



Colorado State Forest Service

Fort Collins District 2015 Annual Report *From the Fort Collins and Fort Morgan Offices*

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.

Message from the CSFS Fort Collins District/Fort Morgan Field Office

Hello! Thank you for taking time to read our 2015 Annual Report. We look forward to being able to assist you with forestry and tree-related technical assistance in the coming year.

The Colorado State Forest Service (CSFS) is a service and outreach agency of the Warner College of Natural Resources at Colorado State University. We offer technical assistance to help landowners make sound stewardship decisions, and work to balance the natural change agents at work in trees and forests (droughts, floods, freezes, insects, diseases, wildfire, etc.) with opportunities for forest stewardship activities and each landowner's objectives. CSFS actions focus on making Colorado's forests more enjoyable, productive, healthy and well-managed.

In 2015, the CSFS formally merged the Fort Collins and Fort Morgan districts. Both offices will remain open and have foresters available for technical assistance. In Fort Morgan, which is now a CSFS field office, we will deliver the same services that have been delivered in the past. The

district forester, Boyd Lebeda, is based in Fort Collins and will oversee operations for both offices. The new, merged district service area covers Adams, Kit Carson, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld and Yuma counties in northeast Colorado.

More information about the CSFS and the Fort Collins District/Fort Morgan Field Office is available on the CSFS website at www.csfs.colostate.edu.

New Forester at Fort Morgan Office

The CSFS recently filled the forester position at the Fort Morgan Field Office. Matt Norville will be reporting in March 2016.

Matt is energetic and will hit the ground running. He will be focused on technical assistance on plains forests (community forests, windbreak/working forests and riparian forests); urban and community forestry assistance and outreach; tree insect and disease monitoring and response; community wildfire



Healthy forests allow for a diverse array of benefits. (Photo: Boyd Lebeda, CSFS)

protection planning; and FireWise communities promotion. His previous experience includes positions with the Larimer County Weed District, The Nature Conservancy, the Bureau of Land Management and the Colorado State Forest Service, and he also has done geographic information system (GIS) technical work. Please contact Matt at the Fort Morgan Field Office for tree and forestry assistance.

State Capitol Holiday Tree Honors Fallen Soldiers, Their Families



The CSFS provided the 2015 Gold Star Tree of Honor (Photo: Ryan Lockwood, CSFS)

The 2015 State Capitol Holiday Tree, themed the “Gold Star Tree of Honor,” paid tribute to the more than 350 Colorado military service members lost in the global war on terror since Sept. 11, 2001, as well as their families.

Gov. John Hickenlooper dedicated the tree at a formal lighting ceremony in the Capitol’s North Foyer in honor of Gold Star families – the survivors of service members who have lost their lives in conflict or in support of certain military operations.

“Given that 2015 marks the 14th anniversary of our nation at war, Colorado remains committed to honoring those who have made such a great sacrifice, be they soldiers or their families,” said Janelle Darnell, chief of protocol for the Office of The Adjutant General, Colorado Department of Military and Veterans Affairs. “Colorado has not and will not forget

their sacrifice and service on behalf of our community, state and nation.”

The Capitol’s holiday tree was provided for the fifth year in a row by the CSFS Fort Collins District. The approximately 50-year-old, 25-foot subalpine fir was harvested on State Trust Land in northern Larimer County.

Colorado National Guard soldiers and their families decorated the tree, and boughs trimmed off of it were used by the DMVA to craft wreaths for Gold Star families in attendance.

Each year, CSFS foresters selectively cut the State Capitol Holiday Tree and smaller trees destined for the Colorado State University campus as part of ongoing management efforts to improve forest health. In 2015, the CSFS also harvested a small number of trees for the families of deployed military personnel.

“It is a true honor to be allowed to provide this special tree for our State Capitol,” said Mike Lester, state forester and director of the CSFS, who is himself from a Gold Star family. “To many of us, it is a symbol of much more than the holiday season.”

Communities Value Trees!

Communities throughout the CSFS Fort Collins District really value their trees and the benefits they provide, as demonstrated by designations they received, events they held and actions they took in 2015. Fort Collins District staff assisted with Arbor Day celebrations in the Town of Eaton and the City of Fort Collins, with Arbor Day presentations to fifth-grade students in Fort Collins elementary schools. In addition, our staff presented Tree City USA® awards to 12 communities and Tree Campus USA® awards to two campuses in 2015. The Colorado State University (CSU) and University of Northern Colorado campuses were each recognized by the National Arbor Day Foundation (NADF) as being a Tree Campus USA for meeting five standards, including: establishing and maintaining a campus tree advisory committee, having a campus tree care plan, dedicating annual expenditures to a campus tree program, having an Arbor Day observance, and conducting a service learning project that engages students.

Similarly, the following communities in the Fort Collins District were recognized by the NADF for meeting four standards of urban forest management – maintaining a tree board or department, having a community tree ordinance, spending at least \$2 per capita on urban forestry and celebrating Arbor Day:

- Berthoud
- Brush
- Estes Park
- Evans
- Fort Collins
- Frederick (first year)
- Greeley
- Loveland
- Milliken
- Platteville
- Sterling
- Windsor

An urban and community forestry class offered at CSU was held for the second time during the fall semester of 2015. Assistant District Forester Diana Selby, of the Fort Collins District, served as a teaching assistant and taught about tree inventories as well as conducted an i-Tree Eco inventory project, in which students used this software application to collect data from campus to utilize in projects for the class. Data collected during this and previous years' classes will be provided to CSU Facilities Management for use in evaluating and measuring ecosystem services provided by the urban forest on campus.

In October, Assistant District Forester Greg Zausen also assisted with leading volunteers for the City of Fort Collins at a tree-planting event in the Avery Park neighborhood of Fort Collins, which coincided with United Way of Larimer County's Make a Difference Day and NeighborWoods Month. Partners for this event included the City of Fort Collins; Harmony Gardens Nursery; Trees, Water & People; United Way of Larimer County; National Arbor Day Foundation; Alpha Student Chapter of the Society of American Foresters; CSU Warner College of Natural Resources; and Student Video Productions at CSU. A video of the event can be found at the CSFS YouTube Channel: <https://www.youtube.com/channel/UCM2eDp4L1qLJHupFCulFP2Q>



Invasive Russian-olive trees being removed at Barr Lake State Park (Photo: Nancy Dadisman, CSFS)

Barr Lake State Park Project

A project involving the removal of non-native Russian-olive trees from Barr Lake State Park was administered by the CSFS Fort Collins District in early 2015, with the trees removed by a local contractor. The effort was funded by a USDA State and Private Forestry grant and provided restoration demonstration sites as part of a larger collaborative effort of the CSFS, Wyoming State Forestry Division and partners to increase outreach and information for riparian landowners and decision-makers, and provide training for resource professionals needed for riparian-area restoration within the Platte and Republican rivers' watersheds.



The CSFS teams up with the City of Fort Collins for a neighborhood tree planting at Avery Park (Photo: Nancy Dadisman, CSFS)

This project reinforced the concept of proper riparian forest management beyond the simple removal of undesirable vegetation, and will include future interpretive signs, seeding with native grasses and re-planting of native tree and shrub species.

Improving Forest Conditions through Grant Opportunities

The CSFS Fort Collins District offers several grant programs that provide matching funds to communities and individuals for forest management work, including forest restoration and wildfire mitigation activities. Among programs that are directly administered by the CSFS are State Fire Assistance (SFA) funds, Colorado Forest Restoration Grants (CFRGs), Stevens Hazardous Fuels Grants (also called CAFA Grants) and Front Range Fuels Treatment Partnership (FRFTP) grants. In addition, our district supports and provides technical assistance and on-the-ground inspections for Colorado Wildfire Risk Reduction grants provided through the Colorado Department of Natural Resources. These combined grant programs supported forestry work and fuels reduction on approximately 830 acres in Larimer County in 2015.

To learn more about these grants and funding opportunities, visit the CSFS Grants & Funding Assistance webpage: <http://csfs.colostate.edu/funding-assistance/>. You also can receive electronic notifications about funding opportunities within the Fort Collins District by contacting the district and requesting to be on the grants notification list.

Colorado-Big Thompson Headwaters Partnership

After years of record-breaking drought conditions and beetle epidemics, it's not surprising that 2012 and 2013 brought devastating wildfires to Colorado, leaving scarred watersheds and serious water quality concerns in their wake.

The devastation brought on by the wildfires led to the formation in 2012 of the Colorado-Big Thompson (C-BT) Headwaters Partnership, between Northern Water, the U.S. Bureau of Reclamation, the CSFS and the U.S. Forest Service. The three entities signed a related memorandum of understanding in 2012.

At least a quarter of northeastern Colorado's drinking water supply comes from the Colorado-Big Thompson Project, which collects and delivers water to a 1.6 million-acre area with 860,000 residents. Burned areas in C-BT watersheds are susceptible to increased rates of runoff and erosion after vegetation and soil have been impacted by wildfire. When heavy precipitation and resulting runoff bring post-fire sediment, ash or debris into streams or infrastructure, adequate treatment of drinking water becomes difficult, if not impossible.

Due to a variety of factors, including tree mortality caused by the mountain pine beetle epidemic, years of drought and the buildup of vegetative fuels in the forested landscape, C-BT watersheds on Colorado's West and East slopes are becoming more susceptible to high-intensity wildfires that create runoff



Forest management and fuels reduction thinning efforts restore forests and improve forest health (Photo: Boyd Lebeda, CSFS)

conditions that can produce poor water quality. The C-BT Headwaters Partnership has used preliminary planning documents to begin implementing targeted watershed and fuels reduction projects throughout C-BT watersheds.

The goal of the partnership is to proactively restore forest and watershed health, and to preplan post-wildfire response to protect C-BT infrastructure and water supplies. Watersheds being addressed include those on the West Slope in the headwaters of the Colorado River, and those on the East Slope in the headwaters of the Big Thompson River. We are working together to foster resilient, healthy, functioning forests in these landscapes. Hundreds of acres of forest management and fuels reduction thinning have already been completed in the C-BT Headwaters Partnership.

Northeast Colorado Tree Health Update

2015 was another interesting year in terms of tree damages in northeast Colorado, particularly in the urban forests of the Front Range and Eastern Plains communities. In addition to the usual tree pests and pathogens, the most significant causal factor was a hard freeze that occurred in November 2014. The high temperature in Fort Collins on Nov. 10, 2014, was 2 degrees Fahrenheit, compared to 70 F just a few days prior. This significant temperature drop following unusually mild weather damaged many woody plants, notably Siberian elms, cherries, apples, crabapples, pears and Euonymus trees, and other common shrubs, pines, spruce and ash. Many elms died, particularly in plains communities. Pines in many areas were brown over the winter, but mostly recovered with new growth in 2015. Other trees showed delayed

mortality as the bark became detached where cambium death occurred. The effects of this environmental stress are still being seen going into 2016 as many plants struggle to recover from tissue damage.

The damage to trees caused by the November 2014 freeze caused much concern from homeowners and communities. This was a good example of the difficult environmental conditions that exist here in Colorado for our planted community and windbreak trees, and highlights the importance of tree species selection, placement, care and maintenance.

In 2015 we observed significant spread and impact of thousand cankers disease (TCD) on black walnut trees in Fort Morgan. The disease was first confirmed in Fort Morgan just a year prior on only a few trees, but many trees across town are now showing symptoms. Trapping and monitoring efforts for walnut twig beetle (the disease carrier) by the CSFS in communities east of Fort Morgan to the state line have not confirmed the presence of this disease as of 2015. Black walnut trees in Fort Collins also continued to die rapidly in 2015 from TCD.



Harsh environments and insects and diseases cause damage to trees (Photo: Boyd Lebeda, CSFS)

On a positive note, the emerald ash borer (EAB) has not been confirmed yet outside of the City of Boulder. Because of the eminent threat of EAB, however, communities should be taking stock of the numbers and locations of ash trees within their urban forests

and have a plan in place to deal with possible ash tree mortality in the future.

For those who were wondering why it looked like fall in some neighborhoods in July and August, from cottonwood leaves covering the ground, this was the result of a fungal leaf blight. The unusually wet spring and early summer conditions promoted the growth and spread of leaf fungi known as *Marssonina* and *Septoria* – which cause leaf blights that affects cottonwood and aspen trees. Trees with heavy infections released many of their leaves early. Fire blight on fruit trees was another significant tree pathogen in 2015, also resulting from the moist conditions.

Overall, 2015 was a typical year for trees in Colorado because they struggled with a number of environmental stresses that, as a result, promoted the success of some insects and/or pathogens to cause tree damage. What is perhaps unusual is that the stresses were not because of drought conditions, but rather cold and wet conditions. It is a picture of the resiliency of our trees – they hang in there and keep growing through all these extremes in our Colorado climate.

Big Thompson Canyon Flood Recovery Efforts

In September 2013, massive flooding affected many small communities that border the Big Thompson Canyon. Nearly 8 inches of rain fell in 48 hours near Estes Park, and more than 13 inches fell near Drake. As these communities recover from this devastating event, the National Arbor Day Foundation (NADF) continues to work with the CSFS and other on-the-ground partners to get new trees back in the hands of homeowners who desperately need them.

The 2015 Colorado Community Tree Recovery

Campaign – a partnership between the NADF, CSFS and Big Thompson Conservation District – marks the third year of a multi-year campaign to provide thousands of seedling trees to Colorado residents free of charge to replace trees damaged and destroyed by the 2013 Big Thompson Canyon flooding.

NADF, CSFS and the Big Thompson Conservation District will be holding events in the spring of 2016 to distribute new trees in the affected areas. Distributions focused on residents affected by the flooding in Big Thompson Canyon will kick off April 27. Subsequent distributions will be held through the remainder of April and May. The distributed tree species are being provided by the CSFS Nursery, and will include ponderosa pine, Douglas-fir, quaking aspen, chokecherry, three-leaf sumac, cottonwood, serviceberry and Rocky Mountain juniper. Check out the CSFS Nursery website for more information about seedling trees: <http://csfs.colostate.edu/seedling-tree-nursery/>.

Colorado was the fifth state in which the NADF and its on-the-ground partners established a local state campaign as part of the Community Tree Recovery Program, and is the ninth of 10 individual state campaigns that will take place in the spring of 2016.



Replanting trees after fire and flooding events (Photo: CSFS)

Community Tree Recovery events across the nation are supported by national program sponsor FedEx, which supports communities in need through disaster relief, recovery and environmental sustainability. Financial support for this specific campaign also is being provided by Canon and Davey Tree.

2012 High Park Fire Recovery

In June 2012, Larimer County experienced one of Colorado's largest and most destructive wildfires in recorded history – the High Park Fire. One life and nearly 300 structures were lost, and 87,000 acres were burned during the three-week event.



Removing fire-killed trees and establishing the new forest (Photo: Mike Hughes, CSFS)

Since then, much of the affected landscape has changed. Many grasses, forbs, trees and other plants have naturally re-sprouted in some areas. Most vegetation can be seen in areas that were lightly to moderately affected by the fire. One tree species that has thrived in some areas is aspen. Where there were once a few struggling aspen trees, there are now

thickets and sprouts – some already over six feet tall.

Mother Nature has not been the only one busy since the fire in 2012. Many landowners have been cutting, chipping, stacking and hauling wood from dead trees, and planting burned landscapes. Some also have taken advantage of the Farm Service Agency's Emergency Forest Restoration Program. More than 500 acres have been treated using cost-share dollars associated with the program. These landowners have received financial assistance to harvest dead trees; haul, chip or pile-burn slash; set contour logs using cut trees; and plant CSFS seedlings.

Also, the U.S. Forest Service, along with the Natural Resources Conservation Service and local water districts, sponsored aerial applications of mulch and seed within the fire perimeter on both private and public lands.

One issue that has been particularly troublesome this past year are weeds. Bare ground and good moisture (particularly over the last two years) offer the perfect combination for noxious weeds.

The two that seem most prolific are thistle and mullein. Having an active weed control plan is a good idea for landowners. For more information on post-fire weed control, please contact the Larimer County Weed District at <http://www.larimer.org/weeds/> or the Natural Resources Conservation Service at <http://www.nrcs.usda.gov>.

In Closing

We would like to thank our many customers and cooperators. It is a pleasure to serve and work with you. If you have questions or need assistance with forestry or tree-related issues, please contact us:

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