

1 PROJECT DESCRIPTION

1.1 HISTORY AND BACKGROUND

Beacon's Beach, also known as Leucadia State Beach, is one of six City of Encinitas (City)-maintained and operated beaches. The other beaches include Grandview, Stone Steps, Moonlight, D Street, and Swami's. There are also two State of California (State) beaches in the City: San Elijo and Cardiff. Beacon's Beach is popular within the City and has a strong community affiliation with beach users. Although the site is owned by the State, the City of Encinitas operates and maintains the beach, parking lot, bluff, and trail access under a 20-year lease agreement with the State. The beach and the public-access facilities are an important asset to local residents, vacationers, and regional surfers, and provide recreation opportunities to those who enjoy beach-going activities. Approximately 170,000 people use the beach annually.

The bluffs atop Beacon's Beach have a history of instability due to landslides and general bluff erosion that occurs along this region of the northern San Diego coast. Landslide movement that occurred during the winter of 1982-83 damaged stairs that previously provided access to the beach. Since that time, beach access has been provided via a switchback trail beginning at a public parking lot along the west side of Neptune Avenue. The beach access trail has been re-routed many times to avoid steep slopes. In February 2001, landslides resulted in the collapse of a major portion of the bluff, which led to restricted public access to the beach.

The City is proposing to improve beach access and stabilize the bluff so that this public asset can continue to be enjoyed. To accomplish this goal, the City applied for and received a \$2.8 million grant in 2001 from the California Department of Parks and Recreation to restore and protect the bluff and create safe, permanent access to the beach. The City initiated studies in 2002 to conduct a general site analysis and geotechnical study, and prepare conceptual designs. The proposed Beacon's Beach Access Project (project) and alternatives evaluated in this Environmental Impact Report (EIR) are the result of these studies.

1.2 PROJECT LOCATION AND STUDY AREA

Beacon's Beach is located westward of Neptune Avenue at the intersection of Leucadia Boulevard, extending approximately 500 feet north along the coast in Encinitas, California (see Figures 1.2-1 and 1.2-2 for maps of the project area). A 24-space parking lot is located at the top of the bluff adjacent to Neptune Avenue (see Figure 1.2-3). The bluff top is approximately 85 feet above the beach with a moderate to steep slope along the bluff face to the beach. A steel guardrail borders the west side of the parking lot. The existing footpath starts at roughly the center of the parking lot and continues with several switchbacks down to the beach. Wood posts connected with wire cable handrails have been installed along the downhill side of the trail.

Existing surface drainage consists of several flexible plastic pipes that route water from the parking lot over and down the bluff face. The bluff is generally sparsely vegetated. The upper portions of the bluff have numerous gullies, and sandbags have been placed within some of the deeper gullies. Rodent burrows are present in many areas of the bluff. City maintenance crews routinely hydroseed the entire slope.

FIGURE 1.2-1: Project Regional Map

[INSERT COLOR FIGURE]

FIGURE 1.2-2: Project Vicinity Map

[INSERT COLOR FIGURE]

FIGURE 1.2-3: Aerial Photograph of Beacon’s Beach

[INSERT COLOR FIGURE]

Beacon's Beach has historically been characterized as a thin, narrow beach with a cobble berm along the back beach area. A regional sand-replenishment project that deposited approximately 132,000 cubic yards of beach sand in June 2001 in the area that includes Beacon's Beach has significantly increased the width of the beach. The current beach elevation is approximately 11 to 12 feet above mean sea level (URS, 2003). The width and thickness of the sand present at the beach at any given time is dependent on a number of factors, including time of year, time of day (high tide versus low tide), wave regime, storm surge, and sea elevation.

The project study area considered in this EIR that may be affected by project environmental impacts includes the parking area adjacent to Neptune Avenue, the bluff face, and beach fronting the bluff.

1.3 GOALS AND OBJECTIVES

The goals and objectives of the project are to:

- restore and protect the public access at Beacon's Beach,
- improve public safety by stabilizing the bluff, and
- minimize the risk of landslides.

1.4 PROPOSED PROJECT DESCRIPTION

The project has been developed based on the project goals and objectives, community input obtained through a series of public meetings and workshops (see Chapter 8—Public and Agency Involvement), and a detailed geotechnical investigation. The project is composed of the following components (see Figure 1.4-1):

- Parking lot reconfiguration
- Bluff-area stabilization and replanting
- Reestablishment of trail access to the beach area
- Shoreline protection structure
- Public shower
- Foundation piers for lifeguard tower¹
- Improved surface water drainage
- Utilities for shower and lifeguard tower

The public shower would be located at the base of the bluff on the east side of the shoreline protection structure. The shower would be composed of a single pole riser with one showerhead, one foot-spray, one drinking fountain, and one quick coupler for maintenance. The shower would drain to a drain pipe that would flow onto the beach.

The lifeguard tower would be approximately 200 square feet in size consisting of wood construction, an angled pitched (copper) roof, windows consisting of polarized glass and an observation deck. The one-story tower would be supported by four caissons that are part of the

¹ The lifeguard tower would be subject to a subsequent Coastal Development Permit.

project and would be sited near where the beach access path branches to the north and south. The design and color of the tower would blend aesthetically with the surrounding bluff area. Utilities would be extended to the tower, which would also have a shower and water heater.

In addition to the bluff erosion control measures that will be installed during construction (see Section 1.4.1.2), the surface water drainage system would include the following features:

- one 6-inch PVC pipe encased in concrete running from the north side of the parking lot to the base of the bluff with runoff flowing onto the beach;
- two 8-inch PVC pipes encased in concrete running from the south side of the parking lot to the base of the bluff with runoff flowing onto the beach; and
- four 6-inch and one 4-inch PVC pipes encased in concrete that would transport runoff from a drainage system integrated into the access pathway to the base of the bluff with runoff following onto the beach.

A water line would run from a water main in Neptune Avenue to the lifeguard tower, then branch off and continue north to the public shower. Electric power would be supplied to the lifeguard tower through a connection to an existing power pole on Neptune. The electric line would run along the access pathway buried in a PVC conduit a minimum of 24 inches below ground surface.

1.4.1 Construction Scenario

The project would be constructed sequentially over a nine-month period between Labor Day and Memorial Day. Construction would occur between the hours of 7:30 a.m. and 5 p.m. During construction, no public access would be provided to the beach from the bluff top. The construction site would be temporarily fenced off from the public. Beach access would be directed south to Stone Steps Beach and Moonlight Beach or north to Grandview Beach. No public parking would be provided during construction. Low-level night lighting would be utilized for safety and security purposes. No nighttime construction is proposed. The City would place advertisements in local newspapers, post a notice on the City website, and post signage on-site indicating that Beacon's Beach would be closed to public access for the duration of project construction. The notice would also provide a map showing where alternative beaches are located.

Heavy construction equipment such as a drill rig, backhoe, bulldozer, Gradall, bobcat, loader, and concrete truck with booms/hoses would access the beach to construct the shoreline protection structure. Construction equipment would not be stored on the beach overnight. A staging area off the beach would be used to stage and store equipment when not actively involved in project construction. The construction equipment would access the project site via Moonlight Beach by traveling north along the beach approximately 1.25 miles.

FIGURE 1.4-1: Proposed Project Site Plan

[INSERT COLOR 11X17 FIGURE]

THIS PAGE INTENTIONALLY LEFT BLANK

1.4.1.1 Shoreline Protection Structure

A bluff protection wall is proposed to minimize erosion of the toe of the bluff and stabilize the landslide. The bluff protection wall would be approximately 450 feet long and approximately 17 feet high from the top to the base of the wall. It would extend a minimum of 4 feet into the Ardath Shale below the landslide debris. The amount of the bluff protection wall exposed along the beach would vary as the beach sand accretes and recedes throughout the year, with more of the structure exposed during the winter and less exposed during the summer. The amount of the structure exposed would also vary from year to year depending on the intensity of winter storms and local beach replenishment efforts. Based on summer sand levels at Beacon's Beach in 2005 of approximately +11 feet mean sea level, approximately 6 feet of the bluff protection wall is anticipated to be visible.

The west side of the bluff protection wall would be surfaced using hand-sculpted shotcrete² in a manner that mimics the color, texture, and relief of the natural bluffs in the area. See Figures 2.2-13 and 2.2-14 in the Visual/Aesthetics section for visual simulations of the bluff protection wall. The bluff protection wall would be textured with hand-sculpted shotcrete to +5 feet mean sea level to ensure that portions of the structure typically covered by sand are not visible during periods of severe sand depletion. A cross sectional graphic of the bluff protection wall is provided in Figure 1.4-2. This graphic illustrates the position of the wall relative to the typical summer sand level and Ardath Shale.

Construction of the bluff protection wall would commence with installation of the soldier piles and concrete caissons a minimum of 10 feet into Ardath Shale. The wall would be completed in segments to minimize the amount of excavation exposed to waves and mitigate reactivating the landslide. The wall drainage would then be installed and the wall backfilled. Tie-backs (wall retention structures embedded into Ardath Shale) would then be installed and stressed.

1.4.1.2 Bluff Restoration

The bluff slope would be cut and graded using fill soil as necessary to achieve the project goal of providing a safe and stable bluff for access to the beach. A grading plan illustrating the proposed grading of the site is provided in Figure 1.4-3. As can be seen on this figure, the upper portion of the bluff would be cut and the remainder of the bluff filled to achieve an undulating slope of 1.5:1 to 1.75:1. Preliminary engineering estimates the amount of cut soil at 2,235 cubic yards and fill soil at 6,713 cubic yards. Tie-backs would be installed to retain the upper bluff face.

The access pathway, handrail, and other features, such as foundations for the lifeguard tower and shower, would be constructed on the slope. The access path would be sloped at an average of 14 percent downhill, with a 2 to 4 percent slope toward the bluff face. The new access path would closely follow the existing path and would be surfaced with compacted soil. The bottom of the access path would branch into separate northern and southern points of entry at the beach.

² Shotcrete is the process of pneumatically spraying concrete or mortar through a high-velocity hose against a wall or other surface to cover the surface of the wall with the material being sprayed. Repeated applications can result in surface features of varying depth and texture. Color can also be applied to the concrete/mortar mixture.

FIGURE 1.4-2: Bluff Protection Wall Cross-Section View

[INSERT B&W FIGURE]

FIGURE 1.4-3: Grading Plan
[INSERT Color 11X17 FIGURE]

THIS PAGE INTENTIONALLY LEFT BLANK

Concrete steps would be provided at the beach where each path terminates. Near the bottom of the northern access path, the soil path would transition to a concrete ramp along a portion of the shoreline protection structure. Subsurface drainage pipes would be installed to convey stormwater from parking lot and trail catch basins to the bottom of the bluff at beach level.

During construction, erosion control measures would be utilized to minimize the transport of sediment generated during construction activities from entering the storm drain system at the top of the bluff or from being transported across the bluff onto the beach.

To control erosion during construction, a combination of best management practices (BMPs) would be utilized. Gravel bags would be placed along the perimeter of the construction limits at the top of the bluff to control sediment entering the storm drain. As the new catch basins are constructed, gravel bags would be placed around the inlets. On the bluff slope, fiber rolls would be used at regular intervals to control runoff. A silt fence would be placed at the base of the slope, above the high tide line, to capture sediment resulting from slope construction activities.

The project would provide long-term BMPs that, when compared to existing on-site conditions, would enhance the water quality treatment of runoff flow through the site. These measures, which would be made conditions of project approval, include the following:

- stormwater runoff from paved areas would be collected in curbs and gutters and transported to filtered catch basins prior to exiting the site;
- stormwater from paved areas would not come into contact with non-stabilized soil once paving has been completed;
- runoff from sidewalks would enter into stabilized landscape areas;
- drain inlets would include storm water filters;
- the City would, on a regular basis, inspect the parking lot for debris and other pollutant sources;
- parking lot areas would be swept by a street-sweeping service regularly to prevent trash and other debris from entering the storm drain system;
- should pollutant sources be present or have the potential to enter the storm drain system, the City would prescribe a maintenance program to address the pollutant sources;
- storm drain inlets labeled with the appropriate stencil to indicate that no dumping is allowed;
- trash receptacles would be placed throughout the project site in locations that would encourage use.

1.4.1.3 Parking Area

The parking area and other hardscape (benches, bike racks, pay phone) at the top of the bluff would then be constructed and the subsurface drainage would be installed. The redesigned parking area would include 17 public parking spaces, including one handicap space (a net reduction of seven public parking spaces from the current configuration). In addition, a parking space would be designated for lifeguard parking only.

1.4.1.4 Landscaping

Landscape treatments and erosion control would include native plant species from 1-gallon containers and a native seed mix for additional erosion control on the bluff. Figure 1.4-4 provides a landscape plan indicating the placement of plants on the bluff. To assist in vegetation establishment, temporary underground spray irrigation would be provided for establishment of plant material. The irrigation system would be used for one to two years. The parking lot would be landscaped with native groundcover and accent shrubs.

1.4.2 Operation and Maintenance

Routine maintenance activities would consist of:

- drainage structure clearing and inspection (monthly; weekly during rainy seasons);
- irrigation monitoring for appropriate coverage and general system operation until plant establishment period has matured (weekly);
- weed control until plant establishment period has matured (bi-weekly);
- access path inspection and repair as necessary (monthly; weekly during rainy seasons);
- parking lot and concrete walkway at the top of the bluff cleaned of trash and debris, trash cans emptied, and graffiti removed (daily); and
- slope area observed for ground cracks and erosion, and repaired (quarterly).

The project also includes a beach-replenishment program that is intended to nourish the beach in front of the shoreline protection structure. This component of ongoing maintenance is proposed to offset the placement of a non-erodible structure at the base of the bluff and reduce the effects of passive erosion that may occur from fixing the back of the beach at the shoreline protection structure as well as reduce the aesthetic and safety impacts of exposure of the shoreline protection structure. The beach replenishment program would be similar in nature to the ongoing replenishment program that occurs at Moonlight Beach. Replenishment at Beacon's Beach would occur annually on an as-needed basis when 8 feet or more of the shoreline protection structure is exposed. Sufficient sand would be imported so that only 3 to 4 feet of the shoreline protection structure would be exposed. Beach replenishment would typically occur prior to Memorial Day. The procedure used to import sand would be in accordance with a Coastal Development permit issued by the California Coastal Commission.

1.5 INTENDED USE OF THE EIR

The City has identified the Beacon's Beach project in its Capital Improvement Plan and is now in the process of conducting environmental review and compliance for the project pursuant to the California Environmental Quality Act. Various permits would be necessary for approval and implementation of the project. Agencies that have jurisdiction in issuing permits or approvals may use information presented in this EIR to assist in the decision-making process. Table 1.5-1 lists the permits and approvals that would be required for project implementation.

FIGURE 1.4-4: Landscaping Plan

[INSERT Color 11X17 FIGURE]

THIS PAGE INTENTIONALLY LEFT BLANK

Table 1.5-1: Key Permits and Approvals

Regulatory Agency	Permit/Approval
City of Encinitas	Project approval Major Use Permit Coastal Development Permit Beach Encroachment Permit
California Department of Parks and Recreation	Project review/approval
California Coastal Commission	Coastal Development Permit
California State Lands Commission	Lease agreement for use of State lands

THIS PAGE INTENTIONALLY LEFT BLANK