comprehensive approach to managing the natural processes that shape the coast, coordinating action at the watershed scale on land and the littoral cell offshore may be most appropriate. Additionally, regional agencies, organizations, and planning efforts may be good resources from which to gather information when performing analyses needed for LCP

[76] Barnett, J., Graham, S., Mortreux, C., Fincher, R., Waters, E., & Hurlimann, A. (2014). A local coastal adaptation pathway. *Nature Climate Change*, *4*(12), 1103.

updates.

Coordination and Alignment with Other Planning-Related Processes Many other planning processes, project reviews, and studies require or may include key information relevant to evaluating and addressing sea level rise risks in an LCP. Planners should be aware of these potential overlaps, do their best to track the on-going work of state and federal agencies, and make an effort to share information in cases where analyses required for some of these planning activities may overlap with the studies appropriate for sea level rise planning in LCPs.

One of the main areas of overlap with LCP planning is with the required elements of a Local Hazard Mitigation Plan (LHMP), and the Commission recommends coordinating an LHMP update with an LCP update if possible. As part of an LHMP, local governments identify the natural hazards that impact their community, identify actions to reduce the losses from those hazards, and establish a coordinated process to implement the plan. Other opportunities for sharing sea level rise information to inform related planning processes and documents include alignment with National Flood Insurance Program and Community Rating System guidelines in floodplain ordinances, relevant General Plan elements, capital improvement plans, and regional transportation plans.

Commented [CDA73]: As noted in several places above, aspects of the Guidelines conflict with NFIP and CRS mandates.

Regarding General Plans, recent legislation (SB 379) requires General Plan Safety Elements to address climate change through a set of goals, policies, and objectives based on a vulnerability assessment.[77] To govern effectively in the coastal zone, a General Plan should be consistent with the local government's LCP, including with respect to climate change impacts such as sea level rise. Some LCPs are combined with the local government's General Plan and Zoning Ordinance documents, and some LCPs are separate documents that work in tandem with the General Plan and Zoning Ordinance. Regardless, when developing or amending a General Plan, local governments should coordinate closely with the California Coastal Commission to assure that general plan provisions intended to apply in the coastal zone are consistent with the governing LCP and California Coastal Act, as relevant. This alignment can be achieved through consistency between policies in the LCP and the General Plan, and by aligning the vulnerability assessments now required by SB 379 with the recommendations on sea level rise vulnerability assessments provided in the Sea Level Rise Policy Guidance.

For more examples of coordination and alignment opportunities, refer to the similar planning processes, projects, and documents listed in the CCC Sea Level Rise Policy Guidance[78].

Funding Opportunities

There are a number of different sources of funds available to help local governments update LCPs and implement adaptation projects. For example, the Coastal Commission, the Ocean Protection Council, and the Coastal Conservancy have grant programs designed to support local adaptation efforts. Some of these grant programs can fund implementation projects. Municipalities might also consider foundation and/or land trust grants for some adaptation projects, including acquisition of vacant vulnerable properties. California's Funding Wizard, a searchable database of grants, rebates, and incentives for sustainable projects, is another source that might provide

[77] Government Code § 65302(g)(4).
[78] See Figure 10 in Coastal Commission's 2015 Sea Level Rise Policy Guidance.

additional opportunities for adaptation implementation. Local governments might also look to other financing mechanisms, such as integrating adaptation efforts with capital improvement plans, bond measures, and other local financing tools.

Local governments should also consider opportunities to align their LCP and a Local Hazard Mitigation Plan (LHMP) in order to leverage funding options for resilience planning and the implementation of adaptation strategies. FEMA's Hazard Mitigation Assistance (HMA) grant programs – which include the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and Flood Mitigation Assistance (FMA) – are designed to support activities or projects that reduce or eliminate potential losses to assets from various hazards through planning activities and implementation of mitigation strategies. In many cases, there is direct overlap between LMHPs and LCPs in terms of the hazards assessment, planning processes, and strategies employed to reduce risk, such that funds obtained through the FEMA HMA programs could help meet LCP-related adaptation goals. Cal OES administers the HMA and FMA programs in coordination with FEMA. More information can be found at http://hazardmitigation.calema.ca.gov/grants or the FEMA HMA Web site. A list of funding sources for hazard mitigation activities can also be found in Appendix A.

Geologic Hazard Abatement Districts (GHADs)[79], County Service Areas (CSAs)[80], and other similar entities could provide a potential means for funding sea level rise adaptation measures on a neighborhood scale. A GHAD or CSA can provide the financial resources for adaptation approaches that extend beyond a single parcel by pooling contributions from its members and accumulating a funding reserve for anticipated future needs. Typically, these entities can borrow from lenders or issue bonds with very attractive credit terms.

The Commission recognizes that funding opportunities are constantly evolving, that demand for funding is increasing, and that there is a significant need for the development of additional funding opportunities.

[79] Geologic Hazard Abatement Districts are special districts formed to prevent, mitigate, abate, or control a geologic hazard or a structural hazard partly or wholly caused by a geologic hazard (Cal. Pub. Res. Code § 26525).

[80] The County Service Area Law (Government Code §25210.1 *et seq*.) provides a means of providing expanded service levels in unincorporated areas with new and increased demands for public facilities and services.

6. Model Policy Language

All local governments working on addressing climate change impacts in their coastal zone should analyze the possible effects of sea level rise and evaluate how sea level rise planning strategies could be implemented through their LCPs to protect public access and coastal resources and minimize hazards consistent with the Coastal Act. Prior sections of this policy Guidance present background, legal considerations and adaptation planning information to guide use of the model policies presented in Section 6. This Guidance is advisory and not a regulatory document or legal standard of review for the actions that the Commission or local governments may take under the Coastal Act. Rather, it is meant to provide direction on how to address sea level rise in LCPs in a manner that is consistent with the Coastal Act, and to provide detailed policy language that local governments have requested from the Commission. Model policies are provided as a tool to assist local governments in developing their own LCP policies. Utilizing the model policies, where relevant, can help ensure Coastal Act consistency, but jurisdictions remain free to modify the policies or develop different policies, so long as they are consistent with the Coastal Act.

A. UNDERSTANDING SEA LEVEL RISE HAZARDS

Note: The Coastal Act requires new development to minimize hazards and protect coastal resources while using sound science to guide decision-making and supporting public understanding and participation in coastal planning. Policies to define best available science, anticipated duration of development types, coastal hazard zones, and technical studies required in given contexts all provide ways to inform risk assessments, inform property owners and the public, and plan for the future effects of sea level rise and coastal hazards, consistent with the Coastal Act. Assumption of risk policies and real estate disclosures provide important mechanisms for educating property owners about hazards and their options for addressing them in the future.

Best Available Science

A.1 Identifying and Using Best Available Science

The best available, up-to-date scientific information about coastal hazards and sea level rise shall be used in vulnerability assessments, the evaluation of coastal development permit applications that present hazard risks, and the preparation of technical reports and related findings. Analyses shall include multiple sea level rise scenarios, one of which is a worst-case "high" projection for the planning horizon or expected duration of the proposed development ***[insert the minimum anticipated duration of development, e.g., (minimum 75 or 100 years unless otherwise specified)]***, based on best available scientific estimates of expected sea level rise at the time of the analysis. Sources of information may include, but shall not be limited to, state and federal agencies, research and academic institutions, and non-governmental organizations, such as the California Coastal Commission (CCC), Ocean Protection Council (OPC), National Oceanic and Atmospheric Administration (NOAA), the National Research Council, and the Intergovernmental Panel on Climate Change.

As of [***insert date***], the best available science is [***insert reference***]. However, best available science shall be updated, in keeping with regional policy efforts, as new, peer-reviewed studies on sea level rise become available and as agencies such as the OPC or the CCC issue updates to their guidance. Vulnerability assessments and related mapping shall be updated at least every ten years, or as necessary to address significant changes in sea level rise estimates.

Commented [CDA74]: Marin's BayWAVE Vulnerability Assessment used scenarios under 3 different time frames (near, medium and long term), based on state level guidance and included inundation from SLR with and Without storms. CoSMoS was used as the model. Both scenarios and models were chosen by the program's technical advisory committee. Perhaps spotlight BayWAVE as a model in the identification and use of the best available science?
March 15, 2018

Commented [CDA75]: While recent guidance includes 2150 projections, models may not necessarily include the high end projections. Additionally, with all the inconsistency amongst various models, and uncertainties with high end scenarios, it may be very difficult to determine what the "worst-case "high" projection" is. Furthermore science is constantly evolving and this figure would thus be constantly changing. Marin's LCP uses 3 feet for additional home elevation to account for SLR.
March 15, 2018

Commented [CDA76]: Including USGS's Coastal Storm Modeling System
March 15, 2018

A.2 Identifying Planning Horizons

The appropriate time horizon to use to evaluate sea level rise depends on the anticipated duration of development, after which such development is expected to be removed, replaced or redeveloped. For example, if a new structure has an anticipated duration of 75 years, then the hazards analysis will evaluate the site over 75 years, including evaluating the range of projected sea level rise over that time period. Using that evaluation, the structure would be set back or designed to avoid hazards over the planning horizon, if feasible. If avoidance is infeasible, it would be set back or designed to minimize flooding and geologic risk and assure structural stability over the planning horizon, and conditioned to disallow future armoring and require removal or other adaptation measures if the development becomes threatened. However, in areas subject to future hazards, the life of any particular development will be limited by site conditions and may be less than the duration anticipated at the time of construction. The anticipated life of development in the coastal zone is not an entitlement to maintain development in hazardous areas, but should be used for sea level rise planning purposes, and is generally defined by the following timeframes, unless a site or project specific analysis determines otherwise: [81]

a. Ancillary development or amenity structures (e.g. trails, bike racks, playgrounds, parking lots, shoreline restrooms): 5-25 years
b. Manufactured or mobile homes: 30-55 years[82]
c. Residential or commercial structures: 75-100 years
d. Critical infrastructure: 100-150 years

Commented [CDA77]: Models don't all go out that far. NOAA's maximum is 6 feet, OCOF jumps from 6.6 to 16.4 feet
March 15, 2018

A.3 Mapping Coastal Hazards

Commented [CDA78]: Marin's Hazard mapping could be used as a model in coupling FEMA FIRM maps with future SLR Hazard Zones.
March 15, 2018

Note: Creating hazard maps and keeping them up to date plays a critical role in implementing the Coastal Act and is also consistent with local governments' general plan obligations (Govt. Code § 65302(g)(4)). Local governments should, when possible, create hazard zone maps using Geographic Information System and make these digital data layers available to the public and property owners. In this way, community residents, visitors, investors, natural hazard disclosure companies, realtors, and insurers can be made aware of the risks and prepare for future hazards.

Adopting and maintaining up-to-date LCP coastal hazard maps may also streamline consideration of CDP applications because such maps could be used in lieu of site-specific coastal hazard reports in certain circumstances. Although such maps may provide less detailed or precise information than a site-specific report, local governments may be able to rely on them to ensure consistency with LCP hazard policies if they condition the CDP to address uncertainties related to hazards, such as by requiring that property owners accept the risk of developing in a hazardous location (A.6–Assumption of Risk) and agree to remove development subject to appropriate future triggers (D.1–Removal Conditions). However, site specific factors might also preclude the use of regional maps in some cases, so LCPs should clearly articulate the purpose of the maps and constraints on using them.

[81] Defined by common practice by CCC, local governments and developers.
[82] From U.S. Department of Housing and Urban Development (HUD),https://www.huduser.gov/portal/publications/durability_by_design.pdf

The [***insert name of City or County***] shall map areas subject to existing and future coastal hazards, including hazards that will be exacerbated by sea level rise, that present risks to life and property. These areas require additional review and regulation to minimize risks and protect coastal resources.

a. Coastal Hazard maps shall be developed that show areas of the [***City or County]*** that are subject to current or future coastal hazards, using multiple sea level rise scenarios to identify appropriate design standards and evaluate long term planning opportunities. The maximum anticipated extent of potential coastal hazards based on a worst-case "high" projection of sea level rise using best available science shall be considered. Coastal hazard areas include, but are not limited to the following:

- Coastal bluff erosion areas
- Beach erosion hazards areas
- Storm flood extent areas (estuarine or riverine related)
- Wave run up: Areas subject to direct wave attack and damage from wave runup
- Tidal inundation: Areas where routine inundation from tides occurs now and where inundation is likely to occur in the future with sea level rise
- Groundwater Inundation[83]: Current and future areas subject to hazards caused by elevated groundwater and/or reduced or inadequate drainage

b. Development proposed in potential hazard areas, including those mapped as hazardous [***insert reference to Coastal Hazard maps referenced above***, ***e.g. in Figure X***], shall be evaluated for potential coastal hazards at the site, based on all readily available information and the best available science. If the initial evaluation determines that the proposed development may be subject to coastal hazards over its anticipated duration, a site-specific Coastal Hazard Report is required, the purpose of which is to ensure that such development can be built in a manner consistent with applicable Local Coastal Program coastal hazards policies (see Policies A.4 – Site-specific Coastal Hazard Report Required, and A.5 – Coastal Hazard Report Contents).

c. The [***City or County]*** shall put property owners on notice if their parcels are subject to current or future coastal hazards on the Coastal Hazard maps.

d. Coastal Hazard maps shall be updated periodically as new science and modeling results and/or state guidance become available. This update shall occur every 10 years at minimum, or more frequently as necessary, through an LCP amendment.

Commented [CDA79]: The ability to complete new modeling is far beyond the capability of local governments. If state or federal government cannot provide such modeling, local governments will be unable to meet this minimum.

[83] Where seawater and overlying groundwater responds to tidal forcing, sea level rise will cause the groundwater table to rise, and in low-lying areas the water table could approach and ultimately rise above the ground surface. Even where the water table does not rise above the land surface, groundwater at shallow depths could present significant challenges to the maintenance of development (Hoover et al., 2017).

Commented [CDA80]: We wish to consult this source. Please provide a more complete bibliographic reference.

Site-specific Coastal Hazard Studies

Note: Site-specific studies for coastal development permits are necessary unless hazards are identified on up-to-date LCP hazard maps at a level of detail adequate to ensure LCP policies and development standards can be complied with in the permitting process, including through use of permit conditions to address any uncertainties related to hazards (as described in the note, above). These site-specific hazard study policies (A.4 and A.5) are intended to apply to residential development and to be used together in an LCP. Local governments could consider not requiring site-specific hazard studies for temporary events or structures, or for other minor, short-term development where it is clear there will be no hazard risks over the project's life.

A.4 Site-specific Coastal Hazard Report Required

All development in areas potentially subject to coastal hazards shall be evaluated by reports that are prepared by a licensed civil engineer with expertise in coastal engineering and geomorphology or other suitably qualified professional. These reports shall be based on the best available science, shall consider the impacts from the high projection of sea level rise for the anticipated duration of the proposed development, shall demonstrate that the development will avoid or minimize impacts from coastal hazards, and shall evaluate the foreseeable effects that the development will have on coastal resources over time (including in terms of impacts on public access, shoreline dynamics, natural landforms, natural shoreline processes, and public views) as project impacts continue and/or change over time, including in response to sea level rise.

Commented [CDA81]: This directly contradicts the two notes immediately above. If hazard maps can be used in lieu of site-specific reports (in some circumstances), then all development would not require site-specific hazard reports. Determining whether a site-specific hazard report is required should depend on the type of hazard, the project location (including siting and design), and the specificity of the hazard maps. Some hazards are more readily mapped than others and, in the case of sea level rise, where maps are regularly updated as the Commission will require in any LCP, a site-specific report will not provide any additional, useful information and will cost property owners a substantial sum of money.
March 15, 2018

A.5 Coastal Hazard Report Contents

Note: Local governments should customize the policy addressing the scope and analysis required for the Coastal Hazard Report in a manner compatible with building code requirements and other applicable zoning and LCP policies and regulations. Potential sea level rise impacts will include more than what might be reported in a coastal hazard report. Biological or water quality impacts are also important for understanding the impacts of a proposed project and it may be appropriate for other reports to also analyze anticipated impacts from sea level rise. Report requirements identifying potential impacts on coastal resources on or near a site will also be necessary in some cases to inform policies like B.1- Siting to Protect Coastal Resources and Minimize Hazards and E.1- Habitat Buffers.

Coastal Hazard Reports required pursuant to Policy A.4 (Site-specific Coastal Hazard Report Required) shall include analysis of the physical impacts from coastal hazards and sea level rise that might constrain the project site and/or impact the proposed development. Reports should address and demonstrate the site hazards and effects of the proposed development on coastal resources, including discussion, maps, profiles and/or other relevant information that describe the following:

a. Current conditions at the site, including the current:
   - tidal range, referenced to an identified vertical datum, including the current mean high tide line
   - intertidal zone
   - inland extent of flooding and wave run-up associated with extreme tidal conditions and storm events
   - beach erosion rates, both long-term and seasonal variability
   - bluff erosion rates, both long-term and episodic

b. Projected future conditions at the site, accounting for sea level rise over the anticipated duration of the development, including:

Commented [CDA82]: Establishing these are generally outside the capabilities of most local governments and certainly of most property owners. The Coastal Commission should work with the State Lands Commission, the California Coastal Sediment Management Workgroup, and other responsible agencies, including academic institutions, to provide such information as part of the Guidance.
March 15, 2018

- Shoreline, dune, or bluff edge, accounting for long-term erosion and assuming an increase in erosion from sea level rise
- intertidal zone
- inland extent of flooding and wave run-up associated with both storm and non-storm conditions

c. Safety of the proposed structure to withstand current and projected future hazards for its anticipated duration, including:
   - Identification of a safe building envelope on the site that avoids hazards
   - Identification of options to minimize hazards if no safe building envelope exists that would allow avoidance of hazards
   - Analysis of the adequacy of the proposed building/foundation design to ensure stability of the development relative to expected wave run-up, flooding and groundwater inundation (e.g., hydrostatic loads, uplift, or possible corrosion) for the anticipated duration of the development in both storm and non-storm conditions
   - Description of any proposed future sea level rise adaptation measures, such as incremental removal or relocation when threatened by coastal hazards

d. Discussion of the study and assumptions used in the analysis including a description of the calculations used to determine long-term erosion impacts and the elevation and inland extent of current and future flooding and wave runup.

e. For blufftop development, the report shall include a detailed analysis of erosion risks, including the following:
   - To examine risks from erosion, the predicted bluff edge, shoreline position, or dune profile shall be evaluated considering not only historical retreat, but also acceleration of retreat due to continued and accelerated sea level rise and other climatic impacts. Future long-term erosion rates should be based upon the best available information, using resources such as the highest historic retreat rates, sea level rise model flood projections, or shoreline/bluff/dune change models that take rising sea levels into account. Additionally, proposals for blufftop development shall include a quantitative slope stability analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) and 1.1 (pseudostatic, k=0.15 or determined through a quantitative slope stability analysis by a geotechnical engineer), whereby safety and stability must be demonstrated for the predicted position of the bluff and bluff edge following bluff recession over the identified project life, without the need for caissons or other protective devices. The analysis should consider impacts both with and without any existing shoreline protective devices.

f. For development on a beach, dune, low bluff, or other shoreline property subject to coastal flooding, inundation, or erosion, the report shall include a detailed wave uprush and impact report and analysis, including the following:
   - The analysis shall consider current flood hazards as well as flood hazards associated with sea level rise over the anticipated duration of the development. To examine risks and impacts from flooding, including daily tidal inundation, wave impacts, runup, and overtopping, the site should be examined under conditions of a beach subject to long-term erosion and seasonally eroded shoreline combined with a large storm event (1% probability of occurrence). Flood risks should take into account

Commented [CDA83]: See note above. But such information can best be determined by monitoring programs over a suitable timeframe. The Commission should assist in recruiting the appropriate agencies to establish a program, especially for the portion within the State Public Trust? Additionally, some of the federal coastal management funds should be allocated to this purpose.
March 15, 2018

Commented [CDA84]: Eliminate this requirement. The Coastal Act does not require a two-step process. In most dense to medium dense areas the parcels are of a size such that one part of the site will likely be as hazardous as another. The Coastal Act does not require avoidance of hazards. It requires that development "eliminate or mitigate adverse impacts on local shoreline sand supply" and "minimize risks to life and property in areas of high geologic, flood, and fire hazard." A more appropriate sample condition, one that is more consistent with the standards set in the Coastal Act, would read: "Identification of options to avoid or minimize hazards."
March 15, 2018

Commented [CDA85]: These are factors in the new FEMA NFIP maps. They should suffice. Will they? This comment was made after the first draft, but not addressed.
March 15, 2018

Commented [CDA86]: These comments were made on the first draft, but not addressed.

How will these estimates be developed? Does CCC staff have examples of such studies completed, and the costs associated with them?

When the CoSMoS 3.0 models incorporating geomorphological change become available, will these be accepted for this purpose?

Does the Commission accept the FEMA science in this regard?
March 15, 2018

daily and annual high tide conditions, backwater flooding, water level rise due to El Niño and other atmospheric forcing, groundwater inundation, storm surge, sea level rise appropriate for the time period, and waves associated with a large storm event (such as the 100-year storm or greater). The analysis should consider impacts both with and without any existing shoreline protective devices.

A range of sea level rise scenarios shall be examined to understand the range of potential impacts that may occur throughout the anticipated duration of the development. At a minimum, flood risk from the highest projected sea level rise over the anticipated duration of the development, based on the current best available science, should be examined. Additionally, the analysis should consider the frequency of future flooding impacts (e.g., daily impacts versus flooding from extreme storms only) and describe the extent to which the proposed development would be able to avoid, minimize, and/or withstand impacts from such occurrences of flooding. Studies should describe adaptation strategies that reduce hazard risks and neither create nor add to impacts on existing coastal resources and that could be incorporated into the development.

Assumption of Risk

Note: A key component of an assumption of risk policy to address sea level rise hinges on property owners acknowledging that shoreline protective devices that would be inconsistent with Coastal Act or LCP policies are not allowed in the future to protect new residential development, and accepting the responsibility to remove or relocate structures and restore the site if it becomes unsafe or removal is required pursuant to adaptation planning requirements.

An important consideration for jurisdictions planning for sea level rise is recognizing that the public trust boundary will migrate inland in some locations as sea levels rise. As this occurs, shorefront development might come to be located on public trust property during its lifespan. LCP policies should recognize that development that comes to encroach on public trust land will likely cause new coastal resource and public trust impacts and will no longer be within the local jurisdiction's Coastal Act permitting authority. The development should therefore be conditioned to clarify that it does not allow encroachment onto public trust lands and that any such encroachment must be removed unless the owner of the structure obtains necessary authorization for it to remain from the Coastal Commission and the State Lands Commission or other tidelands trustee agency. In order to permit such structures to remain on public trust land, the Coastal Commission would need to find that they are consistent with Chapter 3 policies of the Coastal Act and with public trust doctrine principles, and the State Lands Commission would need to find that they do not substantially impair public trust resources.

A.6 Assumption of Risk

As a condition of coastal permit approval for new development in an area subject to current or future hazards, applicants shall be required to acknowledge and agree, and private applicants must also record a deed restriction on the property to acknowledge and agree [***modify following list as necessary to address specific case***]: 1) that the development is located in a hazardous area, or an area that may become hazardous in the future; 2) to assume the risks of injury and damage from such hazards in connection with the permitted development; 3) to unconditionally waive any claim of damage or liability against the ***[insert local government name, and Coastal Commission, if permit is appealed]***, its officers, agents, and employees for injury or damage from

Commented [CDA87]: Comment on first draft said, "this statement should be revised to more precisely reflect the applicability of existing development to Coastal Act section 30235. Please correct by replacing "property owners" with "coastal permit applicants". No response found.
March 14, 2018

Commented [CDA88]: The CCC FAQ Response 6 provides response on the role of the State Lands Commission and CCC in making public trust boundary determinations. Of note: If there are disputes about the location of the public trust boundary, the State Lands Commission would need to be involved in any resolution. The County points out here, again, that the SLC should be involved in interpreting how the state will respond to sea level rise now instead of waiting for disputes to arise.
March 12, 2018

Commented [CDA89]: Comment on first draft asked, "if this means the property owner is bound to forego state or federal disaster assistance and funding other than that contractually obligated through flood insurance?" No response found.
March 12, 2018

such hazards; 4) to indemnify and hold harmless the ***[insert local government name, and Coastal Commission, if permit is appealed]***, its officers, agents, and employees with respect to approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; 5) that they have no rights under Coastal Act Section 30235 and related LCP policies to shoreline armoring in the future; 6) 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), thereby constraining allowed uses of the site or rendering it uninhabitable; 7) that the boundary between public land (tidelands) and private land may shift with rising seas, the structure may eventually be located on public trust lands, and the development approval does not permit encroachment onto public trust land; 8) any future encroachment must be removed unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and any future encroachment would also be subject to the State Lands Commission's (or other trustee agency's) leasing approval; and 9) that the structure may be required to be removed or relocated and the site restored if it becomes unsafe or if removal is required pursuant to ***[insert LCP policy specifying adaptation planning requirements (i.e., Model Policy B.2 Removal Plan Conditions for New Development in Hazardous Areas)]***.

Real Estate Disclosure

Note: General plan and zoning laws in California allow local governments to require real estate disclosures related to coastal hazards for all applicable properties within their jurisdiction. Pursuant to the Coastal Act, the Commission has previously required disclosure of hazards during future real estate transactions as a condition in CDPs. In addition to requiring this, local governments could choose to require such disclosures when any property is transferred, regardless of whether it is subject to CDP authorization. Detail on how such a policy would be carried out would likely need to be provided in an Implementation Plan or other ordinance. The purpose of this policy is to disclose sea level rise risk so that property owners are aware of the potential hazards and can internalize the costs. Buyers of properties should know if the properties are located in current or anticipated future coastal hazard zones. Setting reasonable expectations about property use can also mitigate potential takings risks.

See note on Model Policy A.3 regarding how a local government might make hazard zone maps in a Geographic Information System accessible to the public and property owners interested in locating where properties might be at risk. The intent of Model Policy A.7, combined with A.3, is to make vulnerability information available for use in real estate disclosures. Disclosure of hazard risks in all real estate transactions should be required only after the local government maps the hazardous areas in a manner that makes it possible to determine particular parcels' hazard risk, and makes that information publicly available so that natural hazard disclosure companies can find it and disclose it during real estate transactions.

A.7 Real Estate Disclosure of Hazards

Real estate disclosures of all coastal hazards that are identified in ***[City or County]*** adopted hazards maps, including hazards associated with anticipated sea level rise, geologic hazards, groundwater inundation, coastal bluff retreat, coastal flooding, or shoreline erosion, shall be required in real estate transactions. Any site-specific analyses related to sea level rise and the

Commented [CDA90]: Comment stated Elevation to BFE+ SLR freeboard is not defined as "armoring." No response found
March 12, 2018

Commented [CDA91]: Until this power is granted to the CCC by law or case law, this section should be deleted.

Commented [CDA92]: What does "restored" mean? Does it mean revert back to pre existing conditions prior to development? Or just remove structures deemed unsafe?
March 12, 2018

Commented [CDA93]: Original comment stated this is ambiguous. Does "no longer on private property" refer to a government purchase, or subject to the public trust, in which the property is still private, but encumbered? What "adaptation planning requirements" would require removal -wouldn't those instead be LCP regulations? The guidance on the Waiver should be more specific. clarified to be made specific in the Waiver. No response found.

CCC FAQ Response 6 may provide some clarification. It states structures may eventually come to be located on public trust lands due to rising waters. Thus, model policies should state development is only authorized as long as it is on private property and that the permit does not allow encroachment on public trust. The County again points out that determining how the state will address movement of the public trust is a decision that should involve the SLC.
March 12, 2018

Commented [CDA94]: Original comment stated It would be helpful to provide the relevant Code, Case Law or other legal citation since the real estate industry has a tendency to push back on some types of disclosures that may inhibit sales transactions. No response found.
March 13, 2018

Commented [CDA95]: Current state law does not require disclosure of these hazards and neither does the Coastal Act.

Gov Code 8589 requires the following natural hazards disclosure: Zone A or Zone V (Special flood hazard area), an area of potential flooding from dam inundations; a designated very high fire severity zone; a designated wildland area (state responsibility area) that may contain substantial forest fire risks and hazards; an earthquake fault zone; a seismic hazard zone subject to strong ground shaking, soil liquefaction, or landslide.
March 13, 2018

terms and conditions of any applicable coastal development permits must also be disclosed in real estate transactions.

Commented [CDA96]: CDP conditions must also be disclosed? Will this apply to new permits, or pre-existing ones?
March 13, 2018

B. AVOID SITING NEW DEVELOPMENT AND/OR PERPETUATING REDEVELOPMENT IN HAZARD AREAS

Note: The Coastal Act requires development to be resilient, minimize risks from hazards, and assure structural stability, while assuring the protection of shoreline recreational resources, ecological values, and other coastal resources. The policies in Section B are meant to be used together to govern new development on vacant parcels as well as redevelopment in areas with existing residential patterns. The intent of these policies is to site and design to protect coastal resources and minimize risks to life and property as required by the Coastal Act, using setbacks, redevelopment, nonconforming structure, and land division restrictions in areas threatened by sea level rise. Given the more complex redevelopment, takings and public trust issues that some communities will face, as well as the uncertainties inherent in predicting future hazards, policies regarding removal plans and reliance on shoreline protection will be important to ensure development is consistent with Coastal Act policies as sea levels rise.

In addition to requiring a case-by-case analysis to determine sufficient setbacks to minimize risks and assure structural stability, jurisdictions should establish minimum bluff or shoreline setback requirements in their LCPs. This can help establish community-wide norms that may allow for more predictability in permitting decisions and also provide visual benefits and a factor of safety by requiring homes to be set back a minimum distance which may be more or less than the minimum required for safety purposes.

Commented [CDA97]: Previous CDA comment suggested removal of "redevelopment" here and elsewhere in this section since the term is not in Coastal Act or Admin. Regs and should be treated as an option approach. No change made.
March 13, 2018

B.1 Siting to Protect Coastal Resources and Minimize Hazards

a. Non-specific:

New development shall be sited to avoid hazards, taking into account predicted sea level rise, including groundwater changes, over the anticipated life of the development. If hazards cannot be completely avoided, then development shall be sited and designed to protect coastal resources and minimize risks to life and property to the maximum extent feasible. New development shall assure stability and structural integrity of the development without reliance on shoreline protective devices that substantially alter natural landforms along bluffs and cliffs or otherwise harm coastal resources in a manner inconsistent with LCP policies or Coastal Act public access policies, and not contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area.

b. Shoreline-specific:

Siting and design of new development on or near the shoreline shall take into account coastal hazards and the extent of shoreline migration and groundwater changes that can be anticipated over the expected duration of the development. Anticipated landward migration of the sea shall be determined based upon historical erosion rates, predicted acceleration of erosion and flooding due to continued and accelerated sea level rise, storm damage, and foreseeable changes in sand supply. Development shall be set back a sufficient distance to prevent impacts to coastal resources, minimize the impacts of coastal hazards on the development over its anticipated life, assure stability and structural integrity of the development without reliance on shoreline protective devices that substantially alter natural landforms along bluffs and cliffs or otherwise harm

Commented [CDA98]: Previous CDA comment questioned how this will be determined and by whom (project-specific studies by applicant?). No response provided
March 13, 2018

Commented [CDA99]: Paragraph revised to eliminate a reference to "avoid all risk" per CDA comment (as Coastal Act standard is to "minimize risk")
March 13, 2018

coastal resources in a manner inconsistent with LCP policies or Coastal Act public access policies, and not contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. In addition, when permitted, all development shall be subject to removal plan conditions in [***Model Policy B.2 – Removal Plan Conditions for New Development in Hazardous Areas]***.

Commented [CDA100]: See comments in B.2 and D.1 March 13, 2018

c. Blufftop-specific:

New development shall be set back a sufficient distance to ensure its structural integrity for the anticipated duration of the development, taking into account sea level rise, erosion, and other geologic hazards, without reliance on shoreline protective devices that substantially alter natural landforms along bluffs and cliffs or otherwise harm coastal resources in a manner inconsistent with LCP policies or Coastal Act public access policies, including any existing shoreline protective devices associated with the site, pursuant to [***Model Policy B.5 – Determining Bluff Setback Line***]. Site-specific coastal hazard studies shall include a quantitative slope stability analysis demonstrating safety and stability for the predicted position of the bluff following bluff recession for the anticipated duration of the development under historical bluff retreat conditions, as well as with acceleration of bluff retreat due to continued and accelerated sea level rise and other climatic impacts (see [***Model Policy B.5 – Determining Bluff Setback Line]***). In addition, when permitted, all development shall be subject to removal plan conditions in [***Model Policy B.2 – Removal Plan Conditions for New Development in Hazardous Areas]***.

Commented [CDA101]: See comments in B.2 and D.1 March 13, 2018

d. Dune-specific:

Siting and design of new development adjacent to dunes shall take into account the extent of landward migration of the foredunes that can be anticipated over the anticipated duration of the development. This landward migration shall be determined based upon historic dune erosion, storm damage, anticipated sea level rise, and foreseeable changes in sand supply. Development shall be set back a sufficient distance to prevent impacts to coastal resources, assure structural stability of the development without reliance on shoreline protective devices that harm coastal resources in a manner inconsistent with LCP policies or Coastal Act public access policies, and avoid coastal hazards over the expected duration of the development. ([***See also Model Policy E.4 – Flood Hazard Mitigation]***). When permitted, development shall be subject to removal plan conditions in [***Model Policy B.2 – Removal Plan Conditions for New Development in Hazardous Areas]***.

Commented [CDA102]: See comments in B.2 and D.1 March 13, 2018

B.2 Removal Plan Conditions for New Development in Hazardous Areas

For development subject to coastal hazards, require structures to be designed so that they can be removed without significantly damaging the site or surrounding land, and impose a permit condition requiring preparation and execution of a Removal and Restoration Plan at such time as the development meets any of the removal criteria in ***Model Policy D.1 – Removal Conditions/Development Duration***, and indicating that it will be the property owner's responsibility to remove the structure(s) and restore the site at the owner's expense in a way that best protects the public trust and coastal resources. The plan shall specify that in the event that portions of the development fall to the bluffs, beach or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the

bluffs, beach or ocean and lawfully dispose of the material in an approved disposal site. The plan shall also specify that such removal requires a coastal development permit.

B.3 Reliance on Shoreline Armoring

All new development, including redevelopment (as defined in ***Model Policy B.7***), shall be sited and designed to ensure that: 1) it will not require shoreline protective devices that substantially alter natural landforms or conflict with other LCP resource protection policies or the public access and recreation policies of the Coastal Act, and 2) it will be structurally safe from erosion, flooding, and wave run-up for the anticipated duration of the development. These criteria apply even if new development, including redevelopment, is protected by a legally authorized shoreline protective device, in which case the new development and redevelopment on the site shall still be designed and sited in a manner that does not require or rely on the use of a shoreline protective device to ensure geologic stability. As a condition of permitting demolition or modification of development already present on site, any existing shoreline armoring structure associated with the development that is causing adverse impacts to coastal or public trust resources and that is under the applicant's control shall be removed if it is no longer necessary to protect remaining principal structures on the property or adjacent principal structures that are still entitled to retain shoreline armoring.

B.4 Bluff Face Development

Structures, grading, and landform alteration on bluff faces are prohibited, except for the following: public access structures where no feasible alternative means of public access exists, and shoreline protective devices if otherwise allowed by the LCP and the public access and recreation policies of the Coastal Act. Such structures shall be designed and constructed to be visually compatible with the surrounding area to the maximum extent feasible and to minimize effects on erosion of the bluff face.

B.5 Determining Bluff Setback Line

The bluff or geologic setback line is the location on the bluff top inland of which stability can be reasonably assured for the anticipated duration of the development without need for shoreline protective devices. The setback line shall account for the amount of erosion anticipated over the life of the development, plus an additional setback to ensure structural stability under future conditions. To determine and document the setback line, applications for bluff property development must include a geotechnical report from a licensed Geotechnical Engineer or a certified Engineering Geologist that establishes the bluff or geologic setback line for the proposed development. The analysis shall include a quantitative slope stability analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.1 (pseudostatic, k-0.15 or determined through analysis by the geotechnical engineer), using shear strength parameters derived from relatively undeformed samples collected at the site. Future long-term erosion rates shall be based upon the best available information on bluff failure mechanisms, using resources such as the highest historic retreat rates, sea level rise flood projections, shoreline change models that take rising sea levels into account, future increase in storm, El Niño or other climatic events, and any known site-specific conditions. The analysis shall assume that any current shoreline protective device does not exist, such that the site would erode in a manner similar to unarmored sites in the same vicinity with similar geologic attributes.

B.6 Minor Development in Hazardous Areas

Minor and/or ancillary development, including ***[insert relevant development types based on existing pattern of development and consistent with view protection policies, e.g., public trails, benches, gazebos, patios, etc.]***, may be located seaward of the bluff or shoreline setback line, but no closer than [***insert appropriate distance***] inland of the bluff edge, provided that development

Commented [CDA103]: Previous CDA comment raised concerns regarding workability of requiring a removal bond and requested that Guidance document suggest mechanism to fund and enforce removal plan. No response provided.
March 13, 2018

Commented [CDA104]: Suggested for removal per previous CDA comment
March 13, 2018

Commented [CDA105]: Previous CDA comment questioned intent of this guidance with respect to Section 30235. If there is an existing SPD, wouldn't that indicate it was needed to ensure stability in the first place? No response provided.
March 13, 2018

does not use a foundation that can serve as a bluff retaining device, such as caissons, or that requires landform alteration, and that the development is removed or relocated when threatened. In the event that portions of the development fall to the bluffs, beach or ocean before they are removed/relocated, the landowner will remove all recoverable debris associated with the development from the bluffs, beach and ocean pursuant to a coastal development permit (unless no coastal development permit is required) and lawfully dispose of the material in an approved disposal site.

Improvements, Alterations and Additions to Existing Structures

Note: New development, including redevelopment, must be regulated to ensure it meets safety and structural stability standards and adequately protects coastal resources under expected future conditions. As required by California Code of Regulations Section 13252(b), at a minimum, improvements and alterations that result in replacement of 50% or more of the existing structure shall be considered a replacement structure and treated as new development/redevelopment. To best protect coastal resources consistent with the Coastal Act, local governments should also define additions that result in an enlargement of more than 50% as redevelopment that requires the whole structure to be brought into conformance with the LCP. They could also use other triggers to ensure that existing structures aren't significantly redeveloped in hazardous areas unless the entire structure is brought into conformity with any relevant Coastal Act and LCP coastal protection standards. For example, in cases where development might not meet the 50% threshold for redevelopment related to replacement of structural members, it could still be considered redevelopment if the cost of alterations exceeds 50% of market value. Again, to ensure Coastal Act consistency, redevelopment should be defined, at a minimum, to include replacement of 50% of a structure. However, local governments should consider going beyond this minimum in order to ensure that current development in hazardous areas is not completely redeveloped, in piecemeal fashion, over time.

Improvements, alterations, and additions can constitute redevelopment regardless of whether they are undertaken all at once or in piecemeal fashion over time. Redevelopment policies should be drafted to ensure that owners may not avoid the need to bring redeveloped structures into compliance with current LCP standards by, for example, replacing 49 percent of structural components one year and then replacing another 40 percent the next year. In calculating cumulative work that counts toward the definition of redevelopment, jurisdictions should consider all work undertaken after the date the Coastal Act went into effect. Local jurisdictions may wish to customize this policy to better conform with their regulations and deal with the challenges inherent in searching old records. As an application requirement, jurisdictions could also require applicants to provide evidence of any prior renovations undertaken after January 1, 1977.

The long-term effectiveness of a redevelopment-based adaptation strategy depends on at least two factors. First, policies should clearly define the threshold of improvements that constitute "redevelopment." If non-exempt improvements or repair and maintenance fall short of the definition of redevelopment, a landowner could maintain the existing structure for its remaining life and make any improvements that meet current LCP and, if applicable, Coastal Act standards. However, the whole structure need not be brought up to current standards so long as the improvements do not increase the structure's non-conformity with hazard or other LCP policies. Second, an adaptation strategy should include downzoning of hazardous areas so that buildings destroyed by disasters are rebuilt in safer locations rather than being allowed to be rebuilt in the same location pursuant to Coastal Act exemptions for rebuilding after a disaster (See Public

Commented [CDA106]: This section/text block has been significantly expanded
March 13, 2018

Commented [CDA107]: New text not in previous draft. Where does 50% enlargement trigger come from?
March 13, 2018

Commented [CDA108]: New text – questionable whether this assertion is supported by Coastal Act/Admin Regs. In FAQs, CCC argues that "cumulative improvements" is consistent with 13250.b.4 and 13253.b.4 but those sections pertain to cumulative calculation of floor area increase ONLY (not cumulative changes to a structural components per their example).
March 13, 2018

Commented [CDA109]: New text – Commission members did not support this unreasonable approach for Marin. "Should consider" seems to be strong direction given Commission's reaction and acknowledged record keeping issues.
March 13, 2018

Commented [CDA110]: New text – this is a similarly unreasonable expectation (40 years of renovation records!)
March 13, 2018

Commented [CDA111]: New text – this has major implications for the many development areas where re-siting/setting back is not an option due to lot size and the character of the hazard.
March 13, 2018

Resources Code § 30610(g)). Instituting rebuilding restrictions in advance of damage will give property owners and real estate markets time to adjust before disasters strike.

When non-conforming structures are redeveloped, they should be brought into conformity with all coastal resource protection standards in an LCP. However, local governments may choose to allow the redeveloped structure to remain in non-conformity with non-coastal protection standards contained in an LCP, which might include, for example, parking or front yard setback standards. Doing so would provide more flexibility for allowing reasonable redevelopment in hazardous areas.

Commented [CDA112]: See comments re: B.8 below. March 14, 2018

B.7 Redevelopment

Commented [CDA113]: No modifications have been made to the definition of redevelopment. The discussion of "regulating redevelopment" in Section 2 has been amended to acknowledge that jurisdictions may have certified categorical exemptions that exempt "other types of development" from permitting requirements. However, this is somewhat hidden in a footnote. Based on the mods to Marin's LCP, CCC's intent is that redevelopment would eventually be triggered by cumulative work that is otherwise exempt.
March 14, 2018

A development proposal reaches the threshold of being a replacement structure or redevelopment if it meets criteria a or b below. Development meeting this definition must be brought into conformance with all coastal resource protection policies in the LCP.

a. Development that consists of alterations including (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 either:

    1. Replacement (including demolition, renovation or alteration) of 50% or more of major structural components including exterior walls, floor, roof structure or foundation, or a 50% increase in gross floor area. Alterations are not additive between individual major structural components; or

    2. Replacement (including demolition, renovation or 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 January 1, 1977; or 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 January 1, 1977.

OR

b. Development that consists of any alteration of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction, based on the documented construction bid costs and either an appraisal by a professional property appraiser or County assessor data, if it is based on current market values.

B.8 Nonconforming Structures in Areas Subject to Coastal Hazards

When proposed development would involve redevelopment of an existing structure that is legally non-conforming due to a coastal resource protection standard, the entire structure must be made to conform with all current coastal resource protection standards and policies of the LCP and, if applicable, the Coastal Act. Non-exempt improvements to existing non-conforming structures, regardless if the proposed improvements meet the threshold of redevelopment, shall not be permitted when the improvements increase the degree of non-conformity of the existing structure by, for example, increasing the hazardous condition, developing seaward, or increasing the size of the structure in a non-conforming location.

Land Division

B.9 Restrict Land Division in Hazardous Areas

Limit land divisions, including lot line adjustments, in areas vulnerable to coastal hazards, including hazards exacerbated by sea level rise. Prohibit the creation of new lots (including adjusted lots) in such areas, unless it is demonstrated either that: 1) the new lot(s) would be permanently protected for open space, public access, or other similar purposes consistent with the LCP, or 2) resultant parcels contain a buildable area in which development on new lots would comply with LCP policies protecting coastal resources, would remain located on private property despite the migration of the public trust boundary, not require the future construction or augmentation of a shoreline protective device, be adequately served by public services (e.g., water, sewer, and safe, legal, all-weather access as applicable) over the anticipated duration of the development, and otherwise be consistent with all LCP policies.

Exceptions

Note: Despite the Coastal Act's requirements to minimize hazards and protect coastal resources, local governments must still ensure that actions on coastal development permits do not result in an unconstitutional taking of private property. Many LCPs already contain takings policies to address this need. The model language below notes that background principles of property law like the public trust doctrine or nuisance abatement might change the context of decisions related to sea level rise adaptation actions in the future. This policy helps clarify when a taking might not be a consideration.

Communities might also create adaptation plans on a neighborhood scale (see Model Policy G.3– Adaptation Plan for Highly Vulnerable Areas) to provide strategies for hazardous areas where development must be approved to avoid an unconstitutional taking of private property.

B.10 Takings Analysis

Where full adherence with all LCP policies, including for setbacks and other hazard avoidance measures, would preclude a reasonable economic use of the property as a whole, the [***city or county, or Commission if on appeal***] may allow the minimum economic use and/or development of the property necessary to avoid an unconstitutional taking of private property without just compensation. There is no taking that needs to be avoided if the proposed development constitutes a nuisance or is otherwise prohibited pursuant to other background principles of property law (e.g., public trust doctrine). Continued use of an existing structure, including with any permissible repair and maintenance (which may be exempt from permitting requirements), may provide a reasonable economic use. If development is allowed pursuant to this policy, it must be consistent with all LCP policies to the maximum extent feasible.

C. DESIGN FOR THE HAZARD

Note: The Coastal Act requires hazards to be minimized. Accommodation strategies rely on methods that modify existing developments or design new developments to minimize hazard risks and thus increase the resiliency of development to the impacts of sea level rise. Design options for accommodation can be an important part of phasing a community's response to sea level rise impacts, especially when it is not feasible to avoid hazards altogether. The policy below is general, but could be customized to the applicable hazards a community is confronting. Also see Model Policy E.4 for flood hazard mitigation design options.

Adaptive Design

C.1 Adaptive Design

For new development, where relocation and/or structure removal might be necessary at some time in the future, ensure that foundation designs or other aspects of the development will accommodate future relocation and/or structure removal. Such relocation and/or removal shall be demonstrated in final plans, and may be phased over time. Alternative design options should be considered and employed where appropriate and if site conditions allow, such as constructing smaller structures, increasing finished floor elevations, and installing wall flood vents.

C.2 Design Guidelines to Reduce Greenhouse Gas Emissions

Encourage property owners to reduce greenhouse gas emissions by using weatherizing techniques, as well as solar panels, and wind energy, where compatible with community character, coastal views and protection of biological resources.

D. MOVING DEVELOPMENT AWAY FROM HAZARDS

Note: Coastal Act Section 30235 permits shoreline protective devices when necessary to protect existing residential structures in danger of erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Section 30253 requires new and redeveloped residential structures to be located or designed so that they minimize risks from flooding and other future hazards and will assure structural stability without the need for shoreline protection that alters natural landforms. Other Coastal Act policies require protection of sensitive habitat, public access, and other coastal resources. Thus, as sea levels rise and hazardous areas, habitat, and public trust lands migrate inland, the Coastal Act will require new development to be located further inland in situations where other adaptation measures are infeasible, essentially resulting in managed retreat on a parcel scale. On a neighborhood or community scale, there may also be cases where a managed retreat program provides the best way to comply with Coastal Act policies that require minimizing hazards, protecting coastal resources and maximizing public access. The following polices help ensure that new development minimizes hazards, assures structural stability, is located in areas where present and future services are able to accommodate it, protects sensitive habitat and public recreational areas, and does not substantially impair uses of public trust lands, consistent with the Coastal Act. Also see the model policies in Section G for options related to community scale managed retreat.

Managed Retreat

D.1 Removal Conditions/Development Duration

New development on private property located in hazardous areas shall be conditioned to require that it be removed and the affected area restored at the applicant's expense if: (1) any government agency with relevant authority and jurisdiction has ordered that the structures are not to be occupied due to hazards, or be removed; (2) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (3) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (4) the development requires new and/or augmented shoreline protective devices that conflict with LCP or relevant Coastal Act policies. In addition, permits shall include a condition stating that the development approval does not permit encroachment onto public trust lands and that any future encroachment must be removed unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and any future encroachment would also be subject to the State Lands

Commented [CDA114]: This is an overly broad criterion- simply because and LCP says something should be removed does not mean there is proper authority for it. Delete.

Commented [CDA115]: The CCC must not pre-empt the authority of the State Lands Commission to grant a lease for the continued presence of a structure.

Commission's (or other trustee agency's) leasing approval. Such condition shall be recorded on a deed restriction against the subject property.

D.2 Contingency Funds

Require property owners proposing new development in hazardous areas to document that financial contingencies are in place if it becomes necessary to modify, relocate and/or remove development that becomes threatened in the future by sea level rise and/or when removal triggers are met. For significant new development, such as hotels or multi-family housing, financial contingencies must be in the form of a bond, letter of credit, cash deposit, lien agreement or other security deemed adequate by the ***[insert City or County]*** Attorney.

Commented [CDA116]: This document is intended as guidance to "assist local governments in planning for sea level rise adaptation." The development of contingency funds is a complex endeavor. It is not enough to simply direct local governments to "require" them, to be useful the Guidance should provide detailed information about the alternatives available along with their pros and cons.

D.3 Mean High Tide Line (MHTL) Survey Conditions

Note: The MHTL is the intersection of the shoreline with the elevation of the average of all high tides calculated over an 18.6-year tidal epoch. A MHTL survey provides a piece of evidence for the MHTL—and thus the property line—at a specific point in time, but it does not indicate a permanent property line. This property line is referred to as "ambulatory" for two reasons: first, gradual changes to the shoreline due to factors such as variations in the height and width of sandy beaches, shoreline erosion or accretion, and uplift or subsidence of land can change the location of where the mean high tide line meets the shoreline. Second, the elevation of the mean high tide line itself changes over time and is likely to increase at an accelerating rate in the future due to sea level rise.

As part of any development application, jurisdictions should ensure that the applicant has appropriate legal title to the land being developed. In locations where sea level rise may cause the public trust boundary to move inland over the life of the development, it is important to ensure that the development remains on private land over time. Imposing a condition requiring at least one initial MHTL survey, and periodic MHTL surveys thereafter, will help provide evidence that the development is located on, and remains on, private property. Such surveys also provide baseline data that can be useful for understanding an area's shoreline dynamics and sea level rise over time, which in turn can inform a jurisdiction's vulnerability assessments and adaptation plans. Jurisdictions may want to modify the model policy to more precisely define the situations in which MHTL surveys are required—e.g., they may not be useful or appropriate in situations where a boundary line has been fixed by law, where development is located on filled tidelands bounded by bulkheads, or where a jurisdiction already has clear evidence of the public trust boundary and there is no risk that the proposed development will encroach on public trust lands during its expected lifetime.

Commented [CDA117]: Is this not the statutory responsibility of the SLC? How frequently has the Commission (or local government) required such a condition. Please provide documentation of examples so local governments can better understand such a requirement.

As a part of any application for low-lying development adjacent to coastal waters, the applicant shall submit a Mean High Tide Line (MHTL) survey prepared by a licensed professional land surveyor of the Subject property based on field data collected within 12 months of the date submitted. Such survey shall be at the landowner's expense and shall be conducted in consultation with the California State Lands Commission (CSLC) staff. Prior to submitting this survey to the Commission, it must be approved by the CSLC as compliant with CSLC survey standards. In addition, every ***[5-10]*** years, or in the event of reaching a specified trigger ***[(i.e., new tidal datum epoch, seismic event of magnitude 5.5 or greater, rise in annual local MSL records of [x] above current MSL datum (where [x] might be based upon difference in elevation between lowest portion of the development and the current MSL datum)]***, the landowner shall submit additional MHTL surveys. Such surveys shall:

a. Use either the published Mean High Water elevation from a National Oceanic and Atmospheric Agency published tide station closest to the project or a linear interpolation between two adjacent tide stations, depending on the most appropriate approach in light of tidal regime characteristics.
b. Use the most current tidal epoch.
c. Use local, published control benchmarks to determine elevations at the survey site. Control benchmarks are the monuments on the ground that have been precisely located and referenced to the local tide stations and vertical datum used to calculate the Mean High Tide elevation.
d. Match elevation datum with tide datum.
e. Reference all elevations and contour lines to the North American Vertical Datum 1988 (NAVD88).
f. Note survey date, datum, and MHTL elevation.

E. MOVING HAZARDS AWAY FROM DEVELOPMENT

Note: The model policies below should be considered for relevant shoreline types. Certified LCPs are already required to have policies and standards to ensure that environmentally sensitive habitat area (ESHA), wetlands, and other coastal habitats and resources are protected; however, in light of sea level rise, additional protections might be needed. An additional buffer area can allow for the migration of wetlands and other shoreline habitats caused by sea level rise over the anticipated duration of development, thus avoiding significant disruption or degradation to sensitive habitat, and allowing for the continued existence of the habitat.

E.1 Habitat Buffers

Provide a buffer of at least ***[insert distance of buffer]*** feet in width from the edge of wetlands or other environmentally sensitive habitat areas and at least ***[insert distance of buffer]*** feet in width from the edge of riparian habitat. A sea level rise buffer area shall be added to the habitat buffer if necessary to allow for the migration of wetlands and other shoreline habitats caused by sea level rise over the anticipated duration of the development. Except for temporary uses, as described below, uses and development within sea level rise buffer areas shall be limited to minor passive recreational uses, with fencing, desiltation or erosion control facilities, or other improvements deemed necessary to protect the habitat, to be located in the upper (upland) half of the buffer area. Water quality features such as drainage swales required to support new development shall not be constructed in wetland buffers. Temporary uses may also be placed in the sea level rise buffer area until such time as sea level rise causes the wetlands or other shoreline habitat to migrate to within 100 feet of the temporary uses, at which time, they shall be removed. All habitat and buffers identified shall be permanently conserved or protected through a deed restriction, open space easement or other suitable device. All development, such as grading, buildings and other improvements, adjacent to, or draining directly to an environmentally sensitive habitat area must be sited and designed so it does not significantly degrade habitat values, impair functional capacity, or impair the continuance of the habitat area.

Commented [CDA118]: Original comment stated this would require a change to Biological Resources policies for Marin that have already been approved by the CCC. No response found.
March 13, 2018

Commented [CDA119]: Original comment asked for an explanation how this requirement is or is not supported by Coastal Act Section 30240 as currently written. No response found.
March 13, 2018

Commented [CDA120]: Where is the justification for this requirement re buffer areas? What are the which would significantly degrade those areas?

Note: The Coastal Act requires approved shoreline protection to be the least environmentally damaging feasible alternative. Soft shoreline protection is often an alternative that enhances natural coastlines and provide some natural storm protection as well as habitat benefits. Soft protection alternatives are sometimes hybrids of hard and soft approaches. For example, a horizontal levee consists of hardened protection (levee) set back from the coastline with a wide expanse of natural habitat such as coastal marsh between the water and the levee. The intent in this case is to use a setback of a harder structure such as a levee or shoreline protection to allow marshes to provide natural buffering to reduce the impacts of coastal flooding, storm surge and wave action. It is also important to note that the term "soft" shoreline armoring can refer to shoreline restoration projects, or to shoreline armoring that includes a natural component, such as a revetment that is buried beneath sand and vegetated. While the former may be a permissible restoration project in many circumstances, the latter constitutes shoreline armoring that is generally not permitted to protect new development, though may be approved if it is necessary to protect an existing structure or coastal dependent use in danger from erosion, and is the least environmentally damaging feasible alternative, as required by the Coastal Act.

E.2 Soft Shoreline Protection

Encourage the use of soft or natural shoreline protection methods, such as dune restoration, beach/sand nourishment, living shorelines, horizontal levees, and other "green" infrastructure as alternatives to hard shoreline protective devices. Soft shoreline protection devices shall be fully evaluated for coastal resource impacts, and shall only be approved if found consistent with the LCP policies related to shoreline protection. The ***[City or County]*** should consider how these options may need to change over time as sea level rises.

E.3 Avoid Adverse Impacts from Stormwater and Dry Weather Discharges

New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner to minimize hazards resulting from increased runoff and erosion. Runoff shall be directed inland to the storm drain system or to an existing outfall, when feasible. If no storm drain system or existing outfall is present, blufftop runoff shall not be channelized or directed to the beach or the ocean.

E.4 Flood Hazard Mitigation

If it is infeasible for new development to avoid flooding hazards, development should be designed to minimize risks from flooding, including as influenced by sea level rise, over the anticipated life of the development, and otherwise constructed using design techniques that will limit damage caused by floods. Residential design shall incorporate appropriate flood hazard mitigation measures, including: ***[include all applicable, and add any other appropriate measures]*** elevating the finished floor (e.g., above the estimated combined 100-year storm flood elevation considering sea level rise and wave uprush scenario); locating only non-habitable space below the flood hazard elevation; elevating and storing hazardous materials out of the flood hazard area; elevating mechanical and utility installations; prohibiting basements; and using flood vents and anchoring structures where appropriate. However, elevation should be limited to ensure consistency with visual resource protection policies, and to ensure that access to utilities, including water, sewer, and roads, can continue over the anticipated duration of the development. If such access cannot be ensured consistent with LCP policies, then conditions shall be added requiring assumption of risk, removal triggers, and retreat management plan.

F. BUILDING BARRIERS TO PROTECT FROM HAZARDS

Shoreline Armoring

Note: The Coastal Act limits the use of shoreline protective devices and requires coastal resources to be protected when shoreline protection is allowed. In areas between the first public road and the sea, where shoreline protection is located, the standard of review is not only the LCP, but also the public access and recreation policies of the Coastal Act. In addition, many shoreline armoring projects are located partly or wholly on tidelands, within the Commission's retained jurisdiction. In such cases, applicants will need to apply to the Commission for a permit, and Chapter 3 of the Coastal Act will be the standard of review, at least for the portion within the Commission's jurisdiction, or for the whole project if the applicant, local government, and Commission agree to process a consolidated permit for the whole project.

Coastal Act Section 30253 requires new development to minimize risks from hazards, to avoid creating or contributing significantly to erosion and geologic instability, and to not in any way require construction of armoring that substantially alters natural landforms along bluffs and cliffs. Other Coastal Act provisions also limit the circumstances in which shoreline armoring may be permitted. For example, Section 30251 requires that new development minimize the alteration of natural land forms and be visually compatible with the character of surrounding areas, and Section 30210 requires provision of maximum public access to the coast. A common way to comply with these requirements is by establishing bluff-top and shoreline setbacks so that new development will not require armoring that impacts landforms, visual resources or access.

Despite this strict limitation on shoreline armoring for new development, Section 30235 allows armoring that alters natural shoreline processes when it is needed to protect existing structures, coastal dependent uses, or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. However, such protection is only required to be permitted if it is necessary – i.e., if the existing structure is in fact in danger – and if the proposed shoreline protection is the least environmentally-damaging alternative to abate the danger. As described in the Commission's 2015 Sea Level Rise Policy Guidance, the Commission interprets the term "existing structures" in Section 30235 as meaning structures that were in existence on January 1, 1977—the effective date of the Coastal Act. In other words, Section 30235's requirement to permit shoreline armoring in certain circumstances generally only applies to structures that existed as of January 1, 1977.

Managing shoreline armoring has been challenging for many local governments because urban areas are frequently made up of both developed and undeveloped lots. In addition, many structures in existence in 1976 have since been "redeveloped" through renovations, remodeling, additions, and complete demolition and rebuild. The reality of effective shoreline management is that the Coastal Act and LCPs must address and be applied to a wide variety of physical and legal circumstances that may not be addressed by a simple application of the Coastal Act distinction between existing structures, which may be allowed shoreline armoring even if that armoring has impacts that would otherwise be prohibited by LCP or relevant Coastal Act policies, and new development, which is generally not entitled to armoring that is inconsistent with any resource protection policies of the LCP or access policies of the Coastal Act. See further discussion in section entitled 'Adaptation Strategies for Development Constructed after January 1, 1977'.

Commented [CDA121]: Please acknowledge that 30253 standard is to "minimize risks to life and property…

Commented [CDA122]: Throughout, the Guidance advises local governments to plan for the long term, high scenario of SLR danger – does that same standard apply here? If not, why not?

Commented [CDA123]: This interpretation is incorrect.

Commented [CDA124]: Original comment stated it is the legislature, not the CCC, to change the law. The language here has been significantly modified to add additional explanatory language, although the premise of the comment still remains.
March 13, 2018

Commented [CDA125]: Original comment stated it is the legislature, not the CCC, to change the law. The language here has been significantly modified to add additional explanatory language, although the premise of the comment still remains.
March 13, 2018

A suite of shoreline armoring policies can offer guidance for many of the shoreline armoring contexts, laying out the general policies first, then offering details on prioritization, siting and design, mitigation, and expectations for the shoreline armoring in the future. Policies F.1 through F.9 can help achieve Coastal Act consistency in areas where shoreline protection that would alter the natural shoreline may be needed now or in the future. In areas where bulkheads that do not alter the natural shoreline process are involved, Policy F.10 may be appropriate.

F.1 Shoreline and Bluff Protective Devices

Shoreline protective devices, including revetments, breakwaters, groins, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes, shall be permitted when required to serve coastal-dependent uses or protect existing principal structures or public beaches in danger from erosion, when designed to eliminate or mitigate adverse impacts on local shoreline sand supply, and when there is no less environmentally damaging alternative, unless a waiver of rights to shoreline protective devices applies on the property. Any such structures shall be sited to avoid sensitive resources, if feasible, and adverse impacts on all coastal resources shall be mitigated. Existing marine structures causing water stagnation or contributing to pollution problems and fish kills shall be phased out or upgraded where technically feasible. For the purposes of this policy, "existing structure" means a principal structure (e.g., residential dwelling or second residential unit) that was legally permitted prior to the effective date of the Coastal Act (January 1, 1977) and that has not subsequently undergone redevelopment ***([pursuant to Model Policy B.7])***.

F.2 Prioritization of Types of Shoreline Protection

Shoreline protective devices shall only be permitted if no other feasible, less environmentally damaging alternative, including but not limited to relocation of the threatened development, beach nourishment, non-structural drainage and native landscape improvements, or other similar non-structural options, can be feasibly used to address erosion hazards and to minimize risk of flooding and provide structural stability. Such non-structural options shall be identified, used and prioritized wherever feasible to protect coastal resources, including coastal habitats, public recreational uses, and public access to the coast. Where such non-structural options are not feasible in whole or in part, soft protection (e.g., sand bags, revetments that are combined with dune restoration, etc.) shall be used and prioritized wherever feasible before any more significant hard shoreline protective devices (including, but not limited to, seawalls, revetments, breakwaters, groins, bluff retention devices, and caisson foundation systems) are permitted.

F.3 Siting and Design to Avoid and to Mitigate Impacts

New shoreline protective devices shall be sited and designed to eliminate or mitigate adverse impacts on local shoreline sand supply. They shall also be sited and designed to avoid other coastal resource impacts to the maximum extent feasible, including through: eliminating or mitigating all adverse impacts on beach area; protecting and enhancing public recreational access; protecting and enhancing public views; minimizing alteration of, and being visually subordinate to, the natural character of the shoreline; avoiding or mitigating impacts to archeological resources; avoiding encroachment onto public trust lands and interference with the natural migration of the public trust boundary; and protecting other coastal resources in a manner consistent with applicable Coastal Act and LCP policies and the public trust.

Impacts from shoreline protective devices on beach area and local shoreline sand supply generally include: losing sand and beach area through the device's physical encroachment on a beach, fixing of the back beach, preventing new beach formation in areas where the bluff/shoreline would have otherwise naturally eroded, and losing sand-generating bluff/shoreline materials that

Commented [CDA126]: Does this definition of SPD include piers and caissons?
March 13, 2018

Commented [CDA127]: This language is not required by the plain language of PRC 30235., which does not include less environmentally damaging alternatives or a waiver of rights to shoreline protective devices.

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.

The CCC FAQ (Response 5) responds to this concern. In sum, the CCC states that in addition to 30235, other provisions of the Coastal Act, its implementing regulations (i.e Cal Code Regs 135053.5, 13540(f), and CEQA apply. It is these other provisions that require analysis of alternatives to shoreline protection and to adopt an alternative that is less environmentally damaging. Further, court rulings give the CCC broad authority to adopt measures to mitigate significant impacts. The County disagrees. CEQA authority generally lies with local governments. First, in most cases, the Commission functions as a "responsible agency." Second, Section 30235 is written to apply directly to SPDs and should be the overriding principle on which implementation rests.

March 14, 2018

Commented [CDA128]: Previous comment on the first draft states, this fails to reflect the precise statutory language. This is still true.
March 13, 2018

Commented [CDA129]: Original comment said to exempt piers used to elevate structures. The language has been modified to remove "piers"
March 13, 2018

Commented [CDA130]: Original comment stated this is not supported by law. See above. No change.
March 13, 2018

would have entered the sand supply system absent the shoreline protective device. If such impacts cannot be avoided, they shall be mitigated through options such as providing equivalent new public access or recreational facilities or undertaking restoration of nearby beach habitat. If such options are not feasible, proportional in-lieu fees that consider the full value of the beach—including with respect to impacts on shoreline sand supply, sandy beaches, public recreational access, public views, natural landforms, beach ecology, and water quality—may be used as a vehicle for impact mitigation provided that such in-lieu fees are deposited in an interest bearing account managed by the ***[insert City or County]*** and used only for acquisition or improvements of coastal public access, biological restoration, or other relevant mitigation in the vicinity of the project. New shoreline protective devices may not be approved if they cannot adequately eliminate or mitigate adverse impacts on local shoreline sand supply.

F.4 Repair and Maintenance of Shoreline Protective Devices

Non-exempt repair and maintenance of existing, legally permitted shoreline protective devices may be permitted as repair and maintenance only if the activities do not result in an enlargement or extension of armoring. Repair and maintenance activities shall not result in a seaward encroachment of the shoreline protective device or substantially impair public trust resources. Repair and maintenance projects shall include measures to address and mitigate all coastal resource impacts that the repair and maintenance activities may cause, including with respect to local sand supply, public views and public recreational access. Replacement of 50 percent or more of the protective device shall not be considered repair and maintenance but instead constitutes a replacement structure subject to provisions applicable to new or replacement shoreline protective devices.

F.5 Evaluation of Existing Shoreline Armoring

Applications for new development or redevelopment on property that is protected by existing shoreline protective devices shall not rely on the existing device for protection (see B.3 - Reliance on Shoreline armoring) and shall be required to provide an assessment of the continued efficacy and necessity of such protective devices. This must include an evaluation of whether the shoreline protective device can feasibly be removed or modified (and affected areas restored to natural conditions) in connection with demolition or modification of the existing structure that the protective device was built to protect. If the assessment indicates that existing shoreline protective devices can feasibly be removed or modified, and that there is a greater coastal resource and/or public access benefit to removal or modification, and if the shoreline armoring is under the applicant's control, then removal or modification shall be required as a condition of approval for the demolition or alteration of the existing structure(s). However, if the device continues to be necessary to protect other existing principal structures on the property, other adjacent existing principal structures, or coastal dependent uses entitled to protection, then it may remain for so long as it is necessary for those purposes and its duration is addressed pursuant to ***[Model Policy F.6]***.

F.6 Shoreline Armoring Duration

Shoreline protective devices shall only be authorized until the time when the existing principal structure that is protected by such a device: 1) is no longer present; 2) no longer requires armoring; or 3) is redeveloped. Permittees shall be required to submit a coastal permit 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 and the device is not needed to protect adjacent development that is still entitled to shoreline armoring. In the case of redevelopment, any potential rights to protection are terminated and removal of the shoreline

Commented [CDA131]: Comment on first draft stated this goes beyond 30235. Comment still stands.
March 13, 2018

Commented [CDA132]: This comment on the first draft asked, what is the Coastal Act support for this and following provisions? How does it comport with Section 30253. Comment still stands.
March 13, 2018

Commented [CDA133]: Original comment states the County's objection to the definition of redevelopment. This still stands.
March 13, 2018

Commented [CDA134]: Original comment stated: "presumably determined by monitoring in F8". No change.
March 13, 2018

protective device shall be required as part of demolition and alteration of the structure being redeveloped.

F.7 Shoreline Armoring Mitigation Period

As a condition of approval for new, redeveloped or non-exempt repairs to shoreline protective devices, require mitigation of impacts to shoreline sand supply, public access and recreation, and any other relevant coastal resource impacts in 20-year (or smaller) increments, starting with the building permit completion certification date. Permittees shall apply for a coastal permit amendment prior to expiration of each 20-year mitigation period, proposing mitigation for coastal resource impacts associated with retention of the shoreline protective device beyond the preceding 20-year mitigation period, and such application shall include consideration of alternative feasible mitigation measures in which the permittee can modify or remove the shoreline protective device to lessen its impacts on coastal resources.

F.8 Shoreline Armoring Monitoring and Mean High Tide Line Surveys

As a condition of approval for new, redeveloped or non-exempt repairs to shoreline protective devices, require a monitoring plan to identify the impacts of the shoreline armoring on the surrounding area and determine when a shoreline protective device is no longer needed for protection. The monitoring plan shall specify requirements for periodic inspection ***(e.g., every [5 years])*** for structural damage, excessive scour, or other impacts from coastal hazards and sea level rise, impacts to shoreline processes and beach width (both at the project site and the broader area and/or littoral cell as feasible), and impacts to public access and the availability of public trust lands for public use. Every ***[x]*** years, or in the event of reaching a specified trigger, the landowner shall submit a new Mean High Tide Line (MHTL) survey of the Subject property based on field data collected within 12 months of the date submitted. Such surveys must comply with the standards in ***[Model Policy D.3].***

Note: The intent of a policy describing limits on future shoreline armoring is to inform property owners about the risks of placing new development or redevelopment in a hazardous area subject to sea level rise impacts and to ensure consistency with Coastal Act policies that limit shoreline armoring. As described above, Coastal Act Section 30253 and other Coastal Act provisions significantly limit the ability to approve shoreline armoring for new development. The first part of Model Policy F.9 ensures that applicants for new development, as well as future property owners, are aware that they may not claim a right under Section 30235 to obtain shoreline armoring for the new development. However, this policy would not restrict an owner's ability to later apply for and obtain shoreline armoring that is fully consistent with the LCP and with the Coastal Act's public access provisions. This part of the policy is appropriate for any new non-coastal dependent development located in a hazardous area where there is a possibility that wave action, flooding, erosion or other sea level rise impacts could someday threaten the structure.

Commented [CDA135]: Original comment stated "This will leave the structure unprotected from shoreline hazards. Is that the intent or is elevating structure to meet BFE in addition to sea level rise factor into the solution on small lots with no opportunity for relocation? No change.
March 13, 2018

Commented [CDA136]: This does not clearly appear in the example language.
April 4, 2018

The second part of F.9 provides an alternative, broader limitation that may be appropriate for new development in locations where any future shoreline armoring would clearly be inconsistent with relevant LCP policies and the public access policies of the Coastal Act. In areas of the coast where the local government has determined, through its LCP, that armoring is inappropriate, use of this policy language will help ensure that applicants for new development are clearly informed that they will not be able to construct armoring to protect their new structures. This broader policy carries out Section 30253's mandate that new development not in any way require the construction of shoreline protection that substantially alters natural landforms along bluffs or cliffs, and the requirements of other relevant Coastal Act policies (e.g., Sections 30210 , 30240, 30251) to protect access, recreational resources, visual resources, and other coastal resources. Local jurisdictions should consider which policy to apply in different areas, depending on the adaptation strategies chosen in those areas and the possibility that Coastal Act-consistent armoring could be a part of that adaptation strategy. For an approach that local governments can use to implement F.9, see Model Policy G.4 Sea Level Rise Hazard Overlay Zone.

F.9 Limits on Future Shoreline Armoring

As a condition of approval of a coastal development permit for new development or redevelopment on a beach, shoreline, bluff, or other area subject to coastal hazards, applicants shall be required to acknowledge that the new development or redevelopment does not qualify as a structure entitled to shoreline protection under Coastal Act Section 30235 [***or corresponding LCP provision Model Policy F.1***]. The applicant shall also waive any right to claim that the structure is entitled to shoreline protection under Coastal Act Section 30235 [***or corresponding LCP provision Model Policy F.1***]. Private property owners shall be required to record that acknowledgment and waiver in a deed restriction [(***see also Model Policy A.6 – Assumption of Risk***)]. For purposes of this policy, the term *coastal hazards* includes, but is not limited to, tidal and storm flooding, storm conditions, waves, wave run-up, bluff retreat, erosion, and landslides, as influenced by sea level rise over time.

Alternative language to use where appropriate, OR as an additional policy to apply in particular areas

As a condition of approval of a coastal development permit for new development or redevelopment on a beach, shoreline, bluff, or other area subject to coastal hazards, applicants shall be required to acknowledge and agree that no bluff or shoreline protective device(s) shall ever be constructed to protect the approved development, including if it is threatened with damage or destruction from coastal hazards in the future. As a condition of approval, applicants shall also waive any rights to construct such devices that may exist under applicable law. Private property owners shall be required to record that acknowledgement, agreement, and waiver in a deed restriction [***(see also Model Policy A.6 – Assumption of Risk***)]. For purposes of this policy, the term *coastal hazards* includes, but is not limited to, tidal and storm flooding, storm conditions, waves, wave run-up, bluff retreat, erosion, and landslides, as influenced by sea level rise over time.

F.10 Bulkheads for Waterfront Development

New development or redevelopment on property currently protected from flooding by bulkheads is permitted to rely on those bulkheads to demonstrate that the project will protect life and property from coastal hazards if: 1) the existing bulkheads, and feasible augmentation of them necessary to protect the proposed structure over its life, do not alter natural shoreline processes along bluffs or cliffs or cause adverse impacts to public access, marine habitat, aesthetics or other

coastal resources protected in the LCP, including when considering migration of public trust lands and impacts from anticipated groundwater changes; and 2) property owners record a waiver of any rights to seaward expansion of the bulkhead as a condition of approval of a coastal development permit for new development when a coastal hazards report (see Policy A.4 –Site-specific Coastal Hazard Report Required) establishes that an existing bulkhead cannot be removed and/or an existing or replacement bulkhead is required to protect existing principal structures and adjacent development or public facilities on the site or in the surrounding area. Waiver of rights to future shoreline protection includes repair or maintenance, enhancement, reinforcement, or any other activity affecting the bulkhead, that results in any encroachment seaward of the authorized footprint of the bulkhead. The principal structure(s) should be set back a sufficient distance 1) to allow for repair and maintenance of that bulkhead including access to any subsurface deadman or tiebacks and 2) to allow for realignment of necessary bulkheads as far landward as possible and in alignment with bulkheads on either side.

Note: 14 California Code of Regulations Section § 13009 defines an emergency as, "a sudden unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property, or essential public service." Local vulnerability assessments should give some indication of where emergency hazards are more likely to emerge, and can allow a community to begin planned adaptation strategies for segments of their coastline to respond proactively. However, emergency applications for shoreline protective devices are still likely to increase as risks of storm damage are exacerbated by sea level rise. It is important to note that the emergency permit is only a temporary authorization of development. The Commission often authorizes emergency work for 90 days, but local governments may choose other timeframes, based on particular circumstances. The regular coastal development permit process for such development allows for an alternatives analysis to determine the best way to implement adaptation measures that consider impacts on neighboring properties as well as cumulative impacts on shoreline processes and coastal resources.

Local governments can avoid emergency permit requests unintentionally resulting in permanent armoring by enforcing temporary armoring expiration dates, requiring a regular coastal permit application after issuance of emergency permits, and specifying conditions for removal of emergency shoreline armoring if it is not authorized in a subsequent regular coastal permit.

F.11 Emergency Permits

In the event of an emergency, the [***Planning Director***] may issue an emergency Coastal Development Permit to authorize emergency work in compliance with Section 30624 of the Coastal Act. The [***Planning Director***] shall not issue an emergency Coastal Development Permit for any work to be conducted on any tidelands, submerged lands, or on public trust lands, whether filled or unfilled, or any other area within the Coastal Commission's retained coastal permit jurisdiction; requests for emergency work in these areas shall be referred to the Coastal Commission. The emergency approval shall conform to the Local Coastal Program. The emergency permit process is intended to allow for emergency situations to be abated through use of the minimum amount of temporary measures necessary to address the emergency in the least environmentally damaging short- and long-term manner, including that the development is easily removable. The [***Planning Director***] may request, at the applicant's expense, verification by a qualified professional of the nature of the emergency and the range of potential solutions to the emergency situation, including the ways such solutions meet these criteria.

Commented [CDA137]: Original comment stated: "conditions are not required by 30235". No change
March 14, 2018

Commented [CDA138]: Original comment stated: "By eliminating the possibility of "refacing" a failing bulkhead, this requirement will make repair and replacement much more complicated and expensive" No change.
March 14, 2018

Commented [CDA139]: Original comment asked how this applies to existing structures. No change.

March 14, 2018

Commented [CDA140]: This is a new section. It mirrors IP 22.70.140 word for word
March 14, 2018

a. Application. An application for an emergency Coastal Permit shall be filed with the [***Planning Director***] in writing if time allows, or in person or by telephone if time does not allow.

b. Required information. The applicant shall report to the [***Planning Director***] the following information, either during or as soon after the emergency as possible (and in all cases before the emergency Coastal Permit expires):

1. The nature and location of the emergency;
2. The cause of the emergency, insofar as this can be established;
3. The remedial, protective, or preventive work required to deal with the emergency; and
4. The circumstances during the emergency that appeared to justify the course(s) of action taken, including the probable consequences of failing to take action.
5. An application for an emergency shoreline protective device shall be accompanied by a hazards report [(***see Policy xxx***)]. If the applicant is unable to provide all such information due to the nature of the emergency, then the applicant shall provide at a minimum: (a) a description of what measures, if any, were taken in advance in order to mitigate the hazard and (b) an analysis of alternatives, including use of sand bags, as well as the "no action" alternative.
6. All required technical reports and project plans.

The Director shall verify the facts, including the existence and nature of the emergency, as time allows.

c. Notice. The [***Planning Director***] shall provide public notice of the proposed emergency work, and determine the extent and type of notice based on the nature of the emergency. The ***[Planning Director***] shall notify the Executive Director of the Coastal Commission as soon as possible about potential emergency coastal permits, and shall report, in writing, to the Executive Director after the emergency coastal permit has been issued, the nature of the emergency, and the work involved.

d. Emergency permit approval. The [***Planning Director***] may grant an emergency permit upon reasonable terms and conditions, including an expiration date, if the [***Planning Director***] finds that:

1. An emergency (i.e., a sudden unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential services) exists that requires action more quickly than permitted by the procedures for a Coastal Development Permit, and the work can and will be completed within 30 days unless otherwise specified by the emergency permit;
2. Public comment on the proposed emergency action has been reviewed, if time allows; and
3. The proposed work is consistent with applicable Local Coastal Program policies.
4. The proposed work is the minimum amount of temporary development necessary to abate the emergency in the least environmentally damaging short- and long-term manner.

The decision to issue an emergency permit is at the sole discretion of the [***Planning Director***], provided that subsequent Coastal Development Permits required for the project shall comply with all applicable provisions of the LCP.

e. Coastal Permit required. All emergency Coastal Development Permits shall expire ninety (90) days after issuance, unless extended for good cause by the [***Planning Director***], if such extension is limited as much as possible in duration. All emergency development pursuant to

this section is considered temporary and must be removed and the affected area restored if the development is not subsequently permitted by a regular coastal development permit within 6 (six) months of the date of emergency permit issuance, unless the [***Planning Director***] authorizes an extension of time for good cause. Within 30 days of issuance of the emergency Coastal Permit, the applicant shall apply for a regular Coastal Permit. Failure to file the applications and obtain the required permits may result in enforcement action.

G. COMMUNITY SCALE ADAPTATION PLANNING

Note: The Coastal Act calls for public understanding of, and maximum public participation in, coastal planning. The Coastal Act also requires protection of coastal resources for current and future generations, including through orderly development that reduces risks and preserves public access. To achieve consistency with these Coastal Act requirements, much of sea level rise adaptation for residential land use will require a community approach, as the scope of parcel level actions is too limited to address all coastal hazard impacts, especially when existing residential development is already located in hazardous areas. For example, unless individual bulkheads in a community are raised together, the lowest one will be the weak link and will expose larger areas (homes and roads) to flooding. Community scale adaptation approaches should reflect public participation in the planning process (LCP steps 3 and 4) and may require regional collaboration depending on the extent of anticipated shoreline impacts from the anticipated community-wide adaptation options. Community participation in adaptation planning can highlight unique coastal resources and different opportunities for maintaining them within the adaptation pathways approach.

Community scale adaptation plans should also take into account other climate change impacts (e.g. changes in precipitation patterns, fire frequency, etc.), and jurisdictions should work with other counties and cities to develop and incorporate expectations for potential future impacts given other watershed scale changes. These changes may be related to climate change effects, other development upstream, or management decisions and processes.

Developing Adaptation Planning Information

G.1 Management of Sea Level Rise Hazards

a. Gather information on the effects of sea level rise, including identifying the most vulnerable areas, structures, facilities, and resources; specifically areas with priority uses such as public access and recreation resources, including the California Coastal Trail, Highway 1, significant ESHA, wetlands or wetland restoration areas, open space areas where future wetland migration would be possible, and existing and planned sites for critical infrastructure.

b. The [***Insert city or county***] shall conduct a vulnerability assessment [by ***insert date***] and establish baseline conditions using best available science identified pursuant to Policy A.1 - Identifying and Using Best Available Science - and use multiple sea level rise scenarios including estimates of high projections of expected sea level rise.

c. The [***Insert city or county***] shall update Sea Level Rise Maps at least every 10 years or as necessary to allow for the incorporation of new sea level rise science, monitoring results, and information on coastal conditions.

Commented [CDA141]: What about hard engineering and accommodation strategies previously discussed? While may not be feasible in every community, a stakeholder driven process should objectively explore the entire suite of strategies.
March 15, 2018

Commented [CDA142]: The Coastal Act does not regulate adaptation planning or require it. It should be noted that a local government's adaptation planning programs (while they might benefit from the Commission's recommendations here) are not subject to Commission review of its Local Coastal Program.
March 15, 2018

Commented [CDA143]: How? Without projections/models? Also need more guidance on mitigation strategies, particularly for fires.
March 15, 2018

Commented [CDA144]: Visitor serving uses such as businesses that support the recreation/tourism economy, and the homes of hospitality industry staff?
March 15, 2018

Commented [CDA145]: Again, ambiguous, and could vary depending on the discretion of the jurisdiction. Also models may not have a scenario that matches with the high end projection.
March 15, 2018

d. Research the potential to increase setbacks for or relocate existing and planned development to safer locations in order to minimize hazards and protect coastal resources. Explore the feasibility of a managed retreat program, which may involve protecting vacant land through zoning or conservation easements and/or removing development from areas vulnerable to sea level rise and restoring those areas to a natural state for open space or recreation. Identify potential mechanisms and incentives for implementation, which may include options to:

1. Acquire vacant vulnerable properties.
2. Acquire developed vulnerable properties before damage occurs.
3. Acquire developed vulnerable properties after significant destruction by storms, erosion, or high tides.
4. Explore the feasibility of public parkland exchange programs that encourage landowners to move out of hazardous areas.
5. Identify and make available (e.g., through rezoning) land outside the hazard areas to allow owners of vulnerable properties to relocate nearby.
6. Explore clustering of development density in areas not vulnerable to coastal hazards and limiting development in areas that are vulnerable.
7. Develop Transfer of Development Rights programs.
8. Develop programs to phase out the use of homes in coastal hazard areas, such as through leasebacks.
9. Work with entities that plan or operate infrastructure, such as Caltrans, public utilities, railroads, water districts, etc., to plan for potential relocation or realignment of public infrastructure impacted by sea level rise.
10. Support development of Geologic Hazard Abatement Districts (GHADs), County Services Areas (CSAs), or other similar entities to address the prevention, mitigation, abatement, and control of geologic hazards for specific neighborhoods

e. Join and/ or facilitate collaborative sea level rise adaptation efforts with other local, regional, state and federal entities to promote restoration or enhancement of natural ecosystems, such as coastal wetlands and sandy beaches.

f. Support efforts to monitor sea level rise impacts to recreational resources, natural resources and ESHA, including ***[insert names of beach areas]***; ***[insert names of wetland areas]***; and ***[insert names of creeks]***and other creeks; rocky intertidal areas, beaches and other habitat types vulnerable to sea level rise. Collaborate with other local, regional, state and federal entities to establish monitoring methods and track the effects of sea level rise.

g. Promote natural infrastructure pilot projects (horizontal levees, dune restoration, etc.) with environmental benefits that enhance natural and recreational resources while protecting assets from sea level rise and increased storm surges. Study and monitor such projects over time and share lessons learned with other jurisdictions.

h. Update standards for ESHA buffers and setbacks to account for sea level rise, based on the best available science and considering the effects of shoreline development on landward migration of wetlands.

Commented [CDA146]: Jumps right into retreat. What about researching other adaptation options for public consideration?
March 15, 2018

Commented [CDA147]: What about all of the legal challenges with acquiring private property?
March 15, 2018

Commented [CDA148]: Is this a good precedent to set?
March 15, 2018

Commented [CDA149]: May work in other places, but challenging in Marin County as surrounding area is largely federal parkland.
March 15, 2018

G.2 Adaptation Plan

Develop and implement an adaptation plan that examines priorities for adaptation, timelines, options, specific projects to be implemented, phasing and action triggers. As components of the adaptation plan, assess seasonal and long-term shoreline changes and the potential for flooding or damage from erosion, sea level rise, waves, storm surge or seiches. Plans should provide recommendations for adapting existing development, public improvements, coastal access, recreational areas, and other coastal resources. Plans should evaluate the feasibility of hazard avoidance, managed retreat, restoration of the sand supply and beach nourishment in appropriate areas.

Commented [CDA150]: Need more pilot projects to demonstrate feasibility
March 15, 2018

G.3 Adaptation Plan for Highly Vulnerable Areas

(Reference Policy B.1 Siting to Protect Coastal Resources and Minimize Hazards)

If development cannot be located and designed in a manner that meets the coastal hazard avoidance and minimization requirements of [***insert relevant policy, e.g., Model Policy B.1***] over the full anticipated life of the development, the development may nevertheless be approved if it meets all of the following criteria:

a. The LCP includes a Sea Level Rise Adaptation Plan for the area that: (1) analyzes resources and development that are vulnerable to coastal hazards, including as exacerbated by sea level rise, (2) evaluates the full range of adaptation alternatives, (3) identifies preferred strategies to protect coastal resources consistent with the Coastal Act, and (4) provides programs and policies to implement those strategies;

b. The proposed development is the least environmentally damaging feasible alternative, and is sited-and designed to protect coastal resources and minimize hazards to the extent feasible;

Commented [CDA151]: How is this defined? As demolishing existing buildings and new development can be quite impactful through materials production and transport, building construction, and demolition waste disposal, all of which could be minimized through preserving/protecting existing buildings.
March 15, 2018

c. The approval is conditioned to require removal or other adaptation measures when specific triggers are met to ensure that the development does not: (1) interfere with the continued existence of adjacent environmentally sensitive habitat areas or recreation areas, (2) substantially impair public trust resources, (3) become structurally unstable, or (4) pose unacceptable risks to life or property or otherwise create a nuisance;

d. The proposed development is consistent with the public access and recreation policies of the Coastal Act, as well as all relevant LCP policies except ***[insert relevant policy, e.g., Model Policy B.1]***.

e. A hazard assessment must demonstrate that the development appropriately minimizes risks to life and property and ensures structural stability for a minimum of ***[insert relevant timeframe based on type of development, such as twenty years for primary residential structures]*** years.

Sea Level Rise Overlay Zones

Note: Sea Level Rise Overlay Zones (hazard overlay zones and beach open space zones) can be useful tools for overall, long-term adaptation strategies. Policies on Sea Level Rise Overlay Zones should cross reference relevant LCP policies that provide the actions triggered by the presence of the zone. An overlay zone can meet multiple objectives, set boundaries based on a worst case scenario, and define the policy considerations for those areas. For example, policies in Sea Level Rise Overlay Zones might trigger downzoning, redevelopment restrictions, structure removal, or other adaptation measures for development. A Sea Level Rise Overlay Zone could also be incorporated into a shoreline management plan that preserves coastal resources in the long term, allows for inland shoreline migration, and defines future expectations for what development will be permitted in sea level rise hazard zones going forward.

Commented [CDA152]: These could lead to takings claims.
March 15, 2018

Commented [CDA153]: The paragraphs provided below are merely directives, not models. Please provide examples that might be of use to local governments.

G.4 Sea Level Rise Hazard Overlay Zone

(Reference Policy A.3 Mapping Coastal Hazards)
Minimize risks to life and property associated with sea level rise through application of policies and standards specific to the Sea Level Rise Hazard Overlay Zone [***insert reference to maps, e.g., (see Figure X)***]. Policies in this section ***[insert section or policy numbers]*** shall apply to all properties within the Sea Level Rise Hazard Overlay Zone.

G.5 Beach Open Space Zone

Establish a 'Beach Open Space' zone located in ***[the defined hazard/management area]*** to provide for current and future beach access and management, including inland migration of the beach as sea level rises. The purpose of the zone is to provide for protection of the migrating/ambulatory beach and public access to and along it. All existing development that is not for public access or recreation would become non-conforming in the zone district. Unless otherwise required to be approved pursuant to other LCP policies, new development would be prohibited within the zone, with the exception of: 1) new development on properties that participate in the Managed Retreat Program as specified in ***[Model Policy G.10–Managed Retreat Program]***, and 2) development related to habitat restoration, public access or beach/ocean recreational opportunities.

Community Scale: Beach and Dune Adaptation

Long term planning for all urban beachfront development should consider that the adaptive capacity of beaches may diminish where shoreline armoring prevents the natural migration of the beach as sea levels rise, even with continued sand nourishment. Additionally, communities need to consider the availability of sand resources for their future nourishment needs given increasing beach erosion and limited sand supplies.

G.6 Beach Nourishment

In coordination with the Coastal Commission and other permitting agencies (e.g., State Lands Commission, U.S. Army Corps of Engineers), develop and implement a comprehensive beach nourishment program to assist in maintaining beach width and elevations. The beach nourishment program should include measures to protect water quality and to minimize and mitigate potential adverse biological resource impacts from deposition of material, including measures such as sand compatibility specifications, restrictions on volume of deposition, timing or seasonal restrictions, and identification of environmentally preferred locations for deposits. The [***insert City or County***] should consider developing an opportunistic sand program and determining how replenishment options may need to change over time as sea level rises.

Commented [CDA154]: May not always be feasible as it depends on available sand sources. Beach nourishment could be to resources intensive and not financially sustainable, particularly in extremely hazardous areas with sea level rise and high wave velocities.
March 15, 2018

Community Scale: Bluff Erosion Adaptation

G.7 Improve Drainage on Bluffs to Reduce Erosion

Investigate areas which could be significantly contributing to increased groundwater flows to the bluffs and determine whether improving drainage and/or reducing irrigation could potentially reduce bluff erosion. If measures to improve drainage or reduce over-watering are found to have the potential to reduce bluff erosion, the ***[insert City or County]*** should inform property owners about appropriate irrigation practices and drainage improvements as part of existing water conservation outreach programs.

Trigger-Based Adaptation Approaches

Note: Trigger-based adaptation approaches present a mechanism by which adaptation actions can be phased over time. Local governments must first understand baseline vulnerability conditions (potentially through vulnerability assessment per Policy G.1) to identify thresholds that might have been exceeded in the past, or that may be exceeded in the future on a community scale. Trigger-based policies should also be developed through a community adaptation planning process that identifies appropriate trigger types and responsive actions (e.g., beach nourishment) or programs (e.g., managed retreat program).

Model Policies G.8 – G.10 contain conceptual elements or triggers that could be written in a single customized policy for a particular location. For example, a managed retreat program could use repetitive loss or beach width triggers to set community priorities for targeted buy-outs. Additionally, a similar policy to the managed retreat program for beaches could be applied for wetlands or other habitat areas subject to sea level rise.

G.8 Repetitive Loss

The ***[insert City or County]*** shall develop a Repetitive Loss Program to eliminate or reduce damage to property, impacts on coastal resources, and the community disruption caused by repeated flooding or storm damage. A Repetitive Loss Structure is a structure that has suffered damage and filed FEMA claims or coastal development permits or exemption applications for residences damaged beyond ***[insert percentage: XX%]*** on two or more occasions during a rolling 10-year period. The Repetitive Loss Program shall require properties with Repetitive Loss Structures to be rezoned to less intensive uses that limit reconstruction and to accommodate shoreline migration, increased coastal flooding, inundation, and related sea level rise impacts. The Program shall include maintaining a database of property flooding and damage to further identify and monitor local hazard areas, as resources are available. Where hazards make it difficult for private owners to achieve a reasonable use of the property, acquisition of the property by the ***[insert City or County]*** shall be encouraged.

G.9 Beach Management Plan

Establish a comprehensive beach management plan within the framework of adaptation planning and regular LCP updates to protect and enhance existing beach areas. The Plan shall identify actions and programs that can be implemented in the near term or would be implemented based on pre-determined future triggers to preserve recreational, habitat, and other coastal resource values and should include research into opportunities for additional adaptation actions that would be implemented based on future impacts. The beach management plan shall also include and expand upon the following actions:

a. Establish a minimum beach width that maintains optimum public recreational access and habitat function. The analysis used to establish the minimum width shall include considerations of daily tidal range, seasonal erosion, and short-term, storm driven erosion.
b. Coordinate with sediment management plan actions and establish appropriate triggers for sediment management activities and/or implementation of the Managed Retreat Program (***[Model Policy G.10***]) so that width is maintained as the beach naturally migrates over time in response to erosion, sea level rise, and other coastal processes
c. Monitor beach width, mean high tide line and bluff toe elevation.
d. Monitor public access, beach use, and any impacts to public trust lands. Identify and track locations, times, and durations throughout the year when the beach is too narrow to be adequate for recreation and/or lateral access.

Commented [CDA155]: Such a requirement would be completely out of the scope of LCP regulations.

e. Pursue opportunities for beach nourishment or otherwise increasing beach widths and enhancing beach access.
f. Evaluate adaptation opportunities for vulnerable roads and highways that provide beach access, and pursue opportunities that would maintain vehicular, bicycle and pedestrian access while protecting the beach and public access to it.
g. Revise the ***[City or County's]*** Local Hazard Mitigation Plan to provide for and support the Managed Retreat Program and to incorporate findings of relevant Vulnerability Assessments or Adaptation Plans.

Note: Multiple community-scale policy mechanisms (e.g., buy-outs, transfer of development rights, beach management plans) provide potential approaches to allowing the preservation of coastal resources (such as beaches or wetlands) despite natural shoreline change as sea levels rise. These approaches tend to function as rolling easements when planned in advance and coupled with overlay zones and accompanying downzoning of residential uses. Rolling easements can lead to the removal of structures that are designed and approved with managed retreat triggers (e.g., based on surveys of minimum beach width or mean high tide line). LCPs that include triggers and establish adaptation programs for addressing sea level rise impacts can help communities maximize habitat and natural resilience benefits while accommodating residential use during the time that the site can effectively support both habitat and development.

G.10 Managed Retreat Program

Establish a Managed Retreat Program to remove, modify or relocate development when necessary to protect and provide for the migrating shoreline and associated coastal resources, such as sandy beach area. The Managed Retreat Program must consist of at least the following components:

a. When the beach area of [***insert jurisdiction or specific beach name(s)***] is reduced below the minimum beach width established pursuant to [***Model Policy G.9***], development adjacent to the beach that is enrolled in the Managed Retreat Program must be moved, modified or removed and the area restored to open space to ensure the minimum beach width of ['[***XXX feet' or 'to restore adequate public access to the beach' feet or 'for more than XX percent of the calendar year'***].

b. All new development, which includes redevelopment including but not limited to modification of the foundation for elevation, in the Beach Open Space zone must enroll in the Managed Retreat Program. Permits for such development shall be conditioned to require its modification or removal when necessary to maintain the minimum beach width, and a deed restriction must be recorded to carry out this requirement and notify all new owners of this condition.

c. Property owners with existing development may voluntarily enroll in the Managed Retreat Program. The [***insert City or County***] shall pursue funding to purchase easements or development rights from such property owners who voluntarily enroll in the Managed Retreat Program. Restrictions applied pursuant to voluntary enrollment may be structured such that removal for the purpose of maintaining beach width as required in subsection (a) above cannot be triggered on the subject property for a minimum length of time, such as a minimum of 30 years, unless the structure is damaged or threatened and modifications to the structure itself (such as elevation or floodproofing) cannot address the threat, or unless any other removal triggers apply (such as pursuant to [***Model Policy D.1***]). Funding for the voluntary program may come from in-lieu fees, grants, or other state or federal funds.

d. The [***insert City or County]*** shall pursue funding to acquire non-conforming structures from willing sellers within the Beach Open Space zone and lease these residences to

Commented [CDA156]: Again, such a program would of course be voluntary at the discretion of a local government since the Coastal Act does not require managed retreat programs.
March 15, 2018

provide residential or vacation rental use until such a time that the structure routinely blocks lateral public access; is within the minimum beach width area [‘***for more than XX percent of the calendar year’]***; is damaged ***[beyond XX% or is threatened with imminent damage;%];*** is no longer habitable; is otherwise required to be removed pursuant to ***[Model Policy D.1]***; or leasing becomes otherwise infeasible.

Transfer of Development Rights

Transfer of development rights (TDR) is a market-based tool that can help implement phased retreat from shoreline hazard zones. TDR programs enable individual transactions to transfer development rights from privately owned parcels (i.e., sending sites) to areas that can accommodate additional growth (i.e., receiving sites). Property owners in sending areas receive compensation for giving up their right to develop, while developers in receiving areas pay for the right to develop at greater densities or heights than would otherwise be allowed by current zoning. TDR is not intended to limit growth, but can allow communities to identify which areas are suitable to receive development rights and how much additional development is appropriate.

G.11 Transfer of Development Rights Program

The City shall encourage the protection of ***[insert description of shoreline such as coastal bluff tops, dunes, or beaches]*** by establishing a Transfer of Development Rights program that concentrates development in receiving districts that are outside of areas vulnerable to sea level rise and provides for the transfer of development rights from sending districts that are in areas vulnerable to sea level rise.

Financing Adaptation

Note: Implementation of adaptation approaches will require significant funding in the future. Geologic Hazard Abatement Districts (GHADs), County Service Areas (CSAs), and other similar entities provide a potential means for funding sea level rise adaptation measures on a neighborhood scale. By accumulating a funding reserve for anticipated future needs, a GHAD or CSA can provide the financial resources necessary for adaptation approaches that extend beyond a single parcel. Typically, these entities can borrow from lenders or issue bonds with very attractive credit terms. Another avenue to consider is identifying options for project funding that might overlap with LCP adaptation from other programs such as the Federal Emergency Management Agency’s Hazard Mitigation Assistance (HMA) grant programs. Appendix A lists some potential funding sources.

G.12 Geologic Hazard Abatement Districts (GHADs) and County Service Areas (CSAs)

Explore the feasibility of forming Geologic Hazard Abatement Districts (GHADs) and/or CSAs to fund measures to address the prevention, mitigation, abatement, and control of geologic hazards within a designated sea level rise hazard zone.

G.13 Aligning LCPs with LHMPs

Coordinate across [***City/County***] departments and seek to align the Local Hazard Mitigation Plan (LHMP) with the LCP to ensure that proactive adaptation efforts are coordinated and responses to damage from future coastal hazards are streamlined. Identify future adaptation projects that meet the goals of both the LCP and LHMP and leverage FEMA funding opportunities for hazard mitigation and other related funding mechanisms to implement such projects.

Commented [CDA157]: As we have noted, the programs under “Community Scale Adaptation Planning” are voluntary, since the Commission does not have authority to regulate programmatic adaptation planning efforts by local governments. However, in the interest in making this the best possible Guidance, it would be very helpful to include a more thorough discussion of TDR programs. They are complex programs that require many planning elements to come together at the right time in order to be implemented. A detailed discussion of successful TDR programs would be great.
March 15, 2018

Commented [CDA158]: Good to list funding sources, but state and federal grants are quite limited. More discussion/case studies on community approaches such as local assessment districts would be helpful to catalyze such projects.
March 15, 2018

Commented [CDA159]: Conceptually makes sense, but objectives may vary across the two planning documents. LCPs largely focus on protecting public access, while LHMPs are about reducing harm to life and property. Mitigation strategies to achieve these goals can be shared, and can include land use regulatory tools and natural buffers. FEMA also has numerous guidebooks and grant programs to support building elevation, which may not be supported through LCP as reflected in this document.
March 15, 2018

Appendix A.

Funding Opportunities for LCP Planning and Project Implementation

Project Implementation Funds

The following table includes a list of grant funding available for implementation of sea level rise adaptation projects and programs. Much of this information was compiled by the Governor's Office of Emergency Services (Cal OES).

Grant Name	Agency	Purpose	Contact
Proposition 1 Grants **Protect Ocean and Coastal Resources**	Ocean Protection Council	Funding from Prop 1 is intended to fund projects that provide more reliable water supplies, restore important species and habitat, and develop a more resilient and sustainably managed water system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades.	OPC http://www.opc.ca.gov/category/funding-opportunities/
Proposition 1 Grants **Climate Ready Grants**	California Coastal Conservancy	Proposition 1 Grants for multi-benefit ecosystem and watershed protection and restoration projects. Climate Ready Grants are focused on supporting planning, project implementation and multi-agency coordination to advance actions that will increase the resilience of coastal communities and ecosystems	Coastal Conservancy http://scc.ca.gov/grants/proposition-1-grants/ http://scc.ca.gov/climate-change/climate-ready-program/
SB 1 Adaptation Planning Grants	Caltrans	Support actions at the local and regional level to advance climate change adaptation efforts on the state transportation system	Caltrans http://www.dot.ca.gov/hq/tpp/grants.html

Pre-Disaster Mitigation (PDM) Program	Administered by: Cal OES Funded by: US Department of Homeland Security, Federal Emergency Management Agency (FEMA)	Provides funds for hazard mitigation planning and projects on an annual basis. The PDM program was put in place to reduce overall risk to people and structures, while at the same time reducing reliance on federal funding if an actual disaster were to occur.	Cal OES http://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/pre-disaster-flood-mitigation FEMA https://www.fema.gov/pre-disaster-mitigation-grant-program
Hazard Mitigation Grant (HMG) Program	Administered by: Cal OES Funded by: US Department of Homeland Security, Federal Emergency Management Agency (FEMA)	Provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.	Cal OES http://www.caloes.ca.gov/cal-oes-divisions/recovery/disaster-mitigation-technical-support/404-hazard-mitigation-grant-program FEMA https://www.fema.gov/hazard-mitigation-grant-program
Flood Mitigation Assistance (FMA) Program	Administered by: Cal OES Funded by: US Department of Homeland Security, Federal Emergency Management Agency (FEMA)	Provides grants to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP.	Cal OES http://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/pre-disaster-flood-mitigation FEMA https://www.fema.gov/flood-mitigation-assistance-program

Public Assistance (PA) Program	US Department of Homeland Security, Federal Emergency Management Agency (FEMA)	To provide supplemental Federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain Private Non-Profit (PNP) organizations. The PA Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process.	FEMA https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit
Community Development Block Grant (CDBG) Program	US Department of Housing and Urban Development	Program works to ensure decent affordable housing, to provide services to the most vulnerable in our communities, and to create jobs through the expansion and retention of businesses.	HUD ~~http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs~~
Watershed Surveys and Planning	US Department of Agriculture, Natural Resource Conservation Service	To provide planning assistance to Federal, state and local agencies for the development or coordination of water and related land resources and programs in watersheds and river basins.	NRCS http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wsp/
Watershed Protection and Flood Prevention	US Department of Agriculture, Natural Resource Conservation Service	To provide technical and financial assistance in planning and executing works of improvement to protect, develop, and use of land and water resources in small watersheds.	NRCS http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wfpo/
Land and Water Conservation Fund Grants	US Department of the Interior, National Park Service	To acquire and develop outdoor recreation areas and facilities for the general public, to meet current and future needs.	NPS http://www.nps.gov/lwcf/index.htm

SBA Disaster Loan Program	US Small Business Administration	SBA provides low-interest disaster loans to businesses of all sizes, private non-profit organizations, homeowners, and renters. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.	SBA https://www.sba.gov/content/disaster-loan-program
Clean Water Act Section 319 Grants	US Environmental Protection Agency	To implement state and tribal non-point source pollution management programs, including support for non-structural watershed resource restoration activities.	EPA ~~http://water.epa.gov/polwaste/nps/319hfunds.cfm~~
Flood Control Works/ Emergency Rehabilitation	US Department of Defense, Army Corps of Engineers	To assist in the repairs and restoration of public works damaged by flood, extraordinary wind, wave or water action.	USACE http://www.usace.army.mil/Missions/EmergencyOperations/NationalResponseFramework/FloodControl.aspx
Emergency Streambank and Shoreline Protection	US Department of Defense, Army Corps of Engineers	To prevent erosion damages to public facilities by the emergency construction or repair of streambank and shoreline protection works (33 CFR 263.25)	USACE http://www.mvr.usace.army.mil/BusinessWithUs/OutreachCustomerService/FloodRiskManagement/Section14.aspx
Small Flood Control Projects	US Department of Defense, Army Corps of Engineers	To reduce flood damages through small flood control projects not specifically authorized by Congress.	USACE www.usace.army.mil https://www.cfda.gov/index?s=program&mode=form&tab=core&id=2216ee03c69db437c431036a5585ede6
Land Acquisition Program	Wildlife Conservation Board	The WCB acquires real property or rights in real property on behalf of the California Department of Fish and Wildlife (CDFW) and can also grant funds to other governmental entities or nonprofit organizations to acquire real property or rights in real property.	WCB www.wcb.ca.gov

From:	jim wagner
To:	ResidentialAdaptation@Coastal
Subject:	Adaptation Policy Guidelines Comment
Date:	Saturday, April 28, 2018 9:58:03 AM

I am urging the Commission to take more time performing due diligence before adopting these guidelines. All stakeholders must be included, and notified directly, and urged to come forward with their comments.

As a licensed Real Estate Broker and Mortgage Loan Originator for over twenty five years I can anticipate very important and impactful consequences going forward.

1. Insurance underwriters are notoriously risk-adverse. What will be the effects of designating a property in a zone/area/geographical area be on that property owners ability to finance their property?
2. Lendability to these properties needs to be vetted thoroughly, including all affected parties, mortgage brokers, lenders, bankers, rating agencies, Fannie and Freddie risk adjusters to make sure that people in designated areas will be able to borrow money, long term, at market rates and are not penalized. Have these parties been contacted? Nationwide? Lenders and their underwriters are not bound by state borders. Numerous lenders active in California are from out of state and rely on national guidelines. Will the proposed adaptation policy affect those national lending guidelines causing lenders to underwrite in a risk adjusted manner?
3. Many, if not all, cities in California sell bonds to finance infrastructure projects and other municipal needs. Will these policy guidelines impact the underlying security of those bonds and cause existing bonds to be callable? Will these guidelines impact the ability to sell bonds?

These are but a few of the potential impacts to the lending cycle in cities and counties subject to these Policy Guideline. I urge the Coastal Commission to continue the comment period and directly contact the lending community requesting input. Policy guidelines not thoroughly vetted could have draconian impacts on California's economy and individual property owners.

Thank you,
Jim Wagner
1005 Terra Nova Bl. Ste A
Pacifica, Cal
94044

wags903@msn.com

Community Development Department
Jill Dever Ekas, AICP, Director

April 26, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Subject: CCC Draft Residential Adaptation Policy Guidance Comment Letter

Dear Sea Level Rise Working Group,

Thank you for the extended opportunity to provide comments on the Revised Draft Residential Adaptation Policy Guidance. As a small beach community located entirely within the Coastal Zone, we understand the importance of this document.

The City of Half Moon Bay completed a sea level rise vulnerability assessment in April 2016, showing the areas of projected impact from flooding, erosion, and tsunamis along our coastline. While the assessment shows a relatively small area of residential impacts, the impending burden on homeowners is significant. Furthermore, San Mateo County's sea level rise vulnerability assessment ("Sea Change") in 2018 confirmed the City's studies while also considering higher sea level rise projection scenarios, thus anticipating increased areas of impact. As this guidance document defines redevelopment to include cumulative improvements, per the guidelines, it may well be that significant spans of the residential coastline have been redeveloped and will not be afforded the rights to protection as existing structures under Coastal Act Section 30235.

Our city faces water service and road capacity constraints, contains sensitive habitat areas and protected species, and has extremely high land and home values. These factors alone will make adaptation planning, particularly managed retreat strategies, very difficult and highly controversial. Understandably, we have many concerned property and home owners and real estate agents. As this draft document is adopted by the Commission and as the City is currently updating its Land Use Plan, one of our primary concerns is being able to provide outreach and education to our community members on what these policies will actually mean for them. We

highly value our beaches and the recreational opportunities they provide, yet we also highly value our community's input and will need support in gathering it.

We appreciate the potential funding opportunities information provided in Appendix A of the draft. We ask that the Coastal Commission further provides specific opportunities for community engagement and education as well as funding for local government outreach, as the City of Half Moon Bay will need additional resources to ensure the community is involved and aware of the policy and implementation issues they may have to face. Further, we invite the Sea Level Rise Working Group to participate in outreach with the City. We would be happy to partner with and host the Group to provide our community with the most valuable and effective outreach possible.

Sincerely,

Jill Ekas
Community Development Director
jekas@hmbcity.com

cc: City Council

David Boesch, Interim City Manager

PISMO COAST Association of REALTORS®
1126 E. Grand Ave, Arroyo Grande, CA 93420
(805) 489-7303 Doll@PismoCoastRealtors.com

April 12, 2018

Dayna Bochco, Chair
California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RE: March 2018 Revised Draft residential Adaptation Policy Guidance

Dear Chair Bochco,

The Pismo Coast Association of REALTORS®, Inc. believes it is very important to protect our beautiful coastline, while also protecting private property rights. Historically REALTORS® have been involved in disclosing conditions that exist on certain properties, which raises concerns about some of the provisions in your draft document. We ask that you consider the following comments as you prepare your final draft...

Regarding Section 4. Legal Considerations – We believe the interpretation of the term "existing structure" should continue to be any structure which existed prior to the application for shoreline armoring. This would be consistent with multiple Coastal Commission decisions which approved the construction of shoreline protection for homes built after 1/1/77.

Regarding A.3. Mapping Coastal Hazards – Property owners need a logical, functional way to determine if they are subject to current or future coastal hazards no their specific parcel. Property owners should be able to search by address and parcel number, and receive site-specific information about potential future coastal hazards.

Regarding A.6. – Assumption of Risk, Waiver of Liability and Indemnity – A regional government agency should not be transferring liability through a mass recording onto property owners, and should not be forcing property owners to automatically waive any claim for injury or damage against the local entity. It is extremely objectionable for regional governments to be transferring liability waiving damage claims in this manner.

Regarding A.7 - Real Estate Disclosure of Hazards – Requiring "real estate disclosures of all coastal hazards" would be virtually impossible for property owners. The only entity that could and should provide those disclosures is the regional government that wants the disclosures made, and they would need to be made accessible by address and parcel number. No government entity should require disclosure of information that it cannot itself make available with specificity.

Regarding G.4 and G.5 – Sea Level Rise Overlay Zones - It is unreasonable to suggest Overlay Zones based on "worst case scenario". It would be reasonable to handle this in the same way flooding and earthquake zones are handled. Flooding and earthquake zones are determined by specifically assessing certain areas for

hazards, for vulnerability, etc. After such somewhat exhaustive studies and analysis have been conducted, only then are flood and earthquake hazard zones identified as overlay zones. The same methodology needs to be used for coastal hazards, with the ability to access the information by address and parcel number.

We appreciate your careful consideration of our comments, and thank you for the opportunity.

Mark Burnes
President
Pismo Coast Association of REALTORS®, Inc.

Barry Brown
President-Elect
Pismo Coast Association of REALTORS®, Inc.

From:	frank starboardnet.com
To:	ResidentialAdaptation@Coastal
Subject:	Sea Level Rise
Date:	Monday, April 23, 2018 4:41:56 PM
Attachments:	image001.png

Hello, As a resident and a property owner I am alarmed at this report and the impact it will have on my property, my city and the life of every resident along the coast.

I find that the own numbers in the report are either contradictory or outright just plain wrong. One statement says that the sea level rose in the last 100 years by 7 inches, yet it goes on to explain that they are considering a moderate rise in the next 50 years of 6 inches. I see no evidence to support this theory.

The public notification on this process and or report is sorely lacking. Again, being a homeowner I have never received any information regarding this report and the effect the report will have on our property. The public needs to be notified and be part of the process. So many peoples lives will be affected by this report and the subsequent actions that will take part in the city of Pacifica and all the others in the county and state.

The report and process seem to be extremely flawed and is catering to those who want absolutely no development or construction along the coast.

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April 27, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Draft Revised Residential Adaptation Policy Guidance
Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs

Dear SLR Working Group:

Thank you for the opportunity to once again submit comments on the Revised Residential Adaptation Policy Guidance.

In the opening pages of this document, "How To Use This Document" I feel that you set a tone that could be quite challenging for your staff on many levels - both Permitting and Enforcement. No pun intended, but you are truly setting up a slippery slope for future policy enforcement and compliance. When it comes to policies to protect and preserve our coastline, there should be no customizing. One size fits all for the entire coast with respect to managed retreat - there is no special or exclusive situation. In many cases counties and municipalities are requesting protection of properties that in many cases should not even be built in the location that is being armored. The same protective policies should be applicable in every jurisdiction to avoid misunderstandings and inappropriate interpretations. You cannot leave these policies open to interpretation. Without a checklist of requirements too many questions will arise and arguments over "interpretation" will ensue. Contrary to the comments regarding property rights, it is not the right of a homeowner (or their legal representative working on their behalf) to continue to armor their home when this results in loss of public beach, and this is applicable up and down the entire coast - no customizing needed. As one CCC enforcement staffer said to me, "You won't often see a request for a seawall to protect a shanty." This is all about protecting mansions and complete remodels that will allow for a brand new mansion - - often right on a coastal bluff. Where will our public beaches be if the Coastal Commission (CCC) doesn't take a strong stance on this issue and do away with the end runs around the Coastal Act?

Comment 24-1 from my last submission:

We are losing some of our most precious beaches here in Laguna due to intensification of armoring via a total abandonment of Coastal Act compliance by the City. Architects, developers and beach front property owners are being provided with over-the-counter/administrative permits by the City when they fail at securing Coastal Development Permits through the Coastal Commission. This issue has been the subject of many an appeal, but the appeals don't stop the armoring - - the City has found a way around it all and it's all to the detriment of our beaches - - meaning the resources and the public access.

Your response:

The Residential Adaptation Guidance is intended to help planners address the loss of coastal resources such as beaches and public access due to coastal armoring in light of a future of rising sea levels.

While you may feel this is an adequate response, I do not, and bring your attention to the attached NOI just recently released by your Enforcement Division under Executive Director Ainsworth's signature. This NOI touches on a variety of challenges given the refusal of this particular municipality to enforce the policies of its LCP. Simply put, the planners of Laguna Beach refuse to address the loss of coastal resources such as beaches and public access due to coastal armoring. This seawall is the fourth appeal brought forward on this one disappearing beach, and the people that call themselves planners in Laguna Beach just don't know when to stop. Permit application fees apparently blind them from the truth. Three of the four appeals for this stretch of beautiful beach have been CCC Commissioner appeals, but still the city and applicants persist in bringing on highly paid attorneys and lobbyists to challenge the CCC. Years of work have been invested in this one beach to no avail. I personally spent almost two years providing enforcement staff with photos and documentation, and I was only one person that was bringing this to their attention. Hours and hours, days, weeks, months and years of work go into fighting this battle that we continue to lose because no one at the city or state level is willing to follow the existing Coastal Act policies, i.e. 30235. The cities and state and are giving away "our" beaches to some of the wealthiest people on the coast. This is why the language of this policy needs to be strong and clear and not customized for each area of the coast. Again, one size fits all on policies when it comes to sea level rise. These are public beaches that must be protected and preserved for the public.

I'll once again reiterate that strength and clarity as far as permit requirements, monitoring, condition compliance, triggers for review, etc. are just a few of the areas that still need work. You are getting closer, but again, I would strongly suggest that you give a lot of thought as to who will enforce your new policies and how. Permitting and Enforcement need to constantly work hand in hand, and there has never been a more critical area or time where cooperation is imperative within your very own agency. In your work on this guidance policy you can set the stage for success or failure. Please let it be success.

Media outreach is another excellent tool that perhaps you have overlooked. Media allows for a broad approach to reaching communities up and down the coast and educating them on sea level rise and what the inevitable consequences are to their life - - as they know it now and what the foreseeable future holds for them. Noaki does an excellent job with the media and this is a great opportunity for her to put her expertise to use educating the masses. Social media is another tool that seems to be overlooked as a means by which to educate the public.

This article for example is an excellent public outreach, but the pull quote below is very disappointing in that "experts" are actually recommending armoring of our coast or considering doing nothing. This is not a helpful mindset when relocating or retreat is really the only solution (especially in Ventura).

https://www.mpacorn.com/articles/sea-levels-rising/

"The coastline expert said Ventura County has three choices moving forward: relocate structures and roads inland, adapt to the rising seas by adding or reinforcing infrastructure, or "do nothing."

This type of media coverage from the Executive Director is excellent https://www.ptreyeslight.com/article/correcting-record-coastal-agriculture, but this pull quote below really sums up how this new policy must be addressed and should be an ongoing reminder to the public, state and local partnerships.

"It's a delicately balanced relationship, and nobody gets everything they want. California's coastal program depends on respectful state and local partnerships between the coastal commission, local governments and stakeholders."

One last suggestion is that all of you involved in this important project read *The Last Beach* by Orrin Pilkey and J. Andrew Cooper. It provides a global examination and discussion of this devastating problem we are challenged with on every beach on the planet. As I have stated, one size fits all when it comes to sea level rise policies and this book is a real eye opener and should be required reading for all of the cities and counties commenting on this guidance policy - - or issuing permits.

You will be receiving a much more detailed analysis of the policy guidelines from the environmental organizations that I am affiliated with, so I have attempted to make my comments brief and focused primarily on enforcement since that continues to be a huge part of my environmental advocacy. However, I can't stress the importance once again of listening to and adapting the message points a few of the Commissioners delivered during the August 2017 hearing. While you did cover them in your comments, I don't feel confident you really heard the Commissioners. Please, watch that webcast one more time.

Again, thank you for your hard work on this important issue and the opportunity to comment.

Sincerely,

Penny Elia
Coastal Advocate

Attached: 11 Lagunita, V-5-17-0019 - - Notice of Intent to Commence Cease and Desist Order and Administrative Penalties

Copy: California Coastal Commissioners, J. Ainsworth, M. Cavalieri, M. Matella, S. Christie, N. Schwartz, E. Essoudry

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400
TDD (415) 597-5885

VIA CERTIFIED AND REGULAR MAIL

April 16, 2018

Jeff and Tracy Katz
9 Lagunita Drive
Laguna Beach, CA 92651
(Certified Receipt No. 7015 1730 0000 9493 5204)

11 Lagunita, LLC
c/o Steven Kaufmann
777 South Figueroa Street, 34th Floor
Los Angeles, CA 90017
(Certified Receipt No. 7015 1730 0000 9493 5211)

Subject:	**Notice of Intent to Commence Cease and Desist Order and Administrative Civil Penalties Proceedings**
Property Location:	11 Lagunita Drive, City of Laguna Beach, CA (APN 656-171-76)
Violation[1] Description:	(1) Development that includes new roofs, walls, decks, floors, doors, windows, exterior finishing, landscaping, and additional framing on, and other reconstruction of, a single-family home without the required Coastal Act authorization; (2) Use of an existing seawall to protect that unpermitted new development, in violation of Special Condition No. 6 of Coastal Development Permit (CDP) A-5-LGB-14-0027; and (3) failure to apply for a permit amendment, upon expiration of the authorization for the seawall, to address the seawall's inconsistency with the Coastal Act and the LCP, as required by Special Condition No. 2 of CDP A-5-LGB-14-0027.

Dear Mr. and Mrs. Katz and Mr. Kaufmann:

As you know, California Coastal Commission ("Commission") staff first wrote to you about this matter almost a year ago, when we first learned that an extensive development project was underway at your property located at 11 Lagunita Drive in Laguna Beach ("the Property"), and

[1] Note that the term 'violation' as used throughout this letter refers to alleged violations of the Coastal Act, as determined by Commission staff.

that said development had not received any Coastal Act authorization and appeared to be in conflict with multiple conditions of Coastal Development Permit ("CDP") No. A-5-LGB-14-0027. Commission staff engaged with you many times in 2017 in an effort to resolve these violations of the California Coastal Act on the Property. As we stated numerous times in letters, phone calls, and in person, Commission staff would have preferred to resolve these violations amicably, and therefore avoid the need for a contested hearing and litigation.

Our last written communication to you regarding this matter was dated November 3, 2017. In that letter, we explained to your attorney, Steve Kaufmann, that since you refused to consider any acceptable alternatives, we were "prepared to take a formal unilateral action." Having been unable to reach agreement, at the end of 2017 and the beginning of 2018, Commission staff began preparing this Notice of Intent to commence formal administrative enforcement proceedings (NOI). On January 18, 2018, before we had completed this NOI, you filed a lawsuit in Orange County Superior Court against the Commission over our communications regarding this matter, seeking declaratory and injunctive relief and damages for inverse condemnation and temporary takings. On January 29, 2018, before the Commission had been served with or was otherwise aware of the lawsuit, Steve Kaufmann called Statewide Enforcement Analyst Rob Moddelmog to ask if the Commission had "decided to drop the violation." Mr. Moddelmog informed your attorney that we had made no such decision, and Mr. Kaufmann replied by repeating his belief that no consensual resolution was possible. Your attorney made no mention of the complaint that he had already filed, and on February 1, 2018, as we were finalizing the NOI, the Commission was served with the complaint.

At that point, we temporarily suspended our preparations for an administrative hearing in order to better understand your lawsuit. We have now turned back to the administrative action we had been preparing to bring and are issuing this Notice of Intent as a first step. Even so, we still remain willing and ready to work with you to reach a consensual resolution.

Prior to bringing an Order to the Commission (be it a consent or contested Order), Commission regulations[2] provide for issuance of a notification of the decision to initiate formal order proceedings. In accordance with those regulations, this letter notifies you of my intent, as the Executive Director of the Commission, to commence these formal enforcement proceedings to address the Coastal Act violations noted above and described herein by issuing either a consent or regular Cease and Desist Order and Administrative Penalty.

The intent of this letter is not to discourage potential settlement discussions; rather it is to provide formal notice of our intent to resolve these issues through the order process, which in no way precludes a consensual resolution. Addressing the seawall's inconsistency with the Coastal Act and LCP, especially given that it appears to have already caused public access impacts by seasonally shrinking the beach, is of utmost importance. My staff remain ready and willing to begin work with you towards finding a mutually acceptable outcome of these Coastal Act violations. However, please note that should we be unable to reach an amicable resolution in a timely manner, this letter does lay the foundation for a hearing before the Commission on a unilateral order and an assessment by the Commission of administrative civil penalties pursuant

[2] See Sections 13181 and 13191 of Title 14 of the California Code of Regulations.

to §30821. Please note that, as described in the final section of this Notice of Intent, if no consensual resolution is reached, you will have the opportunity to submit a Statement of Defense explaining your arguments, and to present your arguments at a public hearing before the Coastal Commissioners.

Background

The original house at 11 Lagunita was built in 1952. In 2005, a previous owner, Kay Kiermayer, applied for and received emergency CDP 5-05-080-G, which provided temporary authorization for a seawall on the Property. A complete application for a follow up CDP was not submitted, in violation of the terms of that Emergency CDP. MSSK Ventures purchased the Property in 2013, and in 2014 it applied for a CDP to: (1) remodel the house that was on the Property at that time, and (2) reinforce the seawall constructed under the 2005 emergency permit. In March of 2014, the City of Laguna Beach ("City") approved, with conditions, local CDP No. 14-0308 and Design Review Permit No. 14-0305, for the reinforcement of the existing seawall and additions to the existing single-family residence. On May 9, 2014, an appeal was filed by Commissioners Mary Shallenberger and Effie Turnbull-Sanders.

MSSK Ventures hired architect Jim Conrad as its agent, and Mr. Conrad entered into discussions with Commission staff. Commission staff made it clear that they would not support the proposed extensive reconstruction of the home, as it would result in a new structure, which would need protection, and the seawall could only protect an existing structure. Accordingly, in November of 2014, Mr. Conrad indicated that MSSK Ventures had decided to drop the proposed remodel from the CDP application, and instead applied only for a CDP to build a new seawall for the existing structure. Thus, Mr. Conrad was well aware that the Commission would not allow a seawall at this location to be used to protect such a remodeled structure.

On June 11, 2015, the Commission found that the appeal of the City's approval of the seawall raised substantial issues with conformity to the City's Local Coastal Program ("LCP"). On October 7, 2015, the Commission conducted a *de novo* review and approved CDP A-5-LGB-14-0027 (the "Permit") with Special Conditions, authorizing construction of a new seawall. Per Special Condition No. 2, Coastal Act authorization for the seawall would expire upon, among other things, redevelopment of the house that the seawall protected "in a manner that constitutes new development;" and per Special Condition No. 6, no non-exempt "[f]uture development" was allowed to rely on the seawall for protection.

You purchased the property on November 4, 2015, and Jim Conrad continued to serve as the architect/agent for the Property. The Permit was issued on December 28, 2015, and you subsequently began building the new seawall. Separately, however, and without contacting the Coastal Commission, you began the complete redevelopment of the house in the summer of 2016. By November of 2016, the house had a new roof, new deck, new siding, new beams, and the reconstruction was well underway.

However, at that point, no CDP or Coastal Act exemption had been issued by the City or the Commission. To our knowledge, it was not until January of 2017 (or just prior thereto) that the City of Laguna Beach Design Review Board issued a Notice of Public Hearing on which it states

that some of the work on the Property "is exempt from the Coastal Development Permit requirements pursuant to Municipal Code Section 25.07."

After learning of the exemption and discovering the extent of the new development, on April 17, 2017, Commission staff sent you a "Notice of Violation" letter notifying you of the unpermitted development and requesting that you, among other things, stop the reconstruction of the house. You never stopped construction, and you instead proceeded at your own risk.

Coastal Act Violations

Unpermitted Development

Virtually every part of the house has been replaced and fortified with new materials, all without a CDP. Our staff has confirmed that the development and improvements that have been installed on the Property include, but are not limited to: new structural additions such as supplemental wood beams to strengthen the existing deck and wall framing; new exterior additions such as new walkways and new landscaping; improvements that have replaced the original features of the house, such as new roofing, new flooring, new decks, new walls, new exterior and interior finishing, new windows, new doors, a new garage door, etc. Every part of the house appears to have been replaced or, as in the case of the wood framing and decks, has been fortified by the addition of new, reinforcing beams and other materials. Finally, you appear to have added a spa, outdoor shower, and shotcrete finishing. Moreover, this list of unpermitted development may not include all unpermitted development that has occurred on the property, because tarps, drapes and plywood obscured other potentially unpermitted development from view during construction. Thus, the extensive replacement and fortification of every part of the house means that the nonconforming structure will continue to non-conform in place for decades longer.

"Development" is defined, in relevant part, by Coastal Act Section 30106, as well as by the Laguna Beach LCP Implementation Plan (the "IP"), codified in the Laguna Beach Municipal code, at section 25.07.006(d), as:

> ***"Development" means, on land, in or under water, the placement or erection of any solid material or structure;... change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility...(emphasis added)***

The Laguna Beach LCP Implementation Plan, codified at Municipal Code § 25.07.004, states:

> ***A coastal development permit shall be required for all proposed development within the coastal zone except for development specifically exempted under Sections 25.07.008 and 25.07.010. Development undertaken pursuant to a coastal development permit shall conform to the plans, specifications, and terms and conditions approved or imposed in granting the permit.***

The activities at issue involve the placement or erection of solid materials as well as construction, reconstruction, demolition, and alteration of the size of a structure. Both activities constitute development under the Coastal Act.

The Repair and Maintenance Exemption Does Not Apply Here

These activities are not exempt repair and maintenance. Under any common usage of the words "repair and maintenance," tearing a house down to the studs and replacing virtually every part of it, including roofing, flooring, walls, all interior and exterior finishing, and all doors and windows, and fortifying remaining studs with new studs, is not mere repairs. Further, you allege in your complaint that the house is worth $25 million, yet you purchased it less than three years before for only $14 million. This very large increase in value does not fit with any common conception of repair and maintenance.

Furthermore, by law, work cannot count as repair and maintenance when it involves "replacement of 50 percent or more of a single family home," per Coastal Commission Regulations (14 C.C.R.) § 13252(b). Similarly, the Laguna Beach Land Use Element defines a "Major Remodel" to include:

> ***Alteration of or an addition to an existing building or structure that increases the square footage of the existing building or structure by 50% or more; or demolition, removal, replacement and/or reconstruction of 50% or more of the existing structure; greater specificity shall be provided in the Laguna Beach Municipal Code. (emphasis added)***

The City has codified provisions relating to this definition in their municipal code that the Coastal Commission has rejected, and those municipal provisions are not certified parts of the LCP.

The work performed involved removal, replacement, and/or reconstruction of well over 50% of the original existing structure, calculated by any reasonable metric (weight, volume, surface area, etc.). Pictures of the house when it was torn down to the studs show that the only item that appeared to remain was some of the original framing. Thus, far from being repair and maintenance, the work performed is appropriately considered as "improvements," reconstruction, or a Major Remodel under the Coastal Act and the LCP.

Furthermore, although it appears self-evident that replacing virtually every part of the house would not be considered "repair and maintenance," if you had questions, you could have contacted Commission staff. Instead, according to your agent and architect Jim Conrad, you intentionally avoided all contact with the Coastal Commission.

Moreover, even if this were to be considered repair and maintenance, it would still have required a CDP per 14 C.C.R. § 13252(a)(3) and the certified IP (Laguna Beach Municipal Code § 25.07.008(C)(4)), because it is within 50 feet of a coastal bluff edge and within a sand area. Your house is located directly on and over the coastal bluff edge, and in a sand area. The same analysis applies if the work is treated as improvements. Although some improvements to single

family residences are exempt, those exemptions are also subject to the same limitations with regard to location. *See* 14 C.C.R. § 13250(b)(1) and the certified IP at Laguna Beach Municipal Code § 25.07.008(A)(2).

Finally, not only did the development require a CDP, but any CDP issued by the City would have been appealable per Laguna Beach Municipal Code § 25.07.006(A)1(a)-(b) because the development authorized was to occur between the first public road and the sea, within 300 feet of the beach, and within 300 feet of a coastal bluff. However, the City erroneously issued a CDP exemption. Further, this CDP exemption was issued only after construction had been underway for at least six months, and the City did not notify the Commission, as would have been required for appealable development.

The Unpermitted Development Relies on the Seawall in Violation of Permit Special Condition No. 6

The Permit authorized the construction of a seawall to protect an existing (non-conforming) structure on the Property, subject to certain Special Conditions so that the seawall could be found consistent with the Coastal Act and LCP. Special Condition No. 6 of the Permit specifically prohibits the use of the seawall to protect new development.

Special Condition No. 6 of the Permit states:

6. Future Development of the Site.

> ***Future development, which is not otherwise exempt from coastal development permit requirements, or redevelopment of the existing structure on the bluff top portion of the applicant's property, shall not rely on the permitted seawall to establish geologic stability or protection from hazards. Any future new development on the site shall be sited and designed to be safe without reliance on shoreline protective devices. (Emphasis added).***

As explained in the prior section, development occurred on the property that is not exempt from coastal development permit requirements. The development was also "future" with respect to the Permit, so, based on that condition, it could not rely on the seawall for protection from hazards, but it does.

In addition, redevelopment of the existing structure has occurred, as evidenced by the fact that virtually every part of the original house was replaced with new materials, with the end result being a new, modern house.

Failure to Address the Seawall's Inconsistency with the Coastal Act and the LCP, in Violation of Special Condition No. 2

Special Condition No. 2 of the Permit states:

2. Duration of Armoring Approval as Related to the Existing Bluff Top Residence.

> *A. Authorization Expiration. This coastal development permit authorizes the seawall to remain until the time when the currently existing residence requiring protection is: A) redeveloped in a manner that constitutes new development…*
>
> *…Prior to the anticipated expiration of the permit and/or in conjunction with redevelopment of the property, the Permittee shall apply for a permit amendment to remove the seawall or to modify the terms of its authorization. (Emphasis added).*

As described in the above sections, the original house was "redeveloped in a manner that constitutes new development." You have argued that this standard is reducible to the question of whether 50 percent of the structure was replaced, but that is not what the language says, and pursuant to Standard Condition No. 3 of the Permit, questions of intent or interpretation are to be resolved by the Executive Director or the Commission. Yet, as explained above, you specifically avoided consulting with us. Moreover, as also explained above, 50 percent of this structure does appear to have been replaced, reconstructed, etc. Thus, pursuant to Special Condition No. 2, you were required to apply for a permit amendment to bring the development on the site into conformance with the Permit, the Coastal Act, and the LCP, and because Special Condition No. 6 does not allow for the seawall to protect new development, that amendment needed to address this inconsistency.

In addition, Section 7.3.10 of the Land Use Element covers this situation. Section 7.3.10 states that, for non-conforming oceanfront blufftop homes:

> *Improvements that increase the size or degree of nonconformity, including but not limited to development that is classified as a major remodel…shall constitute new development.*

The oceanfront blufftop house here is non-conforming as to the oceanfront blufftop setbacks and the stringline. The improvements have fortified the non-conforming original house and caused it to remain in place in its non-conforming status for many decades longer than it would have. Therefore, it has increased the degree of non-conformity, it constitutes "new development," and it must be brought into conformity with the LCP.

In sum, the Special Conditions of the Permit only provided temporary authorization for the seawall, to protect the structure that was there at the time the CDP was approved, and not any new development; yet, the extensive development and redevelopment that was undertaken by you constitutes development, redevelopment, and new development as envisioned by the Permit; therefore, pursuant to Special Condition No. 2 of the Permit, authorization of the seawall has expired. The continuing presence of the seawall is a Coastal Act violation, and the seawall's inconsistency with the Coastal Act and the LCP must be addressed per the express language of the Permit.

Cease and Desist Order

The Commission's authority to issue cease and desist orders is set forth in Section 30810 of the Coastal Act, which states, in part, the following:

> ***(a) If the commission, after public hearing, determines that any person or governmental agency has undertaken, or is threatening to undertake, any activity that (1) requires a permit from the commission without securing the permit or (2) is inconsistent with any permit previously issued by the commission, the commission may issue an order directing that person or governmental agency to cease and desist. The order may also be issued to enforce any requirements of a certified local coastal program…under any of the following circumstances.***
>
> ***(1) The local government or port governing body requests the Commission to assist with, or assume primary responsibility for, issuing a cease and desist order.***
>
> ***(2) The commission requests and the local government…declines to act, or fails to act in a timely manner, regarding an alleged violation which could cause significant damage to coastal resources…***

As explained above, under the LCP, the work at issue required a CDP, and no CDP was obtained. Commission staff contacted the City multiple times regarding this matter, and the City declined to act. In addition, the continued presence of the seawall is already causing significant damage to coastal resources such as sand supply and coastal access. Thus, the Commission is authorized to enforce the permit requirement of the LCP. The situation is also inconsistent with two different conditions of the Permit, and pursuant to one of those conditions, the work required that the permittee seek an amendment from the Commission. Thus, both of the independent criteria for issuance of a cease and desist order pursuant to Section 30810(a) of the Coastal Act have been satisfied.

Section 30810(b) of the Coastal Act also states that a Cease and Desist Order may be subject to such terms and conditions as the Commission may determine are necessary to ensure compliance with the Coastal Act, including removal of any unpermitted development. The proposed cease and desist order will direct you to, among other things: 1) cease from performing any additional unpermitted development, 2) develop and implement a plan to remove unpermitted development, 3) take all steps necessary to comply with the Coastal Act, including the removal of unpermitted development from the Property. The procedures for the issuance of these Cease and Desist Orders are described in Sections 13180 through 13188 of the Commission's regulations, which are codified in Title 14 of the California Code of Regulations.

Public Access Violations

The Coastal Commission has a statutory mission to maximize public access and recreational opportunities to and along the coast. Section 30210 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.***

In addition, Section 30211 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 30213 states:

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

Section 30221 states:

> ***Oceanfront land that is suitable for recreational use shall be protected for recreational use and development…***

Section 30222 states:

> ***The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential…development.***

Also, Policy 3-A of the LCP Open Space/Conservation Element states:

> ***Retain the City's existing public beach accessways and take action where possible to enhance public rights to use the dry sand beaches of the City.***

Negative Effects of Your Seawall on Public Access

On page 24 of the adopted findings for the Permit, the Commission recognized that:

> ***"…the proposed seawall will have indirect and long-term impacts to the public beach area seaward of the property associated with fixing the back of the beach and loss of shoreline sand supply."***

For all of the reasons listed above, the seawall is no longer authorized. Moreover, the requirement in the Permit that the wall be removed as soon as possible was specifically designed to protect public access. Yet now, the unauthorized seawall appears to be causing seasonal shrinking of the publicly available beach around it by causing increased erosion on all sides of it. There already appeared to be increased erosion last spring, when little dry sand existed in front of the seawall relative to the rest of Victoria Beach. Thus, the continued presence of the wall is a violation of the public access provisions of the Coastal Act.

Administrative Civil Penalties, Civil Liability, and Exemplary Damages

Under Section 30821 of the Coastal Act, in cases involving violations of the public access provisions of the Coastal Act, the Commission is authorized to impose administrative civil penalties by a majority vote of the Commissioners present at a public hearing. In this case, as described above, Commission staff believes that significant violations of the public access provision of the Coastal Act have occurred; therefore the criteria of Section 30821 have been satisfied. The penalties imposed may be in an amount of up to $11,250, for each violation, for each day in which each violation has persisted or is persisting, for up to five (5) years. If a person fails to pay an administrative penalty imposed by the Commission, under Section 30821(e) the Commission may record a lien on that person's property in the amount of the assessed penalty. This lien shall be equal in force, effect, and priority to a judgement lien.

Furthermore, and as has been explained in prior correspondence, please be advised that the Coastal Act additionally provides for the imposition of civil liability (variously described as fines, penalties, and damages) for violations of the Coastal Act. Section 30820(a) provides for civil liability to be imposed on any person who performs or undertakes development without a CDP and/or that is inconsistent with any CDP previously issued by the Commission in an amount that shall not exceed $30,000 and shall not be less than $500 for each violation. Section 30820(b) provides that additional civil liability may be imposed on any person who performs or undertakes development without a CDP and/or that is inconsistent with an CDP previously issued by the Commission, when the person intentionally and knowingly performs or undertakes such development, in an amount not less than $1,000 and not more than $15,000 per day for each day in which each violation persists. Section 30821.6 provides that a violation of a cease and desist order, including an Executive Director Cease and Desist Order, or a restoration order can result in civil fines of up to $6,000 for each day in which each violation persists. As you know, courts have held that property owners are liable for violations on their property even if they were not directly and actively responsible for creating the situation. Once again, with your cooperation, it is our hope that we may resolve these issues amicably.

Response Procedure

In accordance with Sections 13181(a) of the Commission's regulations, you have the opportunity to respond to the Commission staff's allegations as set forth in this notice of intent to commence Cease and Desist Order and Administrative Penalty proceedings by completing the enclosed statement of defense ("SOD") form.

The SOD form must be directed to the attention of Rob Moddelmog, at the address listed on the letterhead, not later than May 7, 2018. In addition, if this matter is presented to the Commission in a formal enforcement hearing, you will have the opportunity to present your position consistent with the due process protections in the Commission's regulations. *See* 14 C.C.R. §§ 13180 *et seq.*

Resolution

This notice letter does not preclude the parties from still reaching a cooperative solution. We remain willing to resolve this matter amicably and without the need for a contested hearing and would like to work with you to achieve that end. As discussed before, the Consent Order process provides an opportunity to resolve these issues through mutual agreement. Consent Orders would provide for a permanent resolution of this matter and thereby resolve the complete violation without any further formal legal action. For a period of several months, we reached out to you in an attempt to resolve this amicably. However, addressing the seawall's inconsistency with the Coastal Act and the LCP is critical, and as of this date it appears that you are still unwilling to consider any alternatives; but, we remain hopeful that we can find a solution that works for both of us. If we cannot reach a consensual resolution, we plan to bring this order to a hearing in August or October.

If you interested in discussing the possibility of working on and agreeing to Consent Orders, please contact Rob Moddelmog, Statewide Enforcement Analyst, no later than April 23, 2018 at (415) 904-5219 or at the address of the Commission's San Francisco office on the letterhead above. Again, should we settle this matter, you do not need to expend the time and resources to fill out and return the SOD form mentioned above in this letter.

Sincerely,

JOHN AINSWORTH
Executive Director

cc: Lisa Haage, Chief of Enforcement
Aaron McLendon, Deputy Chief of Enforcement
Alex Helperin, Senior Staff Counsel
Andrew Willis, Southern California Enforcement Supervisor
Chuck Posner, South Coast District Supervisor, Planning
Rob Moddelmog, Statewide Enforcement Analyst

Encl. Statement of Defense Form for Cease and Desist Order and Administrative Penalty Proceeding

From:	Jason Pressman
To:	ResidentialAdaptation@Coastal
Cc:	Jason Pressman
Subject:	Public Comment on the Residential Policy Guidance Document
Date:	Thursday, April 19, 2018 5:37:28 PM

Dear California Coastal Commission:

I just became aware of the residential adaptation policy guidance document that will create the framework for the City of Pacifica's Local Coastal Plan and have implications that impact the welfare and economics of my home and community. I was not properly noticed and as such would like a one year extension for the public comment period. I also would also like to request that workshops be held in our communities and all stakeholders be given an opportunity to comment on this very detailed technical report that will impact our livelihoods and neighborhoods for the next 82 years. I believe it is a violation of our rights as citizens and owners to have a document approved that will set the framework for our local coastal plan without proper notification and our input.

In addition, I do not believe that your guidance provides meaningful estimates of the costs to all taxpayers in the affected areas and the entire state of California and I think that citizens need to have more time to comment and assess. Specifically, as an example, your report makes no estimates at all of the costs that taxpayers will have to bear to relocate major infrastructure such as roads and sewers.

I have spoken to over 15 other residents of Pacifica and all of them agree that we need more time to review this document and provide feedback to our elected officials.

Thank You-

Jason Pressman
236 Shoreview Ave
Pacifica, CA 94044
650-207-3500

From:	Eileen O"Reilly I Your Personal Realtor
To:	ResidentialAdaptation@Coastal
Subject:	Public Comment regarding the updated Residential Adaptation Policy Guidance document
Date:	Sunday, April 29, 2018 8:43:47 PM

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RE: Draft Residential Adaption Policy Guidance- March 2018 Update

To: California Coastal Commissioners and Staff

In regards to the above-mentioned policy guidance update revised in March 2018, we are being given the impression by the Coastal Commission and City Government, that these interpretive guidelines are exactly what they are called- guidelines, yet in some cities who are finalizing their Local Coastal Plans, such as Del Mar and San Clemente, they were forced to make changes to their plans and include Managed Retreat as an option in the tool box even though the citizens and City government opposed it. That does not constitute guidelines, that constitutes a mandate.

With regards to Disclose Risks and Require Property Owners to Assume Risks Pg. 18
Property owners and Realtors would be required to disclose Sea Level Rise as part of a hazard disclosure in a property sale; and it would be a consideration for insurers who would decide whether to insure properties located within these zones, even though they are not currently at risk due to sea level rise. This disclosure could have significant financial implications on property values, mortgage lending and the health and vitality of the cities along the California Coast. Cities rely on property taxes to fund much of city government and infrastructure. Specifically, most cities will not have enough money to operate due to loss of property tax revenue, city funded programs will lose funding and could be cut, school programs will take a hit, any bonds the city is proposing become more expensive or they are not adopted by voters and first responder personnel salaries and pensions will be at risk , not to mention the safety issues all of this will create up and down the coast.
In addition, properties located in these zones, will likely lose value, be denied insurance or will be required to pay much higher premiums, lenders will foreclose on properties who are uninsured and neighborhoods cities and residents will suffer the consequence. Essentially, the city will become unable to function and will be returned back to the County for governance.

The report indicates on page 32 paragraph 3, that 2015 Sea Level Rise terms “existing structures” as development that existed as of January 1st, 1977. On page 19 paragraph 2,3,4, Regulate Development- it is indicated that improvement of 50% or more of a structure, constitutes redevelopment and that non-conforming structures in hazard zones are not allowed to be replaced. It also states that limits based on improvements costing more than 50% of the assessed or appraised value. Assessed, appraised or market values are very different from one another and there is no reference to market value. All three can have considerable difference between them. Does the determined value have a current date at the time of the work, or is that the decided upon value of the existing structure as of January 1st, 1977?
Would the value of the properties in this type of situation be current day and market value?
Property values that are in decline due to the hazard disclosure referenced above, could create a scenario where the property owner is unable to make any improvements to their property and will abandon it, again causing blighted neighborhoods and an abandoned community.

While I understand the threat of sea level rise on coastal communities, the overreaching of a guideline, that does not protect property owner’s rights does not seem to be in the best interests of the community.

Most residents of communities that are at risk are not aware of these issues and are therefore not able to provide feedback and comments to the Coastal Commission on the plan. At this point, it feels like the right thing to do is to recirculate this guidance to all of the cities in the coastal zone so that a full discussion takes place and the residents know what the options are.

Thank you for giving me the opportunity to respond,

Eileen O'Reilly- Pacifica resident

Follow me on social media:

Check out my Current Listings Find your property value Try my Mobile App

SAMCAR SAN MATEO COUNTY ASSOCIATION of REALTORS®

April 27, 2018

VIA EMAIL

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Subject: CCC's Draft Residential Adaptation Policy Guidance Comment

Dear Sea Level Rise Working Group:

As an organization that is fundamentally entrenched in real estate, we recognize the importance of planning for the future and appreciate the conversation that the Residential Adaptation Policy Guidance has begun.

We do, however, have some important concerns about the Residential Adaptation Policy Guidance – March 2018 DRAFT (RAPG). We will cover the more substantial concerns in this letter and attach additional documentation with concerns and comments.

The top three most significant concerns we have are insufficient public input, premature expropriation of private property, and the absence of a comprehensive guidance that recognizes that residential, commercial, and public works are inextricably intertwined in land use policy.

First, we identified 15 times in the RAPG where "maximum public input" appears and is deemed essential. Yet, extraordinarily little public input has actually taken place with either the RAPG or the 2015 document from which it descends. We request that, prior to finalization, the CCC send the RAPG to the cities and counties and strongly encourage them to each hold a minimum of two public hearings – with public comment – on the RAPG. We also request that the CCC notify all of the residents within its jurisdiction by mail about the RAPG and provide the website where the 95 page document can be viewed by the public. We realize that public input of this type represents a cost, and we will work with our legislators to request a grant from the State.

A second fundamental concern SAMCAR has with the RAPG is the underlying presumption that the restricting of private property rights automatically takes precedence over a property owner's quiet enjoyment of his or her home because it will always lead to a public or environmental benefit. This is not the case. A property owner should have the right to enjoy his or her property until such a point that the CCC can establish that restrictions are reasonable and necessary to protect the public's impending interest, including the environment. The governmental agency "taking" the property or restricting the property's use should have the burden of proof that the taking of private property is

necessary at that time. Limitations should not be placed on property owners on the basis of what might or might not happen in 100 years, 50 years, or even 30 years.

By re-defining the word "existing" in the sense of "existing" structures, the CCC is impinging upon the rights of property owners. For decades, the CCC has approved building permits with the understanding that these structures could be protected. By re-defining the word "existing" to mean **not existing now, at the publication of the RAPG, but rather existing 41 years ago when the Coastal Act went into effect** – the CCC has, in effect, taken the property rights of thousands of people, and undermining decades of its previous decisions.

Parts of the RAPG unnecessarily restrict the rights of property owners with no tangible benefit to the public, socially or environmentally. There is no public gain from prohibiting, restricting, or disincentivising homeowners from adding a bedroom or remodeling their kitchen. As long as the homeowner is aware that he or she cannot utilize public funds in the event of a property loss due to climate change and there is no adverse social or environmental impact, he or she should be allowed to expand, modify, or improve his or her home. The same applies to lot line adjustments. As long as there are no adverse impacts, socially or environmentally, property owners should be allowed to continue to adjust their lot lines with neighboring properties. Where sea level rise is concerned, the size and age of a structure is irrelevant. Restrictions of this nature are unnecessary and arbitrary.

A third major concern is that the RAPG is being written in a vacuum, without the corresponding commercial and public works guidance documents. As you are probably aware, for the purpose of land use and planning, the three pieces, commercial, residential, and public are inextricably intertwined. There is no way to separate them. However, CCC staff has said that they intend to finalize the RAPG prior to writing the other two guidance documents. This does not make sense. We request that the commercial and public works guidance documents are written and analyzed together with the RAPG, prior to any of their finalization.

A final concern that we have is that the RAPG will be interpreted as mandatory policy, rather than what its name suggests, a guiding document, and that Local Coastal Programs (LCPs) that do not adhere to the "suggested" policies will be denied. The public needs reassurance from the CCC that these policies will not be mandated but are rather a guidance tool for local governments when considering sea level rise.

Thank you for your consideration.

Sincerely,

Gina Zari
Government Affairs Director
San Mateo County Association of REALTORS®

Attachment

California Coastal Commission Draft Residential Adaptation Policy Guidelines – March 2018
Comments and Questions

Protection and planning for incremental changes in the environment is a key function of the California Coastal Commission (CCC). We would encourage this policy guidance document also to consider the legal and economic framework in order to accomplish these goals in a fair and reasonable manner. Property owners, real estate; insurance, title and mortgage professionals should be consulted prior to adoption. This document should be written to include all types of development within the proposed hazard area including but not limited to commercial, institutional, industrial and infrastructure. It is short sighted to address only residential development with such a defined hazard area and policies.

We recommend that the CCC add the draft document to their agenda for a full year to allow local stakeholders the opportunity to comment and provide input to the CCC. The policy guidelines encourage maximum public participation. The outreach to private property owners and the related real estate professionals is critical to ensure that the policies are totally understood and if adjustments are necessary for disclosures, financial transactions, insurance companies, title companies, etc. to ensure that they can assist in compliance with the new regulations.

The comments and questions are listed below with the policy number and title of the policy on the first line followed by the page number (p___) and the question or comment beginning on the second line.

A.1 **Best Available Science**
p52 What happens if there is a shoreline protection device that impacts two jurisdictions and those jurisdictions utilize different science?

A.2 **Identifying Planning Horizons**
p53 What happens if there is a shoreline protection device that impacts two jurisdictions and those jurisdictions utilize different planning horizons?

A.3 **Mapping of Coastal Hazards**
p53 Is there a deadline for local jurisdictions to prepare Coastal Hazard maps?
Will the local jurisdictions be required to put all property owners within the mapped hazard area on notice that their private property has a new hazard zone designation?
Will there be specific notice requirements to private property owners within the hazard zone by certified letter, notice on deed?
Has there been an economic analysis of loss of property values and increased insurance costs once private property is within this new Coastal Hazard mapped area?
Will properties be reassessed at a lower value once designated within a hazard area?
How will the cost of the required 10 year (or less) update of Coastal Hazard maps be financed if the assessed values of the properties is reduced?

A.4 **Site-specific Coastal Hazard Report Required**
p55 How will a property owner know if their site-specific Coastal Hazard Report will be accepted by the local jurisdiction or the Coastal Commission?
How will this impact property sales within the Coastal Hazard area?

A.6 **Assumption of Risk**

p57 This 9 part policy puts the assumption of risk of retaining the proposed building entirely on the private property owner for new development.
How will a private landowner or real estate professional, property insurer, loan officer know the extent of "future hazard" designation?
What would be acceptable additional area to disclose as a "future hazard" area?
How will landowners be able to get property insurance within a hazard area that requires removal of the structure?
Will landowners be able to get a mortgage once this deed restriction requiring removal of structure from the property?
Will an escrow account be required for removal of any new structure permitted within the hazard zone?
This policy has serious ramifications in numerous areas for the insuring of new construction and the ability to obtain a loan since the structure would be "temporary".

A.7 **Real Estate Disclosure**

p58 Has the real estate industry been contacted to review this policy? There are specific legal requirements for disclosures under current state law and this will have to be included once adopted.
What agency will deem the Real Estate Disclosures sufficient?
Cities and Counties typically do not track property transfers.
Does this policy intend to require a notice on each deed of properties within the Coastal Hazard area?
What will trigger an update of the Real Estate Disclosures?

B.2 **Removal Plan Conditions for New Development in the Hazardous Areas**

p60 Will the required Removal Plan condition require an escrow account to cover the cost of removal of any encroaching portion of the structure and of obtaining the required Coastal Development Permit?
How will this requirement/deed notice impact insurance/mortgage costs and requirements?

B.3 **Reliance on Shoreline Armoring**

p61 What happens to infill lots prohibiting shoreline protections?
Will the local jurisdictions buy these lots or eliminate the property tax once the Coastal Hazard Zone is applied to these properties?
Will the vacant lots adversely impact the surrounding development?

B.7 **Redevelopment**

p63 This policy needs flexibility for case by case application for each local jurisdiction.
This policy requires that property owners know the complete history of the building prior to 1977 to the current time.
If there was an earthquake could a property owner rebuild to only pre 1977 footprint?
This policy needs input from contractors, geologist and real estate professionals.

B.8 **Nonconforming Structures in Areas Subject to Coastal Hazards**

p63 This policy should be titled Legal Nonconforming structures.
Policy B.8 seems to trump B.7 that appears to allow some improvement to existing homes within the Coastal Hazard area.
What are the exempt improvements that would be allowed?

B.9. **Restricted Land Divisions in Hazardous Areas**

p64 This policy may reduce environmental superior solutions such as Lot Line Adjustments and to solve managed retreat and allow private ownership of specific property not within the public trust area.

B.10 **Takings Analysis**

p64 Have private property land use attorneys been contacted to review this policy?

C.1 **Adaptive Design**

p65 Will the Coastal Commission staff and local jurisdictions provide engineering guidelines for foundation designs?
How many alternative design options will be required? This vague policy may be interpreted differently by local and Coastal Commission staff and put the landowner at risk of not knowing what type of design would be acceptable.
Will construction standard guidelines be produced by Coastal Commission and local jurisdictions? This policy could create a situation of numerous engineers not agreeing on an appropriate approach.
What is the time line for "removal might be necessary at some time in the future"? This language is unacceptable and will cause confusion in interpretation.

D.1 **Removal Conditions / Development Duration**

p65 How will any property owner obtain property insurance or mortgage with a deed notice that requires removal of the structure and restoration at the private property owners expense?
How much notice will private property owners receive regarding the lack of essential services for their property?
How will removal be allowed if the area is compromised and no roads are available?
Has the Coastal Commission contacted the insurance and title companies to determine the appropriate documents, escrows, etc. to ensure adherence to this requirement?
Will the Coastal Commission and local jurisdictions extend the time period of a Coastal Development Permit to secure these necessary documents for permit condition compliance?

D.2 **Contingency Funds**

p66 This policy is needed but needs to be workable. Will escrow account be required for removal and restoration?
Who determines the amount of contingency funds?
Will private property owner(s) need to update the fund every time the map is changed?

D.3 **Mean High Tide Line Survey Conditions**

p66 What is the specific distance from coastal waters to low-lying development?
What is the processing time for California State Lands Commission to review the Mean High Tide Line survey prior to submittal to CCC?
How will property owners know about "specified triggers"?
Will permit conditions specify that the property owner must have an additional report done after an event?
If post event survey indicates that development is in California State Lands jurisdiction, what happens to the property?
Does the private property title revert to the State once it is within the public trust jurisdiction?

E.1 **Habitat Buffers**

p68 Will the sea level rise buffer area be mapped?
The requirement for a deed restriction for habitat and buffers seems to permanent for circumstances hat will change over time. There needs to be another type of device to track changes in habitat and the amount of desired protection.

F.1 **Shoreline and Bluff Protection Devices**

p70 Can an existing house (pre 1977) with minor internal remodeling – no footprint increase qualify for shoreline protection?
Will all property owners within the hazard area be notified of this rule?

F.5 **Evaluation of Existing Shoreline Armoring**

p71 Does this policy require the removal of existing shoreline protection device to approve a new development ?
Who gives authority to the property owner to remove a shoreline protection device that is not on the property owners land?

F.6 **Shoreline Armoring Duration**

p71 Who will notify existing property owners that they will be required to remove existing shoreline armoring devices once the need for it ceases?
Will the property tax on the properties adjacent to shoreline protection devices be reduced given the potential expense of removal of the devices for the public trust interests?

F.7 **Shoreline Armoring Mitigation Period**

p72 The 20-year increment for review of shoreline armoring adverse impacts can put property owners at risk for work and expense that would be unknown at the time of the requirement.
How would you get a loan or insurance on property subject to this wide open condition?

F.9 **Limits on Future Shoreline Armoring**

p73 How would anyone get a loan or insurance on property with a deed restriction to prevent shoreline protection?

F.11 **Emergency permits**

p75 There should be a time limit on Planning Director/CCC review of Emergency Permit requests.
Please define minimum amount of temporary development?
What happens if government does not process Coastal Development permit within 6 months?

G.1d **Developing Adaption Planning Information**

p77 Need to add another category to work with private property interest professionals including real estate, insurance, title, financing, legal, etc. to craft appropriate instruments for adherence to the sea rise rules and policies.

G.4 **Sea Rise Hazard Overlay Zone**

p79 Will all property owners within the overlay zone receive certified mail notification of the new designation and rules that apply to their property within the zone?

G.5 **Beach Open Space Zone**

p79 Will all property owners within the Beach Open Space zone receive certified mail notification of the new designation and rules that apply to their property within the zone?
Will the non-conforming development be allowed any improvements?

G.8 **Repetitive Loss**

p80 Will property owners be required to disclose losses to prospective buyers?

G.9 **Beach Management Plan**

p80 Will all beaches have a management plan or just specific beaches?
How will private property owners know if they are adjacent to an area with a beach management plan?

G.10 **Managed Retreat Program**

p81 This policy needs lots of input from the real estate community and from property owners.
Will all property owners within proximity of a designated beach area be notified that they are subject to Managed Retreat Program?
What will be definition of "adjacent" to the designated beach?
Will local jurisdictions allow improvements to development within this area?
What happens to the properties that do not enroll in the Managed Retreat Program?

G.12 **Geologic Hazard Abatement Districts (GHADs) and County Service Areas(CSAs)**

p82 Will the properties be reassessed in either of these districts? It seems like the land/home values will decrease given the restrictions on improvement and shoreline protections, however the n GHADs and CSAs will have to finance their proposed actions to address prevention, mitigation, etc.

April 5, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105
Delivered to ResidentialAdaptation@coastal.ca.gov

Reference: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

Dear California Coastal Commission,

The following represent several of the important issues and positions taken by the CCC we see in the above noted draft RAPG that cause great concern amongst us and our neighbors along the California coast. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

In regard to the RAPG in whole, it is important to state clearly that it is only a policy guidance document and has no regulatory power or requirement that any of the documents contents be included or adopted by a city/county LCP's.

The RAPG attempts to redefine or alter the meaning of "Existing Structures" as being only those in place prior to 1976. This is a nefarious attempt by the CCC to circumvent the property rights of California coastal property owner's contrary to the California State Constitution. This position in its entirety should be stricken from the document as it is direct opposition to the Coastal Act's promise to allow coastal properties to be protected from the erosive forces of the ocean. This attempt at redefinition is illogical and frankly insulting for those of us who have built and have permits for our structures and protective shoreline devices approved by the CCC at great cost to us over the past 40 years.

Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort by the CCC to take away private property ownership along the coast.

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We are also very concerned that there are growing dramatic differences in how the CCC and other State agencies view the need, building, maintenance and repair of protective shoreline devices. In our area of Northern California, there are continuous miles of armor rock protecting mostly public and some private property along the coast. When damaged by storms or due to age, replacement or repair of the public protective devices is required, these projects are quickly done by Cal Trans, State Parks, the City/County or other governmental agencies in charge of these areas. No public hearings, permits, fees, or multi agency approval for these projects is apparently required by the CCC. This is the exact opposite for private property owners connected to these same protective structures. All we ask is there be consistent application of a standard processes that applies both to public and private property with regards to building, repairing, maintaining or altering the same protective structures in a specific area. This should also apply to all areas along the California coastline and should also apply to all related sections of the RAPG.

The original intent of the Coastal Act, which we continue to support, did not have the intention of taking of private property or make it relatively impossible and costly to adequately protect our homes and property. This proposed RAPG and the Commission as a whole seem to want to ignore private property owner's rights and force an adversarial relationship between them and those of us that live along the coast of California. We are all for working out solutions that jointly protect both public and private property ownership along the coast as long as they are equitable, reasonable, and consistent for both public and private property. Single family private property residences along the coastline in total represent less than 5% of the coastline available in California. We are gravely concerned, given this current RAPG, and their increased power/influence over local governments LCP's that the CCC wants to make us disappear by any means possible and this we cannot support!

Sincerely,

Bret Sisney
Homeowner, 4660 Opal Cliff Drive, Santa Cruz, CA

From:	Dennis Chenoweth
To:	ResidentialAdaptation@Coastal
Subject:	RE: Draft Residential Adoption Policy Guidance (RAPG) Document
Date:	Wednesday, April 04, 2018 7:26:36 PM

California Coastal Commission

c/o Sea Level Rise Working Group

45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

RE: Draft Residential Adoption Policy Guidance (RAPG) Document

The following represent several of the important issues and positions taken by the CCC we see in the draft RAPG that cause great concern amongst our homeowners at Solimar Beach Colony in Ventura, CA. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

In regard to the RAPG in whole, it is important to state clearly that it is only policy guidance document and has no regulatory power or requirement that any of the documents contents be included or adopted by a city/county LCP's.

The RAPG attempts to redefine or alter the meaning of "Existing Structures" as being only those in place prior to 1976. This is a nefarious attempt by the CCC to circumvent the property rights of California coastal property owner's contrary to the California State Constitution. This position in its entirety should be stricken from the document as it is direct opposition to the Coastal Act's promise to allow coastal properties to be protected from the erosive forces of the ocean. This attempt at redefinition is illogical and frankly insulting for those of us who have built and have permits for our structures and protective shoreline devices approved by the CCC at great cost to us over the past 40 years.

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We are also very concerned that there are growing dramatic differences in how the CCC and other State agencies view the need, building, maintenance and repair of protective shoreline devices. In our area of Southern California there are more than

20 continuous miles of amour rock protecting mostly public and some private property along the coast. When damaged by storms or due to age, replacement or repair of the public protective devices is required, these projects are quickly done by Cal Trans, State Parks, the City/County or other governmental agencies in charge of these areas. No public hearings, permits, fees, or multi agency approval for these projects is apparently required by the CCC. This is the exact opposite for private property owners connected to these same protective structures. All we ask is there be consistent application of a standard processes that applies both to public and private property with regards to building, repairing, maintaining or altering the same protective structures in a specific area. This should also apply to all areas along the California coastline and should also apply to all related sections of the RAPG.

The original intent of the Coastal Act, which we as a Colony continue to support, did not have the intention of taking of private property or make it relatively impossible and costly to adequately protect our homes and property. This proposed RAPG and the Commission as a whole seem to want to ignore private property owner's rights and force an adversarial relationship between them and those of us that live along the coast of California. We are all for working out solutions that jointly protect both public and private property ownership along the coast as long as they are equitable, reasonable, and consistent for both public and private property. Single family private property residences along the coastline in total represent less than 5% of the coastline available in California. We are gravely concerned, given this current RAPG, and their increased power/influence over local governments LCP's that the CCC wants to make us disappear by any means possible and this we cannot support!

Sincerely,

Dennis Chenoweth

President

Solimar Beach Colony Homeowners Association

Ventura CA.

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE: March 28, 2018

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

The following represent several of the important issues and positions taken by the CCC we see in the draft RAPG that cause great concern amongst us and our neighbors along the Southern California coast. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

In regard to the RAPG in whole, it is important to state clearly that it is only policy guidance document and has no regulatory power or requirement that any of the documents contents be included or adopted by a city/county LCP's.

The RAPG attempts to redefine or alter the meaning of "Existing Structures" as being only those in place prior to 1976. This is a nefarious attempt by the CCC to circumvent the property rights of California coastal property owner's contrary to the California State Constitution. This position in its entirety should be stricken from the document as it is direct opposition to the Coastal Act's promise to allow coastal properties to be protected from the erosive forces of the ocean. This attempt at redefinition is illogical and frankly insulting for those of us who have built and have permits for our structures and protective shoreline devices approved by the CCC at great cost to us over the past 40 years.

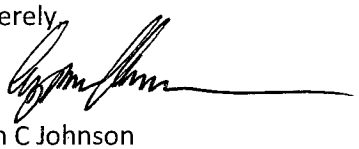
Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort by the CCC to take away private property ownership along the coast.

We are also very concerned that there are growing dramatic differences in how the CCC and other State agencies view the need, building, maintenance and repair of protective shoreline devices. In our area of Southern California there are more than 20 continuous miles of armor rock protecting mostly public and some private property along the coast. When damaged by storms or due to age, replacement or repair of the public protective devices is required, these projects are quickly done by Cal Trans, State Parks, the City/County or other governmental agencies in charge of these areas. No public hearings, permits, fees, or multi agency approval for these projects is apparently required by the CCC. This is the exact opposite for private property owners connected to these same protective structures. All we ask is there be consistent application of a standard processes that applies both to public and private property with regards to building, repairing, maintaining or altering the same protective structures in a specific

area. This should also apply to all areas along the California coastline and should also apply to all related sections of the RAPG.

The original intent of the Coastal Act, which we continue to support, did not have the intention of taking of private property or make it relatively impossible and costly to adequately protect our homes and property. This proposed RAPG and the Commission as a whole seem to want to ignore private property owner's rights and force an adversarial relationship between them and those of us that live along the coast of California. We are all for working out solutions that jointly protect both public and private property ownership along the coast as long as they are equitable, reasonable, and consistent for both public and private property. Single family private property residences along the coastline in total represent less than 5% of the coastline available in California. We are gravely concerned, given this current RAPG, and their increased power/influence over local governments LCP's that the CCC wants to make us disappear by any means possible and this we cannot support!

Sincerely,



Ryan C Johnson

641 Sumner Way UNIT 3,
Oceanside, CA 92058
johnson.c.ryan@gmail.com

From: milo7105@aol.com
To: ResidentialAdaptation@Coastal
Subject: Residential Coastal Adaptation Policy
Date: Thursday, April 05, 2018 10:31:47 AM

Dear Sir/Madam,

As a coastal property owner in Santa Cruz County I wish to formally inform you of my opposition to your proposed changes.

They amount to potential seizure of property and unlike any area of the Country, undemocratically by proposed policy and through undemocratic, political and illegal procedures does not provide for fair, objective, appeals procedures short of legal action which unaffordable to nearly all individual plaintiffs.

When New Jersey lost coastal homes to the hurricane, they were permitted to rebuild as long as the feelings were built on elevated piers. Florida and New York regularly replenish beach sand to protect property and afford the general public with beach recreational experiences.

I guess the far left, public be dimmed. Doesn't want the public to have a mixed recreational coastal experience. The population of California has doubled since creation of the Commission. Because of the failure to allow environmentally friendly development including expanded beach access, parking , Hotels and rental property it now has become a nightmare of day trippers trying to use the beach snd coast. You haven't allowed sufficient smart development to accommodate people who should have the right to comfortably and affordably use the coast. Your unreasonable nearly blanket prohibition and accommodating people with lodging and recreational access ON the coast has made the cost prohibitive and spawned tremendous environmentally unfriendly
And unnecessary traffic congestion. You are killing the environment in trying to save it. Practical expansion of beaches and housing
Will help alleviate the problem, eliminating housing, in the event of natural disaster is only going to exacerbate the problem for 40 million Californians who have as much right
to reasonably enjoy coastal recreation and
Living, Also, if you illegally eliminate rebuilding where is the compensation for such loss, in effect, by seizure ?

Sent from my iPhone

East Shore Planning Group
P. O. Box 827
Marshall, CA 94940
ESPG@eastshoreplanninggroup.org

April 4, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

March 2018 Draft Sea-Level Rise Residential Adaptation Policy Guidance (the "Draft")

Dear Members of the California Coastal Commission:

I write on behalf of the East Shore Planning Group. ESPG is a California not-for-profit corporation formed in 1984 that has a membership of about 90 owners and tenants of residential, commercial and agricultural properties in the unincorporated area of Marin County in Marshall and along the east shore of Tomales Bay. ESPG is the primary local organization involved with issues of development in the area. ESPG has been active in the formulation of the amendments to the Marin County LCP since the process began.

The town of Marshall dates back to the days of the narrow-gauge railroad that served the area from 1876 to 1930. Shoreline bulkheads were constructed and maintained to protect the rail lines throughout the decades. Those same bulkheads now protect Highway One, several visitor-serving businesses, many homes and an exemplary community wastewater system that protects the environment and serves residential and visitor uses.

Small shore-side cottages along Tomales Bay in Marshall— typically less than 1,000 sq. ft. The bulkheads behind the homes protect Highway One and the East Shore Community Wastewater System that serves 50 of Marshall's 84 homes. The town of Marshall is an extremely popular and picturesque historic tourist destination, an important coastal resource for the enjoyment by visitors and residents alike.

This letter supplements our September 8, 2017 comments regarding the July 2017 version of the Draft, which we reiterate by reference rather than repeating again.

We are pleased to note several improvements to the Draft, including:

- The addition of text to Section 1 discussing connection between residential adaptation and public infrastructure, including roads. Our homes and businesses and related shoreline protection devices are part of an integrated system that protects Highway 1, our community septic system and other infrastructure.
- The addition of a new policy for a neighborhood scale Sea Level Rise Adaptation Plan (Model Policy G.3– Adaptation Plan for Highly Vulnerable Areas). Indeed, Marin County's award winning C-SMART program has specifically targeted our community for a regional planning approach for sea-level rise adaptation and is commencing a program to work with Caltrans and others in this regard. More information here.

Nevertheless, the bulk of the ill-considered provisions to which we and others objected previously remain. We continue to believe that the greatest threat to our community is not sea-level rise. Nor is it the San Andreas Fault, which runs down the center of Tomales Bay. Rather, the greatest threat is the regulatory Policies in the Draft being advanced by staff of the Coastal Commission.

What is at stake is not just our homes, but also a vibrant and unique community. We believe that our community is an important coastal asset to protect under the Coastal Act that is not properly recognized in the Draft and, in fact, is compromised by many of the Draft's provisions. These provisions are inconsistent with Section 30001.5 (b) of the Coastal Act, in which a "basic goal of the state for the coast zone" is to "Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state." For Marshall and East Shore of Tomales Bay, the Draft does not represent a balanced approach.

We focus two provisions below.

Regular Maintenance of Homes built on Pilings and Protected by Historic Bulkheads and Seawalls Should not be a "Trigger" for Meeting CCC Sea-Level Rise Requirements for New Development

Shoreline homes along Tomales Bay, and particularly homes on pilings above the water, require frequent maintenance. Some date back to the 19th Century, and virtually all predate the Coastal Act. Routine maintenance requires that pilings, foundations and bulkheads regularly need to be reinforced and replaced, and seismic upgrades may be advisable. Wood floors, walls and roofs exposed to marine conditions may need restoration or complete replacement. These issues of wear and aging are wholly unrelated to sea-level rise.

Yet under the proposed Policy Guidance, many timely or necessary repairs would trigger stringent requirements making it prohibitively expensive to seek permits and undertake the repairs. The inevitable outcome will be deferred maintenance and accelerated deterioration. Property by property, our homes, our visitor-serving businesses and our community will be lost— well before a rising sea might affect us.

We are particularly concerned that replacing 50% of a "major structural component" will require a coastal development permit. This is inconsistent with the applicable regulations. Section 13252 (b) of the Coastal Act regulations provides:

> *(b) Unless destroyed by natural disaster, the replacement of 50 percent or more of a single family residence, seawall, revetment, bluff retaining wall, breakwater, groin or any other structure is not repair and maintenance under Section 30610(d) but instead constitutes a replacement structure requiring a coastal development permit.*

But the Draft grossly misinterprets this section by applying it not to the structures described in the regulation (such as a single family residence), but to "Replacement (including demolition, renovation or alteration) of 50% or more of major structural components including exterior walls, floor, roof structure or foundation." That's a big difference – a structure, or a structural component.[1]

We submit that regular maintenance of existing homes and businesses should not require a coastal permit or trigger the "provisions applicable to new shoreline protective devices."

Requirements for Sea-Level Rise Modifications Should be Reasonable, Incremental and Adaptive.

Many of the other requirements in Section F of the Policy Guidance, "Building Barriers to Protect from Hazards – Shoreline Armoring," would make it impractical and economically impossible for property owners in Marshall to respond to the challenges of sea-level rise. These requirements appear to be punitive, and they presume that the knowledge of sea-level rise and available responses is complete, which it is not.

For example, the requirement of Section F.9, "No Future Shoreline Armoring", that property owners be "...required to acknowledge and agree that no bluff or shoreline protective device(s) shall ever be constructed to protect the approved development, including if it is threatened with damage or destruction from coastal hazards in the future ..." would prevent future technologies and community-wide approaches from being employed in the future[2].

Moreover, these policies and many others in the Policy Guidance would prevent incremental modifications to address sea-level rise. It would make much more sense to plan for stages as they occur and as more is learned about this complex issue.

For example, a property owner should be able to raise a bulkhead or raise a home a few feet to secure another 20-30 years of enjoyment and use of the property. Plans for any subsequent responses to sea-level rise should rely on emerging technologies and community-wide programs and initiatives – adaptive management. In any event, further adaptations would be subject to Coastal Commission permitting and review, so a preemptive waiver of the right to seek a permit seems excessive, in addition to being counter-productive.

[1] Changing the meaning and wording of an existing regulation through a "policy guidance" effectively amends the regulations without complying with the California Administrative Procedure Act.

[2] See, for example, those discussed for the East Shore in Marin County's C-SMART Marin Ocean Coast Sea Level Rise Adaptation Report (March 2018) at pp. 186-195.

***

We believe that many of our concerns can be addressed in a sensible Sea Level Rise Adaptation Plan for our community, rather than by applying the harsh "policy guidance" provisions on a building-by-building basis, and we look forward to working with Marin County and the Coastal Commission to that end.

Thank you for your consideration of these comments.

Sincerely,

Mary Halley, President, East Shore Planning Group

April 4, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105
Delivered to ResidentialAdaptation@coastal.ca.gov

Reference: Draft Residential Adaptation Policy Guidance (RAPG)
March 2018 Document

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Dear California Coastal Commission,

The following represent several of the important issues and positions taken by the CCC we see in the above noted draft RAPG that cause great concern amongst us and our neighbors along the California coast. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

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Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort by the CCC to take away private property ownership along the coast.

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Sincerely,

Gary Filizetti, President
Homeowner, 103 24th Avenue, Santa Cruz, CA

North Marshall Residents
P.O. Box 734, Marshall, CA 94940

April 4, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

Comments on March 2018 Draft Sea-Level Rise Residential Adaptation Policy Guidance

Dear Members of the California Coastal Commission:

Thank you for your improvements in the most recent version of the Draft Residential Adaptation Policy Guidance. In particular, acknowledgement is made that the California coast varies considerably throughout in terms of conditions such as geography, exposure to wave action, density, and community design. Hence a variety of approaches to dealing with sea level rise will need to be developed and refined.

However some of the fundamental points made in the guidance document are not taken to their logical conclusions. For example, as indicated on Page 17: "Vulnerability assessments and hazards maps should be regularly updated as best available science develops." And: "Ongoing monitoring of conditions on the ground will also be important for implementing adaptation strategies at the appropriate time; thus, communities should consider developing monitoring programs." With many aspects of these issues, it follows that we should focus at this time more on developing the relatively new science and engineering of sea level rise before developing restrictive adaptation policies. Clear restrictions are needed in some instances, but in many others there is need for much more to be learned and solutions to be developed.

Similarly on Page 20 the Guidance document states: "The Coastal Act requires… maximum public participation in decision- making, including through the support of public education and understanding of coastal resource issues", and on Page 24 quotes Section 30006 of the Coastal Act: "*The Legislature further finds and declares that the public has a right to fully participate in decisions affecting coastal planning, conservation, and development; that achievement of sound coastal conservation and development is dependent upon public understanding and support; and that the continuing planning and implementation of programs for coastal conservation and development should include the widest opportunity for public participation.* The Guidance document further elaborates on these points on page 24. It follows from this that the next order of business is thorough engagement and education of the public of immediate and long term risks, currently evolving options for adaptation, potential costs,

and visioning of adaptation pathways; rather than formulation of policies that may constrain all stakeholders.

We are looking at enormous expenditures by the state towards planning and adaptation to climate change. The potentially enormous costs of abandoning coastal properties to sea level rise and consequent economic repercussions to communities and their tax base are by far even more significant. Engagement of coastal communities regarding these huge adaptation and abandonment costs should be coordinated with engagement of coastal communities in State of California and associated programs to mitigate (or avoid) the impacts of climate change. Notably many of the measures to mitigate combat climate change include cost saving measures like energy efficiency and renewable energy, which have been net positives economically and in job creation.

State efforts of great significance, which are operating in separate disconnected silos causes public perception that the California Coastal Commission (CCC) has a narrow scope regarding significant environmental and public interests. Before Governor Brown leaves office, we hope that the CCC will seek a more integrated approach with these State environmental and public priorities. This could result in a more unified public outreach approach, a sense that this is a solution oriented effort, that we're in this together, and thereby would have a more constructive direction forward. A more positive collaborative effort with the CCC and the public would also be consistent with the State's international climate change leadership.

Thank you for your consideration of these comments.

Sincerely,

North Marshall Residents

SEADRIFT ASSOCIATION

April 4, 2018

California Coastal Commission Commissioners and Staff
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Commissioners and Staff,

We submit these comments on the Revised Draft Residential Adaptation Policy Guidance (hereafter "Revised Draft") on behalf of the Seadrift Association, a homeowners' association of approximately 325 properties on the California coast in Stinson Beach, Marin County, and personally, as owners of homes in the Coastal Zone constructed after January 1, 1977.

The Commission should not reverse its longstanding interpretation of the meaning of "existing structure" in PRC 30235.

For the first time in the long history of work on Coastal Zone policies and plans, the CCC Staff acknowledged in the March 2018 "Revisions and FAQ Responses for the Draft Residential Adaptation Policy Guidance" (hereafter "FAQ Responses") that the definition of "Existing Structure" proposed by CCC Staff is a complete reversal of the CCC's longstanding interpretations of the Coastal Act (Public Resources Code or PRC) sections 30235 and 30253.

The FAQ Responses admit that the CCC's brief in Surfrider Foundation v. California Coastal Comm'n (Cal. Ct. App June 5, 2006, No. A110033) 2006 WL 1430224, took "the position that 'existing structure' means any pre- or post-Coastal Act structure currently in existence." FAQ Responses at 6. The Court of Appeals accepted that position. The logic of the Court's analysis, as well as the well-reasoned CCC brief to the Court in Surfrider, show that this is the only viable reading of the statute.

At no time in the process leading up to the CCC 2015 Sea Level Rise Policy Guidance (hereafter "2015 SLRPG") was this complete reversal revealed to the public or, for that matter, to the Coastal Commissioners. Not until members of the public unearthed the CCC Surfrider brief in comments last year on the Draft Residential Policy Guidance was the complete reversal of position revealed. The failure of the CCC Staff to explain in its earlier, extensive presentations to the public and the Commissioners that it was trying to amend the law undercuts the validity of the Commission's vote on its 2015 SLRPG on the meaning of "existing structure" in PRC 30235. Now that the Commission is informed that the definition accepted in the 2015 SLRPG is an untenable reversal of a longstanding position, it should reject this attempt to amend the statute. Such a complete about-face by an administrative agency regarding its interpretation of the statute that governs its work will almost certainly be rejected by the courts.

The FAQ Responses adopt both the positions and the arguments of the Commission's adversary in the Surfrider case.

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In the California Coastal Commission brief filed in the Surfrider case (hereafter CCC Surfrider brief), Commission attorneys explained cogently and in detail that "existing structures" entitled to section 30235 rights, including a permit for armoring if needed, meant any structure existing at the time of the permit application.
We incorporate in these comments on the Revised Draft the Commission's own discussion in the CCC Surfrider brief regarding the meaning and scope of section 30235, particularly the discussion at pages 14-18, and 21. As of 2006 "The Commission [was] not aware of a single instance of the Coastal Act in which it has determined that 'existing structures' in section 30235 refers only to structures that predated the Coastal Act." Id. at 21.

In spite of this straightforward analysis of the law, and its long history at the Commission, in the Revised Draft and FAQ Responses, the CCC Staff continue to press its new reading of the law, arguing that their new understanding of potential sea level rise justifies a change in interpretation of the law. New facts don't change existing law. They may call for amending existing law, but that has been tried twice and failed both times.

The Revised Draft discussion of Malibu's Broad Beach highlights the significance of the proposed reversal of position.

At 11, the Revised Draft describes Broad Beach as follows:

> "More than 100 homes first constructed in the 1930's and redeveloped over the decades sit along Broad Beach just inland of the ocean. Over the last several decades, Broad Beach has eroded significantly and this has placed the homes, backyards and septic systems in danger. A 0.8 mile-long emergency rock revetment was constructed to protect the homes . . . [with various adverse impacts]." (emphasis added)

Under this Commission's longstanding interpretation of "existing structure" those homes adjacent to Broad Beach are entitled to full section 30235 protection, even if "redeveloped." Under the Revised Draft's proposed new definition, coupled with the new policies seeking to assert rules on "redevelopment," most if not all of those "redeveloped" properties would be subject to a wide range of new restrictions, including "retreat" and "removal" policies.

As written, the Coastal Act generally, and sections 30235 and 30253 in particular, treat new development and existing structures differently. New development is subject to significant restrictions to protect the Coastal Zone. Once constructed, however, homes are entitled to protection from coastal hazards. Yet the Revised Draft tries in various ways to eliminate owners' rights under the Act to protect their homes. The Revised Draft should be rejected by the Commission and sent back for a rewrite consistent with the law.

The proposed definition of "existing structure" has twice failed to pass in the legislature.

The FAQ Responses acknowledge that after the Commission's radical reversal of its interpretation of PRC 30235 in the 2015 Sea Level Rise Guidance, AB 1129 (Stone) was introduced in the state legislature to confirm this new interpretation. But it did not pass.

Section 2(b) of AB-1129 proposed to amend existing law by providing that an "existing structure" entitled to a permit under section 30235 "means a structure that is legally authorized and in existence as of January 1, 1977." That is, of course, precisely the interpretation advocated by the Commission staff in the FAQ Responses. AB-1129 failed to pass and died in the legislature's inactive file.

The same result obtained in 2002 when a similar proposed amendment failed to pass and died in the inactive file. See CCC Surfrider brief at 19, note 6. The Commission's Surfrider brief argued that the failure of legislation to amend the Coastal Act in 2002 supported the Commission's longstanding interpretation of section 30235—that it applies to any structure existing at the time of a permit application. That argument is doubly true today after two failures to get the legislature to change the law. The FAQ Responses, however, now make exactly the opposite argument at 20. In substance the CCC Staff in the FAQ Responses now argues in favor of the failed Surfrider position in the 2006 appellate litigation.

If we were writing on a clean slate, would it make sense to limit rights to permits for shoreline protective devices to structures built before January 1, 1977? None whatsoever. Structures legally built after January 1, 1977 (and, accordingly, with Coastal Commission permits) are at least as deserving of protection as earlier structures. Moreover, they are by definition newer, very likely more valuable and more important to the "economic and social well-being" of Californians than earlier structures. Whatever the correct approach to sea level rise may be, it makes no sense to treat new "existing" structures" less favorably than old under the law.

The Revised Draft reading of PRC 30253 is contrary to both its plain language and the Commission's own interpretation in its Surfrider brief.

Various policies proposed in Revised Draft sections B, D and F are based on a new, expansive reading PRC 30253. For example, "Section 30253 requires new and redeveloped residential structures to be located or designed so that they minimize risks from flooding and other future hazards and will assure structural stability without the need for shoreline protection that alters natural landforms." Revised Draft at 65. That misrepresents the law.

As explained in the CCC Surfrider brief, section 30253 requirements are imposed solely on "new development." "It does not govern already existing development." Surfrider Brief at 15. Similarly, the statute by its terms solely restricts shoreline protection "along bluffs and cliffs," not elsewhere. Ignoring these statutory limits, the Revised Draft policies would extend the 30253 requirements to any new development or "redevelopment" that would require any protective devices anywhere along the coast.

Several Revised Draft policies are designed to:

1) make sure that any new development permitted never becomes entitled to the protection PRC 30235 gives to "existing structures;" and

2) amend PRC 30253's provision regarding construction of protective devices by deleting its

"along bluffs and cliffs" language and extending its coverage to any "new development," "redevelopment" or "addition;" and

3) establish a new regime of "retreat" strategies not based on any provision of the Coastal Act.

These proposed policies should not be adopted as they are contrary to the plain meaning of the statute, as passed and as interpreted by the Commission until now.

The state legislature declined to adopt policies that the Revised Draft proposes.

Section 1 (b) of AB 1129 (Stone) also proposed to express "the intent of the Legislature to provide clear direction and enhanced authority to the California Coastal Commission to maximize the use of natural infrastructure to protect the state's coastline, while minimizing the use of coastal armoring and its related negative impacts." That legislative approval was denied.

Coastal Armoring Is Not Inherently Evil.

The Revised Draft discussion of hard shoreline armoring at 26 is one-sided in its listing of negative impacts. As the CCC Surfrider Brief demonstrates, shoreline armoring may be subject to reasonable design and mitigation conditions that result in a net benefit to public access and use. In that case, the armoring protected an important public viewpoint as well as private structures. CCC Surfrider Brief at 6. Mitigation conditions both improved public access to the view site and expanded public access seaward of the seawall. CCC Surfrider Brief at 7. All of this was accomplished within the limits imposed on the Commission by PRC 30235. This example shows what should be obvious – that there should be no blanket policy condemnation of any particular approach to protecting existing structures.

For another example, the properties in the Seadrift Association extend along the ocean beach for over a mile. In 1983, as a result of the major storms that occurred that previous winter, the dunes along the beach were eroded by the sea, exposing houses on the beach to the risk of major damage or destruction. As a result, a substantial rock revetment seawall was installed the full length of the beach (with an emergency permit), which has been maintained ever since that time. That seawall has not, as the Revised Draft would have it, resulted in the loss of the beach, but rather sand has built up virtually covering the seawall, and the beach is as wide now as it ever was before the seawall was installed. And the public continues to use the beach (pursuant to an easement) today.

Revised Draft policies should be issued as regulations rather than non-reviewable polices to impose on coastal counties.

Given the complete about face in the reading of existing law proposed in the Revised Draft, the Commission should make the proposed Revised Draft "policies" into regulations if they are going to be approved. Such a radical change calls for judicial review before imposing the policies on Coastal counties. This would minimize the need for multiple, expensive preemption lawsuits ensnaring the counties.

The Revised Draft fails to discuss state preemption law.

The Revised Draft is designed to induce coastal counties to adopt ordinances that comply with their policies. Given that purpose, the Revised Draft continues to ignore California law on preemption of local ordinances by state law. There is well developed law in California that local ordinances which "conflict" with state law can be voided on that ground. Such conflicts between Revised Draft policies and existing law, now highlighted by the documented change in the CCC interpretations of the law, are inherent and should be considered before any policy is adopted in a local ordinance.

Proposed policies on "Redevelopment" should be rejected.

The Coastal Act calls for substantial review of new development and protection of existing development. It does not address "redevelopment." There is no valid basis for the Revised Draft proposals in B.7 and elsewhere addressing maintenance and improvements of existing structures. The attempt to treat remodeling as "new development" is contrary to both PRC 30001(d) and 30253, which do not mention remodeling.

Revised Draft proposals at 19 to regulate "redevelopment" are unauthorized by law and are beyond the Commission's authority. Nothing in the Coastal Act contemplates restrictions on an owner's ability to rebuild or renovate homes in the Coastal Zone. The impact of the "redevelopment" provisions would be pernicious on existing Coastal Zone homes.

If, according to the Revised Draft, a remodel crosses the line to "redevelopment", then the permit can only be issued on terms that require the owner to waive his or her existing rights under PRC 30235 to have the shoreline altered to protect the structure. Revised Draft sections B.7 and A.6. Such a permit would also require burdensome and unnecessary studies of future events.

Nothing in the statute implies that an existing structure loses statutory rights if it is remodeled or fixed up. Indeed, such a policy is contrary to the express terms of PRC 30610(d). That section reads:

> "Notwithstanding any other provision of this division, no coastal development permit shall be required pursuant to this chapter for the following types of development . . .
>
> (d) Repair or maintenance activities that do not result in an addition to or enlargement or expansion of, the object of those repair or maintenance activities; provided, however, that if the commission determines that certain extraordinary methods of repair and maintenance involve a risk of substantial adverse environmental impact, it shall, by regulation, require that a permit be obtained pursuant to this chapter." (emphasis added)

So the statute says no coastal development permit is necessary for remodeling if the size and footprint of a building is unchanged, subject to exceptions for extraordinary construction methods posing adverse environmental impacts.

The Commission's implementing regulation, 14 Cal. Admin. Code section 13252(a), identifies

the extraordinary methods of repair involving a risk of substantial adverse environmental impact, as the statute contemplates.

The following subsection, 14 Cal. Admin. Code section 13252(b), however, says nothing about adverse environmental impacts. It rather states "Unless destroyed by natural disaster, the replacement of 50 percent or more of a single family residence . . . or any other structure is not repair and maintenance under Section 30610(d) but instead constitutes a replacement structure requiring a coastal development permit."

That, however, is not what the statute says. It says 100% rebuild is OK so long as the building size doesn't change. And even the Commission rule says that 100% is OK if the structure is destroyed by a natural disaster. The 50% rule, therefore, is just a Commission rewrite of the explicit direction of the legislature that no permit should be required for work that didn't change the size of an existing structure. Rather than trying to extend this unlawful rewrite of the statute in the Revised Draft, the Commission should abandon efforts to pile new, significant adverse consequences on remodeling permits.

<u>"Retreat" strategies and B.2 Removal Plan Conditions should not be imposed on existing structures.</u>

PRC 30235 requires protection of existing structures when necessary. It neither authorizes nor contemplates that the Commission may require removal of an existing permitted structure. The proposals to impose section B.2 removal conditions and A.6 waivers on permits, particularly on remodeling permits, are contrary to the basic structure of the Coastal Act.

On the merits, managed retreat strategies are seldom practical. In Stinson Beach, for example, existing development extends to bluffs and public land. There is no place to retreat to.

The Commission should abandon efforts to develop generally applicable rules that try to remove or relocate existing structures threatened by sea level rise. To the extent that sea level rise results in existing structures creating a public nuisance or hazard, existing law on those subjects, together with condemnation law, provide adequate solutions to address such problems.

The Revised Draft and FAQ Responses discussion of repairs to existing structures underscores the problem with attempting to regulate home repairs.

The Revised Draft states at 19: "Repairs or improvements that are not exempt, and that do not constitute redevelopment, generally may be allowed if the new development is consistent with relevant LCP and Coastal Act policies and does not increase the non-conformity of the existing structure." So even if a repair does not constitute redevelopment, it seems nonetheless to require a permit that can be denied on grounds that it is not consistent with unspecified CCC "policies." The FAQ Responses at 9 adds no clarity: "Normal maintenance . . . <u>would not normally</u> trigger redevelopment standards . . . . (emphasis added)" – unless, apparently, the CCC staff at the time decides otherwise. The discussion underscores the folly of having the Commission extend its jurisdiction over the repair and remodeling of homes in the Coastal Zone.

The Revised Draft public trust concerns are overstated.

The Revised Draft discussion of the public trust doctrine at 36-39 incorrectly assumes that movement of the mean high tide line must inevitably push back shoreline development. To state the obvious, none of the cases cited considered the situation where global warming causes general sea level rise all along the coast. Assuming arguendo that courts make no exception or adjustment of the doctrine in light of new and radically different facts, the government agency with authority over public trust lands could choose to authorize preexisting uses to continue on public trust lands. For example, virtually all harbor facilities are on public trust lands. The doctrine provides no useful guidance for policy making.

Whatever the future may hold for sea level rise, fears of potential requirements for new shoreline protective devices justify neither cumbersome new permits for fixing up existing homes nor a forced abandonment of statutory rights afforded existing structures.

Respectfully,

Jeff Loomans
President
Seadrift Association

Terry J. Houlihan
Member and Former President
Seadrift Association

City of San Clemente
Community Development

Amber Gregg, City Planner
Phone: (949) 361-8200 Fax: (949) 361-8309
gregga@san-clemente.org

April 2, 2018

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Sent via email to: ResidentialAdaptation@Coastal.ca.gov

SUBJECT: CCC Draft Residential Adaptation Policy Guidance (March 2018)

Dear Members of the Coastal Commission Sea Level Rise Working Group:

Thank you for the opportunity to comment on the draft revised Residential Adaptation Policy Guidance document (March 2018) that is currently out for public review and comment through April 5, 2018. The City of San Clemente (City) has reviewed the updated draft Guidance document and has also participated in past webinars and reviewed various related presentations.

We appreciate the ongoing coordination between our agencies and would like to take this opportunity to comment on how the CCC's Residential Adaptation Policy Guidance could affect not only San Clemente residents, businesses, visitors and the City itself but cities and counties throughout the state of California. We understand that the document is meant as guidance and is not considered a regulatory document that has been through the formal rulemaking process.

The document correctly acknowledges that residential development is the foundation of many of California coastal communities. This is certainly the case in San Clemente. Residential development in the City's coastal zone is among the most valuable real estate in the City. Further, as the coastal zone is fully built out, any loss in residential land uses cannot likely be replaced within the coastal zone. This would have significant economic consequences in terms of both loss of population/City residents as well as adverse effects on the City's tax base on which it relies for the provision of public services and facilities for residents and visitors alike.

The City is concerned that Residential Adaptation Guidelines document attempts to define “existing development” as only that which was constructed prior to 1977 which is the date the Coastal Act became effective (see page 33). The net effect of this would be to make all development that has occurred in the past 40 years “non-existing.” As the City has previously noted, imposition of this definition would be unreasonable.

We understand the CCC’s interest in promoting this definition, particularly as it relates to shoreline protection and Coastal Act section 30235. However, under the Coastal Act, “existing development” means currently existing development and is in no way tied to the date of January 1, 1977. As the Residential Adaptation Guidance document notes upfront and throughout, the document is guidance only and is not regulatory in nature; however the casual references to 1977 and this being a defined threshold to what is considered “existing development” is concerning.

The City’s Comprehensive LUP Update that was unanimously approved by the Commission in Cambria in February 2018 was to be the first test case to codify a new definition for “existing development”. In the City’s comment letter sent in response to the CCC Staff Report, the City opposed this proposed definition because it was inconsistent with the Coastal Act, would create a number of legal and implementation issues for City, and is not required for certification of an LUP. We reiterate our concerns here because of the many references to 1977 contained in the draft Residential Adaptation Guidelines would be cause the problems identified for our City to occur in every coastal City throughout the state of California.

In the future as sea level rises, maintaining wide sandy beaches will become an even more important component of the City’s sea-level rise (SLR) adaptation strategy toolbox. Since the sandy beach functions as a natural buffer between the ocean waves and upland areas, the City is generally not in support of any actions that would block efforts to maintain a walkable public beach. There is simply not enough sand in the local littoral cell for beaches to naturally widen through contributions of coastal bluff sediments or fluvial sediment inputs. Therefore, maintaining a wide sandy beach will require proactive response and regular maintenance in the form of beach nourishment and potentially retention structures to ensure beach sand nourishment activities are optimized. The City is collaborating with the U.S. Army Corps of Engineers and State Parks on a long-term coastal storm damage reduction project that will implement a beach nourishment program over an initial 50-year period. The project was authorized by the U.S. Congress in 2017 and the City anticipates initiating this important coastal resiliency program beginning as early as 2020-2070.

Because the magnitude and timing of SLR impacts are not precisely known, local adaptation plans must integrate opportunities to account for unique circumstances, opportunities and constraints within the local context. We agree with the CCC statement that adaptation strategies should be customized to local

conditions. In San Clemente, we have unique community features and vulnerabilities that the City will address as it promotes resiliency for the public beach and coastal bluffs, roadways, railroad corridor, critical public facilities and infrastructure and coastal accessways.

The City is currently exploring various options for SLR adaptation strategies and the draft Policy Guidance, webinars, and Coastal Commission discussion on this topic have provided useful information and a forum for important public discourse. At this time, the City is completing its draft SLR Vulnerability Assessment and has not committed to any specific direction until the City Council has had a chance to review and consider the options. Through our own multi-year process we have learned there must be opportunities for public input into the process regarding various adaptation strategies.

We anticipate receiving feedback, particularly from owners in areas of projected SLR flooding, inundation and erosion-related impacts.

The following represent some of the top policy considerations that the City has regarding local preferences and options for SLR adaptation in the City:

- Retain the full range of adaptation options in the policy toolbox for future decision makers to choose from;
- Continue to prioritize beach nourishment, sand replenishment and potentially retention for current and future generations as a walkable beach provides important co-benefits of shoreline protection, natural resource protection and recreational value enjoyed by residents and visitors alike;
- Maintain the certified LUP allowance for shoreline protection, and to allow continued repair and maintenance on an as needed basis;
- Retreat is not likely a feasible option on an urbanized coastline due to takings considerations and in any case it is too soon to plan for retreat of any structures on private property given the uncertainties associated with emerging / evolving climate science;
- Bluff adaptation options will vary depending on whether railroad tracks are maintained in place or relocated to an alternative inland alignment at some future point in time;
- Monitoring should be the foundation of adaptation planning efforts and implementation strategies;
- Phasing considerations will be fundamental as local SLR monitoring reveals data as captured/measured at local representative tidal gauges; and,
- Costs and benefits associated with various adaptation options must be thorough quantified so that decision-makers have full information on which to base their recommendations.

In closing, the City would like to emphasize the importance of accounting for local context, local goals and the preferred community vision in the Commission's Residential Adaptation Guidance document. It is critical that local jurisdictions be afforded flexibility to consider preferred local approaches that will allow each jurisdiction to respond in the manner that is most consistent and reflective of the community's long-term vision. As climate science continues to be refined and our understanding of the multitude of complex variables involved in climate change becomes better understood, we anticipate more regional collaboration that will support having additional adaptation options on the table.

Thank you in advance for your consideration of the City's comments. Please call me with any questions at 949-361-6196.

Sincerely,

Amber Gregg, City Planner
City of San Clemente

CC: Mayor and City Council
James Makshanoff
Scott Smith, City Attorney
Tom Bonigut, City Public Works Director

From:	Maureen Melehan
To:	ResidentialAdaptation@Coastal
Subject:	RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document
Date:	Sunday, April 01, 2018 8:18:50 AM

California Coastal Commission

c/o Sea Level Rise Working Group

45 Fremont Street, Suite 2000 San Francisco, CA 94105

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Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort

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The original intent of the Coastal Act, which we continue to support, did not have the intention of taking of private property or make it relatively impossible and costly to adequately protect our homes and property. This proposed RAPG and the Commission as a whole seem to want to ignore private property owner's rights and force an adversarial relationship between them and those of us that live along the coast of California. We are all for working out solutions that jointly protect both public and private property ownership along the coast as long as they are equitable, reasonable, and consistent for both public and private property. Single family private property residences along the coastline in total represent less than 5% of the coastline available in California. We are gravely concerned, given this current RAPG, and their increased power/influence over local governments LCP's that the CCC wants to make us disappear by any means possible and this we cannot support!

Sincerely,

James, Joseph, Maureen, and John Melehan

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE March 28, 2018

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

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Sincerely,

Dawn P Neal

Dawn P Neal

3975 Telephone Road space 19
Ventura, CA 93003-3689

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

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Sincerely,

Shelley Phelps

3072 Solimar Beach Dr

Ventura, CA 93001

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

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Sincerely,

Alan Johnson

2 Centraurus Way
Trabuco Canyon, CA 92679

Dana Point Boater's Assoc. - Board of Directors (Sec.)
ORCA – Ocean Racing Catamaran Assoc. - Board of Directors

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

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Sincerely,

Cynthia Phelps

Principle Viola – New York Philharmonic
cpviola1@gmail.com

P.S. I speak for my other sisters who live in California – Sheila, Shelley, Melissa, Stacy – I plan on retiring back to our family home since 1960, on the beach, in California.

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

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Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort by the CCC to take away private property ownership along the coast.

We are also very concerned that there are growing dramatic differences in how the CCC and other State agencies view the need, building, maintenance and repair of protective shoreline devices. In our area of Southern California there are more than 20 continuous miles of armor rock protecting mostly public and some private property along the coast. When damaged by storms or due to age, replacement or repair of the public protective devices is required, these projects are quickly done by Cal Trans, State Parks, the City/County or other governmental agencies in charge of these areas. No public hearings, permits, fees, or multi agency approval for these projects is apparently required by the CCC. This is the exact opposite for private property owners connected to these same protective structures. All we ask is there be consistent application of a standard processes that applies both to public and private property with regards to building, repairing, maintaining or altering the same protective structures in a specific

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Sincerely,

Sheila Johns

Sheila Johns

3975 Telephone Road space 19
Ventura, CA 93003-3689

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE March 28, 2018

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

The following represent several of the important issues and positions taken by the CCC we see in the draft RAPG that cause great concern amongst us and our neighbors along the Southern California coast. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

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Sincerely,

Shannon Bonner

Shannon Bonner

GEMS World Academy, Dubai
PO Box 126260, Al Barsha South
Dubai, United Arab Emirates

P.S. I speak for my husband and daughter, who have grandparents living in a small beach front property.

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

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Sincerely,

Jennifer Proffit

Jennifer Proffit

29 Tomahawk
Trabuco Canyon, CA 92679

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California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE: March 27, 2017

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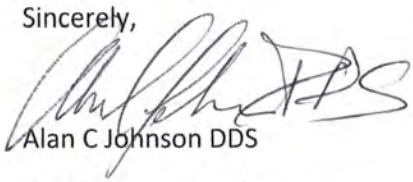


Alan C Johnson DDS

3072 Solimar Beach Dr

Ventura, CA 93001

CALIFORNIA ASSOCIATION OF REALTORS®

March 27, 2018 **VIA ELECTRONIC FILING**

Dayna Bochco, Chair
California Coastal Commission
c/o Sea level Rise Working Group
45 Fremont Street, Suite 2000
San Francisco, California 94105

RE: March 2018 Revised Draft Residential Adaptation Policy Guidance

Dear Chair Bochco,

Thank you for the opportunity to provide comments on the March 2018 Revised Draft Residential Adaptation Policy Guidelines (Revised Draft) for addressing sea level rise in Local Coastal Programs. We appreciate the importance of local and regional planning for areas potentially threatened by inundation and erosion from sea level rise. The California Association of REALTORS® has over 110 years of interest and involvement in land use planning, hazard mitigation, private property rights and disclosures for homes. We respectfully offer the following comments for you to consider as you prepare the Final Draft of the Residential Adaptation Policy Guidance.

In **Section 4. Legal Considerations**, we must continue to respectfully disagree with the assertion that the definition of an "existing structure" is that of any development built prior to January 1, 1977. We find this interpretation to be new and not supported by either historic Coastal Commission decisions or court decisions.

As stated in our previous letter, numerous published resources support our understanding that the Coastal Commission has historically interpreted "existing structure" to include development occurring after January 1, 1977. We respectfully submit that the term "existing structure" should continue to be interpreted as a structure that existed prior to the application for shoreline armoring. Maintaining the long-standing and legally justified interpretation of "existing structure" will ensure the consistent application of rules to coastal property owners and remain consistent with several Coastal Commission decisions that approved the construction of shoreline protection for homes built after January 1, 1977.

Additionally, the Legislature's 2017 rejection of AB 1129 (Stone), a bill that would have enacted the limited definition of "existing", also serves to support our interpretation.

The proposed interpretation of "existing structure" lacks legal justification and would be ruinous and unfair to coastal landowners who currently need or will need to protect their existing homes from the ravages of rising sea levels.

Section 6. Model Policy Language. We offer the following comments and suggested amendments for each subsection as listed:

A.3. Mapping Coastal Hazards. This section offers model language that compels local governments to *"map areas subject to existing and future coastal hazards including hazards that will be exacerbated by sea level rise, that present risks to life and property"*, and *"put property owners on notice if their parcels are subject to current or future coastal hazards on the Coastal Hazards maps."*

We appreciate the Revised Draft directing local governments to prepare maps using Geographical Information Systems (GIS) data and to make those "digital data layers available to the public and property owners." Unfortunately, simply making the data available does not ensure that the public can access and effectively use the data. To ensure public accessibility of maps and data we respectfully request that, in addition to making the data available in GIS format, that the guidelines also require local governments to have the data publicly available via an online interactive platform that is searchable by address and parcel number. The maps and information should be available in a scale that offers homeowners site-specific detailed information on potential future hazards, development restrictions, and compliance triggers.

A.6. Assumption of Risk, Waiver of Liability and Indemnity. Regarding the recorded deed restriction reflecting the permit conditions for new coastal development, we would like to restate our previous concerns with language that remains in the Revised Draft:

"2) to assume the risks of injury and damage from such hazards in connection with the permitted development;" could be simply stated as a warning that if the condition of the property should change due to future hazards, the homeowner understands they will be liable for any damage arising from those hazards. The assumption of risk is a legal transfer of liability that ought to be negotiated by parties to a sale, and not imposed by mass recoding by a regional governmental agency.

"3) to unconditionally waive any claim of damage or liability against...for injury or damage from such hazards;" We see no reason why a homeowner would need to unconditionally waive any claim for injury or damage against the local entity. Again, we respectfully object to the unilateral imposition of a waiver. Instead, local agencies can simply add language to the permitting process stating that no warranty is being made by the permitting agency as to the future viability of the development due to potential future hazards.

"4) to indemnify and hold harmless the (local government or Coastal Commission)..." We find this provision unnecessary with the assumption of liability outlined in the sections above.

A.7. Real Estate Disclosure of Hazards. We would like to underscore, again, that the proposed language to *"require real estate disclosures of all coastal hazards"* as described in this subsection would require a lengthy and detailed research and reporting process. Such a comprehensive scientific research and reporting process would be impossible for the average homeowner to accurately and adequately prepare.

As suggested in our comments on section **A.3. Mapping Coastal Hazards**, it should be incumbent upon local jurisdictions adopting this policy to provide the necessary disclosure information to the public, ideally on a website searchable by address and parcel number, and available as GIS data files for third-party Natural Hazard Disclosure companies to access for their reports. The information provided on the website and in the data files should include all the local and parcel-specific information called for in the disclosure mandate.

Additionally, and importantly, any disclosure mandates should not predate the public availability of the data.

B.7. Redevelopment. Thank you for addressing our concern that the definition of "redevelopment" could potentially trigger significant compliance requirements for otherwise routine repairs or renovations for existing homes. Specifically, on page 19 in **Section 2. Policy Recommendations for All Hazardous Areas**, subsection **Regulate Development** we appreciate the clarification regarding the ability for homeowners to perform routine repairs such as re-shingling a roof or replacing worn siding without triggering the definition of "redevelopment".

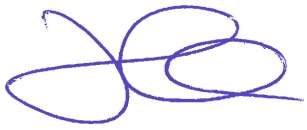
F.1 Shoreline and Bluff Protective Devices. Again, we disagree with the proposed new definition of "existing development" as indicated above in our comments on **Section 4. Legal Considerations.**

G.4 and G.5 Sea Level Rise Overlay Zones As described, these zones will define the extent of land for which specific land use restrictions or requirements will be imposed for areas that *may* be affected by rising sea levels under a "worst case scenario". Downzoning, "redevelopment" restrictions and structural removal are suggested measures to preserve coastal resources in these zones. We respectfully suggest that requiring these overlay zones to cover the "worst case scenario" will prematurely restrict some homeowners from rightfully maintaining and repairing their home under standard conditions. Our concern is specific to homes that do not pose an immediate threat to coastal resources.

Furthermore, other planning and engineering standards for natural hazards such as flooding and earthquakes use statistical methods for assessing hazards, vulnerability and minimum design requirements. We respectfully suggest that overlay zones be determined with similar consideration for uncertainty rather than presuming worst case scenario conditions immediately upon adoption of a zone. Such an extreme approach to zoning will certainly result in premature and unjust takings or private property and private property rights.

We hope that you find our comments on the Revised Draft of the Residential Guidelines relevant and helpful. We look forward to seeing our comments and suggestions incorporated into the final draft. If you have any questions about our comments please do not hesitate to contact me at (916) 492-5200 or jelisavetag@car.org.

Sincerely,



Jeli Gavric
Legislative Advocate

CC: Members, California Coastal Commission
Jack Ainsworth, Executive Director, California Coastal Commission

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

March 21, 2018

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

Dear Sirs:

We have serious concerns regarding the positions taken by the CCC with regard to the draft RAPG that alarms us and our neighbors that reside along the Southern California coast. We ask that you carefully consider our concerns as they reflect the opinions and concerns of many.

We feel that it is critical to state clearly in the RAPG that it is only a policy guidance document and has no regulatory power or requirement for any of the contents be adopted by a city/county LCP's.

Also, it appears that the RAPG attempts to redefine or alter the meaning of "Existing Structures" as being only those in place prior to 1976. This is a slippery slope where the CCC is trying to circumvent the property rights of California coastal property owner's contrary to the California State Constitution. We feel that this position must be removed from the document as it is direct opposition to the Coastal Act's promise to allow coastal properties to be protected from the erosive forces of the ocean. This attempt at redefinition is offensive to those of us who have worked hard to comply and build with full approval and permits for our structures along with CCC approved protective shoreline devices.

Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. The proposed options appear be an effort by the CCC to take away private property ownership along the coast.

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Sincerely,

Ron and Kathy Prechtl
4086 Faria Road
Ventura, CA 93001

From:	Gerry Swinton
To:	ResidentialAdaptation@Coastal
Cc:	Gerry Swinton
Subject:	RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document
Date:	Sunday, March 25, 2018 4:09:41 PM

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

25 Mar 2018

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

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W Swinton

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45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE 3-21-18

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The original intent of the Coastal Act, which we continue to support, did not have the intention of taking of private property or make it relatively impossible and costly to adequately protect our homes and property. This proposed RAPG and the Commission as a whole seem to want to ignore private property owner's rights and force an adversarial relationship between them and those of us that live along the coast of California. We are all for working out solutions that jointly protect both public and private property ownership along the coast as long as they are equitable, reasonable, and consistent for both public and private property. Single family private property residences along the coastline in total represent less than 5% of the coastline available in California. We are gravely concerned, given this current RAPG, and their increased power/influence over local governments LCP's that the CCC wants to make us disappear by any means possible and this we cannot support!

Sincerely,

Mike Dean 805-432-3006

4070 Faviana rd

Ventura ca 93001

From:	George Powers
To:	ResidentialAdaptation@Coastal
Subject:	Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document
Date:	Friday, March 23, 2018 3:48:50 PM

Dear Sirs,

The following represent several of the important issues and positions taken by the CCC we see in the draft RAPG that cause great concern amongst us and our neighbors along the California coast. We ask the Working Group and the Commission itself to take our concerns seriously as they reflect the same concerns of many others in our community along with those who have made similar statements in your public comment section to date.

In regard to the RAPG in whole, it is important to state clearly that it is only policy guidance document and has no regulatory power or requirement that any of the documents contents be included or adopted by a city/county LCP's.

The RAPG attempts to redefine or alter the meaning of "Existing Structures" as being only those in place prior to 1976. This is a nefarious attempt by the CCC to circumvent the property rights of California coastal property owner's contrary to the California State Constitution. This position in its entirety should be stricken from the document as it is direct opposition to the Coastal Act's promise to allow coastal properties to be protected from the erosive forces of the ocean. This attempt at redefinition is illogical and frankly insulting for those of us who have built and have permits for our structures and protective shoreline devices approved by the CCC at great cost to us over the past 40 years.

Requirements or even recommendations for Sea-Level rise modifications to LCP's should be reasonable, area specific, flexible and be based on practicality/feasibility. The amount and effect of Sea-Level rise is speculative at best and will affect the California coastline differently depending on location and a variety of other factors. Policy guidance suggests that managed retreat, raising home elevations while removing protective shoreline structures in place for decades or just letting homes be destroyed are the best way to deal with the Sea-Level rise issue. All these proposed options are either too expensive, unproven, not possible to implement (as in many cases there is no available land to retreat to) and appear to represent another effort by the CCC to take away private property ownership along the coast.

We are also very concerned that there are growing dramatic differences in how the CCC and other State agencies view the need, building, maintenance and repair of protective shoreline devices. In our area of Southern California there are more than 20 continuous miles of armor rock protecting mostly public and some private property along the coast. When damaged by storms or due to age, replacement or repair of the public protective devices is required, these projects are quickly done by Cal Trans, State Parks, the City/County or other governmental agencies in charge of these areas. No public hearings, permits, fees, or multi agency approval for these projects is apparently required by the CCC. This is the exact opposite for private property owners connected to these same protective structures. All we ask is there be consistent application of a standard processes that applies both to public and private property with regards to building, repairing, maintaining or altering the same protective structures in a specific area. This should also apply to all areas along the California coastline and should also apply to all related sections of the RAPG.

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Sincerely,

George Powers
21968 Gillette Dr
Los Gatos, CA 95033
408-218-7066

From: Keith Adams
To: ResidentialAdaptation@Coastal
Subject: Draft Residential Adaptation Policy Guidance Comment
Date: Friday, March 23, 2018 4:10:58 PM

California Coastal Commission
c/o Sea Level Rise Working Group
45 Fremont Street, Suite 2000 San Francisco, CA 94105

Delivered to ResidentialAdaptation@coastal.ca.gov

DATE 3/23/18

RE: Draft Residential Adaptation Policy Guidance (RAPG) March 2018 Document

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Sincerely,

Keith Adams
500 41st Ave
Santa Cruz, CA 95062