



State and Private Forestry Fact Sheet

Nebraska 2021



Investment in State's Cooperative Programs

Program	FY 2020 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$203,845
Forest Legacy	\$0
Forest Stewardship	\$188,268
Landscape Scale Restoration	\$699,000
State Fire Assistance	\$1,088,657
Urban and Community Forestry	\$597,358
Volunteer Fire Assistance	\$292,987
Total	\$3,070,115

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

Nebraska's forest resources provide important environmental and economic benefit, such as soil & water conservation, wildlife habitat, wood & specialty forest products, wind protection, and overall aesthetics in the state. Unfortunately, many of the rural woodlands are unmanaged and our community forests are in decline. In Nebraska, there are 1.5 million acres of forest with approximately 489,000 acres of community forest that improve air and water quality, benefit overall storm water management, save energy, and contributes to the "Good Life" in our towns and communities that all Nebraskans enjoy. Stewardship and growth of community forest in Nebraska is key, considering about 2/3 of all Nebraskans live and work inside the boundaries of a community forest. In addition, Nebraska's rural forests include our native forest areas, and conservation plantings such as windbreaks, shelterbelts, and riparian buffers. These rural forests contribute by filtering harmful chemicals & improving water quality, reducing the wind to help keep soils in place while protecting rural homes, farms, ranches, and livestock. At the Nebraska Forest Service (NFS), we continue to generate substantial impacts by implementing, improving and expanding programmatic, technical and financial assistance. In 2020, NFS staff worked with tens of thousands of people and hundreds of communities across the state to address our mission: of enriching lives by protecting, enhancing and utilizing Nebraska's tree and forest resources.

Program Goals

- Ensure that our mission remains relevant to current and emerging needs of our clients and the people of Nebraska, and to clearly articulate our vision and role in meeting those needs.
- Ensure the effective management and stewardship of the NFS, our people, programs, and resources.
- Promote species diversity in both rural and community forests.
- Cultivate partnerships - supporting and enhancing existing partnerships as well as developing new relationships with non-traditional partners. Provide benefits to Nebraskans and the forest of Nebraska by leveraging relationships to effectively and efficiently serve the people of Nebraska.
- Foster an entrepreneurial organization to create an innovative and creative staff that supports program design and implementation.
- Continue to develop Wildland-Urban fuels reduction programs to thin acres around communities and infrastructure, thin to protect lives and thin to reduce costs associated with catastrophic wildfires.
- Provide direct, on-the-ground, technical assistance to woodland owners, agricultural producers, land stewards, critical habitat and high priority landscapes to maximize the overall benefit for the resource and for all Nebraskans.
- Improve the overall health of Nebraska's trees and forests in both urban and rural environments by engaging landowners statewide on the benefits of trees and current issues related to forest health, invasive insects and proper forest management activities
- Address the critical issues including forest health threats, timber management and wildfire.

- Develop markets to help offset cost of management for landowners and communities. Utilize biomass, CLT technology, mass timber, biochar and other technology to maximize utilization.
- Restore forest areas affected by natural disasters and wildfires.

Key Issues

- High fuel load in unmanaged forest areas. These areas are at risk to catastrophic wildfires.
- The encroachment of eastern redcedar into hardwood and coniferous forests. The uncontrolled spread of eastern redcedar into native grasslands
- Emerald ash borer and other invasive insects
- Declining health of community forests due to age and other factors
- Community forests canopy cover is on the decline
- Fuels within the WUI and the expanding acres and homes in the wildland urban interface
- Herbicide drift and the affect on both community and rural forests
- Removal of conservation forests including riparian forest and windbreaks
- Lack of economically viable markets for forest products which leads to a decline in management

Forest Facts and Accomplishments

Selected Facts	Value	FY 2020 Accomplishments	Value
Population	1,826,341	Landowners Receiving Educational or Technical Assistance	960
Acres of Forest Land	1,402,192	Acres Covered by New or Revised Forest Stewardship Plans	32,145
Acres of Nonindustrial Private Forest Land	1,092,000	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	18,428
Number of NIPF Landowners	57,000	Volunteer Fire Departments Assisted	474
Acres of Federal Land Under State Fire Protection	741,247	State Fire Communities Assisted	187
Acres of Private Land Under State Fire Protection	48,342,273	Coop Forest Health Acres Protected	150
Number of Rural Fire Departments	494	Forest Legacy Project Acquisitions	0
Cities and Towns	530	Communities Provided Urban Forestry Program Assistance	94
Forest Based Employment	2,200	Population Living in Communities Provided Urban Forestry Program Assistance	1,177,835
Economic Impact of Forestry (by rank)	34,000,000	Urban Forestry Volunteer Assistance	27,459
State Forestry Budget (All Sources)	5,306,217		

Program Highlights

Agroforestry

National Technical Assistance Agroforestry (NTAA) position, which officially started in July of 2019 continues to serve as the technical leader in coordinating agroforestry responsibilities for the Nebraska Forest Service, NRCS, and, in partnership with National Agroforestry Center (NAC) and three National Technology Support Centers (NTSCs), assuring dissemination of state-of-the-art technologies, and efficient and effective technology transfer to resource professionals across the state and country. In 2020, the NTAA has been the lead on multiple Conservation Practice Standards focused on Forest Farming, Tree/Shrub pruning and Silvopastures. In addition, the NTAA also co-authored the manuscript, "Windbreak utilization in the U.S.: A systematic review of producer-reported benefits, challenges, management activities and drivers of adoption." This manuscript was published with the journal, Agricultural Systems.

Community Forestry and Open Space

Nebraska Forest Service (NFS) Community Forestry staff in collaboration with the Nebraska State

Arboretum, Inc. focused on the sustainable community forest, from landscape to trees, providing Nebraskan's the education and knowledge needed to make sound resource decisions and raise up the next group of land stewards. NFS staff reached 116 communities, providing direct technical support for over 3300 people. NFS staff hosted 41 educational workshops and events and contributed to 38 news articles. One highlight is 182 sustainable landscape projects were completed using 21 Plant Grants and 145 Bloom Boxes, in 65 Nebraska towns. The communities contributing \$2.33 for every dollar spent and 798 local citizens, including 510 youth, donated 4,700 hours of volunteer time.

Conservation Education

In 2020, Conservation Education (CE) like many across the country shifted all workshops to a virtual platform. We hosted 5 workshops including one new mini-workshop, which we hope to turn into a series in 2021. These workshops reached 47 people total including 12 students at UNL in an environmental education course through the University of Nebraska-Lincoln. We also coached two of our volunteer facilitators in hosting virtual workshops and they hosted a combined 5 workshops reaching 98 people. From the onset of the early 2020 challenges, the NFS (CE) team knew that programs and outreach would look completely different for the rest of the year. At the onset of summer, CE reached out to every public library in the state of Nebraska to inquire about partnering with them for their summer reading programs. Since many libraries provide youth and community educational programming, CE felt that these facilities could be a perfect way for CE to reach the youth of Nebraska during the unusual circumstances surrounding COVID-19. CE was able to partner with 10 libraries in the communities across the state to provide free forestry-focused programs that connected storytelling with conservation education while encouraging children and families to safely experience the outdoors. Printable materials and videos were provided for asynchronous publication on library websites and social media pages. Additionally, NFS staff dropped in to the library programs virtually, through zoom, for live delivery of digital programming.

Cooperative Fire Protection

In 2020 the Nebraska Forest Service, in partnership with Nebraska Emergency Management Agency and the State Fire Marshal's Office, created a Type 3 Incident Management Team. This new Incident Management Team will help to better coordinate Nebraskans to provide leadership during extended emergencies including wildfires, floods, and other disasters. The team is rostered with overhead from all three agencies and is able to respond to not only wildland fire incidents, but other natural disasters (flooding, tornados), as well as provide an organizational structure for events as well (training academies and TREX). In 2020, our ability to provide training to VFDs was heavily impacted, and led to the cancellations of many training events. NFS fire staff was still able to conduct 37 training events reaching 82 VFDs through the VFA program and over 25,000 people were reached with fire prevention messaging from their VFD. Our wildland fire training provides National Wildfire Coordinating Group (NWCG) training to local, state, and federal agency personnel. By providing training and equipment to the Volunteer Fire Departments we are building fire suppression capacity within the state and providing means for these department to get out of state to increase their knowledge and abilities, support our regional partners, and provide a source of income for the fire departments. These impacts in coordination with other cooperating agencies, VFDs, and community stakeholders assist in keeping fire small and help mitigate catastrophic wildfire and large scale incidents.

Economic Action

The expertise and assistance provided by Forest Products Utilization (FPU) program staff continues to have impact throughout the state. Even with the challenges of 2020, FPU staff continued to assist with issues and opportunities in Nebraska, FPU staff helped foster wood products development with our biochar research and development program partnering with the Animal Science department at the University of Nebraska- Lincoln (UNL). FPU staff is also on the leading edge of wood products development with our biochar research and development. The Great Plains Biochar Initiative enhanced the development of biochar markets that utilizes woody biomass generated from fuels reduction activities on National Forest System land and other threatened landscapes in Nebraska and Kansas. Education and outreach conducted throughout the project informs businesses, natural resource agencies, and educational institutions, among others of the benefits of biochar in varied landscapes. Staff provided over 660 hours of direct training through organized programming and presentations to more than 440 participants.

Forest Health Protection

In 2020, Forest Health programming trained 782 people on forest health problems and related topics,

produced a monthly newsletter, created a series of invasive pest videos, initiated a study to relate the incidence of Cercospora needle blight in Rocky Mountain juniper to windbreak design, surveyed more than 1,000 trees across the state for EAB or thousand cankers disease, and diagnosed approximately 700 tree problems. To increase capacity for detecting invasive tree pests, Forest Health staff organized two Canopy Tree Pest Detection workshops to train tree care professionals in detection, surveying and pest identification. Emerald ash borer was the main pest covered in these workshops, but other invasive tree pests were discussed as well, including Asian longhorned beetle, thousand cankers disease, and spotted lanternfly. A series of tree pest detector videos were produced with information on these same four pests, which targeted a variety of people with an interest in trees, including green industry, natural resource professionals, and master gardeners.

Forest Legacy

NFS continues to promote and work on the development of potential projects in the State. Currently, there are 3 potential projects in the Pine Ridge and one in the Niobrara Valley all in the planning stage. We are working with the R2 coordinator to determine which projects are worth pursuing due to the unique nature of Forest Legacy Program. The project (containing an oak savanna woodland) in the northeast part of the state is still high on list with discussion continuing with the landowners. NFS has also updated our Forest Action Plan and the priority forest landscapes which now align more with the Forest Legacy Areas in the state.

Forest Stewardship

Nebraska Forest Service (NFS) staff provided crucial forest management planning and implementation to both private and public landowners. Along with more than 860 projects visits conducted by staff, 253 different management plans were developed to facilitate the management of nearly 38,328 acres of Nebraska forests.

Landowner Assistance

The forestry assistance provided by NFS staff facilitates crucial forest management planning and implementation to both private and public landowners. Along with more than 860 projects visits conducted by staff, 253 different management plans were developed to facilitate the management of nearly 38,328 acres of Nebraska forests. Along with direct, technical assistance, Foresters organized seven education programs (reaching 184 people), developed and delivered 53 presentations (reaching 1,608 people) and were a part of 2,709 media pieces. In addition, staff hosted 5 virtual workshops and coached volunteer facilitators in conservation education techniques at 5 virtual workshops and staff provided virtual field trips and offered a virtual outreach library providing over 1300 hours of training.

Landscape Scale Restoration

Nebraska rural communities are the hub of activity for over 50% of the state's population, yet rural community forests are suffering from long term accelerating decline due to a long list of challenges. The Rural Community Forest Advocates (RCFA) LSR grant is a grassroots effort to increase local capacity and action to restore Nebraska's community forests and their associated benefits. RCFA will recruit and equip advocates with the knowledge and tools necessary to restore their RCFs. Partnering with government and educational units, we will provide technical and financial support for RCF management projects statewide. 10 rural communities of highest need will be strategically targeted for more in-depth efforts. In addition, the Planning for Restoration and Resiliency (PRR) LSR grant is a statewide project to improve long-term rural community forest planning in 10 small towns (population <50,000). A US Forest Service study shows Nebraska towns continue to lose canopy, the third fastest in the nation. This project focuses on restoring rural community forests to ensure that small towns get the most out of their trees for years to come. We provide technical support and guidance to small towns to develop a step-by-step Forest Plan that details community-wide planting efforts and management strategies. These Forest Plans strategically maximize environmental and societal benefits, including several Landscape Objectives. Multiple partners, from local Forest Plan teams to non-profit and university partners, will take part in planning activities.

Urban and Community Forestry

Nebraska communities face challenges: water quality, storm water management, and declining overall forest health and habitat loss. The NFS, in collaboration with the Nebraska Statewide Arboretum, Inc. addresses these issues through initiatives aimed at enhancing green infrastructure in communities. NFS

staff implemented through our Greener Nebraska Towns & Trees for Nebraska Towns grants, 31 tree planting projects, 258 landscape projects & 145 bloom boxes impacting over 85 NE towns/communities. Completed project values totaled \$205,536, with 12,830 plants, 680 trees and 78 pounds of native seed planted at parks, main streets, civic centers, schools, trails and homes across the state, directly impacting 3.8 acres of ground.

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