

IDAHO

Idaho Department of Lands



The Idaho Department of Lands (IDL) Urban and Community Forestry (UCF) program works with municipalities across the state to ensure that Idaho's forests continue to be diverse, resilient to human activities, climatic changes, other unique stresses, and that threats to Idaho's forests are reduced. The North Idaho Pest and Storm Preparedness Project described here was developed with input from the Coeur d'Alene tree committee, city forester, USDA Forest Service Region 1 Forest Health (FH) staff, and IDL UCF & FH personnel.

In 2021, a destructive windstorm swept through parts of Northern Idaho, resulting in the loss of thousands of trees in the urban forest, including many large Douglas-fir trees that were uprooted. Because the Douglas-fir beetle is highly attracted to windthrown and/or stressed Douglas-fir trees, the amount of downed material from the storm led to the expectation of increased bark beetle infestations in the following years.

The IDL UCF program was awarded a State Urban Forest Resilience (SUFRR) grant to implement strategies that will help communities mitigate the effects of invasive and native pests within their urban forests.

A portion of these funds went towards the purchase of Methyl Cyclohexene-one (MCH) bubble caps to be applied to the remaining stands of Douglas-fir throughout the city of Coeur d'Alene. MCH is an anti-aggregation pheromone for Douglas-fir beetle. The substance (which

has a proven track record of effectiveness) sends out a chemical signal that tells other beetles that the tree is "full", there is "no vacancy," and to "go find another tree."

Applying the 1000mg bubble caps at the rate of 15 packs per acre on a 54ft spacing, effectively floods the area with pheromones protecting trees in the treated area for the season. Beetles will continue flying around looking for suitable hosts, and as they expend more energy, they are more likely to be killed by predators.

The bubble caps are applied by attaching them to the north side of trees larger than 12" diameter at breast height (DBH) with a staple as high as one can reach.

Idaho communities need an effective plan to mitigate risks associated with storms, and to secure avenues for the safe and responsible disposal and/or reuse of downed wood. With the intent to provide direction and assistance to these communities,

IDL UCF and FH staff are working together to develop a storm preparedness and mitigation plan utilizing data generated in the PlanIT Geo TreePlotter™ Inventory and the USDA Forest Service planning toolkit. IDL UCF provides free user accounts for over 30 communities within the state to use the PlanIT Geo TreePlotter™ Inventory program.

The city of Coeur d'Alene urban forestry department staff used this program to locate and create a map of over 700 Douglas-fir trees throughout the city, including additional trees that were located on Tubbs Hill, and with help from volunteers, the MCH bubble caps were installed on the north side of trees as high as the applicator could reach.

In addition to the storm preparedness planning, IDL is also conducting forest health seminars across the state to train arborists, city foresters, parks and recreation employees, and professional applicators

in techniques to inventory urban trees and prepare for and manage invasive pest species such as emerald ash borer, Asian longhorned beetle, and Japanese beetle. These efforts will go a long way towards helping to keep Idaho urban forests resilient to the impacts of storms, and invasive pests and pathogens.



Header: Coeur d'Alene forestry crew works to clear a fallen tree from the storm. Photo: Coeur d'Alene Urban Forestry. **Above:** Nick Goodwin, Coeur d'Alene city forester installs MCH bubble caps on a Douglas-fir in front of City Hall. Photo: Idaho Dept of Lands UCF