

Bulkheads, Docks, and Piers

Lacey, Olympia, and Tumwater

Docks and Piers

Docks and piers have been constructed on many lakes where the shoreline is already altered. Under the proposed regulations, altered shorelines are assigned an environmental designation of Shoreline Residential or High Intensity, depending on the nature of the upland alteration.

In the Shoreline Residential designation, docks and piers that are shared (between two or more adjacent land owners) will require a less stringent permit than docks that only support one home. This is to encourage fewer docks on the shorelines. The key is creating a balance between alterations to the shoreline and protecting ecological functions.

How Docks and Piers Affect Shoreline Areas

Docks and piers alter the natural shoreline by removing natural vegetation. Specific effects include:

- Reduce fish food sources by removing vegetation along the shore
- Reduce places for small fish refuge by altering the natural shoreline
- Block light
- Typically increase boat traffic and sediment erosion in an area
- Add detrimental chemicals to the water

Bulkheads and Shoreline Stabilization

Bulkheads to protect single family residences from damage from erosion are still allowed.

For other types of shoreline armoring, the permitting requirements will change under the proposed regulations.

The intent is to encourage a shoreline bank stabilization applicant to first consider the non-structural alternatives.



How Bulkheads Affect Beach Shorelines

Bulkheads have been considered a form of shoreline protection from erosion, however studies now show that they can actually increase erosion of the beach, as well as starve downdrift beaches of incoming sediment. Specific effects include:

- Increased beach erosion.
- Loss of sand
- Loss of sediment
- Loss of shoreline vegetation
- Loss of shade
- Loss of habitat for marine species

Beach erosion is a naturally occurring event where shoreline vegetation is sparse. Minnesota.

<http://www.dnr.state.mn.us/lakescapinq/index.html>

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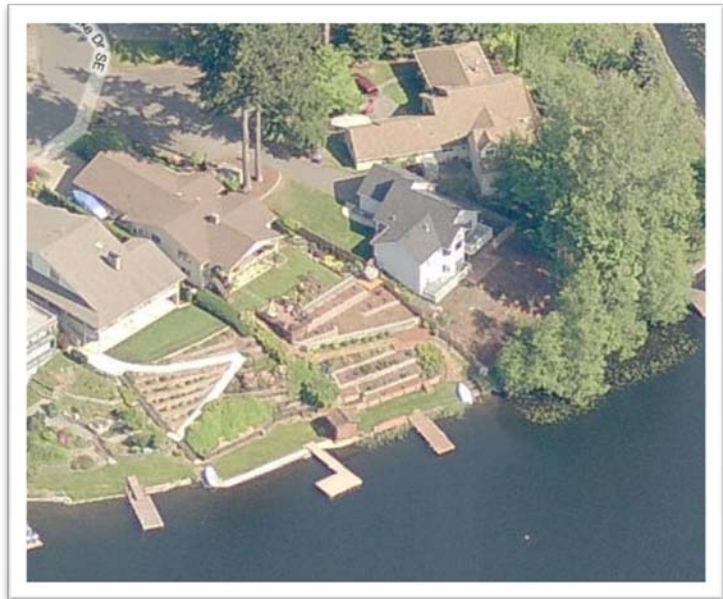
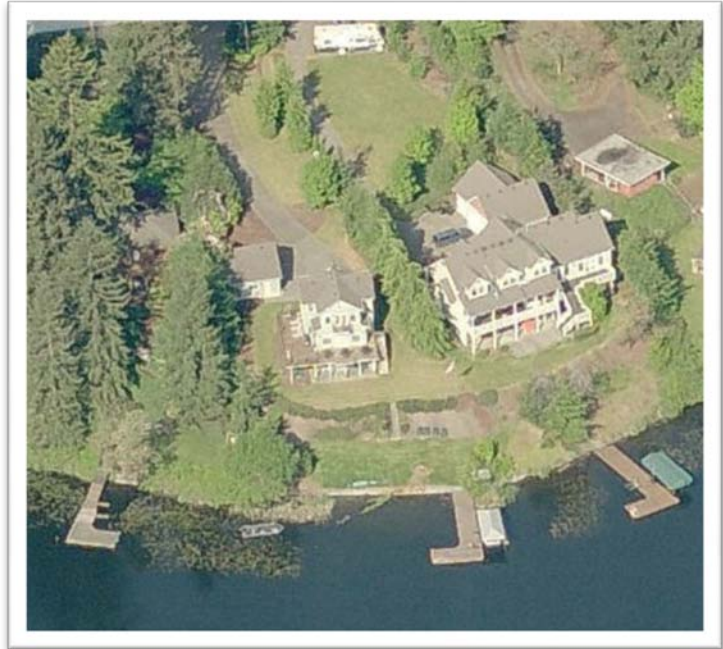
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Alternatives to Hard Shoreline Armoring

Some of the major components of improving ecological function along shorelines are restoring native vegetation, finding alternatives to hard shoreline armoring, and reducing the amount of new shoreline modifications. Some things to consider are:

- For new construction, set the home back as far back from the water as possible. This will help prevent erosion concerns and expenses for bulkheads, seawalls, and other shoreline armoring.
- Set bulkhead further back so that dry land exists between bulkhead and water line.
- In some situations, sand and gravel can be brought in to replenish beaches.
- Slopes can be stabilized using "biotechnical methods." Plants may be used to reinforce soil, serve as water drains, act as erosion prevention barriers, and absorb excess water from soils.
- Adding drift logs to the beach can provide habitat and may help reduce erosion.

The best way to restore beach habitat over time is to remove bulkheads completely, and install rocks, wood, or plantings at the edges of the beach to reinforce the transition area from beach to adjacent bulkheads.



Shoreline alternatives
Long Lake, Lacey