



# State and Private Forestry Fact Sheet

## Colorado 2018



### Investment in State's Cooperative Programs

| Program                                      | FY 2017 Final      |
|--|--------------------|
| Community Forestry and Open Space            | \$0                |
| Cooperative Lands - Forest Health Management | \$1,795,870        |
| Forest Legacy                                | \$0                |
| Forest Stewardship                           | \$435,633          |
| Landscape Scale Restoration                  | \$300,000          |
| State Fire Assistance                        | \$3,574,028        |
| Urban and Community Forestry                 | \$520,111          |
| Volunteer Fire Assistance                    | \$467,020          |
| <b>Total</b>                                 | <b>\$7,092,662</b> |

NOTE: This funding is for all entities within the state, not just the State Forester's office.

The mission of the Colorado State Forest Service is to achieve stewardship of Colorado's diverse forest environments for the benefit of present and future generations.

Cooperative programs are administered and implemented through a partnership between the State of Colorado, USDA Forest Service and many other private and government entities. These programs promote the health, protection and productivity of Colorado's forestlands and rural economies, emphasizing reduction of risk to people, property and resources; management for timber and other forest products; wildlife; water resources; and conservation practices.

### Program Goals

- Maintain and improve the health of Colorado's urban and rural forests and related economies
- Increase cost effectiveness and efficiencies through the use of partnerships in delivery
- Increase values through sustained productivity of forests
- Deliver programs that are voluntary using non-regulatory approaches

### Key Issues

- Fragmentation of forest landscapes
- Loss of forest products manufacturing capacity
- Unprecedented levels of forest insect and disease activity
- Threat of wildfire in the wildland-urban interface
- Threat of wildfire outside the wildland-urban interface
- Community forests at risk to invasive insects and disease
- Risk of diminished forest resiliency and adaptability due to changing climate conditions
- Declining forest watershed health
- Declining riparian ecosystems
- Air quality issues associated with forest conditions

## Forest Facts and Accomplishments

| <b>Selected Facts</b>                             | <b>Value</b> | <b>FY 2017 Accomplishments</b>   | <b>Value</b> |
|---|--------------|--|--------------|
| Population  | 5,029,196    | Landowners Receiving Educational or Technical Assistance                             | 5,699        |
| Acres of Forest Land                              | 22,804,159   | Acres Covered by New or Revised Forest Stewardship Plans                             | 33,858       |
| Acres of Nonindustrial Private Forest Land        | 5,360,000    | Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans | 33,028       |
| Number of NIPF Landowners                         | 186,000      | Volunteer Fire Departments Assisted  | 120          |
| Acres of Federal Land Under State Fire Protection | 24,240,000   | State Fire Communities Assisted  | 242          |
| Acres of Private Land Under State Fire Protection | 41,432,979   | Coop Forest Health Acres Protected   | 1,680        |
| Number of Rural Fire Departments                  | 424          | Forest Legacy Project Acquisitions   | 0            |
| Cities and Towns                                  | 271          | Communities Provided Urban Forestry Program Assistance                               | 92           |
| Forest Based Employment                           | 4,000        | Population Living in Communities Provided Urban Forestry Program Assistance          | 3,245,006    |
| Economic Impact of Forestry (by rank)             | 0            | Urban Forestry Volunteer Assistance  | 1,503        |
| State Forestry Budget (All Sources)               | 36,254,000   |  |              |

## Program Highlights

### **Community Forestry and Open Space**

The Colorado State Forest Service endorsed and submitted Costilla County's 2017 application for the Sangre de Cristo Community Forest. The project was awarded funds and has actively engaged the CSFS Alamosa District to apply forest stewardship principles to their community forest plan. Much of 2017 prepared Costilla County, with the help of Colorado Open Lands, to close on the first phase of the project in early 2017. No other projects have occurred under this program.

### **Conservation Education**

The Colorado State Forest Service continued to support the Project Learning Tree program in 2017. This program's importance grows as children are spending less time outdoors and losing their connection with the natural environment, while teachers have fewer opportunities to conduct outdoor education programs. The program provides balanced conservation education to PreK-12 students throughout the state, and requires a close working relationship with state education organizations, agencies, districts and teachers. In 2017, a total of 385 educators were trained at 35 PLT workshops throughout Colorado. The CSFS conducted PLT workshops at 5 universities, and presented sessions or exhibited PLT at 5 state or local conferences. A partnership with the Denver Early Childhood Council also provides workshops to English and Spanish-speaking educators twice each year. At workshops, public events and conferences, staff distribute CSFS publications including the annual Report on the Health of Colorado's Forests, forest assessment reports, relevant fact sheets (e.g., on urban forest and insect and disease issues) and fire mitigation guides.

### **Cooperative Fire Protection**

The Colorado State Forest Service role is to provide statewide service in fire prevention, fire ecology, natural resource management, wildfire risk assessment, community protection planning and fuels mitigation. The CSFS has the responsibility for forestry and fuels mitigation while the Colorado Division of Fire Prevention and Control has the responsibility for wildland fire preparedness and response. The CSFS works in partnership with DFPC to provide a complete package of wildland fire management programs to the state. CSFS State Office and field staff interactions with landowners, communities and local governments have yielded 235 Community Wildfire Protection Plans (49 county-wide) and 169 Firewise Communities -- which is 1st among states that have an active Firewise program. Cooperative Fire Funding received by the CSFS is instrumental in providing effective and efficient service in achieving stewardship and resiliency of Colorado's forest environments, mitigating the negative effects of fire across landscapes and watersheds, and protecting people and property through assessment, planning and implementation actions for individuals and communities. The CSFS embraces the framework of the

National Cohesive Wildland Fire Management Strategy. Key components are its foundation in science and emphasis on collaboration. Both components are part of the CSFS approach to cross-boundary, landscape-scale stewardship of Colorado forests. Cooperative Fire Funding makes possible CSFS interactions at the local landowner/community level that leads to collaboration across landscapes and watersheds. In 2017, Community Assistance Funds Adjacent to National Forest Lands (CAFA) were awarded to 4 projects affecting the Front Range and southwest Colorado, with over 450 acres planned for treatment. State Fire Assistance Funds were awarded to 6 Front Range projects, with over 1,000 acres planned for treatment, and to the online Colorado Wildfire Risk Assessment Portal for enhancements.

### ***Economic Action***

The CSFS has expanded its biomass technical assistance, education and outreach in the urban and wildland urban interface communities. Applied research is being conducted on several urban species impacted by increasing pest activities (emerald ash borer, thousand canker disease etc.) for utilization and value added market opportunities. In particular, the CSFS has developed strategy and is participating in EAB response and mitigation. Initial discussions on the feasibility of utilizing mortality from EAB in municipal biomass-heating systems in Vail, Fort Collins, and Denver. In 2013 The Black Forest community northeast of Colorado Springs experienced one of Colorado's most costly wildfires. In response, the CSFS, working with the community and contractor has successfully established a portable milling operation to address the need to utilize the burned trees for impacted residents. In cooperation with hazardous fuels treatments undergoing on a cooperative basis. Already the effort has seen a reduction in post-fire treatment costs through revenue generated from the processing of the burnt timber. The CSFS Forest Business Loan Fund increased its lending portfolio to nine businesses and almost 1.5 million dollars.

### ***Forest Health Advisory Council***

The Forest Health Advisory Council was created by HB16-1255 to provide a collaborative forum to advise the State Forester on a range of issues, opportunities and threats with regard to Colorado's forests. The FHAC currently consists of 21 members who were appointed by Colorado Governor Hickenlooper and other members of the Colorado General Assembly. The members consist of well-respected experts in fields/industries including wildfire, forestry, on and off-road recreation, public utilities, conservation, ranching, wildlife management, irrigation water supply and municipal drinking water, and also includes municipalities and county commissioners. The FHAC is scheduled to sunset in 2021.

During 2017, the FHAC met for the first time in April, followed by 3 additional meetings in different locations around the State of Colorado. The FHAC has identified 4 priorities including: 1) actively promoting a regional approach to forest health projects being implemented on the ground through working directly with the Basin Roundtables and a wide range of local partners, 2) boosting the need to incentivize and fund forest management activities at the watershed level that are necessary to alter landscape-level forest health in the headwaters of Colorado and support the state's forest product businesses, 3) supporting the use of prescribed fire as a matter of risk management when compared to wildfire and recognizing that certain CSFS personnel have unique qualifications and experience relating to wildfire management that are not currently being utilized, particularly with regard to pile burns, and 4) encouraging agencies to prioritize creating a consistent, long-term timber harvesting program across the state. For additional information, visit <http://csfs.colostate.edu/forest-health-advisory-council/>.

### ***Forest Health Protection***

The Colorado State Forest Service conducted 1,076 site visits and landowner assists for sick tree/insect and disease issues in 2017. The non-native emerald ash borer has been detected in the cities of Boulder, Longmont and Lafayette, and the community of Gunbarrel, over the period of 2013-2017. Walnut trees on the Eastern Plains of the state were surveyed for thousand cankers disease (TCD). Twig beetles that vector the fungus responsible for TCD were collected in Brush, CO in 2017. There are currently 19 counties infested with walnut twig beetles on the West Slope and Eastern Plains that vector TCD in Colorado. The CSFS, in collaboration with the U.S. Forest Service, conducts annual aerial detection surveys to map and quantify insect and disease activity in forested areas of Colorado. In 2017, the survey identified widespread mortality from spruce beetle as the predominant native forest concern for the sixth successive year with 1.78 million cumulative acres affected by this beetle in CO since 1996. Spruce beetle-caused mortality continued to expand in 2017, with 206,000 active acres of high-elevation Engelmann spruce affected in 2017; 67,000 acres were new or not previously infested. Mountain pine beetle-caused pine mortality affected the smallest amount of acreage since 1996 with less than 900 acres

statewide. Widespread areas of Douglas-fir and white fir were defoliated by western spruce budworm on 252,000 acres, predominately in southern CO. Douglas-fir beetle affected 14,000 acres of Douglas-fir forests, and fir engraver beetle affected 2,500 acres of white fir in southern Colorado. The population of fir engraver near Ouray continued to decrease for the third year. Aspen stands throughout the state continue to recover from drought-induced dieback/SAD due to average or above-average precipitation levels in 2017. In the 2017 water year (Oct 1-Sept. 30), Colorado was 3.2 degrees warmer than the base average (1901-2000).

### **Forest Legacy**

The Colorado State Forest Service and Colorado State University work with local groups and NGOs to identify potential projects for the Forest Legacy Program. Increased outreach to the Trust for Public Land, The Nature Conservancy, The Conservation Fund and the Colorado Division of Parks and Wildlife (CPW) on the Forest Legacy Program occurred in 2017. The Forest Legacy Program manager for the CSFS spoke with multiple landowners around the state who were seeking additional information on the program. No projects were submitted for Forest Legacy Program funding in 2017. Several projects that appeared to have high forestry resource values as well as great potential for forest management efforts in coordination with the CSFS were not eligible for the program, due to their locations being outside of the designated priority area map. The FLP manager will seek to re-create a new version of the priority area map, involving a wide range of stakeholders, in order to avoid missing out on opportunities to work on high-quality projects in all parts of Colorado. The CSFS is working with the landowners of the Toll Ranch conservation easement property (already closed as an FLP property) and the U.S. Forest Service on designing and placing signage on the property that indicates that it is protected with a conservation easement, and acknowledging all funding sources, including the USFS.

### **Forest Stewardship**

The Forest Stewardship Program provides landowners technical assistance with the development and implementation of comprehensive resource management plans. The Colorado State Forest Service provided assistance to 5,699 landowners and developed/revised plans covering 33,858 acres in 2017. The Colorado State Forest Action Plan continues to guide the priority of fuels and forest health treatments and is used extensively to help identify future outreach and education efforts on private lands. Colorado continues to lead in stewardship training efforts. A comprehensive review of the Forest Ag Program was conducted in 2016. The CSFS has started implementing recommendations from the program review while coordinating closely with area managers, field offices, consultants and other partners to more effectively administer changes. A CSFS Forest Stewardship Program Specialist is now in place to provide leadership and oversight of the Forest Stewardship Programs. The FSP specialist will continue to engage landowners and partners through Forest Ag Newsletters and the Colorado Forest Stewardship Coordinating Committee, as well as other outreach materials and events.

### **Good Neighbor Authority**

The Good Neighbor Authority allows CSFS resources and contracting procedures to be used on federally owned, U.S. Forest Service and Bureau of Land Management-administered lands. Although Colorado was initially the pilot state for this authority in the year 2000, the 2014 Farm Bill granted a permanent nationwide legislative authority. After the CSFS signed a GNA Master Agreement with the USFS Region 2 office in 2015, numerous Supplemental Project Agreements have been executed throughout Colorado at the more local forest level, between CSFS field offices and USFS Forest Supervisor offices. In addition, an initial cooperative agreement was signed with the BLM through their Grants.gov process and updated annually through an agreement modification.

In 2016, over 1,390 acres were slated for treatment on federal lands in 5 project areas. Management actions included aerial spraying for Douglas-fir tussock moth, salvaging spruce beetle and mountain pine beetle (MPB)-killed timber, masticating hazardous oak fuels, and salvaging roadside timber with a Forest Product Sale Permit. In 2017, over 4,200 additional acres were designated for projects that included supporting CSFS staffing to build GNA capacity on 6 national forests, implementing timber sales and fuels treatments, removing hazardous trees and salvaging spruce beetle and MPB-killed timber. Anticipated benefits from the GNA program include landscape-scale management over combined land ownerships, leveraged fuels treatments and defensible spaces, removal of impediments to cross-boundary watershed restoration, and cooperation between federal and state agencies, landowners and other stakeholders that will improve the success of the National Fire Plan and Cohesive Strategy.

### **Landscape Scale Restoration**

The Colorado State Forest Service is an active participant in the LaSR program continually seeking opportunities to develop projects. Implementation of 2014 & 2015 grants to improve forest resilience and reduce wildfire threat are underway. A 2017 LSR grant award titled "Teaming Up for Trees" is a multi-community planning and planting program in the communities in eastern Colorado and is having significant impact on neighborhoods and parks.

### **Marketing & Utilization**

The Colorado State Forest Service continues to improve the resiliency and profitability of forest products harvesting and manufacturing infrastructure. The CSFS Business Loan Fund manages an almost \$3 million portfolio of small business loans, providing working capital and equipment to finance the forest products business community. A related effort in partnership with the Walton Family Foundation seeks to explore the financial investment concept of environmental impact bonding (EIB) to bring funding diversity, stability and greater accountability and returns to the health of Colorado's public forests, and to help catalyze private sector markets. One applied research priority has been to determine predictive dead standing tree attributes and their correlation with wood deterioration rates following bark beetle and wildfire mortality. The CSFS continues its effective biomass utilization partnership with USFS Region 2 State and Private Forestry by providing state staffing and expertise to the R2 biomass utilization program delivery and state utilization staffs in KS, NE, SD and WY. Included was a first-time gathering of R2 state utilization specialists in Nebraska in 2017. The gathering, supported by the CSFS-USFS biomass utilization partnership, offered 3 days of strategizing, information sharing, training and industry tours. The CSFS also is actively engaged in integrating the needs of local biomass business communities into a Colorado-New Mexico multi-stakeholder forest partnership. Established by the USFS, Natural Resources Conservation Service and The Nature Conservancy in 2017 as the "2 State, 3 Watersheds, 2 Mountain Ranges" (2-3-2) Cohesive Strategic Forest Partnership and Collaborative, it is undertaking a comprehensive prioritization effort and adaptive management activities with the biomass utilization community. CSFS utilization staff also are members of the newly established Wood Utilization Network, chartered by the Council of Western State Foresters.

### **Trees for Conservation - CSFS Nursery**

The Colorado State Forest Service Nursery prides itself on producing high-quality, low-cost plant material for conservation applications. The nursery features over 40 species suitable for the unique planting zones of Colorado and the region. Bare root trees and shrubs as well as container-grown plant material are grown at the nursery, and it also recently has diversified its inventory to accommodate special planting needs. Extra-large potted plants are grown for windbreak and snow fence replacements, tall potted plants ideally suited for riparian restoration are offered and some varieties of perennials have been introduced to improve pollinator habitat.

During the 2017 fiscal year there was an emphasis on growing a variety of species in deep tube containers. The tubes and species were chosen specifically to be grown and used in riparian mitigation efforts to restore Front Range watersheds impacted by 2013 floods. The CSFS Nursery works closely with over 200 cooperators to assist landowners in selecting species, provide planting support and develop orders that meet the needs of end users. Cooperators include federal, state and local agencies including, but not limited to, the Natural Resources Conservation Service, Colorado State University Extension and similar private conservation groups.

During the 2017 fiscal year, the nursery sold approximately 550,000 seedlings. These seedling were planted in more than 60 counties throughout the state and regionally, and while these numbers are lower than historic levels, they suggest that conservation plantings are still valuable and desirable. In addition to producing plant material, the CSFS Nursery is active in research collaborations with CSU, providing outreach and education to the community and developing new species to meet the needs of conservation-minded landowners.

### **Urban and Community Forestry**

The CSFS Urban and Community Forestry (UCF) Program provided technical and educational assistance to 102 communities in Federal FY 2017, which represents 3,245,006 people or 58% of the state's population based on estimates from the US Census Bureau (July 1, 2017). 93 Tree City USA's were certified at the end of CY 2016 in Colorado, 11 Growth Awards, and 7 Tree Campus USA's. Colorado's

statewide urban tree inventory web-tool ([www.cotreeview.com](http://www.cotreeview.com)) contains 546,655 trees in the database as of end of CY 2017. The Tree Collections program ([www.treecollections.com](http://www.treecollections.com)) was launched in 2017 to create a network of diverse tree collections throughout the state. Coordination efforts for the South Platte Urban Waters Partnership continued with contractual efforts by CSFS to acquire a new Ambassador for the partnership. The 2015 Natural Capital LaSR grant was completed in 2017. This project: catalogued existing data sources, identified the most important natural assets in the watershed and then mapped the natural capital and valued the ecosystem services produced throughout the watershed. A decision-support tool was produced to assist stakeholders with prioritizing future investments in the watershed. The Front Range Urban Forestry Council met five times in 2017, and continues to play a key role in shaping and coordinating UCF efforts along the Front Range. Educational efforts at conferences around the State helped keep partners and stakeholders on the cutting edge of UCF in 2017. Key personnel from the CSFS UCF Program continue to be a part of the interagency Colorado Emerald Ash Borer (EAB) Response Team. The Colorado Tree Coalition awarded \$34,275 to 11 organizations in 2017. Along with matching funds provided by the grant recipients this helped plant 1,059 trees in communities across Colorado. Each of these projects allowed residents the opportunity to make a difference in their community with a combined total of 2,163 hours of volunteer service.

### **Watershed Protection - Partnerships**

The Colorado State Forest Service is involved in several collaborative efforts to protect watersheds. Over the next 5 years, Denver Water, the U.S. Forest Service, CSFS and Natural Resources Conservation Service will invest \$33 million in forest restoration projects to treat over 40,000 acres in Denver Water's critical watersheds, on federal and non-federal land. Under the From Forests to Faucets partnership, the USFS has been working with Denver Water since 2010 to implement forest and watershed health projects, treating more than 48,000 acres. The goal is to reduce the risk of catastrophic wildfires and restore forests impacted by fires near reservoirs, and to minimize erosion and sedimentation. The Pikes Peak Watershed Partnership, a collaboration between Colorado Springs Utilities and the CSFS, addresses 13,000 acres that serve as an important water collection and storage area for the city. Following the 2002 Hayman Fire, the partnership has completed 200 to 300 acres of forest management each year. In 2012, the Colorado-Big Thompson (CBT) Headwaters Partnership began as a collaborative between the Northern Water Conservancy District, U.S. Bureau of Reclamation, CSFS and USFS. Goals include proactively restoring forest and watershed health, and preplanning post-wildfire response to protect CBT infrastructure. Covered watersheds include the headwaters of the Colorado and Big Thompson rivers. Implementation projects focus on fuels reduction and forest restoration, with work including the removal of dead trees, forest thinning and creating fuelbreaks. Two Wildfire Risk Reduction Grants also have been awarded to the Conservancy District in partnership with Larimer County and private landowners. The CSFS is also a partner in the San Juan Forest Health Partnership, which develops science-based collaborative priorities for the sustainable management of forests, watersheds and community resources. Current projects include treating acres near Pagosa Springs.

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## **Contact Information**



### **Colorado State Forest Service**

Michael B Lester  
*State Forester and Director*  
 Colorado State University  
 Foothills Campus - 1050  
 Fort Collins, CO 80523-5060  
 970-491-6303  
[mike.lester@colostate.edu](mailto:mike.lester@colostate.edu)

### **US Forest Service Rocky Mountain Region**

Roy Mask  
*Acting Director, State & Private Forestry & Tribal Relations*  
 USDA Forest Service  
 1617 Cole Boulevard, Building 17  
 Lakewood, CO 80401-3305  
 303-275-5061  
[rmask@fs.fed.us](mailto:rmask@fs.fed.us)

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