FORESTS

Forest Management

Healthy Forests Enrich Life

Jeffco Open Space defines forest management as the conservation of forest resources to promote ecosystem biodiversity.

Why Do We Need to Manage Our Forests?

- The health of our forests have been compromised by past actions (clear cut logging and fire suppression)
- ***Disturbance*** is an essential part of forests as they help to create a diverse composition of trees
- Forest management can benefit wildlife such as when ***tree snags*** are created for cavity-nesting birds
- Current management by humans is a widely-utilized concept to promote forest health

A forest effectively managed to a healthy condition

Taking measurements for forest inventory

The forests we have today are drastically different from what they were 200 years ago. With immigration to the American Western frontier, the forests were subject to clear cut logging and long-term fire suppression policies. When the forests grew back, the trees were all the same age. What we see today are even-aged stands of overcrowded, unhealthy trees that are at high risk to insect and disease outbreaks. The goals of Open Space's forest management program involve forest restoration, fuel breaks and pest management.

Forest Restoration

Restoration activities (described on next page) aim to improve the health of the forests, enhance aspen stands, and maintain a balance between forests and grasslands to foster biodiversity.

Fuel Breaks

In some areas identified as high-risk by the Community Wildfire Protection Plan (CWPP), fuel breaks have been cut to break up the tree continuity and reduce fuel loads. However, not all areas are good candidates for fuel breaks due to slope, access and forest structure.

Learn a Term

- ***Disturbance:*** a temporary change in an ecosystem that alters natural communities. Examples include flooding, fires, insect and disease outbreaks, and human actions such as forest management
- ***Tree snags:*** a standing, dead or dying tree that often provides important wildlife habitat
- ***Endemic:*** a species or population that is native to a particular geographic area

Jefferson County Open Space
enriching life

Rehabilitation of the forest after restoration practices

Burning of slash

Pest Management

Two main pests affecting our forests are dwarf mistletoe and mountain pine beetle – both of which are native to North America. Maintaining low levels of ***endemic*** pest populations allows some natural disturbance which encourages healthier forests. Preventing large outbreaks, rather than eradication, is our goal.

Activities

Inventory – Forest stand inventories are performed to collect data such as tree heights, ages, and health of the canopy to assess the current condition of the forest. This data is then used to create a management prescription.

Marking - Once conditions have been assessed and a prescription is planned, then trees are marked for removal. The following factors are taken into account when marking: spacing, health of trees, genetics, age, and disease/ infestation.

Felling, Skidding, and Slash Removal - Marked trees are felled and limbs removed. The logs are then pulled out and stacked. The limbs and branches left on the ground are either piled up and burned or chipped into small pieces.

The Logs Live On - The logs are often utilized in-house. They are processed into firewood for campgrounds; milled for items like benches and nestboxes; peeled for buck-n-rail fences and trail closure barriers; and made into posts for picnic shelters. Additionally, each September Open Space provides a public firewood sale.

Rehabilitation - When management activities have concluded, staff rehabilitate skid roads, the log deck, and any trails that were crossed. Rehabilitation involves seeding; laying grass mat and other erosion control materials; and placing barriers to discourage recreational use while these areas are being re-established.

Long-term Monitoring - Staff uses photo points and vegetation monitoring to determine how the landscape responds to the changes.

Specialized Activities

Specialized activities include debarking beetle-infested trees, prescribed fires, and tree climbing to cut out diseased limbs.