

Forestland Management Plan

The plan for managing Anchorage's forestlands gives credit to the importance of trees and forests but recognizes that not all forestlands are equal. It aims to identify significant and high-value public forestlands—those with mature and healthy tree populations that provide the greatest benefits. Forests that are part of larger stands and that provide important wildlife habitat and corridors may also be significant.

Growth and development are desirable and necessary to the economic well-being of Anchorage; however, high value forestlands are also critical to quality of life and the identity of our unique community. The plan provides a framework to ensure that practical measures are adopted and that planning and development recognizes that forests are a significant public resource. It seeks to conserve the current amount of tree canopy and benefits while supporting growth and development.

The assessment data may be used by all landowners to guide land use and resource management decisions, and by planning staff to meet federal air and water quality requirements. The management plan, however, relates only to forested municipal parkland. It respects the rights of private property owners to make decisions about their land.

The plan encourages managers to explore creative opportunities to team up, share resources, and secure long-term funding to support the conservation and management of public forestlands. It is necessary in achieving the goals of the Anchorage 2020 Comprehensive Plan and can be used to demonstrate Anchorage's ongoing commitment to smart growth.

Why is this important?

Forests are an important link between communities and the Alaska wilderness. They support a cultural heritage and priceless relationship with nature that defines the character of Anchorage.

Worldwide, communities are finding the need to restore urban forests. Without enough trees, communities face unhealthy air and polluted water. Anchorage has the opportunity to protect its abundant and valuable forests and avoid the expense of restoring forests to maintain a healthy environment for humans and wildlife.

Anchorage Forestland Assessment & Management Plan

Intent

Preserve and enhance Anchorage's natural and developed forests and the benefits they provide that are critical to the quality of life of residents, visitors, and wildlife.

Goals

- *Conserve the current level of overall tree canopy cover at no net loss and maximize the benefits*
- *Support smart growth and development while preserving the quality of life in Anchorage*
- *Preserve recreational opportunities through responsible vegetation management along trails and in other high-use areas*
- *Develop a sustainable, cost-efficient forest management program*

View the *Anchorage Forestland Assessment & Management Plan* at:

<http://www.muni.org/departments/parks/Pages/MunicipalForestryGuidingDocuments.aspx>

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Anchorage Forests Assessment & Management Plan



Anchorage forests work 24/7 to provide benefits that are vital to the health, well-being, and sustainability of Anchorage. Forests are a public asset that will continue to grow in value.

To maximize the benefits that forests can provide, the Alaska Community Forestry Program partnered with the Municipality of Anchorage in 2010 to assess Anchorage's forestlands and develop a management plan to be administered by the Anchorage Parks & Recreation Department.

The management plan will guide activities to preserve the condition and health of valuable forestlands and the benefits they provide.

Anchorage Forests Assessment

The assessment covers the entire municipality, from Girdwood to Chugiak. This includes portions of Chugach State Park and Chugach National Forest, private land, and land managed by other agencies. This is the first municipal forestland assessment done in Alaska.

The study, conducted by Davey Resource Group (DRG) under contract to the state:

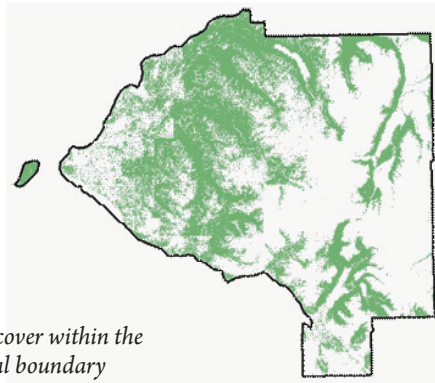
- summarized the history of Anchorage development;
- mapped the extent and location of forest canopy, defined as trees and woody shrubs;
- mapped forested areas by ownership, land use, and species composition;
- identified threats to forest health and sustainability;
- inventoried forest samples to quantify the value of the benefits that trees provide.

State forestry and municipal staff consulted with municipal departments and managers of adjacent public lands and DRG conducted an online survey. Residents, a variety of organizations, leaders, and resource managers shared their views on the value and benefits of Anchorage's forestlands. The 953 responders offered extensive comments and suggestions for how to conserve and manage this important public resource.

The survey shows that residents value the benefits that forests provide and think that caring for forests and parks is as important as other public services. They were most concerned that development is a threat to forests and they were willing to explore, and even suggest, options for funding forest conservation and management.



Aerial image showing tree canopy near Campbell Creek



Canopy cover within the municipal boundary

Forest Canopy Cover

Aerial images were used to create a digital map of forest canopy over the entire municipality—1,955 square miles. The study showed that overall the municipality has an average canopy cover of 59%, with 75% of the canopy in parks, greenbelts, and open space, including Chugach State Park and Chugach National Forest.

The Eagle River area has the highest average tree canopy cover at 58%, followed by Girdwood at 42%. The Anchorage Bowl has an average canopy cover of only 35%, which is below the goal of 40% recommended by American Forests (www.americanforests.org).

About 45% of the canopy is a mix of shrubs made up of mostly of willow and alder species. While this type of cover is great for wildlife browsing and habitat, larger trees like birch, white spruce, and cottonwood provide greater benefits for air and water quality.

Threats to Forestland

While it may seem like Anchorage forestlands are endless and able to take care of themselves, the truth is that our forests face many threats, including:

- Development
- Pests & disease
- Invasive species
- Climate change
- Wildfire

Since Alaska became a state in 1959, the population of Anchorage has grown by 234%. It is expected to grow another 32% by 2020. Unfortunately, this growth and development have taken a toll on the forest.

The study found that the Anchorage Bowl has lost about half of its original forests. Based on how much canopy has been lost, it is not hard to imagine a future Anchorage with much less forested land than it has today.

Privately owned forestland may be removed at any time for other uses. This increases the burden on the municipality and other public land managers to conserve the benefits that only forests can provide.

Forestland Benefits

City trees and forests work hard to keep Anchorage healthy and improve life by:

- Cleaning the air and storing carbon
- Protecting water quality
- Providing wildlife habitat
- Increasing property values
- Providing opportunities for recreation and enjoying nature

To quantify the value of benefits that Anchorage's forests provide, data were collected at two sites and entered into i-Tree Streets, software that uses the species, size, and condition of trees to calculate the amount and value of benefits they provide. (Refer to Appendix A: Methods) Data on these two sites show the benefits that are provided each year by one acre of either mixed conifer/deciduous forest or birch forest in Anchorage.

Mixed Conifer/Deciduous Forest

Annual benefits = \$6,314 per acre, including:

- Protecting surface water quality by intercepting 544,561 gallons of stormwater runoff
- Absorbing and filtering 78 pounds of air pollutants
- Sequestering 33 tons of carbon dioxide

Replacement Value = \$684,385 per acre

Paper Birch/Deciduous Forest

Annual Benefits = \$3,673 per acre, including:

- Protecting surface water quality by intercepting 304,779 gallons of stormwater runoff
- Absorbing and filtering 63 pounds of air pollutants
- Sequestering 21 tons of carbon dioxide

Replacement Value = \$637,362 per acre