Investment in State's Cooperative Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2023 Estimate</th>
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<tbody>
<tr>
<td>Community Forestry and Open Space</td>
<td>$0</td>
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<tr>
<td>Cooperative Lands - Forest Health Management</td>
<td>$628,620</td>
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<tr>
<td>Forest Legacy</td>
<td>$0</td>
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<tr>
<td>Forest Stewardship</td>
<td>$247,766</td>
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<tr>
<td>Landscape Scale Restoration</td>
<td>$799,200</td>
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<tr>
<td>State Fire Assistance</td>
<td>$1,263,530</td>
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<tr>
<td>Urban and Community Forestry</td>
<td>$373,000</td>
</tr>
<tr>
<td>Volunteer Fire Assistance</td>
<td>$260,990</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$3,573,106</strong></td>
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NOTE: This funding is for all entities within the state, not just the State Forester’s office.

Many additional efforts are ongoing with tribes, Alaska Native Corporations, boroughs, the Denali Commission and nonprofits – most all of these efforts are mentioned below in the narrative, but are not reflected in the numbers above. State, Private, and Tribal Forestry programs provide technical, educational, and financial assistance to landowners, resource managers, cities, and communities with a primary goal of maintaining and improving the health, sustainability, and productivity of Alaska’s urban and rural forests and related economies. These programs are delivered to our customers through a partnership between the State of Alaska and the USDA Forest Service, in cooperation with many private and other government entities.

Program Goals

- Increase cost-effectiveness through the use of partnerships in delivery.
- Increase values through sustained productivity of urban and rural forests.
- Utilize voluntary and non-regulatory approaches.

Key Issues

- Invasive and exotic species are a growing threat to Alaska’s forested ecosystems and many invasive species are established in the state. Partnerships increase our ability to detect and respond to new infestations. Collaborative partnerships and grant programs focus on efforts to remove invasive chokecherry trees, Prunus padus and Prunus virginiana, as well as to monitor the state for invasive forest insects and manage those already established.
- As communities expand so does the need to manage their natural resources. However, Alaska communities lack public and private sector arborists and urban foresters to manage public trees and forests. Providing technical and financial assistance helps communities maximize the environmental, social, and economic benefits of trees, including clean air and water, stormwater treatment, enhanced aesthetics and property values, and habitat for wildlife.
- Climate change-related forest health problems have already been documented in Alaska (i.e., spruce beetle outbreaks, yellow-cedar decline, and record wildfire seasons). More applied research on climate change is needed so forest managers can develop strategies to help Alaskans adapt and prepare.
- Alaska’s villages need renewable energy opportunities to supplement heating and power. Woody biomass, which could be used as a source of energy, is readily available from milling residues in Southeast and as a by-product of hazardous fuel and other treatments in Southcentral and Interior. Cost effective reforestation after timber harvest in the boreal forest is a challenge and will need to be addressed as harvests for wood energy are conducted.
- A spruce beetle outbreak occurring in Southcentral Alaska has affected over 2 million acres since...
2016. The outbreak has impacted the Matanuska-Susitna, Kenai Peninsula, and Denali Boroughs, as well as the Municipality of Anchorage. The resulting multitude of dead trees on the landscape is affecting infrastructure, recreation, tourism, public safety, and fire behavior. Mitigation efforts include hazard tree removals and hazard fuels reduction in high priority areas.

- Wildland fire continues to present significant threat to Alaskan forests, communities, and infrastructure, particularly surrounding the WUI. Spruce beetle has magnified this threat in Southcentral Alaska by increasing the mortality rate causing available dead and downed trees to pose substantial risk. The Division has made significant investments to monitor and educate the public regarding these issues. The 2023 wildland fire season resulted in 297,747 acres burned from a total of 343 fires.
- Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) funding will increasingly be used to expand statewide delivery of landowner assistance and increase program capacity. Utilizing this funding will lead to new challenges and opportunities as the Cooperative Forestry Programs and Cooperative Fire Program seek new ways to engage the public to educate about forest and wildfire management.

Forest Facts and Accomplishments

<table>
<thead>
<tr>
<th>Selected Facts</th>
<th>Value</th>
<th>FY 2023 Accomplishments</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Population</td>
<td>733,391</td>
<td>Landowners Receiving Educational or Technical Assistance</td>
<td>82</td>
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<tr>
<td>Acres of Forest Land</td>
<td>128,735,000</td>
<td>Acres Covered by New or Revised Forest Stewardship Plans</td>
<td>675</td>
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<tr>
<td>Acres of Nonindustrial Private Forest Land</td>
<td>11,050,267</td>
<td>Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans</td>
<td>615</td>
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<tr>
<td>Number of NIPF Landowners</td>
<td>42,062</td>
<td>Volunteer Fire Departments Assisted</td>
<td>40</td>
</tr>
<tr>
<td>Acres of Federal Land Under State Fire Protection</td>
<td>88,700,000</td>
<td>State Fire Communities Assisted</td>
<td>85</td>
</tr>
<tr>
<td>Acres of Private Land Under State Fire Protection</td>
<td>1,250,452</td>
<td>Coop Forest Health Acres Protected</td>
<td>450</td>
</tr>
<tr>
<td>Number of Rural Fire Departments</td>
<td>242</td>
<td>Forest Legacy Project Acquisitions</td>
<td>0</td>
</tr>
<tr>
<td>Cities and Towns</td>
<td>149</td>
<td>Communities Provided Urban Forestry Program Assistance</td>
<td>5</td>
</tr>
<tr>
<td>Forest Based Employment</td>
<td>2,000</td>
<td>Population Living in Communities Provided Urban Forestry Program Assistance</td>
<td>335,475</td>
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<tr>
<td>Economic Impact of Forestry (by rank)</td>
<td>5</td>
<td>Urban Forestry Volunteer Assistance</td>
<td>799</td>
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<td>State Forestry Budget (All Sources)</td>
<td>67,992,200</td>
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Program Highlights

**Community Wildfire Defense Grant**

DOF is actively involved in the support of the Community Wildfire Defense Grant program, hosting training, assisting applicants with application process, and scoring of applications. In round 1 there was one Tribal project selected to update a Community Wildfire Protection Plan.

**Congressional Community Project Funding**

Two projects were awarded through Congressional direction for work in Alaska in the areas of Kenai and Anchorage for a total of $5,500,000. Both projects are in support of wildfire mitigation work through reducing hazardous fuels and updating Community Wildfire Protection Plans.

**Conservation Education**

An initiative of the Sustainable Forestry Initiative (SFI), Project Learning Tree (PLT) is a national program that provides natural resource and conservation education materials coupled with professional development training that focuses on increasing people's understanding of forests and ecosystems. PLT encourages educators to expose students to the natural world and uses trees and forests as a platform for teaching and learning. The AK Forest Stewardship Program began funding PLT in 2019, which revitalized PLT in Alaska by hiring a state PLT Coordinator in partnership with Wasilla Soil and Water
Conservation District. Since 2023, AK PLT is funded by BIL.
In 2023, Alaska PLT reached 150 educators, and over 200 additional community members, students, and
natural resource professionals with workshops and events, presentations, and engaging directly with
students. In February, AK PLT hosted its first facilitator training and 17 educators, camp directors and
foresters became certified to host PLT workshops in their communities. Over 60 people were introduced
to PLT’s "Trees and Me" which engages our youngest citizens in activities that connect to neighborhood
trees and forests. AK PLT also engaged with existing partnerships with Renewable Energy Alaska
Project, Alaska Geographic, the Anchorage Park Foundation's Schools in Parks program and forged new
partnerships as well. In Spring 2023, AK PLT trained US Forest Service interpreters on how to engage
students in the woods through a program with Alaska Outdoor School, run by the Kenai Mountains
Turnagain Arm Heritage Area, and taught students during their fall sessions in a field study called,
"Chugach Forest Explorers".
Because AK PLT is funded in part by a WUI grant awarded to the Alaska Natural Resource and Outdoor
Education Association (ANROE) through DOF funding, the program has a large focus on fire education,
including public outreach that combined forces with the DOF's fire prevention mascot Spruce Moose.

Cooperative Fire Protection
The Alaska Division of Forestry & Fire Protection (DOF) protects the majority of the Wildland Urban
Interface (WUI) and road-accessible land in the state, roughly 40% of forested lands. The USFS provides
DOF assistance through State Fire Capacity (SFC) and Volunteer Fire Capacity (VFC). Funds were
allocated to help hire, train, and equip around 1,500 firefighters for statewide and national deployments,
allowing us to train up to and meet national response level standards. SFC funds fire
prevention/education programs, and fire management focusing on partnerships and interagency
coordination and cooperation. Ongoing projects from previous WUI awards are continuing the goal of
educating residents of WUI dangers and creating public education wildland fire curricula. Statewide, SFC
program dollars funded prevention/education programs for schools, civic groups, youth organizations, etc.
administered by DOF prevention and outreach education staff. DOF updated Community Wildfire
Protection Plans, conducted consultations and/or fire risk assessments, and conducted follow-up home
inspections. VFC funds are used to increase wildland firefighting safety, improve firefighting capabilities of
rural fire departments, and enhance protection in the WUI. Addressing the needs of local VFD’s allows us
to ensure the response level and service to socially disadvantaged areas are adequate in the event of a
wildland fire. VFC funds provided $259,982 directly to 40 rural fire departments, serving 85 rural
communities. 601 volunteer firefighters received training from DOF in equipment use and wildland fire
response. The Federal Excess Property Program (FEPP) and Firefighter Property Program (FFP)
continues to provide excess property toward the DOF's efforts in fire suppression statewide. The
FEPP/FFP program has enabled the re-utilization of Federal surplus to the tune of over $3 million through
the FEPP program and over $2 million through FFP.

Cooperative Forestry Outreach Modernization
This year, the Alaska Forest Stewardship Program team developed and implemented a social media
outreach strategy. A total of 24 pre-filled social media updates were written for 2023, as well as 5 updates
for future years. Two social media posts per month were made through 2023, and a Stewardship Forester
was granted administrative access to the DNR-DOF Facebook page--the first Forestry staff member to be
granted this access.

Disaster Relief Funding for Typhoon Merbok Affected Area
In September 2022, the largest storm to hit northwest Alaska in 50 years - Typhoon Merbok - inundated
almost 1300 miles of coastline and river delta habitats. A myriad of impacts were noted across over 42
native villages in Western Alaska. While waters rose in many villages, homes became uninhabitable or
lifted off their foundations, and roads were washed out, local community leaders have stressed that many
of their villages have sustained a serious loss in their way of life. Of note is the fishing fleet loss, and the
many fish camps and smoke houses damaged or lost across the whole region. The Forest Service
provided $17.25 million in funding to enter into interagency agreements with US Fish & Wildlife Service
and The Denali Commission to assist the region impacted by Typhoon Merbok. The funding will be split
into 4 key areas. This effort will focus on community hazard response and preparedness needs and storm
recovery, infrastructure planning and housing with partners.

Economic Action
Lumber markets have been volatile in recent years and in 2022 wood prices, on average, increased the
price of a single-family home by $36,000 nationwide. The volatility of the market mixed with recent supply chain issues have made home construction difficult in Alaska particularly off the road system. Despite high demand for locally sourced dimensional lumber, Alaskan sawmills often cannot sell construction materials for housing. Building codes require lumber to be quality graded and stamped, and Alaska sawmill operators often do not have the financial resources to pay for lumber grading. Most of the wood used for construction in Alaska is sourced from the Lower 48 or Canada. During the 2023 legislative session the Alaska lumber grading bill was passed directing the Alaska Division of Forestry and Fire Protection to develop a grading and training program to assist in providing locally sourced materials for residential home construction. The Local Use Lumber Program aims to increase the use of Alaskan lumber in Alaskan markets by allowing local sawmill operators to self-certify their lumber making it available for residential construction.

Forest Health Protection
The Alaska Division of Forestry & Fire Protection Forest Health Program (DOF FH) provides a wide range of assistance to forest landowners, resource managers, and others, and is a primary source of forest health expertise in the state. The program focuses on monitoring native and invasive forest pests, pest management, technology development, technical assistance, and outreach. DOF FH staff provided forest health outreach or assistance to more than 375 individuals in 2023.

In a typical year, the main way Alaska's forests are monitored is through cooperative DOF FH and USDA Forest Service Forest Health Protection (FHP) aerial pest detection surveys. In 2023, however, with funding support from FHP, aerial surveyors from DOF were solely responsible for surveys in Interior and Southcentral Alaska and assisted FHP with surveys in Southeast. The spruce beetle outbreak in Southcentral continues and has now impacted over 2 million cumulative acres since its initial detection in 2016. DOF FH has numerous spruce beetle-related projects in progress.

The DOF FH-administered Western Bark Beetle Initiative (WBBI) cost-share program awardees continued their bark beetle prevention, suppression, and restoration efforts. Some WBBI projects have recently been completed.

In addition to funding for DOF FH, USDA Forest Service State, Private, & Tribal Forestry connects partners and provides grant funding for terrestrial invasive plant work outside DOF as well. The Copper River Watershed Project continues to administer the Alaska Invasive Plant Mini-grant Program to prevent the spread or introduction of invasive plants. The nine grantees that received funding in 2023 provided outreach services and inventory and control invasives. The University of Alaska Cooperative Extension Service coordinated the 24th annual Alaska Invasive Species Partnership workshop in 2023 and provides training and information to professionals and community members.

Forest Legacy
The Forest Legacy Program continued to evaluate ways in which the program can contribute to the Division of Forestry & Fire Protection's mission. No new Forest Legacy Program projects were proposed in 2023 and baseline monitoring of previous projects continued.

Forest Stewardship
The Forest Stewardship Program--delivered by the Alaska Division of Forestry & Fire Protection--uses federal funding from US Forest Service to deliver technical forestry assistance to Alaskan landowners. Goals include increasing economic & environmental benefits of forest land, reducing fire risk across the wildland urban interface, increasing energy independence of remote communities through bioenergy, and helping landowners restore degraded or damaged forests. Forest Stewardship Plans may qualify landowners for management practice implementation funding through the Natural Resources Conservation Service (NRCS). Plans are written for private individual landowners and Alaska Native corporations, which are the largest landowners in the state. In total, 18 individual landowners received plans for 675 acres in FY2023. Since the program began in 1992, more than 7.6 million acres in Alaska have been sustainably managed under Forest Stewardship Plans. Administration of wildfire defensible space sub-grants in 2023 (CWSF competitively funded) led to completion of 12 home safety improvements (spruce thinning and removal), and a total of 31 home wildfire defensible space assessments. These grants allow Stewardship foresters and fire technicians to reach more homeowners, focusing on wildfire prevention through effective forest management.

The Fairbanks Area Stewardship Forester completed one individual landowner plan meeting
specifications for use in the application process for NRCS funding. Connecting landowners with the NRCS program creates more opportunity for landowners to fund forest management practices on their properties.

Forest Stewardship Plans for Alaska Native corporations are in progress, with an expected 800,000 acres of new plans being completed in 2024; an additional 600,000 acres of Native land are currently under active plan development, with completion by 2025. These large landscape plans take one to three years to develop; 2023 was a development year.

**Increasing Alaska Native Tree Seed Supply**

In response to increased impacts from spruce beetle outbreaks in Alaskan communities over the last decade, the Forest Stewardship Program is emphasizing program support of reforestation on private forest land in the wildland-urban interface. 2023 was the first of a 5-year project to increase State of Alaska supply of seed for native tree species. Lutz spruce and birch seed was collected from four different seed zones on the Kenai Peninsula. This seed has been processed and is now in cold storage at the Alaska Division of Agriculture Plant Materials Center. 2023 seed collection was funded by the Bipartisan Infrastructure Law (BIL) to complement an upcoming BIL-funded program to distribute seedlings to landowners.

**Landowner Assistance**

Non-industrial private forest landowners throughout Alaska received technical forestry assistance in the form of property visits from foresters, telephone consultations, website information, and cost-share grant opportunities aimed at improving forest health and reducing wildfire risk. Landowners in Fairbanks, North Pole, Delta, and the Kenai Peninsula received Firewise defensible space home assessments from Stewardship foresters; forest health program staff helped reach landowners with concerns about forest health and assisted landowners in making management decisions that will lead to resilient forests.

**Landscape Scale Restoration**

The Kuskokwim Corporation and Kenaitze Indian Community received Tribal Landscape Scale Restoration funding late in FY23 for work on their lands. The Kuskokwim Corporation's work will include forest health monitoring and reforestation, forest inventory analyses for sustainable harvest, protecting subsistence resources, mitigating fire and insect damage, and investing in local workforce training and jobs. Kenaitze Indian Community will mitigate spruce beetle damage and provide firewood to elders.

**Southeast Alaska Transition to Young Growth**

Young Growth Working Forest Analysis: Terre Verde, Inc. started work on a stand type map for all non-federal land from Yakutat south and east to the Alaska border. The mapping work is complete, and the map is now undergoing quality control review and analysis by federal and state forestry staffs. Work was initiated to advance the Analysis on State, Private (primarily all Alaska Native corporations), and Mental Health Trust lands in Southeast Alaska. Summaries were created based on historical Forest Stewardship Plans written for private forest landowners describing the management goals, objectives, silvicultural prescriptions, and in some cases actual implemented forest management practices conducted. 14 Forest Stewardship Plans were examined to determine landowner objectives related to young growth forest management and future management goals.

The Tongass Transition Collaborative continued work to gauge implementation of young growth goals, finding limited progress except for pre-commercial thinning. Forest Inventory training was conducted to help develop workforce availability.

The SE Alaska All Landowners Group continued to coordinate with Division of Forestry & Fire Protection senior management; work is underway to increase the membership and effectiveness of the group. Active outreach continues to get additional SE Alaska landowner participation in the group.

**Urban and Community Forestry**

The mission of the Alaska Community Forestry Program (CFP) is to help communities build effective, self-sustaining community forestry programs with strong local support. This is the only agency in Alaska that exists to provide technical and financial assistance and educational opportunities that develop and support local community forestry. Program staff provided grants, technical assistance and/or training to
local governments, agencies, organizations, businesses, and individuals in 21 communities: Anchorage, Joint Base Elmendorf-Richardson, Eielson Air Force Base, Fort Greely, Fort Wainwright, Fairbanks, Homer, Houston, Juneau, Ketchikan, Palmer, Sitka, Sterling, Talkeetna, Wasilla, Kenai, Eagle River, Metlakatla, Delta Junction, Hope, and Seward. In response to the USFS IRA funding opportunity, CFP conducted a targeted survey of community forestry professionals in local governments across Alaska. The survey assessed priorities regarding community forestry projects that might be funded through the federal program. Over 900 survey invitations were sent to community leaders, agencies, nonprofits, and schools in approximately 251 communities. CFP, along with several other organizations, was awarded funding. In total, approximately $6 million will be available to support community forestry projects statewide beginning in 2024. In conjunction with the Pacific Northwest Chapter of the International Society of Arboriculture, CFP hosted training courses for arborists and tree care industry workers including a Tree Risk Assessment Qualification (TRAQ) workshop and Alaska Arborist Workshop. Staff organized the Anchorage Tree Forum, which featured presentations from local community forestry organizations. Seven communities attained Tree City USA status. The state’s 3 major electric utilities were certified as Tree Line USA utilities, and two universities, including the newly certified Alaska Pacific University, were recognized as Tree Campus Higher Education institutions.

Western Blackheaded Budworm Impacts

From 2018 to 2022, consecutive outbreaks of endemic insect defoliators – the hemlock sawfly (Neodiprion tsugae) and western blackheaded budworm (Acleris gloverana) – have resulted in widespread tree needle loss and intermittent tree mortality across southeast Alaska. Data is needed to better understand tree, stand, and landscape-scale patterns as drivers of insect defoliator outbreaks and their direct and indirect impacts on forest resources and ecosystem services. Dr. Sarah Bisbing with University of Nevada- Reno will hire a student to pursue a MS in Forest Ecology. Their work will sample across a gradient of defoliation, topkill, and mortality, and data collection will span a variety of needs from aerial survey validation to determine the defoliator insect outbreaks’ impacts on ecosystem services. Forest health aerial detection surveys will be used to track insect activity annually and to guide sampling efforts. Crews will sample over two summers in order to capture the temporal and spatial extent of the outbreak as well as to, ideally, sample stands in consecutive years. The award was funded in late 2023, MS student and field tech positions were advertised, protocols were established, and plot locations reviewed.

Wood Innovations

In addition to increasing amounts nationally for the existing Wood Innovations and Community Wood grants program, additional programs were launched in 2023 under the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA). The Wood Innovations Grants program invested in 2 projects, totaling $598,081 in awards to stimulate expansion, and supports U.S. wood products markets and wood energy markets, traditional wood products, and custom sawn lumber, to support the long-term management of National Forest System and other forest lands and support rural communities. The Wood Products Infrastructure Assistance grants invested in 4 projects, totaling $1,948,780 in facilities that purchase and process byproducts of ecosystem restoration projects in high-priority areas for ecological restoration because of unnaturally severe high fire and insect risks. The firewood bank program, like food banks, provides renewable and cost-effective heating sources for people in need. The firewood bank program invested in 2 projects totaling $80,000 was awarded to 2 Tribal organizations. In support of implementing section 40803(c)17 of the Bipartisan Infrastructure Law $1,948,780 was invested to provide temporary bridge crossings to 4 Tribal organizations to access timber and cultural resources while protecting water resources.
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