

Upper Columbia United Tribes (UCUT), Forestry Herbicide Application Study
Problem Statement and Scoping Document

Background

In the last decade the use of herbicide in forested landscapes and nearly exclusively by large industrial landowners has dramatically increased in the ancestral lands of the Upper Columbia United Tribes. Over those years the impacts from this practice have not been thoroughly investigated in this region. UCUT staff over the last year have attempted to prioritize a study within the TFW adaptive management process with no success. Based on the inability to investigate these potential impacts through the only regulatory process in Washington State the UCUT wildlife committee has directed UCUT central staff to initiate and develop a UCUT funded and implemented study. UCUT has also been actively pursuing partnering with the regions large industrial landowners on the study and will continue to do so.

Current Washington and Idaho Forest Practice Rules allow for the aerial and ground application of herbicides in the forested landscape on private and state owned lands.

Washington's forest practices rules for application of forest chemicals reads as follows;

WAC 222-38-010 Policy - Forest chemicals.

*(1) Chemicals perform important functions in forest management. The purpose of these regulations is to regulate the handling, storage and application of chemicals in such a way that the public health, lands, fish, wildlife, aquatic habitat, wetland and riparian management zone vegetation will not be significantly damaged, and water quality will not be endangered by contamination. This section in no way modifies the state department of agriculture regulations governing chemicals.

*(2) These rules are intended to implement best management practices designed to eliminate the direct entry of pesticides to water. Best management also includes minimizing the entry of forest chemicals into channel migration zones, wetland management zones, sensitive sites, or the core or inner zones of riparian management zones and buffers on Type Np Waters. Significant damage for purposes of this section includes any damage that would inhibit or preclude the existing vegetation from protecting public resources.

Problem Statement

UCUT tribal members depend on both wildlife and native plant resources to ensure their traditional and subsistence lifestyles. It is currently unknown to what extent herbicides in the forested landscape are impacting native vegetation and wildlife or to what extent these applications are promoting the spread of invasive weeds in the UCUT territory.

Critical Questions

- 1.) How are native plant communities impacted by the application of forestry related herbicides?
- 2.) Are native plant communities being replaced by non-native, invasive plants and are those plants spreading beyond the areas of application?
- 3.) How long are herbicide residuals being stored in the tissues of plants?

- 4.) How do the changing plant communities impact wildlife?
- 5.) What are the benefits of herbicide application to the next generation of trees?

Proposed Data To Be Collected And The Strategy For Collection

- 1.) This will be a before/after-control/impact or BACI study. The current proposal calls for a one year pre-harvest survey for current occupation of plant communities. This will be followed by a second inventory of plant communities after harvest and for one full growing season before herbicide application. After herbicide application plant communities will continue to be inventoried for 4 additional years.
- 2.) For each study site there will be an adjacent reference/control site where herbicides will not be applied and will be monitored identically to the treatment sites.
- 3.) Study plots will be laid out in a 10 ft.x10 ft. grid and staked off with in a manner that will ensure that plots will remain constant over the life of the study.
- 4.) All plant species will be documented within each plot as well as relative densities, heights and abundance.
- 5.) Wildlife activity will be monitored through the use of motion detecting and time interval triggered cameras.
- 6.) Plant tissues will be collected immediately after herbicide application and analyzed for content of chemical. Sites will be revisited regularly to determine the length of time that sprayed vegetation is accessible to both humans and wildlife by simple visual observation.
- 7.) As new vegetation begins to grow, plant tissues will again be tested for residual chemical content. If herbicides continue to be identified in plant tissue, testing will continue to be conducted at a yet to be determined interval until herbicides are at a non-detect threshold.
- 8.) Grids in the treatment sites will be extended beyond the area of spray application to investigate the amount of change of adjacent plant communities and any movement of invasive weeds.
- 9.) All trees including naturally recruited and plantings will also be inventoried, measured for height and diameter and overall health and survival. Any impacts from bear or ungulate damage or consumption will be documented.
- 10.) All data will be compiled and analyzed in a final report. All raw data will be stored and accessible to any interested parties in the future.