



FINDINGS OF FACT STAFF REPORT

Date: June 22, 2015 OPRD Coastal Land Use Coordinator: Tony Stein

OPRD File Number: BA-697-15 County: Tillamook Applicant: Tai Dang

Project Location: Property located at 211 S. 6th Street, Rockaway Beach. Tillamook County Assessor's Map #1N-10W-5BC, Tax Lot 5100.

Brief Project Description: The proposed project involves the construction of a riprap revetment approximately 81 feet in length and 14 feet in height above the beach level. Plans call for armor rock 3.0 to 5.0 feet in diameter, keyed 7 feet into the beach sand and placed in an interlocking state with a slope of 2H to 1V. The proposed riprap revetment will project approximately 30 feet from the dune bluff face onto the ocean shore, and will blend into an existing riprap revetment and driftwood log retaining wall structure to the north.

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 proposal seeks to construct a riprap revetment on the dune bluff fronting the Dang residence and tie into an existing riprap revetment and driftwood log retaining wall to the north. In the south, the proposed riprap structure will tie into the 6th Street pedestrian and emergency vehicle access owned by the City of Rockaway Beach.

During the past three decades, the subject site has experienced sporadic phases of beach and foredune accretion and erosion, with significant foredune erosion occurring during periods of El Nino and La Nina storm cycles. The property saw significant erosion during the strong El Nino cycles of 1982/83 and 1997/98, and strong to moderate La Nina cycles occurring in 1999/2000 and 2006/2007 winter storm seasons. The property is located south of the fluctuating ocean outlet of Saltair Creek which forms a depression in beach elevations along this stretch of beach. Saltair Creek can play an active role in wave run-up during significant storm events which currently runs directly in front of the Dang property. During significant storm events that coincide with peak high tides, ocean waves and drift logs surge and attack the adjacent driftwood log retaining wall and the dune face on each side of the Saltair Creek outlet. According to the permit application and the accompanying "Shoreline Erosion Study" by Horning Geosciences, dated November 15th, 2014, it states that "shoreline erosion has caused as much as 50ft. of foredune retreat in front of Tax Lot 5100 over the last 20 years, bringing the retreating dune bluff to within 10ft of the northwest corner of the house and deck. Horning reports that the "greatest amount of retreat has occurred over the past three years, largely due to waves surging up the channel of Saltair Creek while the creek axis has been located south of its typical track".

The Rockaway-Nedonna Beach “Technical Report on the Foredune Management Study” by Roger Redfern, Consulting Geologist, April 1986, reports that “the area north of the creek has been subject to velocity flooding, shallow flooding and wave swept driftwood in past storms in January 1953, October 1960 and December 1967. Several houses were pushed off their foundations and one house was pushed on top the railroad tracks in the October 1060 storm (Walkes, 1983). Cinder block and concrete walls and a rubble dike now provide a limited amount of protection to houses north of the creek”. Redfern also reports that “sometime between 1953 and 1966 a rubble rock dike was built north of Saltair Creek. A similar structure on the south side of the creek was probably in place at the same time”.

In addition, on the south side of Saltair Creek a driftwood wall and a small amount of riprap was permitted by OPRD from 6th Street to the mouth of Saltair Creek and constructed in December of 2000. The driftwood structure has and has been maintained for many years providing protection on the TL 5100 and adjacent Parcel 2 owned by Gisella Szalay. Protective riprap was placed behind the foredune on the subject property during the construction of the Dang residence. The structure is currently outside of OPRD’s jurisdictional boundary and would be subject to an Ocean Shore Alteration Permit should it become exposed in the future. No definitive information exists on the amount, dimensions and design of the prior placed sand and log structure (built in 2011) fronting the Dang property as shown in the application photo (Figure 8) Horning Geosciences report.

A review by OPRD staff of a 1967 Oregon State Highway Department (OSHD) aerial photograph of the subject property depicts the actual vegetation line at that time running between 6 to 12 feet east of the established Statutory Vegetation Line (SVL). The distance from the current vegetation to the SVL today is similar and appears to mimic the foredune as shown in the 1967 OSHD aerial photograph. 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 a maximum width of 30 feet of beach area along the base of the foredune. This encroachment onto the ocean shore is similar to the adjacent riprap revetments to the north of the subject site. 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 2,430 square feet of beach area which was previously available for public use. 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.

On January 20th, 2015, the City of Rockaway Beach signed the City/County Planning Affidavit in the submitted OPRD application from Mr. Dang. The Affidavit stated that it had reviewed the project and found it consistent with the local comprehensive plan and zoning ordinances. OPRD subsequently received a letter dated April 2, 2015 from the City notifying OPRD that under further review it had determined that the subject property was not located in the Goal 18 exception area, and was thus ineligible for shoreline protection.

The City of Rockaway Planning Department has determined that the project is not in compliance with the City of Rockaway 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 geologic report addresses non-structural methods of shore protection, including sand dune repair, soil barriers and burritos for shoreline protection. Horning reports “that a sand barrier 8 to 10 feet high and 30 ft.wide and 80 ft. long bulldozed in front to the property would survive several years in the least, assuming that it is reasonably compacted. However, based on personal accounts of previous sand barriers for the site, which may have smaller, wave erosion is likely too intense, as the sand barrier has been shown to have been stripped in the past by surf, consistent with continuing shoreline retreat”.

Horning also states that “armoring with a thick barrier of rocky clay-rich soils has the potential advantage of holding moisture for the successful growth of Hooker willow and other types of plants, such as salal and spruce. Willows planted in geotextile–wrapped soil “burritos“ may or may not be successful, primarily because of soil desiccation due to dry dune sands, although the mass of the burritos conceivably might hold enough moisture through the summer dry weather. In Horning’s opinion, the proximity of TL 5100 to the creek channel and higher wave energy may result in failure of the burritos.

This subject property is located in a high wave energy environment along this section of coastline, and sand dune nourishment may not be sufficient to substantially slow or halt erosion, or stabilize the foredune slope. Soil barriers and burritos with vegetation planting are not recommended for the site due to the frequent exposure to wave attack and fabric breakdown. The proposed riprap will not entirely eliminate all foredune erosion risk, but will help control erosion and undermining of the lower dune slope, which is one of the primary causes of upper slope failure. The geologic report recommends a properly engineered riprap revetment as the appropriate measure to protect the property.

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. 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. These costs can be reduced through careful and efficient construction practices.

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.

The City of Rockaway has notified OPRD that the project is not in compliance with the City of Rockaway Comprehensive Plan and Land Use Code, which are acknowledged by LCDC as meeting the Statewide Planning Goal requirements. In 1986, the City of Rockaway adopted an Exception to Goal 18 which otherwise prohibits development in beach and dune areas. In 2008, the City adopted revisions to the City’s comprehensive plan to clarify the location of the exception and identified the westerly limit of the exception to be the City’s Ocean Setback Line (OSL) as determined by the City of Rockaway Beach based on the City’s adopted definition of the OSL. The City of Rockaway has determined that the Dang home does not appear to be located in accordance with the OSL, and is not located in the area to which Rockaway Beach has taken a Goal 18 Exception.

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.

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

Some pioneering vegetation exists on the upper dune face, with scattered European Beach Grass, some lawn grass and other low-lying plants found at the top of the dune. The application does not show that disturbed areas will be revegetated after the proposed project is completed.

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

The proposed project would not affect existing views from adjacent properties. The proposed riprap structure will project no higher than the existing foredune height and will not obstruct existing views of the ocean and beaches from adjacent properties.

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

The application has not included covering the proposed structure with sand and planting beach grass on the revetment structure. Because of the low elevation of the site and potential flooding and wave overtopping, any sand or vegetative planting would be subject to wave attack and the structure would be washed clean of the sand and vegetation.

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 in this area is wide and relatively flat, and the proposed riprap structure would occupy some beach area, but would not significantly affect public recreational 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 proposed 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 proposed project will not extend out onto the ocean shore to cause an obstruction to north and south public access along the shoreline during normal ocean conditions. Upland public access to the beach is available across the foredune on the 6th Street road which is adjacent to the property. This public access road

is constructed of pit-run fill maintained by the City of Rockaway Beach, and may be affected by the proposed revetment due to a lack of taper in the south wall end. This design could be modified to reduce end-cutting and accelerated erosion of the existing 6th Street roadway.

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 revetment will be structurally sound under typical ocean conditions and will not be a safety hazard. The engineering report recommends riprap armor rock consisting of hard, durable and angular basalt rock, approximately 3.0 to 5.0 feet in diameter, placed individually and set for stability.

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

The proposed riprap will project out from the existing bluff toe approximately 30 feet. Typically, this 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 or unprotected shoreline 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.

In the past, the subject and neighboring properties on the north side of Saltair Creek have experienced significant erosion events and loss of protective foredune. This urban beach area has been highly altered with the constriction of Saltair Creek at Highway 101, stream bank and shoreline stabilization projects, instream rock berms, dune grading and upland fill and development. The proposed riprap will tie into a failing riprap and driftwood piling retaining wall to the north, and form a contiguous shoreline/streambank protection structure from the 6th Street beach access up to the Saltair Creek metal trash rack.

To the south, the adjacent property (Tax Lot 90000) is a well vegetated dune that is also experiencing some erosion due to on-going shoreline retreat and the southern reorientation of Saltair Creek. Saltair Creek's new position may exacerbate erosion of the existing foredune on the 6th Street access and TL 90000. As previously discussed, in order to minimize the possibility of enhanced erosion or flank scour on the adjoining property, the proposed riprap design should be reviewed and include a tapering of the riprap height and width at the south end.

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 project 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 would 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 would be impacted by the proposed riprap.

Air and water quality of the ocean shore area.

The proposed project would take place above the ordinary high tide line, and would not cause foreign materials or pollutants to enter the water. The proposed project does not adversely affect water quality on the ocean shore. Air quality would not be affected, except for a negligible amount of exhaust from the use of heavy equipment during a 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 an urban and residential area, and there are no known protected native plant communities or fish and wildlife habitat on 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 18 requests for a public hearing, and a public hearing was held on May 11, 2015 with 32 people in attendance. 13 individuals testified, with 10 opposing, and 3 neutral to the proposed request. OPRD also received 7 letters in opposition to the request. Two additional letters were received from the applicant and the applicant's land use consultant, Sabrina Pearson. The letters supplied existing information on Goal 18 eligibility, ORS 390.555, a 2000 permit from OPRD to allow a repair to existing riprap and add driftwood on the Szalvay property, Rockaway Beach Zoning, Comprehensive Plan, Exception Ordinance, Partition Decision #03-08, and Foredune Grading Plan related to the Dang property.

The following concerns were raised by opponents: 1) increased erosion and impacts from proposed riprap to neighboring properties to the north, 2) riprap already installed behind the foredune on the Dang property, 3) future loss of beach area and additional shoreline protection along the beach, 4) public access impacts at 6th

Street, and 5) project does not meet Goal 18 eligibility requirements. The issues raised in public testimony are all valid concerns, most which have been addressed in this findings document.

VII. FINDINGS SUMMARY

Public Law -

The City of Rockaway Beach has revised its earlier determination of consistency with the local comprehensive plan and zoning ordinance, and has found that the subject property is not located within the Goal 18 exception area, and therefore is ineligible for shoreline protection.

Under OPRD's Division 20 Beach Construction/Alteration Standards (736-020-0010 #3), General Standards, the applicant shall comply with federal, state, and local laws and regulations affecting the project.

Compliance with LCDC Goals

In accordance with the Statewide Land Conservation and Development Commission Goal 18, permit applications for beachfront protective structures on the ocean shore shall be considered only where development existed on January 1, 1977. The project shall be consistent with local comprehensive plans where such plans have been approved by LCDC.

The City of Rockaway has determined that the project is not in compliance with the City of Rockaway Comprehensive Plan and Land Use Code, which are acknowledged by LCDC as meeting the Statewide Planning Goal requirements. In 2008, the City clarified the location of the exception and identified the westerly limit of the exception to be the City's Ocean Setback Line (OSL) as determined by the City of Rockaway Beach based on the City's adopted definition of the OSL. The City of Rockaway has determined that the Dang home does not appear to be located in accordance with the OSL, and is not located in the area to which Rockaway Beach has taken a Goal 18 Exception.

Under OPRD's Division 20 Beach Construction/Alteration Standards (736-020-0010 #5), General Standards, the applicant shall comply with federal, state, and local laws and regulations affecting the project.

Based on the above considerations, OPRD finds that there is not 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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