Shoreline Stabilization Impacts and
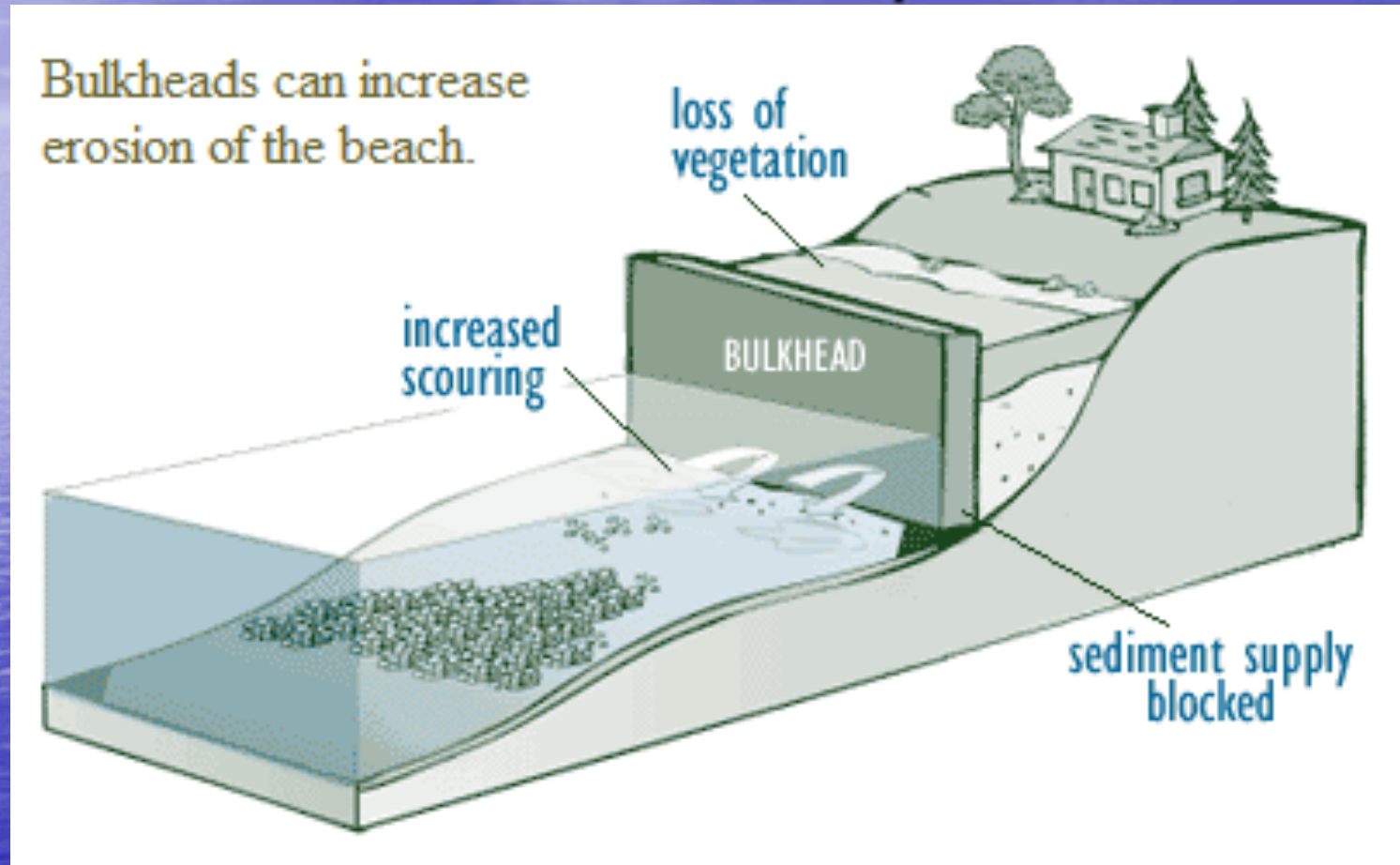# SMP Guideline Standards

Overview

- What is stabilization
- Impacts of stabilization
- Hard stabilization alternatives
- Soft shore alternatives
- SMP Guidelines standards

What is Stabilization?

- Actions to address erosion impacts

- Causes- currents, flood, wake or wave action

- Actions- structural and non-structural methods

- Examples

Hard stabilization can impact the beach

Bulkheads can increase erosion of the beach.

loss of vegetation

increased scouring

BULKHEAD

sediment supply blocked

Soft Shore Stabilization Options

- Wider setbacks
- Beach nourishment, perched beaches
- Large wood
- Biotechnical techniques
- Geotubes

Shoreline Stabilization (WAC 173-26-231)

- New development

- Protecting primary structures

- Replacement stabilization

New Development

- Locate to avoid the need for future stabilization

- Setback sufficiently from steep slopes and bluffs

- Avoid impacts to adjacent and down current or down drift properties

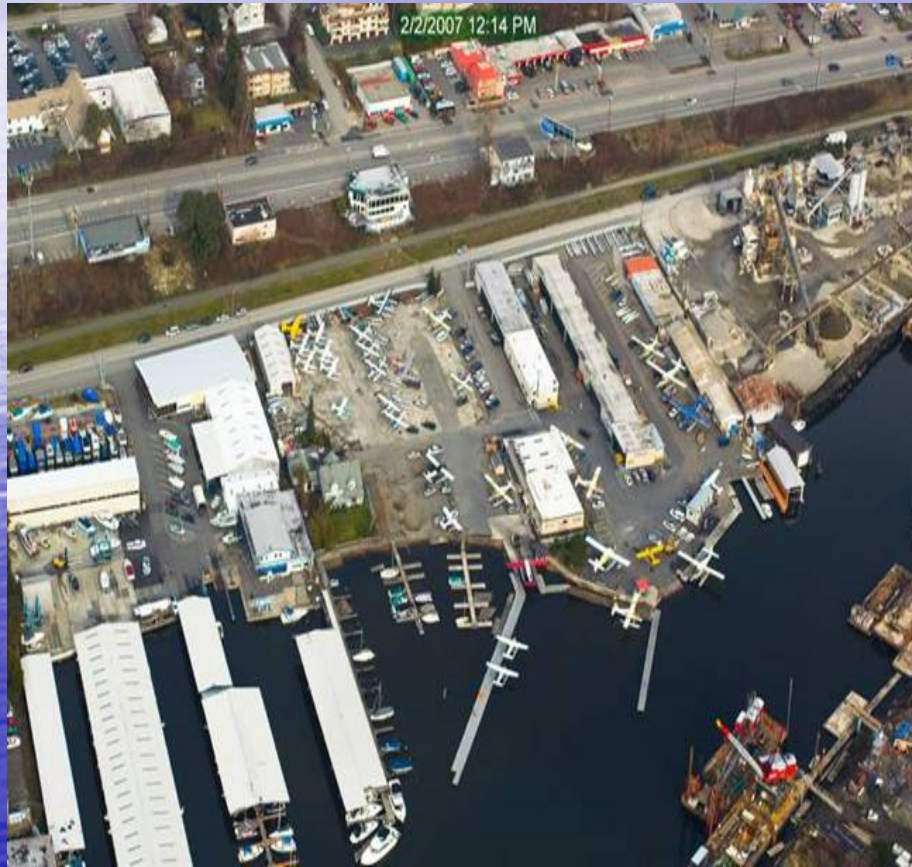# New stabilization structures

- Demonstrate need for protection through geotechnical analysis

- Achieve no net loss

- Soft stabilization measures required unless not feasible

New Stabilization Structures

- Existing primary structures
- New non-water-dependent development

New Stabilization Structures

- Water-dependent development

- Ecological restoration

Hard Stabilization
Allowed Under Conditions

- The erosion is not caused by upland conditions, vegetation loss, drainage

- Nonstructural improvements are not feasible

- Need to protect primary structures

- Erosion control structure will not result in a net loss of shoreline ecological functions

Replacement Standards

- Demonstrate need
- Achieve no net loss
- Cannot encroach waterward of OHWM or existing structure – some exceptions
- Replacement or repair? SMP thresholds?

Addressing No Net Loss of Ecological Functions

- Mitigation sequencing: avoidance first

- Limit structure size or stabilization measures to minimum necessary

- Mitigation required for all stabilization measures, including impacted feeder bluffs

- Avoid or minimize impacts to sediment transport

David Pater
Dept. of Ecology
Shorelands Program

53

David.Pater@ecy.wa.gov