

# San Diego Municipal Code

# **Land Development Code**

# Coastal Bluffs and Beaches Guidelines



# COASTAL BLUFFS AND BEACHES GUIDELINES AMENDMENTS

The following amendments have been incorporated into this August 2004 posting of this plan:

Amendment	Date Approved by Planning Commission	Resolution Number	Date Adopted by City Council	Resolution Number
Coastal Bluffs and Beaches Guidelines adopted.			November 18,1997	R-289460
Coastal Bluffs and Beaches Guidelines amended.			September 28,1999	R-292248
Coastal Bluffs and Beaches Guidelines amended.			June 6, 2000	R-293254

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#### INTRODUCTION

Coastal Bluffs and Beaches Guidelines are intended to assist in the interpretation and implementation of the development regulations for sensitive coastal bluffs and coastal beaches contained in **Chapter 14**, **Article 3**, **Division 1**, Environmentally Sensitive Lands Regulations. Every development proposed on a sensitive coastal bluff (within 100 feet of the bluff edge) or on a site containing a coastal beach (where the development will be within 100 feet of the beach) will be subject to the Environmentally Sensitive Lands regulations and will be evaluated for conformance with these guidelines as part of the review process for the required Site Development Permit unless the proposed development is exempt from the Environmentally Sensitive Lands Regulations pursuant to **Section 143.0110(c)**. In addition to the findings required for the Site Development Permit, supplemental findings for environmentally sensitive lands must also be made to approve the development. A Coastal Development Permit will be required in addition to the Site Development Permit for all *coastal development* proposed within the Coastal Overlay Zone and which does not qualify for an exemption pursuant to **Section 126.0407**.

The Coastal Bluffs and Beaches Guidelines are divided into three sections as follows:

#### **Section I: Explanation of Definitions**

This section provides additional explanations of the definitions for terms pertaining to coastal bluffs and coastal beaches that are defined in **Chapter 11**, **Article 3**, **Division 1**, Land Development Terms. The distinction between coastal bluffs and sensitive coastal bluffs is clarified.

#### **Section II: Description of Regulations**

This section provides detailed explanations for specific regulations contained in the environmentally sensitive lands regulations. The Environmentally Sensitive Lands Regulations must be complied with and the Coastal Bluffs and Beaches Guidelines provide details on the regulations and explanations on how compliance can be achieved.

#### Section III: Coastal Bluff Measurement Guidelines

This section provides detailed guidelines and illustrations for determining the location of the bluff edge for sensitive coastal bluffs and measuring the required setbacks from the bluff edge.

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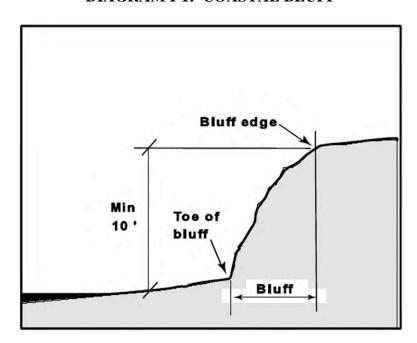
#### SECTION I: EXPLANATION OF DEFINITIONS

For each of the following terms, the definition is repeated (in italics) from **Chapter 11**, **Article 3**, **Division 1**, Land Development Terms, followed by additional information intended to clarify the definitions. The additional information provided is not part of the definition.

#### A. Coastal Bluff

Coastal Bluff means an escarpment or steep face of rock, decomposed rock, or soil resulting from erosion, faulting, or folding of the land mass that has a vertical relief of 10 feet or more and is located in the coastal zone.

A coastal bluff is a naturally formed precipitous landform that generally has a gradient of at least 200 percent (1:2 slope) with a vertical elevation of at least 10 feet. See **Diagram I-1**. The gradient of a coastal bluff could be less than 200 percent but the vertical elevation must always be at least 10 feet. A coastal bluff is a form of environmentally sensitive lands that is included in the definition of steep hillsides. The coastal bluff includes the bluff face which is all the area between the toe of the bluff and the bluff edge. Steep landforms meeting the criteria of coastal bluffs occur both inside and outside the Coastal Zone. These landforms and all other steep hillsides, both inside and outside the Coastal Zone, are regulated by the steep hillside regulations of the Environmentally Sensitive Lands Regulations (**Section 143.0142**) and are subject to the **Steep Hillside Guidelines**.

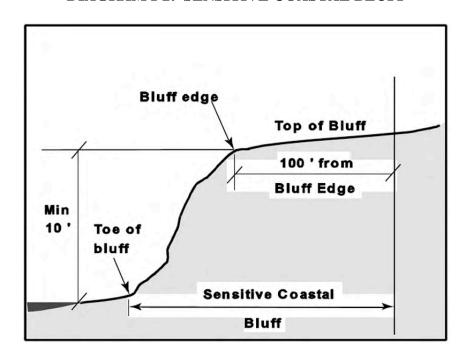


**DIAGRAM I-1: COASTAL BLUFF** 

#### **B.** Sensitive Coastal Bluff

Sensitive Coastal Bluff means a coastal bluff that is designated within Hazard Category Numbers 41 through 47, inclusive, on the City's Geologic Hazard Maps plus the area of an additional 100-foot landward strip located landward and contiguous to the coastal bluff edge.

Sensitive coastal bluffs are a form of coastal bluffs that are generally located along the shoreline and adjacent to coastal beaches. Sensitive coastal bluffs include the bluff face and the area of the top of bluff located within 100 feet of the bluff edge. See **Diagram I-2**. Because of their location, sensitive coastal bluffs are regulated differently than other coastal bluffs (or steep hillsides). Although they technically meet the definition of steep hillsides, sensitive coastal bluffs are regulated by a separate regulation section in the Environmentally Sensitive Lands Regulations (**Section 143.0143**) and are subject to the Coastal Bluffs and Beaches Guidelines.



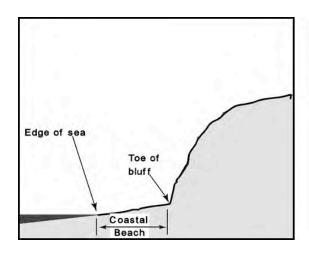
**DIAGRAM I-2: SENSITIVE COASTAL BLUFF** 

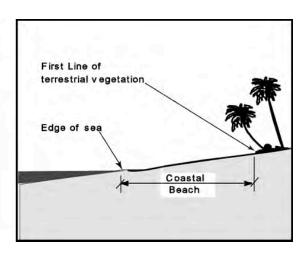
#### C. Coastal Beach

Coastal Beach means the land between the edge of the sea and the first line of terrestrial vegetation or development or the toe of an adjacent sensitive coastal bluff, whichever is most seaward.

A coastal beach is an environmentally sensitive land that is generally defined as the land lying between the shoreline and the toe of the adjacent sensitive coastal bluff. If a seawall exists, the landward limit of the beach is still the toe of the bluff. The seawall would represent a seaward encroachment onto the beach. If no seawall or bluff exists, the landward limits of the coastal beach shall be the first line of terrestrial vegetation. See **Diagram I-3**.

**DIAGRAM I-3: COASTAL BEACH** 





#### D. Coastal Bluff Edge

Coastal Bluff Edge means the termination of the top of a sensitive coastal bluff where the downward gradient of the land surface begins to increase more or less continuously until it reaches the general gradient of the coastal bluff face.

The coastal bluff edge is the upper termination of a coastal bluff face where the downward gradient of the top of bluff increases more or less continuously until it reaches the general gradient of the bluff face. When the top edge of the coastal bluff is rounded away from the bluff face as a result of erosional processes related to the presence of the bluff face, the coastal bluff edge shall be defined as that point at the top of bluff nearest the bluff face beyond which the downward gradient of the land surface increases more or less continuously until it reaches the general gradient of the bluff face. If evidence shows that the rounding is a result of geologic processes other than processes related to the presence of the bluff face, the location of the coastal bluff edge shall be determined through consideration of the available geologic data..

In a case where there is a step like feature at the top of the coastal bluff, the landward edge of the topmost riser shall be considered the coastal bluff edge.

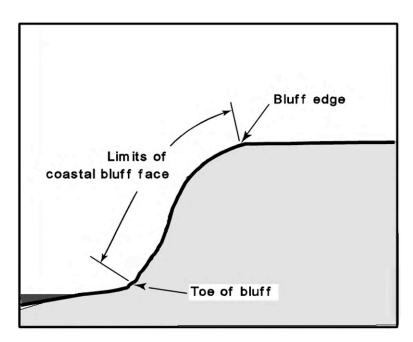
The coastal bluff edge is a continuous line across the entire length of the coastal bluff on the premises from which all bluff setbacks shall be measured.

See **Section III**, part A for details on determining the location of the coastal bluff edge for sensitive coastal bluffs.

#### E. Coastal Bluff Face

Coastal Bluff Face means that portion of a sensitive coastal bluff lying between the toe of the existing bluff and the coastal bluff edge.

The coastal bluff face is vertical or contains a relatively steep consistent gradient and may be rounded at the top, adjacent to the coastal bluff edge. When the bluff is rounded at the top as a result of erosional processes due to the presence of the bluff face, the bluff face shall include the rounded portion. The coastal bluff face of a sensitive coastal bluff (at least at the toe of the bluff) is typically subject to marine erosion. See **Diagram I-4**.



**DIAGRAM I-4: COASTAL BLUFF FACE** 

Generally, no development is permitted on the face of a sensitive coastal bluff, except as permitted in **Section 143.0143(h)** and **(I)** of the Environmentally Sensitive Lands Regulations.

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#### SECTION II: DESCRIPTION OF REGULATIONS

The regulations for development proposed on a sensitive coastal bluff are located in **Section 143.0143**. The regulations for development proposed on a site containing a coastal beach are located in **Section 143.0144**. The following guidelines are intended to aide in the interpretation and implementation of pertinent development regulations in these sections. The numbers referenced for each development regulation refer to the Code section numbers of the Environmentally Sensitive Lands Regulations. The text provided for each regulation does not repeat the Code language but rather restates the regulation with more details and explanations.

#### A. 143.0143(a) Development on the Face of a Sensitive Coastal Bluff

In general, development is not permitted on the face of a sensitive coastal bluff. Only erosion control facilities, essential public drainage facilities, and public physical beach access facilities are permitted on the face of a sensitive coastal bluff, subject to the regulations in **Section 143.0143(g)** and (h). Other uses identified in **Section 143.0130(a)** are permitted on the sensitive coastal bluff, landward of the bluff edge, and only in compliance with the required setbacks from the bluff edge, pursuant to **Section 143.0143(f)**.

Where a stepped bluff landform exists, all of the area of the site that is seaward of the bluff edge (measured at the uppermost riser within the premises) shall be considered the bluff face. This shall include the generally horizontal steps that are below the uppermost riser.

#### B. 143.0143(c) Irrigation on Coastal Bluffs

Plant material used on or adjacent to coastal bluffs shall be native or naturalized to minimize the need for irrigation beyond initial plant establishment. Permanent irrigation is not permitted on coastal bluffs. Temporary irrigation, consisting of microsprayers and/or drip irrigation, may be permitted on a case-by-case basis as necessary to establish native or naturalized plant materials. Irrigation shall be removed from the bluff upon establishment of the plant materials.

#### C. 143.0143(f) Distance from Coastal Bluff Edge of Sensitive Coastal Bluffs

Development proposed on a sensitive coastal bluff, including primary and accessory structures, and grading, shall be located at least 40 feet landward from the coastal bluff edge, except as follows:

- 1. A distance of more than 40 feet from the coastal bluff edge may be required based on current geologic conditions.
- 2. Development may be located less than 40 feet but not less than 25 feet from the coastal bluff edge if there is evidence in a geology report that the site is stable

enough to support the development at the proposed distance and if the development will neither be subject to nor contribute to significant geologic instability or require a shoreline or bluff erosion control device. In determining the stability of the sensitive coastal bluff, consideration shall be given to the rate of bluff retreat to determine whether the proposed development will be impacted within a reasonable economic life-span, taken to be 75 years. If a development is approved with a less-than-40-foot distance to the coastal bluff edge, future erosion control measures are precluded. Air-placed concrete, retaining walls and seawalls will only be permitted when the principal structure, or public improvements not capable of being relocated, are in eminent danger. Less environmentally damaging alternatives that reduce risk and avoid the need to significantly alter the natural landforms of the beach and/or bluff shall be considered as feasible.

[NOTE: If a seawall (or other stabilization/erosion control measure) has been installed due to excessive erosion on a premises, that premises shall not qualify for a reduction of the required 40-foot distance to the coastal bluff edge. Since the instability of the coastal bluff necessitated the installation of the seawall, the coastal bluff would not be considered stable enough to support development within the 40-foot bluff edge setback.]

- 3. A distance of five feet from the coastal bluff edge may be granted for landscape features and accessory structures that are located at grade so that they are not elevated at the base or constructed with a raised floor and are capable of being relocated. Permitted features and structures include landscaping, paved walkways, at-grade decks, unenclosed patios, open shade structures, lighting standards, fences and walls, seating benches, and signs. A distance of five feet from the coastal bluff edge may not be granted for buildings, garages, carports, pools, spas, and raised decks with load bearing support structures.
- 4. Open fences may be permitted closer than 5 feet to the coastal bluff edge only if necessary to provide for public safety and to protect resource areas accessible from public right-of-ways or on public parkland.

#### D. 143.0143(g) Erosion Control Measures

Erosion control measures include, but are not limited to, retaining walls, air-placed concrete, and other structures, devices or methods appropriate for controlling or minimizing erosion of the sensitive coastal bluff. All feasible methods of erosion control shall be considered, including sandbags, revegetation, and drainage diversion and improvements.

Erosion control measures do not include those preventive measures required for soil stabilization or drainage.

Air-placed concrete, retaining walls, and buttress fills shall only be used to protect existing principle structures, or public improvements not capable of being relocated, and

if it is determined that no other feasible less impacting method will accomplish the erosion control. Alternatives may include relocation or removal of existing improvements, if feasible, to avoid significant alteration of the bluff. Such measures shall not be used to accommodate proposed development nor to increase the area of the top of bluff.

The installation of erosion control measures shall not affect the location of the coastal bluff edge.

#### E. 143.0143 (j) Visual Corridors for Sensitive Coastal Bluffs

A site-specific analysis shall be conducted to determine and quantify the impact of the proposed development upon visual access to the ocean. If a visual corridor is feasible, the appropriate corridor shall be required as a condition of development approval pursuant to **Section 132.0403**. If there is an existing or potential public view on premises that lie between the shoreline and the first public roadway, but the site is not designated in a land use plan as a view corridor, it is intended that views to the ocean shall be preserved or restored by deed restricting required side yard setback areas to cumulatively form functional view corridors and to prevent a walled effect from development. If there is an existing or potential pubic view and the site is designated in the applicable land use plan as a view corridor or within a public viewshed, it is intended that such critical views to the ocean be maintained or restored by designing and siting the coastal development in such a manner as to preserve the identified pubic view. Consideration may be given to the development of the adjacent property in determining the appropriate width of the view corridor on the subject premises, so that the overall width of the corridor is at least 10 feet when measured across both properties. Any such required corridor shall be created and approved by the City Manager prior to the commencement of any construction on the premises.

No structures or other obstructions that will impede views shall be installed within the boundaries of any required visual corridor. Open fencing and landscaping may be installed within the view corridor provided such improvements do not significantly obstruct public views to the ocean. Landscaping shall be maintained such that during growing stage and at maturity, it will not encroach into the view corridor or obstruct public views to the ocean.

When remodeling is proposed to an existing structure and the existing development is to be retained which precludes the establishment of a 10-foot wide visual corridor, the preservation of any partial existing visual corridor on the premises will be accepted provided that the existing visual corridor is not reduced through the proposed remodeling.

#### F. 143.0143 (k) Vertical Public Access Easements for Sensitive Coastal Bluffs

A site-specific analysis shall be conducted to determine and quantify the impact of the proposed development upon vertical access to the ocean. If the impacts of the proposed development justify in nature and scope the need for such access, the appropriate easements shall be required as a condition of development approval. Any such required easements shall be created and approved by the City Manager prior to the commencement of any construction on the premises.

No structures or other obstructions that will impede access shall be installed within the boundaries of any required vertical access easement. Open fencing and landscaping may be installed within vertical easements provided such improvements do not hinder access or significantly obstruct views to the ocean.

If vertical access is determined to be required on a premises where there is evidence that such access exists, the existing access shall be retained, if feasible, through the easement requirement. If not feasible, an alternative access easement shall be provided on the same premises.

In determining whether the proposed development justifies the need for the requirement of a vertical public access easement, the following factors shall be considered:

- Appropriateness of access
- Privacy rights of landowner
- Existing public access
- Historic public use
- Intensification of land use
- Habitat values of the site
- Topographic constraints of the site
- Fragility of environmentally sensitive lands in the vicinity
- Nature of development in the vicinity
- Development's effect on current and projected demands for access and recreation
- Physical obstructions and the aesthetic, visual or recreational value of public use areas
- Recreational needs of the public
- Impact of development on public's use of beach areas

#### G. 143.0144(a) Development on Coastal Beaches

Any site that contains any portion of a coastal beach shall be subject to a Site Development Permit unless the proposed development qualifies for an exemption pursuant to **Section 143.0110(c)**. A Coastal Development Permit will be required, regardless of whether a Site Development Permit is required, for all coastal development proposed within the Coastal Overlay Zone and which does not qualify for an exemption pursuant to **Section 126.0407**. The uses permitted on the coastal beach are only those listed in **Section 143.0130(b)**, all of which are public facilities, with the exception of

shoreline protective works. If a privately owned premises contains a coastal beach, the private development shall occur on the portion of the premises that does not contain the coastal beach. If no such area exists or if such area is infeasible for development, a deviation from the Environmentally Sensitive Lands Regulations must be requested with the Site Development Permit. However, deviations from the Environmentally Sensitive Lands Regulations in the Coastal Overlay Zone shall be approved only after the decision maker makes an economically viable use determination and findings pursuant to **Section 126.0708(e)**.

In review of permit applications for shoreline protective works, the City Manager shall determine if the protective device is located on State tidelands or lands subject to the pubic trust, or if it is located on City or publicly-owned beach or on private property. The ownership of the beach and location of the protective device will determine whether the Coastal Development Permit is issued by the City or by the Coastal Commission. The Coastal Commission retains Coastal Development Permit authority for development proposed on tidelands, submerged lands or public trust lands; therefore, a mapped representation of the mean high tide line as it currently exists must accompany any permit application for a shoreline protective device.

Where erosion control devices are proposed to encroach upon or affect any portion of property owned by the City of San Diego or other public agency, or on lands subject to the public trust, the applicant shall provide written permission from the City Manager or public property owner before approval of any permit. If the protective device encroaches directly on or otherwise affects State tidelands or publicly-owned property, the property owner shall be required to compensate for the use of public property and to mitigate the impacts of the protective device on public beaches.

Additionally, Section 143.0144 of these regulations requires that shoreline protective devices incorporate mitigation for adverse impacts on shoreline sand supply. Such impacts include, but are not limited to, loss of the sandy beach on which the structure is located, fixing the back beach, halting the supply of bluff material to the littoral zone, increasing scour and causing changes to the beach immediately seaward of and adjacent to the protective device. The submitted geology report must include site-specific information that will allow the City Manager to determine whether the proposed protective device will have any of these or other adverse effects on shoreline sand supply, use of public beach, the beach area or the bluff landform, wither immediately or over time. The City Manager will consider all feasible design changes that will eliminate or minimize any identified impact from the proposed project. Examples of design changes include, but are not limited to, modifications to the type of structure, relocation of the proposed structure further landward, reducing the size of the extent of the protective device, etc.

Some of the effects which a shoreline protective device may have on natural shoreline processes can be quantified. The Coastal Commission has developed a Beach Sand Mitigation Program within the County of San Diego which includes a methodology by which the following impacts associated with protective devices can be quantified:

- 1. Loss of beach area on which the structure is located;
- 2. The long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and
- 3. The amount of material which would have been supplied to the beach if the back beach of bluff were to erode naturally.

The methodology is found in the Report on In-Lieu Fee Beach Sand Mitigation Program - San Diego County dated January 1997, available from City staff. The methodology is not applicable to all site conditions, however, in many cases, it can be used to calculate the beach area displaced and the amount of bluff material which does not reach the beach, as a result of a seawall, and to calculate the amount of sand which would be required to replace that lost beach area in the project vicinity. This amount of material is then converted to a fee by multiplying the amount of material times the cost of transporting that material to the beach. To derive these amounts, the methodology uses the information specific to the proposed project, such as the design life and amount of seaward encroachment. Also required is information specific to the project site, such as the height of bluff, width of property, percentage of sand in the bluff material and the predicted rate of erosion that was used to determine the need for protection of the existing principal structure.

The methodology quantifies some of the impacts caused by a protective device in terms of area of beach and volume of sand, but it is not considered the only means to identify impacts to sand supply and required mitigation. Where unavoidable impacts to shoreline sand supply area associated with an approved shoreline protective device, mitigation shall be required, and may include a mitigation fee to be used for beach replenishment within the same littoral cess of the project. The fee shall be roughly-proportional to the value of the beach area lost as a result of the approved protective device and shall be used for beach replenishment which is directly related to the impact of the project. When applicable, the above reference methodology may be utilized to calculate the mitigation fee. The fee shall be deposited in the City of San Diego Beach Sand Mitigation Fund held by the San Diego Association of Governments.

#### H. 143.0144(c) Visual Corridors for Coastal Beaches

A site-specific analysis shall be conducted to determine and quantify the impact of the proposed development upon visual access to the ocean. If a visual corridor is feasible, the appropriate corridor shall be required as a condition of development approval pursuant to **Section 132.0403**. If there is an existing or potential public view on premises that lie between the shoreline and the first public roadway, but the site is not designated in a land use plan as a view corridor, it is intended that views to the ocean shall be preserved or restored by deed restricting required side yard setback areas to cumulatively form functional view corridors and to prevent a walled effect from development. If there is an existing or potential public view and the site is designated in the applicable land use plan as a view corridor or within a public viewshed, it is intended that such critical views to the ocean be maintained or restored by designing and siting

the coastal development in such a manner as to preserve the identified public view. Consideration may be given to the development of the adjacent property in determining the appropriate width of the view corridor on the subject premises, so that the overall width of the corridor is at least 10 feet when measured across both properties. Any such required corridor shall be created and approved by the City Manager prior to the commencement of any construction on the premises.

No structures or other obstructions that will impede views shall be installed within the boundaries of any required visual corridor. Open fencing and landscaping may be installed within the view corridor provided such improvements do not significantly obstruct public views to the ocean. Landscaping shall be maintained such that during growing stage and at maturity, it will not encroach into the view corridor or obstruct public views to the ocean.

When remodeling is proposed to an existing structure and the existing development is to be retained which precludes the establishment of a 10-foot wide visual corridor, the preservation of any partial existing visual corridor on the premises will be accepted, provided that the existing visual corridor is not reduced through the proposed remodeling.

#### I. 143.0144 (d) and (e) Vertical and Lateral Easements for Coastal Beaches

A site-specific analysis shall be conducted to determine and quantify the impact of the proposed development upon vertical and lateral access to the ocean. If the impacts of the proposed development justify in nature and scope the need for such access, the appropriate easements shall be required as a condition of development approval. Any such required easements shall be created and approved by the City Manager prior to the commencement of any construction on the premises.

No structures or other obstructions that will impede access shall be installed within the boundaries of any required easement. Open fencing and landscaping may be installed within a vertical easement provided such improvements do not hinder access to the ocean.

If vertical or lateral access is determined to be required on a premises where there is evidence that such access exists, the existing access shall be retained, if feasible, through the easement requirement. If not feasible, an alternative access easement shall be provided on the same premises.

If a beach or headland width is less than 25 feet, the lateral access easement shall include the entire beach or headland area.

In determining whether the proposed development justifies the need for the requirement of a vertical public access easement or a lateral access easement, the following factors shall be considered:

- Appropriateness of access
- Privacy rights of landowner
- Existing public access
- Historic public use
- Intensification of land use
- Habitat values of the site
- Topographic constraints of the site
- Fragility of environmentally sensitive lands in the vicinity
- Nature of development in the vicinity
- Development's effect on current and projected demands for access and recreation
- Physical obstructions and the aesthetic, visual or recreational value of public use areas
- Recreational needs of the public
- Impact of development on public's use of beach areas

#### SECTION III: BLUFF MEASUREMENT GUIDELINES

The following guidelines provide details on determining the location of the bluff edge for sensitive coastal bluffs and measuring the required bluff edge setback.

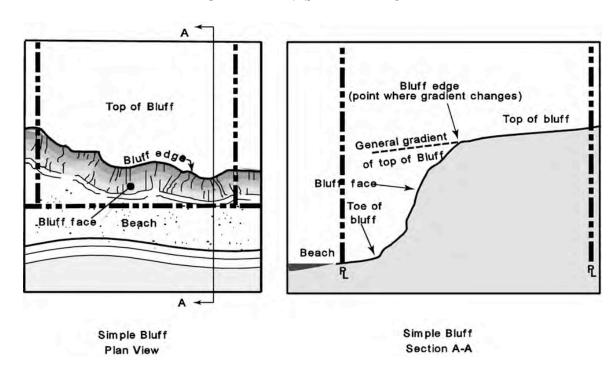
#### A. Determination of Coastal Bluff Edge for Sensitive Coastal Bluffs

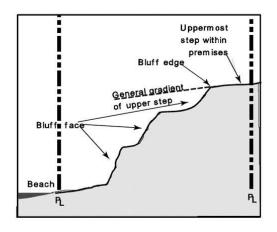
The following are examples of typical sensitive coastal bluff configurations with the determination of the coastal bluff edge identified:

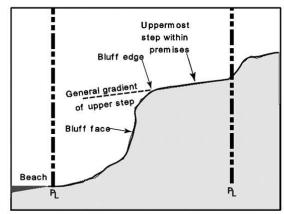
#### 1. Simple Bluff

The coastal bluff edge is a line across the sensitive coastal bluff at the seaward edge of the top of bluff. The line of the coastal bluff edge is formed by measuring the uppermost point of change in gradient at any location on the subject premises. See **Diagram III-1**.

#### **DIAGRAM III-1: SIMPLE BLUFF**







Multiple Steps within Premises

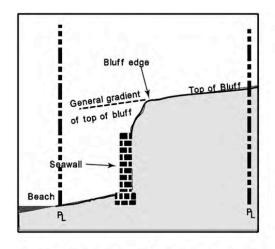
Single Step within Premises

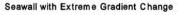
#### 3. Sensitive Coastal Bluff with a Seawall

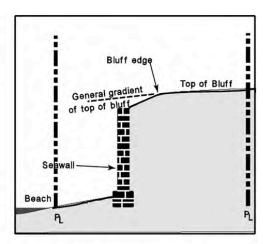
If the coastal bluff face has been partially altered with the installation of retaining walls, seawalls, or other device, the coastal bluff edge shall be considered the pre-existing change in gradient and shall continue to be measured as described in (a), above. That is, the installation of a seawall shall not affect the location of the coastal bluff edge. See **Diagram III-3**.

[NOTE: If a seawall has been installed on a premises due to excessive erosion, that premises shall not qualify for development at a reduced distance from the coastal bluff edge. Since the instability of the sensitive coastal bluff necessitated the installation of the seawall, the sensitive coastal bluff would not be considered stable enough to support development within the 40-foot distance to the coastal bluff edge.]

#### DIAGRAM III-3: SENSITIVE COASTAL BLUFF WITH A SEAWALL





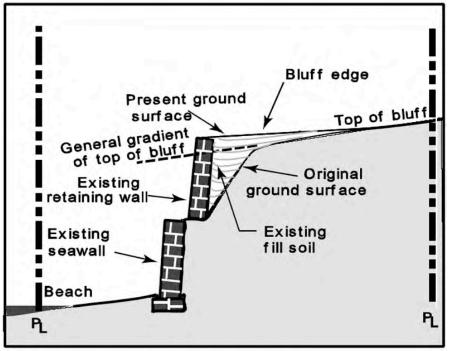


Seawall with Gradual Gradient Change

#### 4. Modified Landform

Where a coastal bluff face has been altered by grading and/or retaining wall, the coastal bluff edge shall be determined from the original geometry of the natural ground surface, projected to the present ground surface. See **Diagram III-4**. This may be determined by geotechnical investigation and/or historic documents such as photographs and maps.

DIAGRAM III-4: MODIFIED LANDFORM

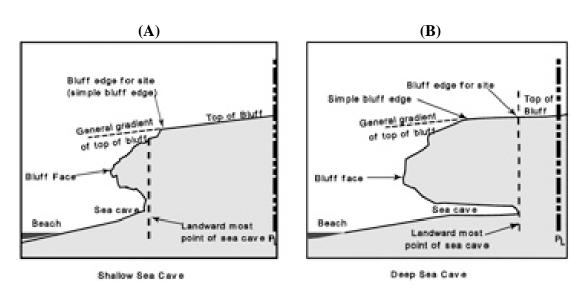


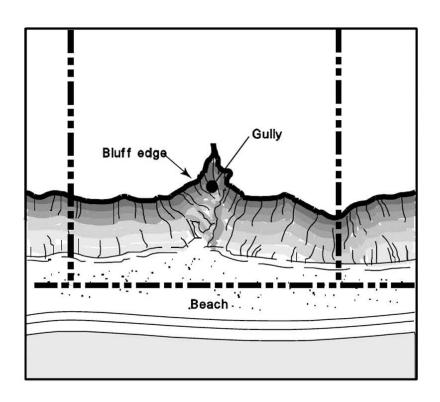
Modified Landform

#### 5. Sea Caves

Where a sea cave (a natural cavity or recess beneath the surface of the earth that is formed by or a result of marine erosion) or overhang exists, the coastal bluff edge shall be either the simple bluff edge (See **Diagram III-5(A)**) or a line following the landward most point of the sea cave projected to the ground surface above (See **Diagram III-5(B)**), whichever is more landward.

#### **DIAGRAM III-5: SEA CAVES**



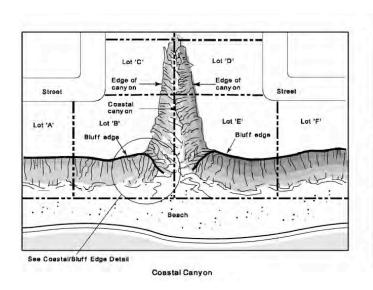


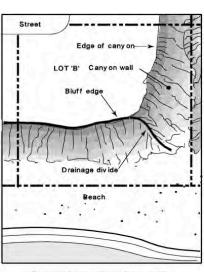
Gully

### 7. Coastal Canyons

Where a site is bounded on at least one side by a coastal canyon (a large, established regional drainage course that traditionally accepts runoff from off-site), the coastal bluff edge is defined as the portion of the site which drains directly into the ocean. That portion of the site which drains first to the canyon (landward of the drainage divide) is not considered to be a sensitive coastal bluff. See **Diagram III-7**.

#### **DIAGRAM III-7: COASTAL CANYON**



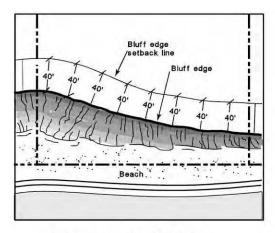


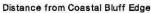
Coastal Canyon/Bluff Edge detail

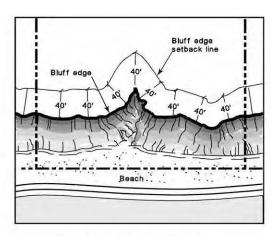
### B. Measurement of Distance from Coastal Bluff Edge for Sensitive Coastal Bluffs

The distance from the coastal bluff edge required for development on a sensitive coastal bluff is measured landward and perpendicular to every point along the coastal bluff edge. The line of the required distance from the coastal bluff edge will result in a line that is parallel to the coastal bluff edge. See **Diagram III-8**.

#### DIAGRAM III-8: DISTANCE FROM COASTAL BLUFF EDGE







Distance from Coastal Bluff Edge