



Bald Eagle

# The Beach Is Back!

*Let us permit nature to have her way. She understands her business better than we do.*

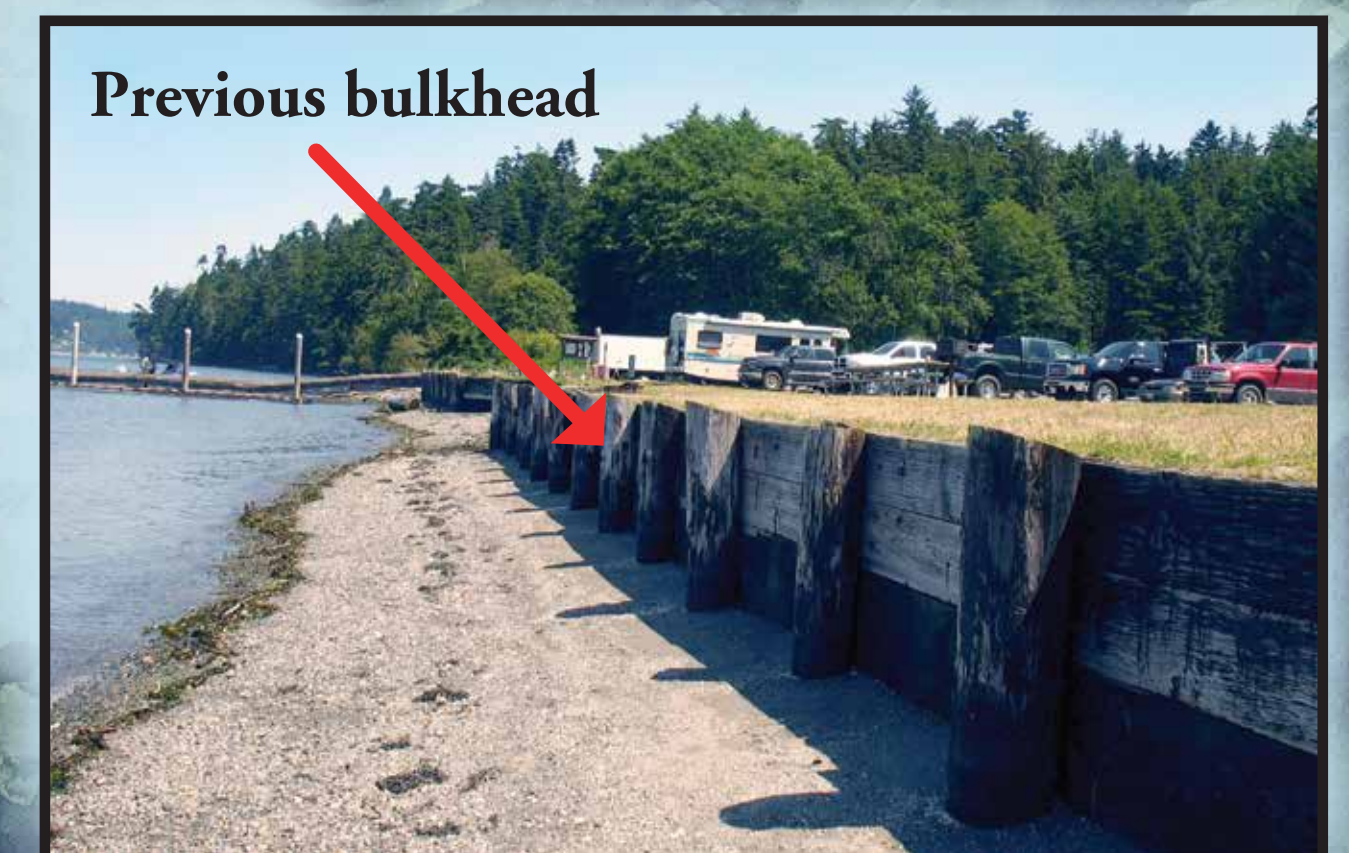
– Michel de Montaigne, Renaissance writer

## Giving Fish a Second Chance

You're looking at an experiment – restoring a beach. For 40 years this beach was severely damaged by a creosote bulkhead and backfilled earth. The bulkhead increased wave turbulence that scoured away finer sediments that beach-spawning fish need. Backfill smothered the upper beach. Creosote toxins leached into the ground and water. Removing that bulkhead and restoring a natural slope in 2012 were the first steps in bringing back a healthy, life-sustaining beach.

## The Trouble With Bulkheads

Shoreline alterations such as bulkheads are called armoring. Shockingly, nearly a third of Puget Sound's shore is armored with bulkheads, ramps, groins, riprap or other materials to create more dry land and "protect" the uplands. When armoring is placed in the upper intertidal zone, it can destroy fish habitat, disrupt normal shoreline currents, and even *increase* the erosion of nearby areas. Better understanding of the science of shoreline processes has led to new appreciation of the benefits of natural, unaltered shorelines.



Previous bulkhead



Shade and shelter

Intertidal zone

Fish lay eggs

Drift logs

Coast Gumweed

Soft Rush

Pacific Silverweed

Nootka Rose

## Welcoming to Wildlife and People

The new beach includes strategically placed logs and large wood to provide shade and shelter for insects, fish eggs and other life. With the bulkhead removed, drift logs can now accumulate, adding even more habitat and serving as a natural shock-absorber. Drought-tolerant native vegetation replaces lawns and contributes insects, berries and other food for wildlife. The gentle, more beautiful beach and backshore are more attractive to fish and people.