



## SOUND STEWARDSHIP OF STATE-OWNED AQUATIC LANDS

# DNR's guidance on the use of treated wood

As steward and manager of 2.6 million acres of state-owned aquatic lands, the Washington State Department of Natural Resources (DNR) must provide a balance of public benefits to the citizens of the state. These benefits include public use and access, water-dependent uses, environmental protection, and renewable resources use.

DNR manages leases for various types of uses on state-owned aquatic lands, including overwater and in-water structures. This fact sheet specifically addresses the use of treated wood on state-owned aquatic lands.

### Q. What is treated wood?

A. Wood that is commercially treated using pressure to force chemical preservatives into the wood cells.

### Q. Why is treated wood used in aquatic environments?

A. To extend the service life of wood structures and to protect them from decay, shipworms, and other marine wood-borers.

### Q. Why is DNR concerned about treated wood?

A. Wood products treated with formulations such as *ammoniacal copper zinc arsenate* (ACZA) and *chromated copper arsenate* (CCA) are known to leach contaminants into the aquatic environment. These contaminants accumulate in sediments and directly harm the plants and animals that live on and around treated-wood structures, such as pilings.

Treated wood leaches heavy metals and other toxic substances into aquatic environments. Smaller creatures absorb these substances from the treated wood. This toxicity gets passed through the food web to larger marine animals as they eat the smaller organisms. Larger marine animals at the top of the food chain, such as Puget Sound orcas, often carry an array of accumulated toxic substances in their systems, which can adversely affect their health and their nursing offspring.



Above: Example of creosote-treated pilings and framing in a dock.  
Photo: Lalena Amiotte/DNR.

Below: Steel pilings at 16<sup>th</sup> Street Dock in Tacoma.  
Photo: Dave Palazzi /DNR



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To better protect these species and their aquatic habitats, DNR will avoid authorizing practices or uses that continue to add more pollution to our state's waterways. Throughout the state, DNR and numerous partners are working to remove remnants of old, treated wood pilings and other in-water structures.

**Q. What alternative materials does DNR authorize instead of treated wood?**

A. Steel, fiberglass, high-density plastics, and concrete.

**Q. Under what circumstances will DNR allow or not allow pressure-treated wood to be used on state-owned aquatic lands?**

A. The following are examples of when DNR may or may not authorize the use of treated wood. For more information and details, contact a DNR aquatic lands manager\*.

- Treated wood **MAY NOT** be used for decking, pilings, or other components of any **in-water structures** such as floats, docks, wharves, piers, marinas, rafts, shipyards and terminals.
- Treated wood **MAY** be used for **above-water structural framing only**.
- When replacing in-water structures, **existing treated wood MUST be replaced** with materials such as untreated wood, steel, concrete, or recycled plastic, or encased in a way that prevents metals, hydrocarbons, and other toxins from leaching.
- Treated wood **MAY** be used for a new structure or retained at an existing structure if a **DNR-approved encasement method** can fully prevent exposure to water and sediments and potential leaching into the aquatic environment.
- **Some exceptions MAY** be allowed for the use of treated wood as a **temporary replacement**, due to structural requirements or limitations. (*Example:* Partial replacement of wood pilings in a fender system of a commercial pier where the system would not function properly with materials of varying strength and flexibility. However, DNR recommends developing a schedule for complete replacement of the treated-wood portion of the structure.)

**Q. How will DNR's conservation measures be applied to uses on state-owned aquatic lands?**

A. All authorizations for **new construction** will include a prohibition on the use of treated wood. For **existing structures**, the authorizing document (lease, right of entry, etc.) will define a schedule for replacing treated wood and will specify acceptable replacement materials. When replaced, treated wood will be need to be permanently disposed of at a state-authorized disposal facility.

**The following principles guided DNR's position regarding treated wood:**

- From an engineering standpoint, structures require fewer metal pilings than wood, which means less impact to the nearshore environment.
- Metal pilings have a longer life span than wood pilings, reducing the need to disturb habitat with more frequent replacements.
- Alternative materials eliminate potential impacts to water and sediment quality that would otherwise result from the use of treated wood.
- Safer for herring spawn.
- Eliminates related impacts from the use of treated wood, such as environmental damage and cost of disposal at the end of its life cycle.
- All state and federal agencies consistently recommend avoiding the use of treated wood.

For more information about treated wood, other conservation measures, and the Aquatic Lands Habitat Conservation Plan, visit [www.dnr.wa.gov/AquaticHCP](http://www.dnr.wa.gov/AquaticHCP).

\* To find an Aquatics land manager in your area, visit: [tinyurl.com/aquatic-mgr](http://tinyurl.com/aquatic-mgr), or call the Aquatic Resources Division at 360-902-1100.

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