

WAC 220-660-220 Large woody material placement, repositioning, and removal in freshwater areas. (1) **Description:** Large woody material is trees and tree parts larger than four inches in diameter and longer than six feet or rootwads that enter stream channels mainly from stream bank undercutting, wind throw, and slope failures. Public agencies sometimes reposition or remove large woody material to address a threat to life, the public, or property. Large woody material is also placed in streams to restore or create habitat that supports fish life.

(2) **Fish life concerns:**

(a) The removal and cutting of large woody material can adversely affect the natural channel-forming processes associated with wood accumulation in the channel. Large woody material provides shelter for fish from high flows and predators. Sediment trapped by large woody material can create spawning areas for fish life. Large woody material also provides habitat for aquatic insects that fish eat.

(b) Large woody material plays a main role in shaping stream channels by forming pools and increasing stream meandering and sediment storage. Large woody material dissipates flow energy, leading to improved fish migration and channel stability.

(3) **Large woody material placement, repositioning and removal - Generally:**

(a) The department will approve the repositioning or removal of large woody material within the watercourse when needed to protect life, the public, property, or when needed to construct or mitigate for a hydraulic project. The department will require a person to place the repositioned or removed wood directly back in the channel unless it is not feasible due to geological, engineering, or safety constraints. If large woody material must be removed from the channel, the department will require compensatory mitigation if the wood removal including cutting diminishes habitat functions or value.

(b) The department will approve placement of large wood back in the channel to improve habitat that supports fish life. This may include placing channel-spanning logs, creating log jams, or introducing a single large log or rootwads to the channel. Large woody material may be stabilized against buoyant forces and hydraulic drag forces that may mobilize wood during flood flows by pinning, anchoring, or burying woody material in the flood plain.

(4) **Large woody material placement, repositioning, or removal:**

(a) When placing, repositioning, or removing large woody material, station equipment on the bank, bridge, or other approved location.

(b) Do not drag large woody material. Suspend large woody material during placement, repositioning, or removal so it does not damage the bed or banks. A yarding corridor or full suspension is required to protect riparian zone vegetation. Full suspension can be achieved with hand-operated or heavy equipment or aerial log yarding towers. Where needed, the department may authorize cutting the large woody material to a size that allows suspension during removal, but still retains value as a habitat structure.

(c) When a person cannot suspend large woody material above the bed and banks, use skid logs or similar methods to avoid bank damage. After completing the yarding operation, remove skid logs in a manner that avoids damage to stream banks and vegetation, and restore the bank to preproject condition.

(d) Do not disturb large woody material embedded in a bank or bed except as approved by the department.

(e) When repositioning or removing large woody material is approved, fill and smooth over any depressions created in the bed with material that has the same composition as native material. Fill material must be sloped towards the bank at a slope similar to the prevailing condition. Reslope and replant disturbed banks.

(f) When repositioning or removing large woody material, minimize releasing bedload, logs, or debris downstream.

(g) Do not cut firewood from accumulations of large woody material in stream or river channels.

[Statutory Authority: RCW 77.04.012, 77.04.020, and 77.12.047. WSR 15-02-029 (Order 14-353), § 220-660-220, filed 12/30/14, effective 7/1/15.]