

***ADMINISTRATIVE DRAFT***

**MITIGATED NEGATIVE DECLARATION AND**

**INITIAL STUDY CHECKLIST**

**Project Name:** East Bluff Stabilization Project

**Project Location:** UCSB along the bluff adjacent to Lagoon Road (Between Ucen Road and Channel Islands Road)

Approximate Northwest extent:

Latitude 34° 24’ 39.87” N

Longitude 119° 50’ 31.32” W

Approximate Southeast extent:

Latitude 34° 24’ 37.63” N

Longitude 119° 50’ 31.90” W

**Project Applicant:** University of California, Santa Barbara

Office of Campus Planning and Design

Facilities Management

Santa Barbara, California 93106-1030

**Lead Agency:** The Regents of the University of California

1111 Franklin Street

Oakland, CA 94607

Contact Person: Ms. Shari Hammond, (805) 893-3796

**Public Review**

**Period:** \_\_\_\_\_\_\_\_\_\_\_\_, 2017 to \_\_\_\_\_\_\_\_\_\_\_\_, 2017

This Mitigated Negative Declaration (MND) and Initial Study (IS) have been prepared pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations, Section 15000, et seq.). It is available for the public review period shown above.

Comments regarding this MND/IS must be made **in writing** and addressed to Ms. Alissa M. Hummer, Director, Office of Campus Planning & Design, UC Santa Barbara, Santa Barbara, California 93106-1030, or sent by email to alissa.hummer@planning.ucsb.edu. Comments should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment that may result from the project, and the ways in which any significant effects are avoided or mitigated. All comments must be received in the Office of Campus Planning and Design office no later than 5:00 p.m. on the last day of the public review period noted above.

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# 

Introduction

## Project Information

**Project Title:** East Bluff Stabilization Project

**Lead Agency Name and Address:** The Regents of the University of California

1111 Franklin Street

Oakland, CA 94607

**Contact Person and Phone Number:** Ms. Shari Hammond

(805) 893-3796

**Project Location:** Lagoon Road (Between Ucen Road and Channel Islands Road)

Approximate Northwest Project End:

Latitude 34° 24’ 39.87” N

Longitude 119 ° 50’ 31.32” W

Approximate Southeast Project End:

Latitude 34° 24’ 37.63” N

Longitude 119 ° 50’ 31.90” W

**Project Applicant:** University of California, Santa Barbara

Office of Campus Planning and Design

Facilities Management

Santa Barbara, CA 93106-1030

**Description of Project:** See Chapter 2, Project Description.

**Surrounding Land Uses and Setting:** See Chapter 2, Project Description.

**Other Public Agency Approvals:** Processing a Notice of Impending Development (NOID) with the California Coastal Commission. Submittal of a Notice of Intent (NOI) to the RWQCB and preparation of a Storm Water Quality Management Plan (SWQMP) in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit.

## Overview

The University of California is the Lead Agency for the University of California, Santa Barbara (UCSB) East Bluff Stabilization Project (or “proposed project” or “project”), which is undergoing an environmental review pursuant to the California Environmental Quality Act (CEQA). One of the main objectives of CEQA is to disclose to the public and decision makers the potential environmental effects of proposed activities. CEQA requires that the lead agency prepare an Initial Study (IS) to determine whether an Environmental Impact Report (EIR), Negative Declaration (ND), or a Mitigated Negative Declaration (MND) is needed. The University of California has prepared this IS/MND to evaluate the potential environmental consequences associated with implementation of the proposed project.

## Authority

The preparation of this IS/MND is governed by two principal sets of documents: CEQA (Public Resources Code Section 21000, et seq.) and the State of California (State) CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an IS/MND is guided by the State CEQA Guidelines; Section 15063 describes the requirements for initial studies, and Sections 15070–15075 describes the process for the preparation of an MND. Where appropriate and supportive to an understanding of the issues, reference will be made to either the CEQA statute or State CEQA Guidelines. This IS/MND contains all the contents required by CEQA, which includes a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

## Scope

This IS/MND evaluates the project’s potential effects on the following resource topics:

|  |  |
| --- | --- |
| * aesthetics | * land use planning |
| * agricultural resources | * mineral resources |
| * air quality | * noise |
| * biological resources | * population and housing |
| * cultural resources/tribal cultural resources | * public services |
| * geology and soils | * recreation |
| * greenhouse gas emissions | * transportation/traffic |
| * hazards and hazardous materials | * utilities and service systems |
| * hydrology and water quality | * mandatory findings of significance |

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Environmental Setting

and Project Description

## Project Overview

The proposed project involves construction of a shoreline protection device to stabilize an eroding 50-foot section of coastal bluff adjacent to Lagoon Road on the UCSB campus. **Figure 1** shows the general project location and **Figure 2** shows an aerial photo of the project area. **Figure 3** shows Lagoon Road and the Anacapa Residence Hall and the coastal bluff section requiring stabilization. **Figure 4** shows the proposed work area.

## Existing Environmental Setting

### University of California Santa Barbara

The UCSB campus encompasses a total of approximately 1,055 acres. The campus is comprised of four areas known as the Main Campus, Storke Campus, West Campus, and North Campus. The UCSB campus is located in an unincorporated area of Santa Barbara County, near the City of Goleta and the community of Isla Vista, and approximately 10 miles west of the City of Santa Barbara. This general area is referred to as the South Coast region of the County and occupies a coastal plain about three miles wide between the Pacific Ocean and the foothills of the Santa Ynez Mountains.

### Project Site

The project site is adjacent to Lagoon Road (in between Ucen Road and Channel Islands Road) on the UCSB campus. The project site is an approximate 50-foot section of the coastal bluff where the top of the bluff has encroached to within approximately 14 feet of Lagoon Road and within 60 feet of the southeastern corner of Anacapa Residence Hall.

## Surrounding Land Uses

The project site is located on, and adjacent to, the UCSB campus and there are no other immediately surrounding land uses other than UCSB and the public beach below/adjacent to the project site.

## Project Description and Need

UCSB is proposing the installation of a shoreline protective device to stabilize coastal erosion along an approximately 50-foot section of coastal bluff adjacent to Lagoon Road. Lagoon Road is vital to the operation and function of the UCSB campus. The top of the bluff has encroached to within approximately 14 feet of Lagoon Road and within 60 feet of the southeastern corner of Anacapa Residence Hall of the UCSB Campus.

Lagoon Road is the primary traffic corridor servicing the general UCSB campus and Anacapa Residence Hall and also provides access for emergency vehicles, including fire trucks, to the eastern portion of the campus. The bluff within this 50-foot section has an estimated static factor of safety approaching 1.0, which extends approximately 14 feet into Lagoon Road. [[1]](#footnote-1)

This area of marginally stable bluff threatens to disrupt the functioning of the campus by restricting campus traffic in general, and more specifically to limit, disrupt, and potentially cut off direct access to the eastern portion of the campus for emergency vehicles, including fire truck access, and also hinder and restrict access to Anacapa Hall. In addition to interrupting the function and operation of Lagoon Road, coastal erosion threatens critical infrastructure that exists within Lagoon Road that is critical to the short term and long term function and operation of the UCSB campus.

If a bluff top failure were to occur, the resulting failure would block access to Lagoon Road, thereby preventing vehicular traffic, including essential emergency vehicles, from accessing the eastern portion of the UCSB campus and disrupting and restricting the utilization of Anacapa Residence Hall. Such an event would significantly impact and restrict the functioning of UCSB. Implementation of the Proposed Project is intended to prevent such a failure from occurring.

UCSB proposes construction of a structural-tied-back wall recessed into the face of the existing bluff as the method of bluff stabilization as described in the July 2017 report “*Coastal Bluff Evaluation and Geotechnical Basis of Design, Emergency Bluff Stabilization, Anacapa Hall, UCSB*” prepared by Terra Costa Consulting Group (TCCG, 2017).

The geotechnical report (TCCG 2017) evaluated a full range of options/alternatives to address the imminent failure of the bluff as described in the 2017 TCCG report including: Structural-Tied-Back Wall at Face of Existing Bluff; Tied-Back Drilled Pier Wall; Rock Riprap; Chemical Grouting; Groundwater Controls, Irrigation Restrictions, and Drought-Tolerant Planting; Abandonment of Lagoon Road and Rerouting Traffic Westerly of Anacapa Hall; Underpinning; and, No Action.

The preferred project is the proposed project and consists of a structural-tied-back skin/wall system that would be located as far landward as possible and would be recessed approximately six feet landward of the face of the existing bluff to offset the potential for near term flanking of the bluff stabilization device. The structural wall inset into the existing bluff face would allow the adjacent bluff to continue to erode at its current rate. TCCG estimates that this six-foot sacrificial zone would provide 5 -13 years of service before additional remedial efforts would likely be required. **Figure 5** shows the proposed project cross section and **Figure 6** shows the proposed project elevation and additional design details.

###### Figure 1 - Project Location

A picture containing text, map

Description generated with very high confidence

Source: TerraCosta Consulting Group

###### FIGURE 2 - Vicinity Map

A close up of a road

Description generated with high confidence

###### FIGURE 3 - COASTAL BLUFF ADJACENT LAGOON ROAD & ANACAPA residence HALL

A sign on the side of the road

Description generated with very high confidence

Source: TerraCosta Consulting Group

###### Figure 4 - Proposed Area of Work

A picture containing military vehicle

Description generated with high confidence

Source: TerraCosta Consulting Group

## Project Construction

The proposed project would be constructed in one progressive phase estimated to take approximately three months to complete. Construction would require a staging area for storage and a stockpiling area for placement of construction materials and equipment. In addition, traffic control would be implemented during the short term construction phase along Lagoon Road to ensure public safety for pedestrians, cyclists, and vehicles. A portion of the top-of-bluff area would also be secured in order to maintain safety by keeping people away from the construction zone.

Project construction would consist of the following steps:

1. Install Best Management Practices (BMPs) to control construction materials and debris from leaving the site, as well as to protect adjacent areas from storm runoff from the construction site.
2. Clear and grub the face of the bluff and remove the existing fence/railing at top of the bluff.
3. Using either a crane-suspended construction basket or scaffolding founded into the shore platform, tieback anchors will be installed at specified locations. These anchors will be drilled into the bluff face using pneumatic drills. The drill holes will be cased as needed, and will be on the order of 6 inches in diameter. Once the length of anchor has been drilled, pre-stressing steel reinforcing strands will be placed in the drilled hole and then grouted in place. The grout will likely be pumped from the top of bluff using concrete pump trucks. Grouting of anchors will be performed under pressure and anchors will be post-grouted.
4. Once anchors are installed, epoxy-coated steel reinforcing will be placed on the bluff face and tied into the bluff face to hold the reinforcing in place prior to the placement of the shotcrete structural skin.
5. The structural skin will be constructed by applying shotcrete from the bottom of the wall up.
6. Once shotcrete is set sufficiently, the anchors will be tested for capacity.
7. Once the shotcrete wall and anchors are installed, the outer face of the shotcrete will have a carved, sculptured, and colored surface placed over the shotcrete skin. This surface will be colored and textured to match the conditions of the adjacent bluff face to the maximum extent feasible.
8. The construction site will be cleaned up and top-of-bluff vegetation will be reestablished.
9. The top railing will be installed at the top of the wall.

#### Construction Access and Staging

Scaffolding would likely be constructed along the bluff face to accommodate anchor installation. A work area would be established at the bottom of the bluff and materials and equipment would likely be lowered down from the top of the bluff using a crane. The existing parking lot south of the project site could be utilized temporarily for materials storage and construction staging as it provides direct access to Lagoon Road and is within 200 feet of the project site and provides a coastal access to the public beach below.

#### Proposed Construction Equipment

* Backhoe
* Crane or Lift with Man-Basket
* Hydraulic-Powered Drill
* Compressor
* Generator
* Concrete Pump
* Concrete Mixer Truck
* Portable Grout Mixer
* Support Trucks

###### Figure 5 - Proposed project Cross Section

A close up of a map

Description generated with very high confidence

###### Figure 6 - Proposed project Elevation & Details

A close up of text on a white background

Description generated with high confidence

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Initial Study

Environmental Checklist

## Environmental Factors Potentially Affected

Based upon the initial evaluation presented in the following IS, it is concluded that the project would not result in significant adverse environmental impacts. Environmental Determination

On the basis of the initial evaluation of the attached Initial Study:

I find the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

I find that although the project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

|  |  |  |
| --- | --- | --- |
|  |  | 10/xx/2017 |
| Alissa M. Hummer, Office of Campus Planning & Design |  | Date |
| The signature below signifies that the applicant has read and accepts the mitigation measures detailed in the final Mitigated Negative Declaration. | | |
|  |  |  |
| Applicant or Owner |  | Date |

## Evaluation of Environmental Impacts

The following IS checklist provides analysis of the proposed project's potential to result in significant adverse environmental impacts. Section 15063(c) of the Guidelines indicates that the purpose of an IS is to:

1. Provide the Lead Agency (the University of California) with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration (ND);
2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND;
3. Assist the preparation of an EIR, if one is required, by:
   1. Focusing the EIR on the effects determined to be significant;
   2. Identifying the effects determined not to be significant;
   3. Explaining the reasons why potentially significant effects would not be significant; and,
   4. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project’s environmental effects.
   5. Facilitating environmental assessment early in the design of a project.
   6. Providing documentation of the factual basis for the finding in an ND that a project will not have a significant effect on the environment.
   7. Eliminating unnecessary EIRs.
   8. Determining whether a previously prepared EIR could be used with the project.

### Impact Terminology

The University has defined the column headings in the Initial Study checklist as follows:

A) “**Potentially Significant Impact**” is appropriate if there is substantial evidence that the project’s effect may be significant. If there are one or more “Potentially Significant Impacts” a Project EIR will be prepared.

B) “**Less Than Significant With Mitigation Incorporated**” applies where the incorporation of project specific mitigation measures will reduce an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” All project-level mitigation measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.

C) “**Less Than Significant Impact**” applies where the project will not result in any significant effects. The project impact is less than significant without the incorporation of LRDP or project-level mitigation.

D) “**No Impact**” applies where a project would not result in any impact in the category or the category does not apply. “No Impact” answers need to be adequately supported by the information sources cited, which show that the impact does not apply to projects like the one involved (*e.g*., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (*e.g*., the project will not expose sensitive receptors to pollutants, based on a project specific screening analysis).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Aesthetics   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Have a substantial adverse effect on a scenic vista? |  |  |  |  |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? |  |  |  |  |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? |  |  |  |  |
| d. Create a source of substantial light or glare, which would adversely affect day or nighttime views in the area? |  |  |  |  |

Discussion

##### a. LESS THAN SIGNIFICANT IMPACT.

The 2010 UCSB Long Range Development Plan (LRDP) defines a scenic vista as “Places on, along, within, or visible from scenic public roads, trails, beaches, and parklands that offer scenic vistas of the beach and ocean, coastline, mountains, canyons and other unique natural features or areas.” The project site is listed as a scenic and visual resources view point in the LRDP as the top of the bluff provides views of the beach and ocean. The project would not adversely affect existing scenic vistas or view points as it would only install a railing for safety on top of the proposed shoreline protective device, similar to the railing/fence that currently exists. The proposed project design includes an aesthetic treatment to ensure that the potential for aesthetic/visual effects is minimized to the maximum extent. The device would be hand sculpted and color treated to ensure that it blends into the adjacent coastal bluff in an effort to ensure a natural appearance upon project completion. Therefore, this impact would be less than significant.

##### b. NO IMPACT.

The project site is not within a state scenic highway. Therefore, there would be no impact.

##### c. LESS THAN SIGNIFICANT IMPACT.

The proposed project design includes an aesthetic treatment to ensure that the potential for aesthetic/visual effects is minimized to the maximum extent. The project would modify, but would not substantially degrade the existing visual character or quality of the project site or surroundings. The outer face of the shotcrete would have a carved, sculptured, and colored surface placed over the shotcrete skin to ensure that the device blends in with the adjacent bluff to the maximum extent feasible. This outer surface would be colored and textured to match the conditions of the adjacent bluff face. After the proposed project is complete, the construction site would be cleaned up and top-of-bluff vegetation would be reestablished. Therefore, this impact would be less than significant.

##### d. NO IMPACT.

The project site would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Therefore, there would be **no impact**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Agriculture and Forestry Resources   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? |  |  |  |  |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? |  |  |  |  |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? |  |  |  |  |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? |  |  |  |  |
| e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use? |  |  |  |  |

Discussion

##### a - e. NO IMPACT.

The project site is an approximate 50-foot section of coastal bluff. The project site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Further, the site is not located in an area designated as forest land or timberland, and it is not currently under active agricultural use or under a Williamson Act contract. As a result, project development would not convert any farmland to non-agricultural use or forest land to non-forest use, or conflict with existing agricultural or timberland zoning or Williamson Act contracts. Therefore, **no impacts** would occur to agriculture and forestry resources.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Air Quality   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Conflict with or obstruct implementation of the applicable air quality plan? |  |  |  |  |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? |  |  |  |  |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed qualitative thresholds for ozone precursors?) |  |  |  |  |
| d. Expose sensitive receptors to substantial pollutant concentrations? |  |  |  |  |
| e. Create objectionable odors affecting a substantial number of people? |  |  |  |  |

The air quality analysis below was performed using methodologies and assumptions recommended within the Santa Barbara County Air Pollution Control District’s (SBCAPCD) *Scope and Content of Air Quality Sections in Environmental Documents (June 2017 Limited Update)[[2]](#footnote-2) and the Santa Barbara County Environmental Thresholds and Guidelines Manual (Revised July 2015).[[3]](#footnote-3) Please also refer to the RCH Group, Inc. August 16, 2017, Air Quality and Greenhouse Gas Analysis Technical Appendix.* The report is on file and available for review in the UCSB Office of Campus Planning and Design.

## Environmental Setting

The project site is in the South Central Coast Air Basin, which encompasses Santa Barbara, San Luis Obispo, and Ventura Counties. The SBCAPCD monitors and regulates air quality pollutants pursuant to the Federal Clean Air Act (CAA), as amended, and the California Clean Air Act (CCAA). Federal standards have been established for seven pollutants: Carbon Monoxide (CO), Lead, Nitrogen Dioxide (NO2), Ozone, Particulate Matter equal to or less than 10 micrometers (PM10), Particulate Matter equal to or less than 2.5 micrometers (PM2.5) and Sulfur Dioxide (SO2). State standards have been established for all seven federally regulated pollutants plus the following: Sulfates, Hydrogen Sulfide, Vinyl Chloride, and Visibility Reducing Particles. Other SBCAPCD responsibilities include preparing and updating clean air plans; adopting, administering, and enforcing air pollution control rules and regulations; demonstrating innovative clean air technology; and, educating the public about their role in reducing air pollution.

The SBCAPCD maintains a network of monitoring stations within Santa Barbara County that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to the project site is the Goleta-Fairview Station (380 N Fairview Avenue, Goleta, CA 93117), approximately 2.5 miles northeast of the project site; where levels of ozone, PM10, PM2.5 and NO2 are recorded.

**Table AQ-1** summarizes the most recent three years of data (2014 through 2016) from the Goleta-Fairview Station. The State ozone standard was exceeded once in 2014, while the federal ozone standard was exceeded twice in 2014 and once in 2016. The State PM10 standard (24-hour) was exceeded three times in 2016. No other State or federal air quality standards were exceeded during the three-year period. Santa Barbara County is designated as nonattainment-transitional for the State ozone standard and as nonattainment for the State PM10 standard. Santa Barbara County is designated as unclassifiable/attainment for all other pollutant standards.

###### TABLE AQ-1

###### AIR QUALITY DATA SUMMARY (2014 – 2016)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pollutant | Standard a | 2014 | 2015 | 2016 |
| Ozone | | | | |
| Highest 1 Hour Average (ppm)b | 0.09 | **0.096** | 0.075 | 0.079 |
| Days over State Standard |  | **1** | 0 | 0 |
| Highest 8 Hour Average (ppm)b | 0.070 | **0.080** | 0.062 | **0.071** |
| Days over National Standard |  | **2** | 0 | **1** |
| Nitrogen Dioxide | | | | |
| Highest 1 Hour Average (ppm)b | 0.180 | 0.038 | 0.034 | 0.030 |
| Days over State Standard |  | 0 | 0 | 0 |
| Annual Average (μg/m3) b | 0.030/0.053 | 0.005 | 0.004 | 0.002 |
| PM10 | | | | |
| Highest 24 Hour Average (μg/m3)b | 50 | 45.3 | 41.2 | **68.8** |
| Days over State Standard |  | 0 | 0 | **3** |
| State Annual Average (μg/m3)b | 20 | 18.6 | 17.3 | 16.8 |
| PM2.5 | | | | |
| Highest 24 Hour Average (μg/m3)b | 35 | 24.3 | 23.2 | 26.0 |
| Days over State Standard |  | 0 | 0 | 0 |
| State Annual Average (μg/m3)b | 12 | \* | \* | \* |

Notes: Values in **bold** are in excess of at least one applicable standard. Generally, State standards and national standards are not to be exceeded more than once per year.

ppm = parts per million; μg/m3 = micrograms per cubic meter.

PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. “\*” means there was insufficient data available to determine the value.

Source: California Air Resources Board, 2017, <https://www.arb.ca.gov/adam/topfour/topfourdisplay.php>

The 2016 Ozone Plan is the eighth triennial Clean Air Plan update to the initial State Air Quality Attainment Plan adopted by the SBCAPCD Board of Directors in 1991 (subsequent updates were done in 1994, 1998, 2001, 2004, 2007, 2010 and 2013). Similar to the subsequent Clean Air Plan updates, the 2016 Ozone Plan implements an “every feasible measure” strategy to ensure continued progress towards attainment of the State ozone standards. Since 1992, SBCAPCD has adopted or amended rules implementing more than 25 control measures aimed at reducing emissions at stationary sources. The 2016 Ozone Plan does not identify any measures to reduce emissions from construction equipment used for temporary and short-term construction activities (SBCAPCD 2016).

## Significance Criteria

Pursuant to the Santa Barbara County’s impact significance thresholds, short-term impacts to air quality from construction are less than significant if standard mitigation measures for fugitive dust are implemented. Dust control measures are also required to minimize the potential for dust-related nuisance impacts. APCD Rule 345, *Control of Fugitive Dust from Construction and Demolition Activities* establishes limits on the generation of visible fugitive dust emissions at demolition and construction sites.

Santa Barbara County has not established quantitative thresholds for short-term construction-related emissions because the total amount of construction emissions from all construction projects that occur within the air basin constitute a minor amount of the total pollution emissions, and the emissions are temporary. As a guideline, however, APCD Rule 202.F.3 identifies a substantial effect associated with projects having combined emissions from all construction equipment that exceed 25 tons of any pollutant (except carbon monoxide) within a 12-month period. For this analysis, the SBCAPCD guideline for short-term emissions has been used to evaluate the significance of project-related emissions.

Discussion

##### a. NO IMPACT.

Consistency with the SBCAPCD’s 2016 Ozone Plan means that direct and indirect emissions associated with the project are accounted for in the Plan’s emissions growth assumptions and the project is consistent with the policies adopted in the Plan. Since the project is only a short-term and temporary construction project it would be consistent with the CAP’s emissions growth assumptions because the project would not increase population in Santa Barbara County. The project would also be consistent with the policies adopted in the Plan because there are no policies aimed at reducing emissions from construction equipment used in temporary and short-term construction activities. Therefore, the project would not conflict with or obstruct implementation of 2016 Ozone Plan. The project would have **no impact** on applicable air quality plans.

##### b. LESS THAN SIGNIFICANT IMPACT WITH MITIGATION.

Construction of the project was assumed to commence in the summer 2018 and would take three months to be completed. Construction equipment would include a backhoe, crane, hydraulic-powered drill, compressor, generator, concrete pump, concrete mixer truck, portable grout mixer and support trucks. Excavated materials would be limited and would be used on-site. Emissions from construction of the project were estimated through the use of the Sacramento Metropolitan Air Quality Management District’s (SMAQMD) Roadway Construction Emissions Model, which is intended for estimating emissions from linear construction projects (SMAQMD 2016). **Table AQ-2** provides a summary of the expected annual emission estimates for construction of the project. The Air Quality Appendix contains detailed emission estimates and assumptions.

###### TABLE AQ-2

###### ESTIMATED CONSTRUCTION EMISSIONS

###### (Tons per Year)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Construction Year | ROG | NOx | CO | SOx | PM10 | PM2.5 |
| 2018 | 0.14 | 1.40 | 0.93 | 0.00 | 0.07 | 0.06 |
| Significance Criteria | 25 | 25 | -- | 25 | 25 | 25 |
| *Significant?* | *No* | *No* | *No* | *No* | *No* | *No* |

Source: Roadway Construction Emissions Model, Version 8.1.0

As shown in **Table AQ-2**, emissions associated with construction are substantially lower than the 25 tons per year emissions guideline the SBCAPCD uses to determine the significance of construction-related emissions impacts. Construction of the project would be short-term and would not generate substantial pollutant emissions. Pursuant to the Santa Barbara County’s impact significance thresholds, short-term impacts to air quality from construction are less than significant if standard mitigation measures for fugitive dust are implemented. **Mitigation Measures AQ-1a to AQ-1f** contain dust control measures required by the SBCAPCD. Therefore, construction emissions impacts would be **less than significant with mitigation incorporated**.

##### c. LESS THAN SIGNIFICANT IMPACT.

Construction emissions associated with the project would be less than significant and standard mitigation measures for fugitive dust would be implemented with **Mitigation Measures AQ-1a to AQ-1f**, as required by the SBCAPCD. The project would be short-term and would not generate substantial emissions. The project would also be consistent with the 2016 Ozone Plan. Therefore, cumulative emissions impacts would be **less than significant**.

##### d. LESS THAN SIGNIFICANT IMPACT.

Land uses such as schools, children’s daycare centers, hospitals, and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. The CARB has identified the following people as most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and those with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive population groups.

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TAC that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

The project would constitute a new emission source of diesel particulate matter (DPM) due to construction activities. Studies have demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. Typically, health risks are estimated based on an exposure period of 30 years. The project is a short-term construction activity (approximately three months of construction) that would not generate substantial DPM emissions. Thus, health impacts would be **less than significant**.

##### e. LESS THAN SIGNIFICANT IMPACT.

During construction, diesel equipment operating at the site may generate some nuisance odors; however, due to the distance of sensitive receptors to the project site and the temporary nature of construction, odors associated with project construction would not be significant. Once construction is complete the project would not generate any odors. Therefore, odor impacts would be **less than significant**.

## Mitigation Measures

### Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

The following dust control measures are required by the SBCAPCD. The following measures shall be implemented at the project site during construction.

**IMPACT AQ-1 Construction activities that occur on the project site could result in fugitive dust which has the potential to result in significant impacts to air quality.**

AQ-1a. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this shall include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 mph. Reclaimed water shall be used whenever possible. However, reclaimed water shall not be used in or around crops for human consumption.

AQ-1b. Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.

AQ-1c. If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.

AQ-1d. Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.

AQ-1e. After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.

AQ-1f. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to grading/building permit issuance and/or map clearance.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Biological Resources   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? |  |  |  |  |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? |  |  |  |  |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? |  |  |  |  |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? |  |  |  |  |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? |  |  |  |  |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan? |  |  |  |  |

The discussion below is based in part on a review of the biological resources analysis included in the UCSB LRDP EIR (UCSB, 2010) and mitigation measures recently adopted for the 2017 IS/MND for the Henley Hall –Institute for Energy Efficiency.

Discussion

##### a. LESS THAN SIGNIFICANT WITH MITIGATION.

The site is an approximately 50-foot section of coastal bluff at the UCSB campus, located in Santa Barbara County. Existing campus biological resources were mapped in the LRDP EIR (UCSB, 2010), obtained from review of the UC Santa Barbara 1990 LDRP and other sources. Additional details on methodology can be found in the LRDP EIR (UCSB, 2010).

The site includes Southern Coastal Bluff Scrub habitat. This habitat is considered sensitive by the California Natural Diversity Database and California Coastal Commission. As stated in the LRDP EIR (UCSB, 2010), southern coastal bluff scrub consists of shrubs and herbaceous plant species. At the project site, there is a walking path through this habitat, such that it is not ideal habitat for candidate, sensitive, or special status species. The habitat at the top of the bluff in the construction area is identified as Proposed Environmentally Sensitive Habitat Area (as shown on Figure 4.3-4 of the LRDP EIR). Impacts to this habitat by construction activities would be a potentially significant impact and mitigation would be required. Mitigation Measure BIO-1d would reduce the impact to less than significant.

The removal of active nests from the project site, or the disturbance of an active nest located adjacent to the project site, would be a violation of Fish and Game Code Section 3503 and would result in a significant impact. Although no trees would be directly removed by the proposed project, construction could disturb nearby nests. Disturbance of an active bird nest would be avoided and reduced to a less than significant level by implementing proposed mitigation measures BIO-1a through 1c, which require that nest surveys be conducted prior to the start of project construction.

U.S. Fish and Wildlife Service-defined Critical Habitat for tidewater goby (*Eucyclogobius newberryi*) is present approximately 0.4 miles northeast of the site. Critical Habitat for western snowy plover (*Charadrius alexandrines nivosus*) is present approximately 1.6 miles west of the site. The project site is sufficiently far away enough from the Critical Habitat that the project will not have a substantial adverse effect on these species.

The project’s impact on species will be **less than significant with mitigation**.

##### b. LESS THAN SIGNIFICANT IMPACT.

The project would affect the Southern Coastal Bluff Scrub habitat, which is considered sensitive by the CNDDB and CCC. No other sensitive habitats might be affected. The affected area would be a small portion of the coastal habitat’s range, and it is already disturbed by the walking path and active erosion. Implementation of the project would not result in a substantial increase in human presence or night-time lighting. However, while impacts would not be significant, implementation of mitigation measures BIO-1a through 1c would reduce the potential for impacts to sensitive natural communities.

##### c. LESS THAN SIGNIFICANT IMPACT.

The project site does not support wetlands as defined by Section 404 of the Clean Water Act, and no wetland resources are located adjacent to the project site. Therefore, no adverse direct (i.e., removal) impacts to wetlands would result from the project. The closest wetland habitats to the project site are the Campus Lagoon and the shoreline. With the implementation of standard construction site management practices and regulatory requirements, and required post-construction storm water treatment, the project would not result in significant short- or long-term water quality impacts. Therefore, the potential for the project to result in adverse indirect impacts to wetlands would be **less than significant**.

##### d. LESS THAN SIGNIFICANT IMPACT.

The site is an approximately 50-foot section of coastal bluff located along the UCSB campus, located in Santa Barbara County. There is a walking trail at the top of the bluff. The project site does not provide substantial habitat or vegetative cover that would facilitate its use by wildlife to travel through the region. The project would not result in indirect impacts that would have the potential to interfere with animal migration. Thus, the project would have a **less than significant** impact on the movement of wildlife species.

##### e. NO IMPACT.

The project does not conflict with any local policies or ordinances protecting biological resources. There is a tree preservation policy, but there are no trees at the project site to be removed. Thus, the project would have **no impact** related to conflicts with such policies.

##### f. NO IMPACT.

The project site is not included in any Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the project would have **no impact** related to the implementation of such plans.

## Mitigation Measures

### Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

Impacts to biological resources that have the potential to result from the construction of the project can be reduced to a less than significant level with implementation of the following mitigation measures.

**IMPACT BIO-1 Construction activities that occur on the project site have the potential to result in significant impacts to biological resources.**

BIO-1a. To avoid disturbance or loss of active bird nests during development of the project, all vegetation disturbing activities shall be conducted between September 15 and February 15, outside of the typical nesting season.

BIO-1b. If vegetation removal is determined to be necessary during the typical nesting season (February 15 to September 15), a nesting bird survey shall be conducted by a qualified biologist approximately one week prior to the proposed action. Surveys shall follow standard protocols as established by CDFW and/or CCC. If the biologist determines that a tree/shrub is being used for nesting at that time, disturbance shall be avoided until after the young have fledged from the nest and achieved independence. If no nesting is found to occur, tree removal can proceed.

BIO-1c. To avoid indirect disturbance of active bird nests by Project construction occurring within the typical nesting season, a qualified biologist shall be retained to conduct one or more pre- construction surveys per standard protocols approximately one week prior to construction, to determine presence/absence of active nests adjacent to the project site. The survey shall be conducted to detect any bird breeding or nesting behavior on the project site or within 500 feet for raptors and 300 feet for all other bird species. If no breeding or nesting activities are detected, noise-producing construction activities may proceed. If breeding/nesting activity is confirmed, work activities within 300 and/or 500 feet of the active nest(s) shall be delayed until the young birds have fledged and left the nest.

BIO-1d. A project-specific Southern Coastal Bluff Scrub Habitat Protection Plan shall be prepared by a qualified biologist to assure that construction activities do not damage the habitat area.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Cultural Resources   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? |  |  |  |  |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? |  |  |  |  |
| c. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074? |  |  |  |  |
| d. Disturb any human remains, including those interred outside of formal cemeteries? |  |  |  |  |

The discussion below is based on a review of the cultural resources analysis included in the UCSB LRDP EIR (UCSB, 2010) and mitigation measures adopted for the 2017 IS/MND for the Henley Hall –Institute for Energy Efficiency.

Assembly Bill 52 (AB 52) created a process for consultation with California Native American Tribes in the CEQA process. Tribal Governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what type of environmental assessment is appropriate for a project. No local tribal representatives have contacted UCSB in writing to request that they be formally notified of project proposals under the requirements of AB 52. Therefore, the requirements of AB 52 are not directly applicable to the proposed project.

Discussion

##### a - d. LESS THAN SIGNIFICANT IMPACT WITH MITIGATION.

The project is located to the east of Lagoon Road. The project site is an undeveloped approximately 50-foot section of coastal bluff that will be stabilized from further erosion and will ensure bluff top stability of Lagoon Road and Anacapa Residence Hall.

## Impacts on Historic Resources

No historic resources would be affected by the proposed project.

## Impacts on Archeological Resources

Based on the comprehensive review of prior archaeological surveys on the UCSB campus, the project area has not been surveyed (UCSB, LRDP EIR 2010). Because of the extensive existing subsurface road utilities near the work areas and exposed bluff face (none indicating important archeological resources), it is unlikely that this project would discover important archeological resources. As a result, construction of the project would be expected to produce less than significant impacts to archaeological resources. Although unlikely to occur, this potentially significant impact can be **reduced to a less than significant level** by implementing the requirements of proposed mitigation measures CUL-1a through 1e.

## Impacts on Human Remains

The project site does not lie near any known cemeteries. In the unlikely event that Native American or historic-period burials are encountered during project-related construction activities, a significant cultural resource impact would result. If human remains are encountered, the University will be responsible for complying with provisions of Public Resources Code Sections 5097.98 and 5097.99, and 7050.5 of the California Health and Safety Code, as amended by Assembly Bill 2641. With the implementation of regulatory requirements and proposed mitigation measures CUL-1a through 1e, potentially significant impacts to burial sites that may be located on the project site would be **reduced to a less than significant level**.

## Mitigation Measures

### Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

Impacts to cultural resources that have the potential to result from the construction of the project can be reduced to a less than significant level with implementation of the following mitigation measures.

**IMPACT CUL-1 Ground disturbing activities that occur on the project site have the potential to result in significant impacts to cultural resources.**

CUL-1a. At the commencement of project construction, an archaeologist shall provide a brief cultural resources orientation to the construction crew on the types of prehistoric and/or historic resources that might become exposed during earth disturbing activities, and the steps to be taken in the event that such a find is encountered.

CUL-1b. An archaeologist and Native American monitor shall be retained to monitor initial site preparation activities conducted on the project site, at the top and bottom of the project site.

CUL-1c. The archaeologist shall have the power to temporarily halt or redirect project construction in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of project disturbance, the archaeologist shall have the authority to refine the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with the UCSB Office of Campus Planning and Design. Upon completion of the monitoring program a monitoring report shall be presented to the UCSB Office of Campus Planning and Design and to the Central Coast Information Center (CCIC).

CUL-1d. In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative should monitor any mitigation work associated with Native American cultural material.

CUL-1e. If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. If avoidance of the remains is not feasible, they should be excavated and removed by a qualified archaeologist in the presence of the Most Likely Descendent. Repatriation of the exhumed remains and all associated items shall be conducted in accordance with the requirements of the California Native American Graves Protection and Repatriation Act (Health and Safety Coe 8010-8011).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Geology and Soils   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: |  |  |  |  |
| 1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of known fault? Refer to Division of Mines and Geology Special Pub 42. |  |  |  |  |
| 2. Strong seismic ground shaking? |  |  |  |  |
| 3. Seismic-related ground failure, including liquefaction? |  |  |  |  |
| 4. Landslides? |  |  |  |  |
| b. Result in substantial soil erosion, or the loss of topsoil? |  |  |  |  |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? |  |  |  |  |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? |  |  |  |  |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? |  |  |  |  |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature? |  |  |  |  |

The discussion below is based on the analyses contained within the *Coastal Bluff Evaluation and Geotechnical Basis of Design – Emergency Upper Bluff Stabilization Anacapa Hall (Draft), UC Santa Barbara*, prepared by Terra Costa Consulting Group, July 17, 2017 (TCCG 2017). The report is on file and available for review in the UCSB Office of Campus Planning and Design.

Discussion

##### a1. NO IMPACT.

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act (1972) is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. The project does not include the construction of buildings used for human occupancy. Because no known faults cross the project site, ground rupture due to faulting is not considered a hazard for this project (Terra Costa, 2017). The project would have **no impact** regarding rupture of a known earthquake fault.

##### a2. LESS THAN SIGNIFICANT IMPACT.

The risk of ground shaking at the project site is considered very high (TCCG, 2017) but the project would not increase risks to people or structures. The project would have a **less than significant** impact regarding seismic ground shaking.

##### a3. LESS THAN SIGNIFICANT IMPACT.

Three key ingredients are required for liquefaction to occur: liquefaction-susceptible soils, sufficiently high groundwater, and strong shaking. Liquefaction is the phenomena associated with ground shaking, which results in the increase of pore pressures within the soil. As the pore pressure increases, the shear strength of the soil is reduced. If the pore pressure is sufficiently increased, the soil takes on a “liquid like” behavior. Consequences commonly associated with soil liquefaction include ground settlements, surface manifestations (sand boils), loss of strength, and possible lateral ground movement typically referred to as lateral spreading, ground oscillations and lurching, and possible ground failure.

Soils susceptible to liquefaction generally consist of loose to medium dense sands and non- plastic silt deposits below the groundwater table.

At the project site, there is a zone of saturated granular soils within the terrace deposits located approximately 10 feet below the ground surface. These soils may be susceptible to liquefaction, with anticipated consequences believed to be limited to small settlements (less than 1 inch) and minor ground movements.

Lateral spreading is generally associated with sites where liquefaction is possible and where the ground surface is gently sloping, or when a free-face condition, such as a road cut or river bank, exists.

Review of available data indicates that the potential for lateral spreading is considered to be low, given the limited liquefaction hazard and the relatively level surface topography. However, the risk of lateral spreading should not be considered non-existent, given the site is adjacent to an existing coastal bluff. Therefore, the project will have a **less than significant** impact regarding seismic-related ground failure.

##### a4. LESS THAN SIGNIFICANT IMPACT.

No landslides have been mapped in the area. However, the site is located adjacent to an eroding coastal bluff, which affects the stability of the upper terrace deposits. Currently, the terrace deposits at the site are in a near-vertical condition and are in an impending failure condition (i.e., Factor of Safety is approach 1.0).

As such, improvements and structures near the top-of-bluff are considered at risk and are likely to continue to be at risk in the future in the absence of the proposed stabilization project. The goal of the project is to stabilize an approximately 50-foot section of coastal bluff adjacent to Lagoon Road. The project will impact stability and would have a **less than significant** impact regarding landslides.

##### b - d. LESS THAN SIGNIFICANT IMPACT.

No expansive soils were reported in the literature reviewed or nearby field investigation reports (TCCG, 2017). The Geotechnical Basis for Design stability analyses of the bluff indicate that a significant portion of the top-of-bluff area, including significant portions of Lagoon Road is in a condition that is considered an emergency condition where the factor of safety is approaching 1.0. The project is to stabilize the coastal erosion along a 50-feet segment of bluff (TCCG, 2017). Therefore, the project would have a **less than significant** impact.

##### e. NO IMPACT.

The project would not involve septic tanks or alternative waste water disposal systems. Therefore, the project would have **no impact**.

##### f. NO IMPACT.

The project would have minimal excavation as the goal is to slow the erosion of the bluff through the installation of a shoreline protective device. Although marine fossils are present in the project region, previous development on the UCSB campus has not encountered unique paleontological resources (UCSB, 2017 Henley Hall) and it is not likely significant paleontological resources are located at the project site. Because of the extensive existing subsurface road utilities near the work areas and exposed bluff face (none indicating important fossil resources), it is unlikely that this project would discover important paleontological resources. There are no unique geologic features located on or adjacent to the project site. As a result, the project would have **no impact** on paleontological resources or unique geological features.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Greenhouse Gas Emissions   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? |  |  |  |  |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? |  |  |  |  |

The greenhouse gas (GHG) emissions analysis below was performed using methodologies and assumptions recommended within the Santa Barbara County Air Pollution Control District’s (SBCAPCD) *Scope and Content of Air Quality Sections in Environmental Documents (June 2017 Limited Update)[[4]](#footnote-4) and the Santa Barbara County Environmental Thresholds and Guidelines Manual (Revised July 2015).[[5]](#footnote-5)* Please also refer to the RCH Group, Inc. August 16, 2017, *Air Quality and Greenhouse Gas Analysis Technical Appendix*. The report is on file and available for review in the UCSB Office of Campus Planning and Design.

This section describes existing GHG emissions regulations and potential air pollutant impacts that would occur with implementation of the project.

## Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, CO2, CH4, and N2O are also emitted from human activities, accelerating the rate at which these compounds occur within earth’s atmosphere. Emissions of CO2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in units of “carbon dioxide-equivalents” (CO2e).[[6]](#footnote-6)

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global climate change. Potential global climate change impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.[[7]](#footnote-7)

## Regulatory Framework

There are a number of international, national, State, and local requirements, regulations, and standards regarding GHG emissions. However, the section below focuses on AB 32 and the UCSB’s *Climate Action Plan* (2013).

AB 32 - Among a number of bills passed to support Executive Order (EO) S-3-05, AB 32 required that, by January 1, 2008, the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. The CARB adopted its AB 32 Scoping Plan in December 2008 (CARB, 2008), which provided estimates of the 1990 GHG emissions level and identified sectors for the reduction of GHG emissions. The CARB estimated that the 1990 GHG emissions level was 427 million metric tons net CO2e. The CARB estimates that a reduction of 173 MMT net CO2e emissions below business-as-usual would be required by 2020 to meet the 1990 levels. This amounts to roughly a 28.35 percent reduction from projected business-as-usual levels in 2020. In 2011, the CARB developed a Supplement to the AB 32 Scoping Plan (Scoping Plan Supplement) (CARB, 2011). The Supplement updated the emissions inventory based on current projections for “business as usual” (BAU) emissions to 506.8 million metric tons of CO2e. The updated projection included adopted measures (Pavley 1 Fuel Efficiency Standards, 20 percent Renewable Portfolio Standard (RPS) requirement, etc.), and estimated that an additional 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels by 2020.

In 2014, the CARB published its First Update to the Climate Change Scoping Plan (CARB, 2014). This update indicates that the State is on target to meet the goal of reducing GHG emissions to 1990 level by 2020. The First Update tracks progress in achieving the goals of AB 32, and lays out a new set of actions that will move the State further along the path to achieving the 2050 goal of reducing emissions to 80 percent below 1990 levels. While the First Update discusses setting a mid-term target, the plan does not yet set a quantifiable target toward meeting the 2050 goal.

UCSB Climate Action Plan – UCSB approved its first Climate Action Plan (CAP) in 2009 based on GHG emissions data gathered during 2007. The 2009 CAP included emissions data and mitigation strategies for scope 1 emissions (direct emissions: on-site natural gas, diesel, and propane combustion; campus fleet emissions; marine vessel and fugitive emissions) and scope 2 emissions (indirect emissions: purchased electricity). The 2012 CAP added emissions data and mitigation strategies for scope 3 emissions (university-funded business air travel and student, staff, and faculty commuting). The 2014 CAP quantified and analyzed UCSB’s current, historical, and projected emissions and evaluated the campus’ progress toward meeting reduction targets in years 2020 and 2050. UCSB has prepared a Draft 2016 CAP but is not an approved plan. None of UCSB’s CAPs contain emissions data or mitigation strategies for GHG emissions from short-term construction activities. Construction activities contribute a negligible amount of GHG emissions to UCSB’s annual GHG emissions.

## Significance Criteria

Neither the SBCAPCD, UCSB nor Santa Barbara County has established a quantitative threshold of significance for GHG emissions impacts from construction activities. The SBCAPCD has adopted thresholds for stationary source projects (i.e., projects with processes and equipment that require an APCD permit to operate). The SBCAPCD indicate that stationary source projects emitting less than the screening significance level of 10,000 metric tons of CO2e per year will not have a significant GHG impact. GHG emissions from construction are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change.

Discussion

##### a. LESS THAN SIGNIFICANT IMPACT.

Construction of the project was assumed to commence in the summer 2018 and would take three months to be completed. Construction equipment would include a backhoe, crane, hydraulic-powered drill, compressor, generator, concrete pump, concrete mixer truck, portable grout mixer and support trucks. Emissions from construction of the project were estimated using SMAQMD’s Roadway Construction Emissions Model, which is intended for estimating emissions from linear construction projects (SMAQMD 2016). **Table GHG-1** identifies the construction-related emissions associated with construction of the project. The Air Quality Appendix contains detailed emission estimates and assumptions.

###### TABLE GHG-1

**ESTIMATED Construction GHG Emissions**

|  |  |
| --- | --- |
| Phase | CO2e Emissions (metric tons) |
| Construction (2018) | 201 |

Source: Roadway Construction Emissions Model, Version 8.1.0

Construction emissions generated by the project would only represent approximately two percent of the SBCAPCD’s screening level of 10,000 metric tons of CO2e per year. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change in the long-term. Due to the short duration of the project and small amount of GHG emissions generated, the project’s estimated construction-related GHG contribution to global climate change would be considered negligible on the overall global emissions scale. Thus, this impact would be **less than significant**.

##### b. LESS THAN SIGNIFICANT IMPACT.

UCSB’s 2014 CAP is the most applicable plan adopted for the purpose of reducing GHG emissions, as the UCSB 2016 CAP has not been adopted and is still a draft. However, none of UCSB’s CAPs (approved or drafts) contain emissions data or mitigation strategies for GHG emissions from short-term construction activities. Construction activities contribute a negligible amount of GHG emissions to UCSB’s annual GHG emissions. Construction activities would only occur for blank months and would generate a small amount of GHG emissions. Therefore, the project would be consistent with UCSB’s CAPs. This impact would be **less than significant**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Hazards and Hazardous Materials   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? |  |  |  |  |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? |  |  |  |  |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? |  |  |  |  |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? |  |  |  |  |
| e. For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area? |  |  |  |  |
| f. For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area? |  |  |  |  |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? |  |  |  |  |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? |  |  |  |  |

It is the policy of the University of California to maintain a reasonably safe environment for its students, academic appointees, staff, and visitors. Campus operations are to be conducted in compliance with applicable regulations and with accepted health and safety protocols.

The UCSB Office of Environmental Health and Safety (EH&S) has the primary responsibility for coordinating the on campus management of hazardous materials and laboratory safety, and assists the campus in meeting its obligations for compliance with State and Federal health, safety, and environmental regulations. Programs and services administered by EH&S pertain to Asbestos and Lead safety, Biological Safety, Emergency Planning, Environmental Health, Hazardous Wastes, Industrial Hygiene and Occupational Health, Lab Safety and Chemical Hygiene, and Radiation and Laser Safety. The EH&S Lab Safety and Chemical Hygiene program includes elements such as: preparing and maintaining a chemical hygiene plan and chemical inventory; chemical safety; emergency response and preparedness; safety responsibilities and safety training; laboratory inspections; physical hazards such as compressed gases, cryogenics, and electricity; and laboratory accidents.

The main east-west runway at the Santa Barbara Municipal Airport is approximately 3,500 feet north of the Henley Hall project site. The southern end of the airport’s north-south runway is approximately 2,000 feet southwest of the project site.

The UCSB Campus is not located within a designated high fire hazard zone.

Discussion

##### a. LESS THAN SIGNIFICANT IMPACT.

The project would stabilize an approximately 50-foot section of the coastal bluff adjacent to Lagoon Road just east of Anacapa Hall. The project would result in the use, during construction, of minor amount of fuel and lubricants for the construction equipment.

Numerous federal, state, and local regulations pertain to the use, storage, handling, transportation and disposal of hazardous materials and waste. Enforcement of these regulations is provided by a variety of agencies, including Federal and State OSHA; California Department of Toxic Substances Control; Santa Barbara County Fire Department, Fire Prevention Division; and UCSB ES&H. In addition, the UCSB Fire Protection Division would conduct fire and life safety inspections of the project site on an annual or more frequent basis as required by California Code of Regulations Title 19, Public Safety. Complying with existing University policies, and state and federal regulations related to the use, storage, transportation and disposal of hazardous materials and waste would minimize the potential for a release to the environment. Therefore, the project would have **less than significant** hazardous material or health and safety impacts.

##### b. LESS THAN SIGNIFICANT IMPACT.

**Short-Term Impacts.** The potential for a major release of construction materials (solvents, paints, fuels, lubricants, concrete, asphalt, etc.) from the project site is low, however, if construction materials were to be released from the project site, potentially significant environmental impacts could occur at the project site (both the beach and the top of the bluff). Compliance with existing regulations, such as the preparation and implementation of a construction site Storm Water Pollution Prevention Plan, would reduce the potential for a substantial release of construction materials. Therefore, the potential for short-term water quality impacts is considered to be **less than significant**.

The project would not result in the demolition of any existing structures. Therefore, the potential for short-term impacts related to the disturbance or removal of substances such as lead based paint and/or asbestos is considered to be **less than significant**.

**Long-Term Impacts**. The project would not involve hazardous materials after the construction is complete, so there would be **no impact** related to the release of hazardous materials into the environment.

##### c*.* NO IMPACT.

The project site is located on and adjacent to UCSB and is intended to improve the safety of existing UCSB facilities (roads, utilities, structures) through stabilization of the coastal bluff on which the UCSB campus is located. However, there are no other school facilities (i.e., grades K-12) located within one-quarter mile of the project site. Therefore, the project would have **no impact** to school facilities.

##### d.NO IMPACT.

The area of the stabilization project does not have any mapped hazardous material or underground storage tank leaks. The State Water Resources Control Board GeoTracker database was reviewed and the nearest reported contamination sites (two underground storage tank sites eligible for closure[[8]](#footnote-8)) are approximately 1,000 feet south of the project area and would not affect the construction (SWRCB, 2017). There would be **no impact** from known contaminated sites on the project.

##### e. NO IMPACT.

The project site is approximately 5,700 feet south of the main east-west runway at the Santa Barbara Airport, and approximately 3,400 feet southwest of the southern end of the Airport’s north-south runway. The project will not result in any new buildings, and thus will not result in structure height conflicts with aircraft operations. In addition, the project would not include lights or reflective surfaces that would adversely affect aircraft operations. Therefore, the project would have **no impact** on airport-related safety.

##### f*.* NO IMPACT.

There are no private airstrips located in the vicinity of the UCSB campus. Therefore, the project would have **no impact** related to airstrip operation safety.

##### g. LESS THAN SIGNIFICANT IMPACT.

The purpose of the project is to prevent erosion of Lagoon Road. It is necessary that Lagoon Road be functional in order to implement the campus’ emergency response and emergency evacuation. Thus, the project would have some positive impacts related to emergency response or evacuation plans.

Construction activities would not result in substantial obstructions of any road or access that would interfere with emergency response services or an evacuation plan. As described in the Transportation and Traffic section of this IS/MND, the project would not generate any new traffic, and thus not result in long-term impacts related to emergency access into or out of the project area. Short- and long-term access to and around the project site would be maintained. Therefore, the project would have a **less than significant** impact related to emergency response or evacuation plans.

##### h. LESS THAN SIGNIFICANT IMPACT.

There are no areas on or near the project site that present a substantial wildland fire risk. There is no highly flammable dense vegetation, there are adequate fire suppression water supplies, and the site is easily accessible. Therefore, the project would result in a **less than significant** impact related to wildfire safety.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. **Hydrology and Water Quality**   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Violate any water quality standards or waste discharge requirements, including but not limited to increasing pollutant discharges to receiving waters? |  |  |  |  |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? |  |  |  |  |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? |  |  |  |  |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? |  |  |  |  |
| e. Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? |  |  |  |  |
| f. Otherwise substantially degrade water quality? |  |  |  |  |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? |  |  |  |  |
| h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? |  |  |  |  |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? |  |  |  |  |
| j. Contribute to inundation by seiche, tsunami, or mudflow? |  |  |  |  |

The discussion below is based on a review of the hydrology and water resources analysis included in the UCSB LRDP EIR (UCSB, 2010), the UCSB LRDP (UCSB, 2016) and construction mitigation measures adopted for the 2016 IS/MND for the North Campus Open Space Restoration Project.

Discussion

##### a, e - f. LESS THAN SIGNIFICANT IMPACT.

The project involves the repair, rehabilitation, and maintenance of an existing eroding coastal bluff. Because the project site is located on a public beach adjacent to the Pacific Ocean, therefore construction activities would have the potential for discharges to coastal waters.

The 2010 UCSB LRDP includes policies and project approval requirements related to the reduction of potential water quality impacts that the project would be required to implemented. The LRDP Water Quality Protection Program is detailed in Appendix 3 of the LRDP.

Development (such as the project) that requires a Notice of Impending Development (NOID) and has the potential for adverse water quality or hydrology impacts to coastal waters will in most cases require both a construction-phase plan and a post-development plan for water quality protection which would be built into the overall project design. For the purposes of this chapter, “construction” includes clearing, grading, or other activities that involve ground disturbance; building, reconstructing, or demolishing a structure; and creation or replacement of impervious surfaces.

The required water quality protection plans are listed below, and detailed requirements for each plan are set forth below:

* Construction-Phase Plan
  + Construction Pollution Prevention Plan (LRDP Section 3.7)
* Post-Development Plans
  + Post-Development Runoff Plan (LRDP Section 3.8)
  + Water Quality and Hydrology Plan (LRDP Section 3.9)

Water quality policies applicable to the project would include WQ-9 and WQ-10 which would be built into project design. **Policy WQ-09** - Minimize water quality impacts from construction by implementing best management practices, in compliance with LRDP Appendix 3, Water Quality Protection Program, including:

* Construction shall be planned and managed to minimize impacts by such measures as limiting the project footprint, phasing grading activities to avoid rainy-season soil disturbance, implementing soil stabilization and pollution prevention measures, and preventing soil compaction unless required for structural support;
* Whenever practical, land on the North and West Campus where there is a risk of erosion that may affect ESHAs, plan the project in increments of workable size which can be completed during a single construction season;
* Erosion and sediment control measures are to be coordinated with the sequence of grading. Sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing and grading operations begin for campus development.

**Policy WQ-10** - Grading operations that have the potential to deliver sediment to wetlands, environmentally sensitive habitat areas, or coastal waters shall be scheduled during the dry months of the year (May through October). The construction timeline may be extended into the rainy season for a specific, limited length of time, based on an inspection of the site, and a determination that conditions at the project site are suitable for. Continuation of work may be allowed if appropriate erosion and compliance with the preparation of the Construction Phase Plan and Post-Development Plans and compliance with Policies WQ-09 and WQ-10 would reduce the potential of impacts from construction discharge to less than significant.

Therefore, the impacts of the project on water quality would be **less than significant through incorporation of these best practices into project design**.

##### b. NO IMPACT.

The project consists of a repairing an existing eroding coastal bluff and associated site improvements; and would therefore not affect ground water supplies or interfere with groundwater recharge. Therefore, the project would have **no impact**.

##### c.LESS THAN SIGNIFICANT IMPACT.

The base of the coastal bluffs erodes at differential rates as tides and sand levels fluctuate. Construction of the project would, by design, reduce erosion and increase bluff stability within the project location. Without the project, drainage patterns would be affected by continued deterioration or bluff failure. The proposed project and drainage improvements would preserve the existing drainage patterns and avoid more extreme change in absorption rates and drainage patterns in the future due to bluff collapse. Therefore, the project would have a **less than significant** impact.

##### d.LESS THAN SIGNIFICANT IMPACT.

The project would not alter the course of a stream or river. The design of the bluff protection device includes drainage (that would collect seepage from the bluff behind the device and drain to the beach similar to current drainage patterns. The wall drainage to consist of two (2) foot-wide of composite drainboards, centered between adjacent anchors (TCCG, 2017). Therefore, the project would have a **less than significant** impact.

##### g. NO IMPACT.

The project is a shoreline protective device intended to reduce bluff erosion. The project is not located within a 100-year flood hazard area as mapped on the Federal Flood Hazard Boundary of Flood Insurance Map or any other flood hazard delineation map. Therefore, the project would have **no impact**.

##### h.NO IMPACT.

The project site is not located within the 100-year flood plain. Therefore, the project would have **no impact**.

##### i.NO IMPACT.

The project is a shoreline defense structure intended to remedy the effects of coastal erosion from direct wave action against the coastal bluffs. Therefore, the project would have **no impact**.

##### j.NO IMPACT.

Tsunamis and seiches are considered potential hazards along all segments of the shoreline. A review of the State of California Tsunami Inundation Map for Emergency Planning (2009) indicates that the Lagoon Road site (given its elevation and mean sea level) will be unaffected by tsunamis caused by both local and distant sources (see Figure 1). Likewise, the project site is not located within a bay where seiches might occur (TCCG, 2017). Therefore, the project would have **no impact**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Land Use and Planning   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Disrupt or divide the physical arrangement of an established community? |  |  |  |  |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the Comprehensive Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? |  |  |  |  |
| c. Be incompatible with existing land use in the vicinity? |  |  |  |  |

Discussion

##### a, c. NO IMPACT.

The project site is an approximate 50-foot section of coastal bluff. The project would construct a shoreline protective device would not disrupt or divide an established community. The project would ensure the safe continued operation of the UCSB campus and would be compatible with the existing land use as it would preserve the coastal bluff and the existing land uses and operation of UCSB that occur above the project site. Therefore, no impact would occur.

##### b. LESS THAN SIGNIFICANT IMPACT.

The project site is on the UCSB campus and under the jurisdiction of the University of California Regents. The project does not conflict with UCSB’s 2010 LRDP and supports the continued long term operation of UCSB. UCSB would submit an NOID to the California Coastal Commission (CCC) for the proposed project. The proposed project is allowable consistent with Section 30235 of the California Coastal Act. Because the project does not conflict with any applicable policy of agencies with jurisdiction over the project, the project would have a less than significant impact.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Mineral Resources   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? |  |  |  |  |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local Comprehensive Plan, specific plan, or other land use plan? |  |  |  |  |

Discussion

##### a - b. NO IMPACT.

The UCSB 2010 LRDP EIR does not identify any mineral resources of importance on the UCSB property and found that future development at UCSB would have no impact to mineral resources. Therefore, **no impacts** to mineral resources would occur.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. **Noise**   ***Would the project result in*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? |  |  |  |  |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? |  |  |  |  |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? |  |  |  |  |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? |  |  |  |  |
| e. For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? |  |  |  |  |
| f. For a project in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? |  |  |  |  |

## Environmental Setting

### Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the “loudness” of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear’s reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA)is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[[9]](#footnote-9); average day–night 24-hour average sound level (Ldn)[[10]](#footnote-10) with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[[11]](#footnote-11),also a 24-hour average that includes both an evening and a nighttime sensitivity weighting. **Table N-1** identifies decibel levels for common sounds heard in the environment.

### Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a “line” source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (CalTrans, 1998). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

**Existing Noise Sources*.*** Existing major noise sources in the vicinity of the project area include traffic and the ocean. Traffic noise sources are substantial, and are primarily from Lagoon Road, which is adjacent to the project site. The ocean is also adjacent to the project site. The ocean waves make substantial noise that is natural and unavoidable. Other existing noise sources include distant aircraft (Santa Barbara Municipal Airport), other distant traffic noise and on-campus construction activities.

***Noise Sensitive Receptors.*** Noise sensitive uses on the campus generally include academic buildings, offices, and residence halls. The nearest sensitive uses to the project would be the Anacapa, and Santa Cruz Residence Halls and Biology and Ocean Science buildings to the northwest. Anacapa Hall is approximately 50 feet from the top of the bluffs. A dirt path runs along the top of the bluffs and is part of the campus. Since it is anticipated that materials and operations will require work over the top of the bluff, passerby using the dirt path may be approximately 15 feet from project construction. The path would probably be closed during top of the bluff construction activities

###### Table N-1 Typical Noise Levels

|  |  |  |
| --- | --- | --- |
| Noise Level (dB) | Outdoor Activity | Indoor Activity |
| 90+ | Gas lawn mower at 3 feet, jet flyover at 1,000 feet | Rock Band |
| 80–90 | Diesel truck at 50 feet | Loud television at 3 feet |
| 70–80 | Gas lawn mower at 100 feet, noisy urban area | Garbage disposal at 3 feet, vacuum cleaner at 10 feet |
| 60–70 | Commercial area | Normal speech at 3 feet |
| 40–60 | Quiet urban daytime, traffic at 300 feet | Large business office, dishwasher next room |
| 20–40 | Quiet rural, suburban nighttime | Concert hall (background), library, bedroom at night |
| 10–20 |  | Broadcast / recording studio |
| 0 | Lowest threshold of human hearing | Lowest threshold of human hearing |

Source: (modified from Caltrans Technical Noise Supplement, 1998)

**Noise Thresholds.** Based on thresholds used by the 2010 LRDP EIR, a project would result in a significant impact if it would:

1. Generate outdoor noise levels in excess of 65 dBA CNEL that could affect existing sensitive noise receptors.
2. Expose noise sensitive uses to 65 dBA CNEL or greater in outdoor living areas or if indoor noise levels cannot be reduced to at least 45 dBA CNEL.
3. Increase ambient noise levels at noise sensitive receptors by 4 dBA or more when ambient noise levels are at or already exceed the 65 dBA outdoor CNEL.
4. Place active construction sites within 1,000 feet of noise-sensitive uses.

### Project Site

The following section describes and discusses any existing major noise sources in the vicinity of the project area and identifies the noise-sensitive land uses or activities that could be affected by project construction or operations.

Discussion

##### a. LESS THAN SIGNIFICANT.

The project involves construction to stabilize an eroding section of the coastal bluff, there would be no long-term operational noise impacts once the short term construction phase of the project is complete. The potential for the project to result in short-term construction-related noise impacts in excess of established standards is evaluated in response “d” below. Therefore, the project would have a less than significant impact regarding noise.

##### b. LESS THAN SIGNIFICANT.

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table N-2. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

###### Table N-2

###### Representative Vibration Source Levels for Construction Equipment

|  |  |  |  |
| --- | --- | --- | --- |
| Equipment | | Peak Particle Velocity at 25 Feet (in/sec) | Peak Particle Velocity at 50 feet |
| Pile Driver (impact) | upper range | 1.518 | 0.537 |
| typical | 0.644 | 0.228 |
| Pile Driver (sonic) | upper range | 0.734 | 0.260 |
| typical | 0.170 | 0.060 |
| Vibratory Roller | | 0.210 | 0.074 |
| Large Bulldozer | | 0.089 | 0.031 |
| Loaded Trucks | | 0.076 | 0.027 |
| Jackhammer | | 0.035 | 0.012 |
| Small Bulldozer | | 0.003 | 0.001 |

Note: Vibration levels at 50 feet were calculated using the equation provided by FTA that may be used to estimate vibration at different distances based on a reference ppv at 25 feet for various construction equipment.

Source: Federal Transit Administration, 2006.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry buildings (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers that could be above 0.5 ppv). The closest structures to the project site are approximately 50 feet away. As shown in **Table N-2**, the predicted vibration levels from vibratory rollers, bulldozers, loaded trucks, and jackhammers at a distance of 50 feet would not exceed the 0.5 ppv threshold for residential and commercial structures. It is assumed that pile drives would not be used for construction of the project. The pneumatic drill used for the anchor installation would not be major sources of vibration. Vibration impacts from construction would be **less than significant**.

##### c. NO IMPACT.

All increases in ambient noise levels due to the project are temporary. The project would not result in a substantial permanent increase in ambient noise levels. Therefore, the project would have no impact.

##### d. LESS THAN SIGNIFICANT WITH MITIGATION.

The project would result in a very small number of construction-related traffic. Due to the low number of daily worker and delivery vehicle trips that would be generated by the project, and the intermittent nature of construction traffic, the additional construction traffic generated by the project would not substantially increase existing traffic noise levels. Therefore, the project would result in a less than significant short-term traffic noise impact to sensitive receptors located on- and off-campus.

Construction would last approximately three months. Construction activities would require the use of numerous pieces of noise-generating construction equipment, such as excavating machinery (e.g., backhoe) and other construction equipment (e.g., pneumatic drills, compressor, concrete mixer truck, generator, etc.).

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. As shown in Table N-3, maximum noise levels generated by various types of construction equipment can range from 75 to 89 dB at 50 feet.

Project construction noise would be generated from the base of the bluffs and also from the top of the bluffs adjacent to Lagoon Road. Because of the location of the bluff repair and the limited working space, noise generating equipment could be within 50 feet of Anacapa Hall. At 50 feet, some of the construction noise could generate outdoor noise level of 85 dB or higher. Because project construction would occur within 1,000 feet of sensitive receptors (residence halls and academic and office buildings) this would be a potentially significant impact. To mitigate this impact, Mitigation Measure NOI-1 (developed in the 2010 LRDP EIR) shall be implemented. Due to the short duration of construction and implementation of proposed Mitigation Measure NOI-1, project-related construction noise impacts would be reduced to a less than significant level.

###### Table N-3

###### Typical Noise Levels from Construction Equipment

|  |  |
| --- | --- |
| Construction Equipment | Noise Level (dB, Lmax at 50 feet) |
| Backhoe | 78 |
| Air Compressor | 78 |
| Dump Truck | 76 |
| Concrete Mixer (Truck) | 79 |
| Concrete Pump Truck | 81 |
| Generator | 81 |
| Man Lift | 75 |
| Jackhammers | 89 |
| Blasting | 94 |
| Scraper | 84 |
| Dozer | 82 |
| Paver | 77 |
| Auger Drill Rig | 84 |
| Front End Loader | 79 |
| Grader | 85 |

Source: Federal Highway Administration (FHWA) Roadway Construction Noise Model User’s Guide, 2006.

##### e. LESS THAN SIGNIFICANT.

The 2010 LRDP EIR Figure 4.9-2 (Santa Barbara Municipal Airport CNEL Noise Exposure) shows noise levels that result from aircraft operations. The project is located approximately 1,500 feet southwest of the 60 dBA CNEL noise contour. Therefore, airport-related noise would be a less than significant impact to the project.

##### f. NO IMPACT.

The UCSB Main Campus is not located in the vicinity of a private airstrip. The project would have no impact related to this criterion.

## Mitigation Measures

### Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

The following mitigation measures were identified by the 2010 LRDP EIR and would substantially reduce the effects of construction noise impacts resulting from the project. Due to the short-term duration of the project-related construction operations, the following measures would be adequate to reduce the project’s construction noise impacts to receptors located near the project site to a less than significant level.

**NOISE-1 Project-related construction activities would result in a direct short-term increase in noise levels at sensitive noise receptors.**

NOI-1. Prior to the initiation of project-related construction activities, a noise mitigation plan shall be prepared and shall be implemented throughout the duration of construction. At minimum, the noise mitigation plan shall include the following:

1. Construction equipment used on campus shall be properly maintained and outfitted with feasible noise reduction devices to minimize construction-generated noise.
2. Stationary noise sources such as generators or pumps shall be located at least 200 feet away from noise-sensitive land uses as feasible.
3. Laydown and construction vehicle staging areas shall be located at least 200 feet away from noise-sensitive land uses as feasible.
4. Whenever possible, academic, administrative, and residential areas that will be subject to construction noise will be informed in writing at least two weeks before the start of each construction project.
5. Loud construction activity (i.e., construction activity such as jack hammering, concrete sawing, asphalt removal, and large-scale grading operations) within 200 feet of a residential or academic building shall not be scheduled during finals week.
6. Loud construction activity, as described above, within 200 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, Thanksgiving break, Christmas break, Spring break, or Summer break.
7. Loud construction activity, as described above, within 200 feet of a residential building shall be restricted to the hours between 8:00 AM and 5:00 PM, Monday through Friday.
8. Loud construction activity within 200 feet of an academic building shall be scheduled to the extent feasible on weekends.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Population and Housing   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through an extension of roads or other infra-structure)? |  |  |  |  |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? |  |  |  |  |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? |  |  |  |  |

Discussion

##### a - c. NO IMPACT.

The project involves the construction of a shoreline protective device along a 50-foot segment of coastal bluff and would stabilize existing operations and structures on the UCSB campus including Anacapa Residence Hall. Implementation of the project would have a beneficial impact on the UCSB population and housing by ensuring the protection of structures in imminent danger of failure. Therefore, the project would have **no (adverse) impact** on population or housing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Public Services | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: |  |  |  |  |
| 1. Fire protection? |  |  |  |  |
| 2. Police protection? |  |  |  |  |
| 3. Schools? |  |  |  |  |
| 4. Maintenance of public facilities including roads? |  |  |  |  |
| 5. Other public facilities? |  |  |  |  |

Discussion

##### a1 - 5. NO IMPACT.

The project would construct a shoreline protective device that would stabilize coastal erosion that is threatening Lagoon Road, a primary traffic corridor serving the school and emergency access vehicles (including police and fire protection), and the critical infrastructure and underground utilities beneath Lagoon Road that serve the campus as well as Anacapa Residence Hall.

The project would result in no adverse impacts to public services and would alleviate any potential disruptions to the school and fire and police protection by stabilizing bluff erosion and preserving the emergency access route through UCSB along Lagoon Road. The project would also help to protect Lagoon Road and the underground utilities located within the roadway. Therefore, there would be **no (adverse) impacts** to public services.

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| --- | --- | --- | --- | --- |
| 1. Recreation | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? |  |  |  |  |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? |  |  |  |  |

Discussion

##### a. LESS THAN SIGNIFICANT IMPACT.

The proposed project has been designed as the minimum structure necessary to abate erosion and would be constructed as far landward as possible to ensure a minimum footprint and to minimize potential effects on public recreation on the beach. The project would not increase the use of parks or other recreation facilities. The project would temporarily restrict beach access along the 50-foot stretch in order to establish a safe work zone for installation of the shoreline protective device. However, the project would be completed in three months and there is sufficient lateral and vertical beach access to serve the public during the short term construction phase of the project. Therefore, a **less than significant** impact would occur.

##### b. NO IMPACT.

The project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, **no impact** would occur.

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| --- | --- | --- | --- | --- |
| 1. Transportation/Traffic   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? |  |  |  |  |
| b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? |  |  |  |  |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? |  |  |  |  |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? |  |  |  |  |
| e. Result in inadequate emergency access? |  |  |  |  |
| f. Conflict with adopted policies plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? |  |  |  |  |

***Discussion***

##### a. LESS THAN SIGNIFICANT IMPACT.

**Short-Term Impacts**. The construction would include construction personnel commuting to and from the project site; the delivery of construction material; and the export of material from the project site. The project would not require a substantial number of construction workers and would not generate a significant amount of construction-related traffic. Given the good existing traffic conditions in the project area, and the short duration of construction activities such as the export of material from the project site, short-term traffic generation effects would be **less than significant**.

**Long-Term Impacts.** The project involves temporary construction and would not generate any new traffic trips in the long-term. The project would have **no impact** on long-term traffic generation.

##### b. NO IMPACT.

The Congestion Management Plan (CMP) for Santa Barbara County requires that the traffic impacts of individual projects that are of regional significance be analyzed.

The project would not generate or redistribute minimal traffic during construction, and project-related construction traffic would not result in a change in level of service at a CMP intersection. There would be no change in traffic once construction is completed. Therefore, the project would have **no impact** to CMP intersections.

##### c. NO IMPACT.

The project would not affect air traffic patterns nor interfere with airport operations. Therefore, the project would have **no impact** related to air traffic patterns or airport safety.

##### d. NO IMPACT.

The project does not include any changes to Lagoon Road. The project is a construction project designed to address the potential hazard of coastal erosion affecting Lagoon Road. Therefore, the project would have **no impact** (no adverse impact) on long-term traffic hazards.

##### e. LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.

The project may require temporary obstruction of Lagoon Road during construction of the project including temporary closure of Lagoon Road to all traffic. This poses a potentially short-term significant impact on emergency access. Impacts to transportation and traffic can be reduced to a less than significant level with implementation of **Mitigation Measures TRA-1a and TRA-1b**. The impact of the project would be **less than significant with mitigation incorporated**.

##### f. NO IMPACT.

The project has no long-term traffic generation impacts, and no long-term changes to traffic patterning. Therefore, the project will have **no impact** on alternative transportation.

## Mitigation Measures

### Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

Impacts to transportation and traffic that have the potential to result from the construction of the project can be reduced to a less than significant level with implementation of the following mitigation measures.

**IMPACT TRA-1 Construction activities that occur on the project site have the potential to result in significant impacts to transportation and traffic.**

TRA-1a. Prior to project construction, a contingency plan will be made that includes detour routes for temporary closure of Lagoon Road.

TRA-1b. Prior to project construction, a contingency plan will be made that describes how equipment may be moved out of the way as needed to allow emergency vehicles to pass the construction on Lagoon Road.

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| --- | --- | --- | --- | --- |
| 1. Utilities and Service Systems   ***Would the project*:** | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? |  |  |  |  |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? |  |  |  |  |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? |  |  |  |  |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? |  |  |  |  |
| e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? |  |  |  |  |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? |  |  |  |  |
| g. Comply with federal, State, and local statutes and regulations related to solid waste? |  |  |  |  |

As a standard practice for all UCSB projects, prior to the start of work, the contractor shall coordinate with the university and utility owners to verify locations and elevations of all existing underground and overhead utilities. Trenching may be required to verify locations. The contractor shall take all necessary precautions to locate and protect any underground or concealed conduit, plumbing, or other utilities where new work is being performed.

***Discussion***

##### a. LESS THAN SIGNIFICANT IMPACT.

There would be wastewater generated from the project, most likely be from equipment cleanup. The wastewater would be collected using on-site Best Management Practices (BMPs) and removed from the project area in tanker trucks; going to a wastewater treatment plant that would accept the wastewater in compliance with existing permits. Therefore, the project impact related to wastewater treatment requirements established by the Regional Water Quality Control Board would be **less than significant**.

##### b. NO IMPACT.

The project would have minimal waste and wastewater demands. Adequate water and wastewater facilities are available to serve the project. Therefore, no new or expanded region-serving water supply or wastewater treatment facilities would be required and the project would have **no impact**.

##### c. NO IMPACT.

The project would not substantially increase or decrease the volume or rate of runoff water flow that is currently discharged from the project site. Therefore, the project would not substantially alter existing drainage patterns, would not require off-site drainage facility construction that would have the potential to result in significant environmental effects. Since no storm water drainage infrastructure modifications are required the project would have **no impact**.

##### d. LESS THAN SIGNIFICANT IMPACT.

The project is to stabilize the bluff through construction of a shoreline protective device. No potable water supplies are necessary for the completed project. Therefore, the project would have a **less than significant** impact on water supply.

##### e. LESS THAN SIGNIFICANT IMPACT.

The implemented project will not generate wastewater, and thus wastewater treatment would not be necessary. Therefore, the project’s cumulative water supply and wastewater treatment impacts would be **less than significant**.

##### f. LESS THAN SIGNIFICANT IMPACT.

Construction of the project would result in the short-term generation of construction and demolition waste (mainly bluff materials that are cut away or need to be excavated), which would be recycled or land applied to the maximum extent possible. Construction contractors at UCSB are required to contract with waste haulers to dispose of construction and demolition waste. MarBorg is generally the primary waste hauler and construction and demolition waste is taken to the MarBorg Construction and Demolition Recycling and Transfer Facility in Santa Barbara.

The implemented project would not result in the generation of any solid waste. Therefore, the project would have a **less than significant** impact on solid waste disposal needs.

##### g. NO IMPACT.

The project would comply with all regulations related to solid waste such as the California Integrated Waste Management Act and city recycling programs. Therefore, the project would have **no impact** regarding solid waste compliance.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Mandatory Findings of Significance | **Potentially Significant Impact** | **Less than Significant with Mitigation** | **Less than Significant Impact** | **No Impact** |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate plant or wildlife community, reduce the number, or restrict the range of rare or endangered plant or wildlife or eliminate important examples of the major periods of California history or prehistory? |  |  |  |  |
| b. Does the project have impacts that are individually limited, but cumulatively considerable (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? |  |  |  |  |
| c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? |  |  |  |  |

Discussion

##### a. LESS THAN SIGNIFICANT WITH MITIGATION.

With implementation of identified mitigation measures for biological resources (BIO-1a through 1d) and Cultural Resources (CUL-1a through 1e) the project would not have the potential to degrade the quality of the environment.

##### b. LESS THAN SIGNIFICANT IMPACT.

Implementation of the project would not result in individually limited, but cumulatively considerable significant impacts. All resource topics associated with the project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts, less-than-significant impacts, or less than significant impacts with mitigation. In addition, the scale of the project is small (environmental effects would occur only during the approximately three month construction period) and impacts to any environmental resource or issue areas would not be cumulatively considerable. Therefore, the project would have a **less than significant** impact.

##### c. LESS THAN SIGNIFICANT IMPACT.

All resource topics associated with the project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts, less-than-significant impacts, or less than significant impacts with mitigation. Consequently, the project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly. Therefore, the project would have a **less than significant** impact.

**References**

**and List of Preparers**

## Individuals and Organizations Consulted

### Individuals and Organizations Consulted

Ray Aronson, P.E. UCSB

Matt Eckert, Ph.D., P.E., G.E., Associate Engineer and Director of Engineering, Terra Costa Consulting Group, Inc.

## References

Section 15150 of the State CEQA Guidelines permits an environmental document to incorporate by reference other documents that provide relevant data. The documents listed below are hereby incorporated by reference. The pertinent material is summarized throughout this Initial Study where that information is relevant to the analysis of impacts of the project.

California Air Resources Board. 2008. *Climate Change Scoping Plan*. December.

California Air Resources Board. 2011. *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document.*

California Air Resources Board. 2014. *First Update to the Climate Change Scoping Plan*.

California Air Resources Board. 2017. <https://www.arb.ca.gov/adam/topfour/topfourdisplay.php>

California Department of Transportation (Caltrans), 1998. *Technical Noise Supplement*, 1998.

California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. March.

Federal Highway Administration (FHWA), 2006. Roadway Construction Noise Model User’s Guide, 2006.

Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015, <http://oehha.ca.gov/air/hot_spots/hotspots2015.html>

RCH Group, Inc. 2017. *Air Quality and Greenhouse Gas Analysis Technical Appendix*. August 16.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2016. Roadway Construction Emissions Model Version 8.1.0. May 2016. <http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools>

Santa Barbara County. 2015. *Environmental Thresholds and Guidelines Manual*.

SBCAPCD. 2016. *2016 Ozone Plan October* 2016.

SBCAPCD. 2017. Scope and Content of Air Quality Sections in Environmental Documents, June 2017 Limited Update.

State Water Resources Control Board (SWRCB). 2017. GeoTracker Sites and Facilities Database, reviewed August 24, 2017.

*Terra Costa Consulting Group. 2017. Coastal Bluff Evaluation and Geotechnical Basis of Design – Emergency Upper Bluff Stabilization Anacapa Hall, UC Santa Barbara (Draft)*, July 17, 2017.

UCSB. 2010. *Long Range Development Plan Final EIR* (SCH 2007051128).

UCSB. 2012. *Climate Action Plan*.

UCSB. 2014. *Climate Action Plan*.

UCSB. 2016. *2010 Long Range Development Plan*.

UCSB. 2016. *Draft Climate Action Plan*.

## Preparers

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**ATTACHMENT A**

**MITIGATION MONITORING AND REPORTING PROGRAM**

**Project Name:** East Bluff Stabilization Project

**Description:** The proposed project includes installation of a shoreline protection device to stabilize an eroding 50-foot section of coastal bluff adjacent to Lagoon Road on the UCSB campus.

**Location:** The subject property is located along the East Bluff adjacent to UCSB below Lagoon Road (Between Ucen Road and Channel Islands Road). The approximate northwest end point is located at Latitude 34° 24’ 39.87” N and Longitude 119° 50’ 31.32” W. The approximate southeast end point is Latitude 34° 24’ 37.63” N and Longitude 119° 50’ 31.90” W.

The following Mitigation Measures have been incorporated into the project design or are to be implemented before or during construction in accordance with the Conditions of Project Approval, thereby reducing all identified potential impacts to less than significant levels.

| MITIGATION MEASURES | STAFF MONITOR | TIMING OF COMPLIANCE | DATE OF COMPLIANCE |
| --- | --- | --- | --- |
| **AQ – 1a.**  During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this shall include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 mph. Reclaimed water shall be used whenever possible. However, reclaimed water shall not be used in or around crops for human consumption. |  |  |  |
| **AQ-1b.** Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less. |  |  |  |
| **AQ-1c.**  If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin. |  |  |  |
| **AQ-1d.** Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads. |  |  |  |
| **AQ-1e.** After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. |  |  |  |
| **AQ-1f.** The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to grading/building permit issuance and/or map clearance. |  |  |  |
| **BIO-1a.**  To avoid disturbance or loss of active bird nests during development of the project, all vegetation disturbing activities shall be conducted between September 15 and February 15, outside of the typical nesting season. |  |  |  |
| **BIO-1b.**  If vegetation removal is determined to be necessary during the typical nesting season (February 15 to September 15), a nesting bird survey shall be conducted by a qualified biologist approximately one week prior to the proposed action. Surveys shall follow standard protocols as established by CDFW and/or CCC. If the biologist determines that a tree/shrub is being used for nesting at that time, disturbance shall be avoided until after the young have fledged from the nest and achieved independence. If no nesting is found to occur, vegetation removal can proceed. |  |  |  |
| **BIO-1c.** To avoid indirect disturbance of active bird nests by Project construction occurring within the typical nesting season, a qualified biologist shall be retained to conduct one or more pre- construction surveys per standard protocols approximately one week prior to construction, to determine presence/absence of active nests adjacent to the project site. The survey shall be conducted to detect any bird breeding or nesting behavior on the project site or within 500 feet for raptors and 300 feet for all other bird species. If no breeding or nesting activities are detected, noise-producing construction activities may proceed. If breeding/nesting activity is confirmed, work activities within 300 and/or 500 feet of the active nest(s) shall be delayed until the young birds have fledged and left the nest. |  |  |  |
| **BIO-1d.** A project-specific Southern Coastal Bluff Scrub Habitat Protection Plan shall be prepared by a qualified biologist to assure that construction activities do not damage the habitat area. |  |  |  |
| **CUL-1a.** At the commencement of project construction, an archaeologist shall provide a brief cultural resources orientation to the construction crew on the types of prehistoric and/or historic resources that might become exposed during earth disturbing activities, and the steps to be taken in the event that such a find is encountered. |  |  |  |
| **CUL-1b.** An archaeologist and Native American monitor shall be retained to monitor initial site preparation activities conducted on the project site, at the top and bottom of the project site. |  |  |  |
| **CUL-1c.** The archaeologist shall have the power to temporarily halt or redirect project construction in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of project disturbance, the archaeologist shall have the authority to refine the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with the UCSB Office of Campus Planning and Design. Upon completion of the monitoring program a monitoring report shall be presented to the UCSB Office of Campus Planning and Design and to the Central Coast Information Center (CCIC). |  |  |  |
| **CUL-1d.** In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative should monitor any mitigation work associated with Native American cultural material. |  |  |  |
| **CUL-1e**. If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. If avoidance of the remains is not feasible, they should be excavated and removed by a qualified archaeologist in the presence of the Most Likely Descendent. Repatriation of the exhumed remains and all associated items shall be conducted in accordance with the requirements of the California Native American Graves Protection and Repatriation Act (Health and Safety Coe 8010-8011). |  |  |  |
| **NOI-1.** Prior to the initiation of project-related construction activities, a noise mitigation plan shall be prepared and shall be implemented throughout the duration of construction. At minimum, the noise mitigation plan shall include the following:   * 1. Construction equipment used on campus shall be properly maintained and outfitted with feasible noise reduction devices to minimize construction-generated noise.   2. Stationary noise sources such as generators or pumps shall be located at least 200 feet away from noise-sensitive land uses as feasible.   3. Laydown and construction vehicle staging areas shall be located at least 200 feet away from noise-sensitive land uses as feasible.   4. Whenever possible, academic, administrative, and residential areas that will be subject to construction noise will be informed in writing at least two weeks before the start of each construction project.   5. Loud construction activity (i.e., construction activity such as jack hammering, concrete sawing, asphalt removal, and large-scale grading operations) within 200 feet of a residential or academic building shall not be scheduled during finals week.   6. Loud construction activity, as described above, within 200 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, Thanksgiving break, Christmas break, Spring break, or Summer break.   7. Loud construction activity, as described above, within 200 feet of a residential building shall be restricted to the hours between 8:00 AM and 5:00 PM, Monday through Friday.   8. Loud construction activity within 200 feet of an academic building shall be scheduled to the extent feasible on weekends. |  |  |  |
| **TRA-1a.** Prior to project construction, a contingency plan will be made that includes detour routes for temporary closure of Lagoon Road. |  |  |  |
| **TRA-1b.**  Prior to project construction, a contingency plan will be made that describes how equipment may be moved out of the way as needed to allow emergency vehicles to pass the construction on Lagoon Road. |  |  |  |

1. Therefore, because the proposed project would address an emergency condition whereby bluff failure is considered imminent, UCSB could have processed the project under an exemption from CEQA pursuant to the 2017 State CEQA Guidelines Section 15269 (Emergency Projects). [↑](#footnote-ref-1)
2. <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf> [↑](#footnote-ref-2)
3. [http://www.sbcountyplanning.org/permitting/ldpp/auth\_reg/documents/Environmental%20Thresholds%20October](http://www.sbcountyplanning.org/permitting/ldpp/auth_reg/documents/Environmental%20Thresholds%20October%202008%20(Amended%20July%202015).pdf)

   [%202008%20(Amended%20July%202015).pdf](http://www.sbcountyplanning.org/permitting/ldpp/auth_reg/documents/Environmental%20Thresholds%20October%202008%20(Amended%20July%202015).pdf) [↑](#footnote-ref-3)
4. <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf> [↑](#footnote-ref-4)
5. <http://www.sbcountyplanning.org/permitting/ldpp/auth_reg/documents/Environmental%20Thresholds%20October%202008%20(Amended%20July%202015).pdf> [↑](#footnote-ref-5)
6. Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential. [↑](#footnote-ref-6)
7. 2006 Final Climate Action Team Report to the Governor and Legislature. March 2006. <http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF>. [↑](#footnote-ref-7)
8. Sites Open and Eligible for Closure – Corrective action at the Site has been determined to be completed and any remaining petroleum constituents from the release are considered to be low threat to Human Health, Safety, and Environment. The case in GeoTracker is going through the process of being closed. [↑](#footnote-ref-8)
9. The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period. [↑](#footnote-ref-9)
10. Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m. [↑](#footnote-ref-10)
11. CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m. [↑](#footnote-ref-11)