DIKE REPLACEMENT AT SITKA SEDGE

The dike and tide gate at Sitka Sedge State Natural Area is failing. Oregon Parks and Recreation Department and its partners are investigating a replacement to improve tide protection and fish passage.

TILLAMOOK ESTUARIES PARTNERSHIP

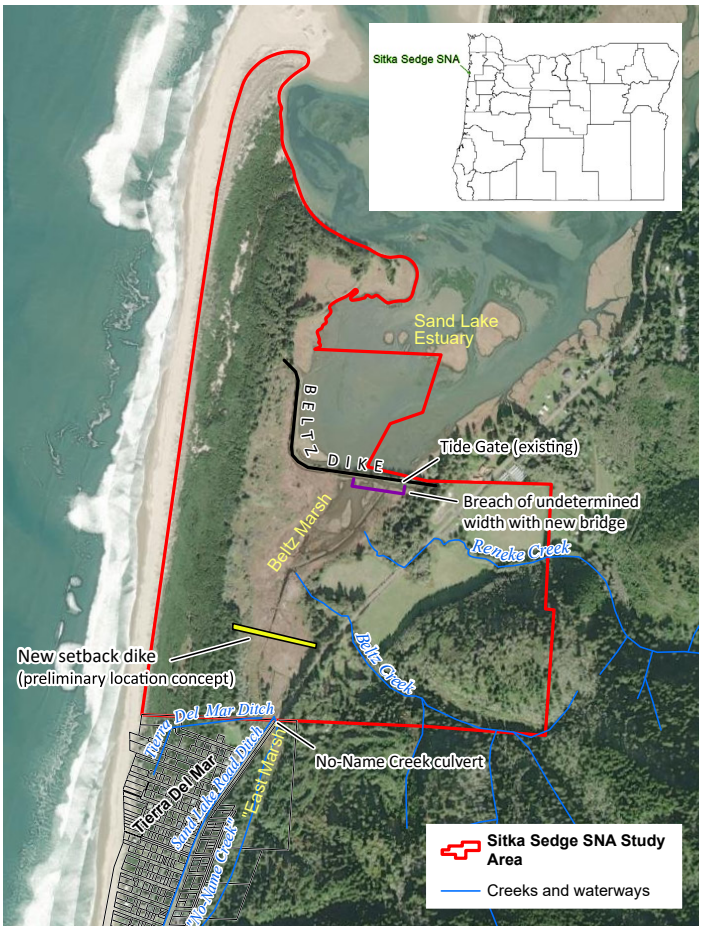
Why does it need to change?

In the past 30 years, the tide gate has deteriorated significantly. It now no longer completely blocks incoming tides – it just slows their entry and their exit. The dike structure around the tide gate will continue to deteriorate and eventually fail, and it is not legally repairable in its current design because of modern fish passage requirements. The potential impacts of tide gate failure on the adjacent community of Tierra del Mar (which is behind the dike) is a concern. The dike also hinders native fish — including coho, chum, steelhead and coastal cutthroat trout — from migrating upstream to historic spawning and rearing areas.

What's the plan?

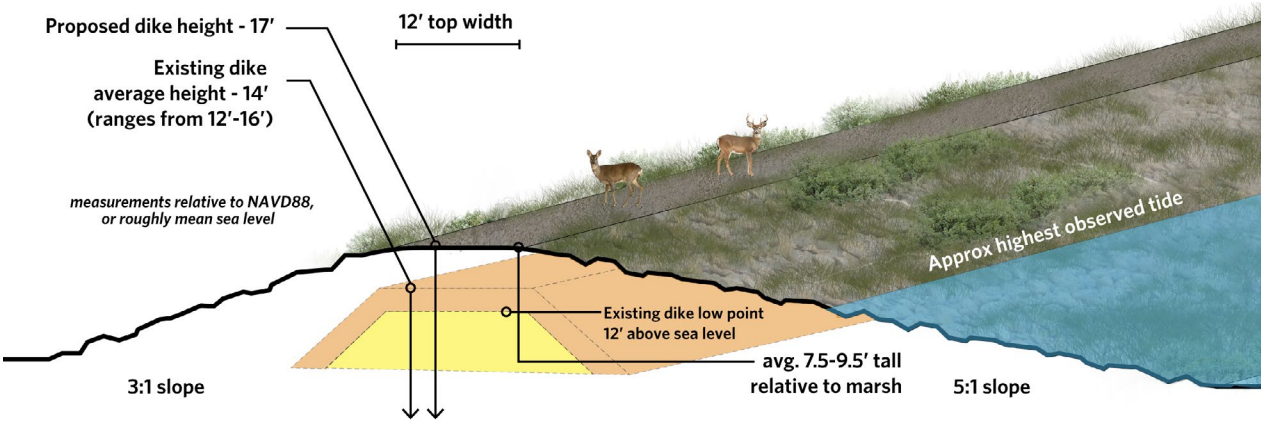
Oregon Parks and Recreation Department and its partner, Tillamook Estuaries Partnership, are designing a possible setback dike to replace the tide control function of the failing existing dike. A setback dike is an elongated earthen ridge that is constructed inland from an existing dike to keep low-lying lands behind it from inundation during high tides or storm events.

The setback dike will have a modern muted tidal regulator, which is triggered to open or close automatically based on a safe water level setting. A bridge or boardwalk would still allow recreational access to the marsh so visitors can see the marsh up close, reach the beach, and enjoy the diverse coastal environments in between.



SITKA SEDGE VICINITY MAP

Proposed Dike Section



*The existing dike is shown nested under the proposed dike only for size comparison. The proposed dike will be constructed in a different location than the existing.

How will this impact groundwater and drainage?

The setback dike would not raise groundwater or surface water in Tierra Del Mar or any other land in the surrounding Sand Lake Estuary vicinity. The setback dike would block incoming high tides over a set height, and the large and efficient tide gate would quickly drain the area behind the dike during the outgoing tide, which means lower water levels near Tierra Del Mar during wet periods than we see now with the existing dike.

Where would it be built?

The setback dike would be constructed to the south of the existing dike, and the existing failing dike would be breached. Detailed hydrological studies indicate that the area proposed will easily provide an adequate basin of water storage for stormwater draining from Tierra Del Mar, No Name Creek, and associated wetlands, while still reducing water levels near Tierra Del Mar compared to current storm conditions.

What are the advantages of this plan?

The setback dike offers the ability to restore natural tidal habitat to much of the marsh, and full fish passage to Reneke Creek and Beltz Creek, while also increasing tide protection for the community of Tierra Del Mar. OPRD chose this option to benefit both ecological and societal goals.

Is there an opportunity for public feedback?

Yes, OPRD and Tillamook Estuaries Partnership will share designs and seek comments from the public. Tillamook Estuaries Partnership is the lead in managing the design contract and will likely be the lead in construction and planning. OPRD, as landowner, will guide the process. A technical team of diverse representatives from agencies, tribes, and the local community will meet to discuss and contribute to design refinement. We will hold public town hall meetings to gather feedback at regular intervals through the design processes.



VIEW OF PROPOSED SETBACK DIKE HEIGHT FROM EXISTING LOCATION



VIEW FROM SANDLAKE ROAD, NORTH OF TIERRA DEL MAR

What is the expected timeline?

- **Fall 2024 to Summer 2025:** Continue work on geotechnical evaluation and planning to construction-ready design. Begin permitting phase and seek funding for implementation. Continue regular updates and opportunities for public feedback.
- **Summer 2025 to Summer 2026:** Continue permitting, mitigation requirements, and fundraising for implementation. Continue regular updates and opportunities for public feedback.
- **Summer 2026 to 2027:** Construction depending on availability of funding.

Scan the QR code to learn more:

oregon.gov/oprd/prp/pages/pla-sitka-sedge-hydro.aspx