



FINDINGS OF FACT STAFF REPORT

Date: July 2, 2004

OPRD Coastal Land Use Coordinator: Steve Williams

OPRD File Number:

BA-587-04

County: Lincoln

Applicants: Don Schaefer and
Edward Ferschweiler

Project Location:

5441 and 5507 NW Jetty Avenue, Otis.
Lincoln County Assessor's Map #6S-11W-34DD, tax lot 501 and 502.

Brief Project Description:

The proposed project involves the construction of a riprap revetment, approximately 132 feet in length, and approximately 14 feet in height above beach level, with a slope of 2H to 1 V. The proposed riprap revetment will project as much as 20 feet onto the ocean shore on tax lot 501, and will be mostly even with the existing bluff profile on tax lot 502. The riprap will be tapered inwards towards the bluff at the north and south ends.

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 permit application and the accompanying geologic report (Schlicker and Associates, February 19, 2004) the subject site was the site of a landslide in 1994. At that time, a soldier pile retaining wall was constructed along the upper bluff in front of tax lot 501 and the adjoining property to the north. Sometime prior to this event, some riprap was placed at the base of the bluff fronting tax lot 501, however, the riprap was not placed well and is in relatively poor condition, and could be removed during a single severe storm event, according to the geologic report. There are no permit records for placement of this riprap material. Both homes are in close proximity to the 56-foot high bluff, with setback distances of 13.5 and 15 feet from the bluff edge. Landslides and blockfall near the base of the bluff were observed on nearby properties by the geologist. According to the geologic report, any additional erosion at the base of the bluff will significantly increase the risk to the homes, due to the high and steep nature of the bluff and proximity of the homes to the bluff edge.

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 approximate 20-foot width of beach area along the base of the bluff at tax lot 502, but will not project seaward of the existing riprap and colluvial material fronting most of tax lot 501. On tax lot 501, the proposed riprap structure will replace the existing material at the base of the bluff. The riprap will be tapered in on both ends. Usually the beach at this site is quite wide, so public recreational uses should not be affected under normal conditions. The presence of the riprap will not 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 Division has certified that the project is in compliance with the Lincoln County Comprehensive Plan and Land Use Code. State of Oregon regulations are being addressed under the review of this permit. 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 applicants 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.

Relocation of the homes was not considered a viable option, as the existing buildings are already located in close proximity to the street (5 feet and 11.5 feet). Even if the homes were moved to the street property lines, the distance would not provide adequate protection from landsliding along the bluff, according to the application and geologic report.

The geologic report rules out non-structural methods of shore protection, including vegetative stabilization, sand nourishment, and dynamic revetments, primarily based on the high energy wave environment along this section of coastline. Vegetative stabilization or sand alteration would not be sufficient to substantially slow or halt erosion, or to stabilize the bluff slope. Dynamic revetments are not recommended for the site due to the frequent exposure to wave attack. In addition, OPRD notes that the use of dynamic revetments (such as loose cobbles) are more appropriate on beaches that have similar natural features already, and where the application is for a longer length of shoreline. An example of these conditions can be found at Cape Lookout State Park in Tillamook County, where a dynamic cobble revetment has been functioning successfully.

The geologic report recommends a riprap revetment as the initial step to controlling erosion. Additional measures, such as new installation or repair of the existing upper bluff retaining wall, or underpinning of the house could be required in the future.

Considering the above factors, the use of riprap shore protection constitutes the most reasonable option as the initial step for controlling 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.

Alternative shore protection methods other than riprap shore protection have been discussed above. These

alternatives are not considered reasonable special measures, as they would fail to provide the needed long-term protection for the property.

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.

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 natural features of the beach in the general vicinity will remain intact, and no significant landforms such as headlands, sea stacks, or streams will be affected. The riprap will only be placed to about 14 feet in height above beach level. The scenic quality of the bluff face above the riprap will remain unaltered, under the current proposal.

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

Some native and introduced beach grass and other vegetation exists along portions of the lower bluff slope. This vegetation will be removed or covered up by the riprap revetment. The project includes covering the riprap with sand and planting vegetation, which will restore the existing vegetation that is lost during the construction process. Existing vegetation on the bluff slope above the riprap will remain in place. The protection provided by the riprap at the base of the bluff will help to maintain this vegetation.

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

The riprap 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, however, the riprap will occupy only about one-fourth of the height of the bluff, leaving most of the natural bluff unaltered. Properties with riprap revetments are located within 250 feet to the north and approximately 1,200 feet to the south. The proposed riprap will be similar to the existing revetments within view from the subject site and will blend in reasonably well with the existing scenery.

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 riprap will occupy some beach area, but will not significantly affect public recreation use opportunities. During storm events or winter high tides, wave run-up may reach the riprap structure. During normal conditions, however, the existence of the riprap will not be a detriment to typical recreation uses.

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 design indicates that the riprap will be structurally safe and not an obstructive hazard. Rocks will be placed individually to form an interlocking structure, as is the standard practice for revetment design. On tax lot 501, the colluvial material and disorganized riprap boulders will be replaced with the new riprap structure, which will help to reduce safety problems associated with unstable material.

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

The beach at this site is typically quite wide, and the proposed riprap is not expected to obstruct pedestrian or vehicle access during normal ocean conditions.

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

In order to minimize the chance of enhanced erosion or flank scour on adjoining properties, the riprap design includes a tapering of the riprap height and width at either end, to help minimize the possibility of end effects or flank scour. At the north end, the riprap will follow the existing bluff profile, so that there will be no new protrusion out onto the ocean shore.

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 properties.

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 project.

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 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 eight requests for a public hearing, however, a hearing was not held as the number of requests fell short of the ten required to hold a hearing. One of the hearing requests stated opposition to the project. One additional letter stated a general opposition to riprap as a form of erosion control.

VII. Findings Summary

Project Need – The proposed riprap is necessary to provide protection from ocean caused erosion. Bluff conditions and proximity of the houses to the bluff edge have caused the geologist to recommend the riprap revetment. There is evidence of significant active erosion and landsliding on nearby properties, and any

similar erosion at the subject properties would significantly increase the risk to the homes. Although existing colluvial soil material and/or riprap is currently present at the toe of the bluff, this material can be easily eroded which could lead to over-steepening of the lower bluff face and larger bluff failures. Relocating the houses is not a reasonable alternative due to the insufficient room available on the properties. Other types of less structural methods would not provide the protection necessary to control wave erosion at the toe of the slope. Existing scattered riprap on the northernmost property will be replaced with the new riprap slope built to engineered specifications.

Based on the above considerations, OPRD finds that there is adequate justification for the project to occur on and alter the ocean shore area.

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

Steve Williams,
Coastal Land Use Coordinator