



## FINDINGS OF FACT STAFF REPORT

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Date: August 5, 2005

OPRD Coastal Land Use Coordinator: Tony Stein

OPRD File Number:

BA-598-05

County:

Lincoln

Applicants:

David and Karen  
Wellman

Project Location:

6203 Highway 101 South, Yachats  
Lincoln County Assessor's Map #14S-12W-11CA, tax lot 8003.

Brief Project Description:

The proposed project includes the construction of a riprap revetment approximately 100 feet in length, and 12.5 feet in height above the beach level.

## 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.**

The house on the subject property is situated on a low-lying building site, at an approximate elevation of 20 feet above mean sea level. At the time the residence was constructed in 1995, the closest distance from the house to the edge of the northwest corner of the ocean bluff was approximately 19 feet. In 2005, an Engineering Geologic Report by GeoScience, Inc. measured that same distance and recorded it as 18 feet from the top of the bluff. The residence is situated on the south half of a small cove and also fronts the western shoreline. Since the construction of a riprap revetment in 2003 (Musial, BA 562-03) to the north and adjacent to the property, the applicant has observed a reconfiguration of the bank and bluff. In addition, the stream channel to the north of the residence has changed from its historical course of running along the north side of the cove to the south side. A stream culvert was replaced as part of the Musial riprap project and has now cut a new channel through beach sand on the south side of the cove fronting the ocean bluff below the Wellman residence. The application points out that the "accelerated erosion of the ocean bluff poses an increasing risk to the house, and if left unchecked, could threaten the stability of the building foundation."

At the time of this report, beach sand is accreting at the base of the bluff below the Wellman property and the seasonal stream channel has gone subsurface and is not visible.

GeoScience describes the hazards affecting the property. Since 2003, winter storms have caused erosion and a loss of approximately 1 foot of bank bluff and a loss of 1.5 feet of beach sand at the base of the bluff on the south side of the cove, directly in front of the Wellman home. GeoScience states that the accelerated erosion along the south edge of the cove in front of the Wellman property can be attributed almost entirely to a change in the course of the creek. The current rate of erosion as measured by Geoscience from 2003 to 2005 is approximately 0.5 feet per year. A Geologic Hazards Report by H.G. Schlicker and Associates for the

Wellman property in 1995 estimated average bluff erosion for this site as 4" inches per year. Since 2003, this is only an increase of 2" inches per year of the estimated bluff erosion rate for this site. Overall, with the exception of the beach sand level in the cove, very little of the Wellman property has been subject to erosion since it's construction in 1995, as indicated on the submitted site plan. On July 26, 2005, GeoScience submitted additional information and reported a distance of just over 16 feet as the closest approach to the house foundation from the top of the beach bluff. The location of this measurement reflects only one small area of bluff erosion. This specific erosion point may be related to a house or foundation drainpipe(s) buried just below the top of the bank at that location, or a roof drain that discharges above the bluff at that location. Most of the reported erosion has occurred below the Wellman's upland property with the loss of beach sand levels due to the creek realignment to the south. Potential effects of a previously constructed concrete stairway located at the northern boundary of the Wellman property and blended into the Musial riprap project was not addressed in the report.

The Wellman home is set back a reasonable distance from the existing bluff escarpment, following the recommendations of the 1995 Schlicker and Associates report. There is currently no threat to this residence.

There is not adequate justification for the riprap to occur on, and alter the ocean shore area. In summary, this is due to the lack of threat to the residence, and the relatively small amount of the upland private property that has actually been eroded. Although beach sand levels and stream outlet courses may fluctuate seasonally or from year to year, these natural changes have not significantly affected the stability of the bluff or other upland property.

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 subject property is located at the southwest corner of a small cove, approximately 150 feet wide and 86 feet deep. The proposed riprap revetment will occupy an area that was recently a sand berm against the bluff slope and vegetated upland. The proposed riprap structure would extend out onto the ocean shore approximately 7 feet, and would occupy 700 square feet of beach area. Although the proposed riprap would not protrude out onto the beach beyond the cove area, any encroachment at this time is unnecessary due to the lack of project need, as discussed above.

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.***

The geologic report rules out non-structural methods of shore protection, particularly bioengineering methods. This assessment is based on the recent loss of natural vegetation and beach sand in front of the sea bluff, caused by wave run-up and battering by logs during high intensity storm events. The cove appears to be a natural depository for wave-transported driftlogs, which become mobile during high water events. Other hard engineering methods, such as sheet piles or a concrete seawall might also be effective in this case, according to the report, but would be significantly more expensive and less visually compatible than the proposed revetment structure.

One alternative not considered in the application was the redirecting of the stream channel to its historical location and the relocation of existing beach sand and logs to protect the base of the southern bluff. Although this type of action may prove to be temporary, it may provide adequate protection until further assessment of the bluff erosion rate can be evaluated, and merits further investigation.

The applicant has testified that the placement of sand and driftwood was attempted in the past, but was unsuccessful. However, these attempts were not documented or permitted by OPRD or other agencies, and should be not be used to rule out potential alternatives to riprap. A properly designed strategy of creek channel alteration and log placement may be a viable alternative.

The applicant states “at the conclusion of the Musial’s riprap project in the spring of 2003, their contractor moved sand and driftwood onto our bank. This strategically placed driftwood and sand was a soft measure attempt to protect our bank from the erosion predicted by the geologist resulting from their riprap”.

Another alternative not considered in the application was the investigation and possible improvement to the Wellman home and property drainage system. The geologic report did not include any information on the existing home roof and foundation drainage lines and their possible contributions to bluff erosion at the closest point to the house foundation. H.G. Schlicker in the March 3, 1995 Geologic Hazards Report outlined measures for footing drains, surface and subsurface drains and roof drains for the Wellman home and property, requiring that adequate surface and subsurface drains be carried to the storm drain sewer system, or be tight lined to an approved disposal site. There is no information in the application noting that these measures were implemented during the Wellman home construction in 1995.

***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.***

Alternatives to the riprap shore protection have been discussed above. As described, other special measures may exist that would have been considered reasonable, and if conducted annually or as required, may 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.

During the public hearing held on July 6<sup>th</sup>, 2005 and subsequent comment period, six individuals have challenged the applicant's claim that the property was developed before 1977. Goal 18 provides that permits for beachfront protective structures shall be issued only where development existed on January 1, 1977. The Lincoln County Planning Department has reviewed the application and determined that it was in fact developed property, in accordance with the Goal 18 provision.

## 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 would be affected by the proposed riprap.

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

There has been some loss of vegetation caused by the on-going erosion at the site, and loss of additional vegetation can be expected if the bluff continues to recede. Some of the existing vegetative shrubs and dune grasses would need to be cut back if riprap were to be installed.

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

The riprap would 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 proposed riprap revetment would be about twelve and a half-feet in height, and would be located in the back and southern side of the 150-foot wide cove. Although the revetment would be out of view from the main beach area looking north, the project would be visible from a southern viewpoint. The Musial riprap project uses basalt rock for its structure, which is visually incompatible with the marine terrace deposits of the sea bluffs within the cove. It is recognized, however, that the Musial project and other extensive riprap revetments armor the shoreline within approximately 400 feet north of the cove and have altered the scenery along this shoreline.

## 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 would occupy some beach area within the cove, area that was recently vegetated upland and had a sand berm at the base of the bluff. Considering the position of the riprap in the back end of the cove, there would be only a small decrease in the amount of available beach area and minimal adverse impacts on public recreation opportunities.

***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 would be recessed in the back of the cove and would not extend out onto the ocean shore to cause an obstruction to public access along the shoreline.

#### **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 revetment design appears to 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.

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

The width of the beach and location of the riprap allows ample room for pedestrians or vehicle use during normal conditions. The riprap would not affect any public access routes to the beach.

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

On the north property boundary, the proposed riprap revetment terminates at an existing concrete stairway with riprap protection and an additional 120 feet of riprap structure. To the south, the proposed riprap revetment ends at the south point of the cove, within the applicant's property boundaries. This would eliminate the need for an abrupt edge or protruding revetment flank, therefore no adverse impacts are expected on the adjoining property further to the south.

***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.***

No reported rare, threatened, or endangered species and/or fish and wildlife resources are present that will be impacted by the proposed project.

***Estuarine values and navigation interests.***

The project is not adjacent to an estuary, and would 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 the Siletz and Grand Ronde Indians. 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 would be impacted by the proposed riprap.

***Air and water quality of the ocean shore area.***

The project would take place above the ordinary high tide line, and will not be likely to cause foreign materials or pollutants to enter the water. The proposed project would not have an any adverse effect on water quality along the ocean shore. Air quality would not be affected, except for a negligible amount of exhaust from the use of heavy equipment during the construction period.

Regardless of the minimal effects on air and water quality that would be expected from the proposed project, any potential impacts are unnecessary, due to lack of project need, as described above.

***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 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. During this initial comment period, more than ten requests were received for a public hearing. A public hearing was held on July 6, 2005. Approximately 12 people attended the hearing. Eight testified, including three representing the applicant, four opposed to the request and one in favor of the request. In addition to the written submittals from the applicants and their representatives, 20 written comments were received, including 1 letter in support of the permit application, and 19 letters in opposition.

The letter in support of the project stated that the Wellman property was developed prior to 1977 and is therefore eligible for riprap. The letter also stated that the change in the course of the stream was caused by other development upstream from the Wellman home and that soft measures to protect the bluff would erode away.

The following concerns were raised by opponents: 1) the proposed riprap would have aesthetic impacts on the scenic cove and surrounding beach area; 2) there is no immediate danger to the Wellman home; 3) the property was not developed prior to 1977 and is therefore ineligible to apply for riprap and 4) the location of the existing septic drain field in the Geosciences report does not match the as-built diagram.

**VII. FINDINGS SUMMARY**

**Project Need – There is not adequate justification** The proposed riprap is unnecessary to provide protection from ocean-caused erosion on the sea bluff. The property has been subject to minor bluff erosion and there is no immediate danger to the home foundation or septic system as presented by the applicant.

Based on the above considerations, OPRD finds that there is no 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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,  
Coastal Land Use Coordinator