



## FINDINGS OF FACT STAFF REPORT

Date: December 2, 2008

OPRD Coastal Land Use Coordinator: Tony Stein

OPRD File Number: BA-649-08 County: Tillamook Applicant: Richard Grant, Illene Safyan and Betty Sipprell

**Project Location:** The properties are located at 45988 and 45990 Verbena Court and 45735 Kinnickinnick Drive, Neskowin. Tillamook County Assessor's Map T5S, R11W, Section 24 BD, Tax Lots 1500, 1400, and 2400.

**Brief Project Description:** The proposed riprap structures are a north and south extension of an existing contiguous line of riprap located in the residential development of Neskowin North Subdivision. The project seeks to convert two separate Emergency Riprap Permits to permanent shoreline protection structures. Emergency Permit (BA 633-07) was issued to Richard Grant on December 7, 2007, and Emergency Permit (BA 638-08) was issued to Ilene Safyan and Betty Sipprell on January 10, 2008. The adjacent Grant and Safyan properties are at the southern end of the existing riprap revetment and the Sipprell property is located at the northern end of the shoreline protection structure.

The total length of riprap placed on the ocean shore is 360 feet.

The Grant and Safyan properties are comprised of 260 lineal feet of riprap material. Riprap rock is 4 to 6 foot in diameter, using smaller pit run rock and Mirafi 700x fabric material underneath as structure backing. The slope of the structure will be 2H to 1V, and the revetment will extend approximately 20 feet above beach level.

The Sipprell property is comprised of 100 lineal feet of riprap material. Riprap rock is 4 to 6 foot in diameter, using smaller pit run rock and Mirafi 700x filter fabric material underneath as structure backing. In addition, a pond liner was installed behind the filter fabric prior to installation of the riprap. The slope of the structure will be 2H to 1V, and the revetment will extend approximately 20 feet above beach level.

### **GENERAL STANDARDS EVALUATED, OAR 736-020-0010**

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

In recent years, particularly during the 1998/1999 winter, many areas of Neskowin have experienced critical erosion. Active sand dunes receded, and beach sand levels were dramatically lowered. In the submitted geologic report by Richard Larrett (Preliminary Site Evaluations for Grant, Safyan and Sipprell, April 24<sup>th</sup>, 2008), it states that "by 1999, bank erosion required riprap shoreline protection to be installed on the adjacent lots to the north (Tax Lots 2000, 2100, 2200, 2300) to minimize erosion to their properties and protect houses from damage. The riprap structures described above were approved under OPRD permits BA# 099-76, BA# 443-99 and BA#

466-99. Mr. Larrett goes on to state that during the December 2007 storms, high ocean waves overtopped the existing riprap structure, displacing boulders and damaging the structure requiring repairs. An extreme storm event during the period of December 2 to 3, 2007, and again during January 5 to 7, 2008, resulted in accelerated beach erosion and foredune scouring at the flanked ends of the existing revetment. During that time, high ocean waves and storm surges significantly lowered the beach profile and resulted in 20 to 30 feet or more of erosion of the dune fronting the subject properties.

The stability of the southern flank of the existing riprap structure (BA# 466-99) and the foredune bank fronting the Grant and Safyan properties was compromised and there was an immediate threat to upland structures. More than 20 feet of erosion had occurred in less than two days to the dune face along the west side of TL 1500 (Grant) and TL 1400 (Safyan) requiring emergency riprap installation. At that time, the Grant residence was located approximately 42 feet from the edge of the top of the bluff and the Safyan septic field was approximately 26 feet from the edge of the top of the 15 foot high bluff.

The Sipprell property is located along a historic east/west facing wave run-up zone, north of the Grant and Safyan properties at the end of the contiguous riprap revetment. The stability of the east flank of the existing riprap structure (BA# 443-99) and the foredune bank fronting the Sipprell property was compromised and there was an immediate threat to upland infrastructure. As measured by OPRD on January 10th, 2008, the Sipprell septic field was located 20 feet from the edge of the top of the 13 foot high bluff. The foundation of the Sipprell residence was also measured at 41 feet from the top of the bluff

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

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

The proposed riprap fronting the adjacent Grant and Safyan properties will extend 37 feet out from the existing dune escarpment, occupying up to 9,620 square feet of beach area at the toe of the slope. The riprap will be tapered at the south end of the proposed revetment structure and into the dune face to reduce the occupation of beach area.

The proposed riprap fronting the Sipprell property will extend 37 feet out from the existing dune escarpment, occupying up to 3,700 square feet of beach area at the toe of the slope. The riprap will be tapered at the east end of the proposed revetment structure and into the dune face to reduce the occupation of beach area.

Normally 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 Tillamook County Department of Community Development has certified that the project is in compliance with the Tillamook 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 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 submitted geologic report (Preliminary Site Evaluations for Grant, Safyan and Sipprell, April 24<sup>th</sup>, 2008) does not address non-structural solutions for protecting the subject properties, such as dynamic revetments, sand bags, gravel mounds, logs or composite revetments. Other geologic reports on similar properties have concluded that these techniques would not be effective due to the high-energy wave environment along this section of the coastline coupled with the loose nature of the sand. Vegetative stabilization and sand alteration would not be sufficient to substantially slow or halt erosion.

Relocating the Grant residence would not provide the necessary protection to the structure and would not avoid the need for placing riprap or other material on the ocean shore. The building is currently occupying much of the usable land with an adjacent septic field located just east of the home.

Both the Safyan and Sipprell homes are set back from the dune escarpment, and the area between the structures and the ocean bluff holds the septic systems for the homes. There is insufficient land available for relocating the septic fields elsewhere on the properties.

**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.**

Public costs associated with the proposed riprap will be the loss of approximately 13,320 square feet of upper beach area. Alternative shore protection methods other than riprap 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 properties. Public costs of the riprap also include the loss of recreational beach area, heavy equipment activity on the beach during construction, and the visual presence of additional riprap. These costs can be reduced through careful and efficient construction practices.

There will be no public costs to maintain the rip rap structures, as maintenance and needed repairs are the responsibility of the upland property owners.

**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.**

Statewide Planning Goal 18 requires that permits for beachfront protective structures be issued only where development existed on January 1, 1977. Development is defined as houses, commercial and industrial buildings, and vacant subdivision lots which are physically improved through construction of streets and provision of utilities to the lots. The subject properties meet the criteria. The Tillamook County Comprehensive Plan includes a Goal 18 exception for the Neskowin Community, recognizing that the lots were developed prior to 1977.

#### **SCENIC STANDARDS EVALUATED, 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, headland 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 project will result in changes to the dune bluff profile and will occupy some beach area. However, the scenic attraction of the beach will not be significantly affected, considering the width of the ocean shore and existing riprap structures along this section of Neskowin beach.

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

The project will not affect vegetation that is vital to scenic values. Very little vegetation remains on the dune face due to the dramatic erosion that has occurred during the past several winters.

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

The riprap revetment will not affect or obstruct ocean or beach viewing opportunities from adjacent properties.

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

The riprap revetment will be visually consistent with other riprap revetment projects on adjoining properties, and the many similar structures in the south Neskowin area.

#### **RECREATION USE STANDARDS EVALUATED, 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 of federally listed species.**

The proposed riprap will occupy some of the available beach area, and should not affect typical recreation uses such as sunbathing, surfing, kite flying, sandcastle building, walking, or beachcombing.

**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 of federally listed species.**

During high tides in the winter, wave run-up often reaches the upper areas of the beach, and may cover the entire beach at times. Riprap revetments encroach some distance out from the natural bluff toe, and increase the chance of high water covering the entire beach area. The project is designed to project as little as possible out onto the beach area, while still maintaining a stable slope that will not collapse or become a safety hazard. Access during times of extreme high water is already limited by the presence of riprap on adjoining properties; therefore, the proposed project will not result in any new obstruction to lateral beach access. Permit conditions will also require that the line of riprap be tapered inland at the flanked ends, which will help preserve additional beach area for public use.

#### **SAFETY STANDARDS EVALUATED, 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 revetment has been designed by an engineering geologist to withstand wave attack, and support the steep dune face. Rock size, slope, toe trench, and material specifications appear to be adequate for providing erosion control in this high-energy beach environment.

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

The riprap will project out approximately 37 feet from the toe of the existing dune escarpment. 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 riprap on neighboring properties. Therefore, the proposed riprap will not create a new obstruction for beach access along the shoreline.

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

Due to the irregular shape and lot alignment of the Safyan property and the actual location of the adjacent home,

the southern flank of the proposed riprap revetment is providing a measurable degree of shoreline protection to the neighboring property (TL 1300). To the north of the Grant property, properties are protected with an existing riprap structure (BA# 466-99).

The Sipprell residence faces north above a low elevation wave run-up swale that has historically flooded through the dune face. The adjacent property to the west of the Sipprell home is protected by riprap (BA# 443-99). To minimize the chance of increased erosion on the adjoining property (TL 2500), permit conditions will require that the riprap be tapered into the dune at the east end of the project.

**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.

### **APPLICABLE NATURAL AND CULTURAL RESOURCE STANDARDS EVALUATED, 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.

**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 Indians. There were no reports of historic, cultural, or archeological sites at this location.

**Natural areas (vegetation or aquatic features).**

The riprap will be placed primarily on the exposed dune face that does not contain significant vegetation or aquatic features.

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

The project will take place above the ordinary high tide line, and will not affect water quality.

**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 properties.

### **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 the public comment period, OPRD received no requests for a public hearing and no letters were received in support or opposition to the proposed project.

## **STAFF FINDINGS**

1. There is a critical need for the proposed project. Strong storms over the past couple of winters have caused significant lowering of the beach profile and foredune scouring at this location. Existing structures are located in close proximity to the edge of the dune.
2. Relocation of structures is not a viable option due to the limited room available on the upland properties. Non-structural alternatives to riprap are not feasible due to the high-energy wave environment along this section of the coastline coupled with the severity of erosion at this site.
3. The project will be consistent with the existing riprap shoreline protection on adjacent properties, and will not create any new obstruction to beach access or recreation uses.

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Coastal Land Use Coordinator