



FINDINGS OF FACT STAFF REPORT

Date: July 19, 2013 OPRD Coastal Land Use Coordinator: Tony Stein

OPRD File Number: BA-687-13 County: Lincoln Applicant: Jenna Borovansky

Project Location: 13520 S. Coast Highway,
Newport, OR
Lincoln County Assessor's Map #12S-11W-07 CB, tax lot 100.

Brief Project Description:

The proposed project involves the construction of a riprap revetment approximately 89 feet in length and 16 feet in height above beach level. Plans call for armor rock 2.0 to 6.0 feet in diameter, keyed 5 feet into the mudstone at the toe of the slope and placed in an interlocking state with a slope of 2H to 1V. The proposed riprap revetment will project approximately 20 feet from the bluff face onto the ocean shore, and will blend into an existing riprap revetment and rock stairway to the south (BA# 664-10).

ADMINISTRATIVE RULE STANDARDS AND RELEVANT FACTS

I. GENERAL STANDARDS, OAR 736-020-0010

Project Need – There shall be adequate justification for a project to occur on and alter the ocean shore area.

According to the geologic report by Richard Larrett, Engineering Geologist (March 20, 2013), the lower portion of bluff (approximately 7-8 feet) at this site is in Nye Mudstone, and is relatively resistant to erosion by high ocean waves. Groundwater seeping along the contact between bedrock and the overlying soils in addition to erosion by high ocean waves topping the bedrock, has resulted in an over steepened bluff face and slope movement in the soil materials. Larrett reports that the recession rate for the bluff top along the subject site has been approximately 10-14 feet over a 24 year period for an average of 6 inches per year. DOGAMI has calculated the average rate of erosion along this portion of the beach at 5 inches per year. The geologic report includes a site map that shows the northwest corner of the Borovansky residence approximately 19 feet from the top of the bluff. A review of a 1984 Oregon Department of Transportation aerial photograph shows that the Borovansky residence at that time was an estimated 33 feet from the line of vegetation established on the lower bluff face.

Larrett recommends that a riprap structure is necessary to protect the bluff face from shoreline erosion and top of the bluff recession. Larrett also recommends that pit run should be placed above the riprap structure on the upper bluff face to aid in reducing bluff top erosion.

A finding of project need follows the review of all other applicable standards and is included in the findings summary at the end of this report.

Protection of Public Rights – Public ownership of or use easement rights on the ocean shore shall be adequately protected.

The proposed riprap will occupy an average width of 20 feet of ocean shore along the base of the bluff. This encroachment onto the ocean shore is generally less than similar riprap revetments found along this stretch of shoreline. In evaluating similar riprap projects, OPRD has found this amount of encroachment to be acceptable when the need for the project was considered justified. The project will occupy an estimated 1,780 square feet of beach area which was previously available for public use. The beach is wide and flat at this location, and the presence of the riprap will not significantly affect public ownership or easement rights on the ocean shore.

Public Laws – The applicant shall comply with federal, state, and local laws and regulations affecting the project.

The Lincoln County Planning Department has certified that the project is in compliance with the Lincoln County Comprehensive Plan and Land Use Code. The Lincoln County Planning Department has signed the County Planning Department Affidavit form and has determined that the project has been reviewed and is consistent with the local comprehensive plan and zoning ordinances. State laws and regulations are being addressed through this permit review.

Federal regulations could potentially involve a U.S. Army Corps of Engineers permit; however a Corps permit is usually not required for this type of project. A condition of the permit will require that the applicant obtain any required permits from the Corps, if applicable.

Alterations and Project Modifications – There are no reasonable alternatives to the proposed activity or project modifications that would better protect the public rights, reduce or eliminate the detrimental affects on the ocean shore, or avoid long-term cost to the public.

The geologic report states that moving the Borovansky house away from the top of the bluff and to the east is not feasible due to the location of the septic drain field and its proximity to the highway. The septic drain field is located 10 feet from the Borovansky residence and approximately 10 feet from the western boundary of Highway 101.

The geologic report rules out vegetative stabilization as a non-structural method for shore protection because of the near vertical bluff face. The report states that vegetation has eroded from the existing slope by high ocean waves where a relatively flat beach slope allows ocean waves to reach to the back portion of the beach at high tide. The geologic report recommends a riprap revetment as the appropriate measure to protect the property.

Considering these factors, the use of riprap shore protection constitutes the most reasonable option for controlling bluff erosion at this site.

Public Costs – There are no reasonable special measures which might reduce or eliminate significant public costs. Prior to submission of the application, the applicant shall consider alternatives such as nonstructural solutions, provision for ultimate removal responsibility for structures when no longer needed, reclamation of excavation pits, mitigation of project damages to public interests, or a time limit on project life to allow for changes in public interest.

Vegetative stabilization as an alternative shore protection method other than riprap shore protection has been discussed above. Other alternatives, such as sand nourishment or dynamic revetments are not discussed in the geologic report, and are not be considered reasonable special measures, as they would most likely fail to provide the needed long-term protection for the property. Public costs of the riprap include the loss of some

upper beach area, heavy equipment activity on the beach during construction, and the visual presence of additional riprap on the ocean shore. These costs can be reduced through careful and efficient construction practices. There will be no public costs to maintain the structure, as maintenance and needed repairs are the responsibility of the upland property owner.

Compliance with LCDC Goals – The proposed project shall be evaluated against the applicable criteria included within Statewide Planning Goals administered by the Department of Land Conservation and Development.

Lincoln County has certified that the project is in compliance with the Lincoln County Comprehensive Plan and Land Use Code, which are acknowledged by LCDC as meeting the Statewide Planning Goal requirements. The subject property has been determined to be developed prior to January 1st, 1977, and meets the eligibility requirements for shoreline protection under Goal 18. The adjacent property to the south (TL200) has been determined to be developed and currently has a shoreline protection structure.

Based on the submitted engineering and geologic reports, The Lincoln County Department of Planning and Development has determined that the proposed project is necessary to protect development that existed on January 1, 1977.

II. SCENIC STANDARDS, OAR 736-020-0015

Projects on the ocean shore shall be designed to minimize damage to the scenic attraction of the ocean shore area.

Natural Features – The project shall retain the scenic attraction of key natural features, for example, beaches, headlands cliffs, sea stacks, streams, tide pools, bedrock formations, fossil beds and ancient forest remains.

The proposed project will not significantly change the visual appearance of the existing shoreline as riprap exists on the adjacent property. There are also properties located several hundred feet to the south that are fronted with riprap shoreline protection structures and beach access stairways. The riprap will be placed at an elevation of 16 feet in height above beach level. The riprap placement is designed to minimize the alteration of the ocean shore area, and in evaluating other projects; this change has been accepted when the need for the project has been justified. No key natural features such as beaches, sea stacks, bedrock formations, fossil beds or other features will be significantly affected.

Shoreline Vegetation – The project shall retain or restore existing vegetation on the ocean shore when vital to scenic values.

Vegetation exists on the mid and upper bluff face along the length of the property, with various grasses, salal, salmonberry and blackberry. Small spruce and pine trees are found along the top edge of the bluff. There will be some loss of vegetation on the lower bluff with installation of the riprap revetment.

View Obstruction – The project shall avoid or minimize obstruction of existing views of the ocean and beaches from adjacent properties.

The proposed riprap structure is located well below the top of the bluff and will not affect existing views from adjacent properties.

Compatibility with Surroundings – The project shall blend in with the existing shoreline scenery (type of construction, color, etc.).

The applicant has proposed covering the revetment with sand and planting vegetation, which would allow it to blend in with the existing terrain and vegetation. If the riprap is washed clean of the sand and vegetation, then it will be more noticeable.

III. RECREATION USE STANDARDS, OAR 736-020-0020

Recreation Use – The project shall not be a detriment to public recreation use opportunities within the ocean shore area except in those cases where it is determined necessary to protect sensitive biological resources such as state or federally listed species.

The beach is quite wide here, and during normal conditions, the existence of the riprap will not be a detriment to typical recreational use. During high tides in the winter, however, wave run-up often reaches the upper areas of the beach, and may cover the entire beach at times. The loss of additional beach area will increase the chance of this occurring.

There is no state or federally listed species within this ocean shore area. In addition, there are no Oregon State Sensitive species found utilizing this area of shoreline.

Recreation Access – The project shall avoid blocking off or obstructing public access routes within the ocean shore area except in those cases where it is determined necessary to protect sensitive biological resources such as state or federally listed species.

The project will not extend out onto the ocean shore to cause an obstruction to public access along the shoreline during normal ocean conditions.

IV. SAFETY STANDARDS, OAR 736-020-0030

The project shall be designed to avoid or minimize safety hazards to the public and shoreline properties. The following safety standards shall be applied, where applicable, to each application for an ocean shore permit.

Structural Safety – The project shall not be a safety hazard to the public due to inadequate structural foundations, lack of bank stability, or the use of weak materials subject to rapid ocean damage.

The proposed riprap design indicates that the riprap will be structurally stable and safe under normal ocean conditions and will not be an obstructive hazard. The engineering and geologic report recommends riprap armor rock approximately 2.0 to 6.0 feet in diameter, placed in an interlocking state.

No information is provided in the application or geologic report on design specifications for retaining or replacing the existing riprap rock stairway (BA# 664-10) that tapers approximately 15 feet into the south end of the Borovansky property. The riprap stairway was constructed on top of the northern end of the riprap return structure. This design provides the necessary shore protection as well as incorporating beach access for the adjacent property owner (Crowe, TL 200). A requirement will be added as a condition of approval requiring the submission of a new design drawing that depicts the location of the replaced stairway. Depending on the location of the rebuilt stairway, a design, construction and maintenance agreement will also be required of the property owners. The new riprap rock stairway design will be engineered to be structurally sound and stable and built within the proposed riprap revetment.

Obstructive Hazards – the project shall minimize obstructions to pedestrians or vehicles going onto or along the ocean shore area.

The proposed riprap revetment will project out from the existing bluff toe approximately 20 feet. This normally will not affect lateral beach access, except during times of extreme high water. During these periods, however, wave run-up is likely to be hitting the upper beach area and steep bluffs on nearby properties, therefore the proposed riprap will not create a new obstruction to beach access.

Neighboring Properties – The project shall be designed to avoid or minimize ocean erosion or safety problems for neighboring properties.

The geologic report states that the proposed structure will blend into the existing riprap to the south and the bluff face at the northern boundary of the adjacent property to minimize the loss of soil shear strength. It also states that the riprap revetment return on the north end of the property will have a radius with a flatter slope to minimize reflected wave energy.

Property Protection – Beachfront property protection projects shall be designed to accomplish a reasonable degree of increased safety for the on-shore property to be protected.

The purpose of the revetment is to provide protection to the upland property.

V. NATURAL AND CULTURAL RESOURCE STANDARDS, OAR 736-020-0030

Projects on the ocean shore shall avoid or minimize damage to the following natural resources, habitat, or ocean shore conditions, and where applicable, shall not violate state standards:

Fish and wildlife resources including rare, threatened or endangered species and fish and wildlife habitats.

There are no reported fish and wildlife resources that will be impacted by the proposed riprap revetment. The site is within a developed residential area, and there is no protected fish and wildlife habitat on or adjacent to the subject property.

Estuarine values and navigation interests.

The project is not adjacent to an estuary, and does not affect navigable water on the ocean.

Historic, cultural and archeological sites.

Notice of the application was provided to the State Historic Preservation Office, and to the Confederated Tribes of Siletz and the Confederated Tribes of Grand Ronde. There were no reports of historic, cultural, or archeological sites at this location.

Natural areas (vegetation or aquatic features).

There is no existing significant vegetation or aquatic features that will be impacted by the proposed riprap.

Air and water quality of the ocean shore area.

The project will take place above the ordinary high tide line, and will not cause foreign materials or pollutants to enter the water. Riprap placed at the site will be free of debris or foreign materials. The proposed project does not adversely affect water quality on the ocean shore. Air quality will not be affected, except for a negligible amount of exhaust from the use of heavy equipment during the construction period.

Areas of geologic interest, fossil beds, ancient forest remnants.

None of these features have been identified at the site.

When necessary to protect native plant communities or fish and wildlife habitat on the subject or adjacent properties, only native, non-invasive, plant species shall be used for revegetation.

The site is within a developed residential area, and there are no known protected native plant communities or fish and wildlife habitat on or adjacent to the subject property.

VI. PUBLIC COMMENT

Notice of the proposed project was posted at the site for 30 days in accordance with ORS 390.650. Individual notification and a copy of the application were mailed to government agencies and individuals on OPRD's ocean shore mailing list. OPRD received no requests for a public hearing. One comment was received by the adjacent property owner (TL 200) who was concerned about the impact of the proposed structure on the existing riprap rock stairway. The approval of this permit will require an agreement between the parties to determine location and maintenance costs of the rebuilt stairway structure.

VII. FINDINGS SUMMARY

Project Need – The proposed riprap is necessary to provide protection from ocean-caused erosion. Although the beach profile and adjacent bluff slope has not changed significantly in the past few decades, there is evidence of steady and/or episodic erosion events impacting the bluffs and adjacent properties. The proposed riprap will not entirely eliminate all landslide risk, but will control erosion and undermining of the mid to upper bluff slope, which has been the primary cause of slope failure at the site. OPRD staff has monitored this area for a number of years, and has observed that the property has sustained ocean caused bank erosion and bank sloughing during recent large ocean storm and rain events. The riprap boulders are being placed to buttress the existing bluff face and minimize potential slope movement and top recession. The property owner has no other reasonable options to help reduce erosion of the bluff, and provide long-term protection to the property.

Alterations and Project Modifications: Although a mudstone toe is found at the toe of the slope at the site, it will not stop the erosion at the mid-bluff area and eventual sloughing on the top of the bluff. Other types of less structural methods would not provide the protection necessary to control wave erosion within the bluff slope, and the riprap project has been recommended by the project geologist. Need for the riprap is justified, and the proposed method of erosion control is appropriate.

The following checklist summarizes whether the application satisfies the general, scenic, recreation, safety and natural and cultural resource standards as defined in OAR 736-020-0010 through 736-020-0030:

Standard	Yes	No	Standard	Yes	No
Project Need	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Structural Safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Protection of Public Rights	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Obstructional Hazards	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Laws	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Neighboring Properties	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alteration and Project Modifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Property Protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Costs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fish and Wildlife Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compliance with LCDC Goals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Estuarine Values and Navigation Interests	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Historic, Cultural and Archeological Sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shoreline Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Natural Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>
View Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air and Water Quality of the ocean shore	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compatibility with Surroundings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Areas of Geologic Interest	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recreation Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Use of Native Plant Species when Necessary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recreation Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

VIII. STAFF RECOMMENDATION:

Based on an analysis of the facts and in consideration of the standards evaluated under OAR-736-020-0005 through OAR 736-020-0030, I recommend the following action:

- Approval
- Approval with conditions
- Denial

Tony Stein
Ocean Shores Coordinator