



Monitoring Design

Cable Assist/Tethered Logging

To monitor effects of cable assist/tethered logging systems used on steep slope units less than 500 feet from streams and intermittent stream RHCA buffers will be targeted for implementation and post implementation monitoring by a sale administrator and a member of the Forest Service watershed group (soils scientist, hydrologist, or fisheries biologist). These units are 058,060,083,097,132,144,383,and436.

Monitoring PDC 1 - Tethered logging monitoring for the above identified units will consist of field visits to each unit within a few weeks of implementation. Traverses at or below the unit down slope boundary will look for sediment transported from within the unit to outside of the unit. If observed or the likelihood of sediment movement out of the unit is observed, slash will be placed in the area of transport sufficient to slow surficial flow and deposit the sediment within 10 feet.

Monitoring PDC 2 – Sale administrator and implementor communication during harvest will identify areas of concern where additional slash will be placed, or actions will be altered to prevent mineral soil exposure to keep sediment in place or adjacent to the disturbance.

Monitoring PDC 3 – A member of the watershed group will visit multiple tethered assist units for each sale within 3 weeks of implementation to evaluate PDC effectiveness for soil productivity and associated concerns of sedimentation resulting from commercial actions. Additional PDCs or alterations to project PDCs will be made as necessary to keep soil in place and within the activity unit.

Monitoring PDC 4 – Ongoing monitoring projects of similar landscape and soil development associated with tethered assist actions will be used to adjust tethered harvest actions as information is discovered.

Monitoring focusing on steep slope effects to soil as it relates to detrimental soil is ongoing in the Thomas Creek project area of the Umatilla NF. Information acquired from that monitoring effort will influence implementation actions and update Tiger-Mill PDCs as needed. The same monitoring is occurring on Sparta, Black, and Little Dean sales on Wallowa-Whitman. Data is being collected to help understand the effects of a cable assist-tethered system across a broad landscape of similar soil profiles, landforms, slope, aspects, and vegetation types. As information is available it will update Tiger-Mill actions on similar slopes.

Log Haul over Mill Creek at the 65 Bridge

Monitoring PDC 5 – Mill Creek is the only road-stream crossing over ESA occupied streams or DCH. Monitoring will focus on the design criteria by doing visual observations of the water in the stream channel to determine if log haul is contributing to excess sediment in Mill Creek. The objective is to assure design criteria and BMPs are functioning appropriately and mitigating sediment input into Mill Creek.

Prescribed Fire Water Quality Monitoring

Monitoring PDC 6 –Turbidity monitoring using continuously recording sonde (or equivalent) would be deployed in 2 locations pre- and post-burn at the following locations:

- a. Mouth of main stream downstream of where burn is planned
- b. Upstream of the confluence of the stream in (a)
- c. Monitoring would occur for one year post-burn



- d. Because of the scale and complexity of the prescribed burning and the many factors that are considered before operations commence, a detailed monitoring plan would be developed in cooperation with City of Walla Walla during development of the burn plans