

FROM THE STATE FORESTER

2018 marked another challenging but rewarding year for the Kansas Forest Service. At the pinnacle were direct and indirect assistance to the Agency's rural volunteer fire districts and partners working to suppress over 50 wildfires burning at once in western Kansas. Assisting the state's local fire suppression resources were water drops by agriculture pilots and the Army National Guard, with ground support from the Kansas Forest Service.



Larry Biles, State Forester

Simultaneously, Kansas' Legislative Post Audit Staff were reviewing Kansas' Wildfire Suppression System with a principle focus of examining the work and responsibilities of the Kansas Forest Service, State Fire Marshal Office and the Kansas Division of Emergency Management. The outcome showed little state fiscal support, little agency cohesion, overlapping responsibilities and marginal relationships with local entities including locals not knowing whom to ask, what to ask for, what to expect and receiving insufficient wildfire suppression training.

Paralleling fire was water quality and quantity. Here, 25 research reports confirmed riparian forests to be of great water quality value through slowing soil erosion and absorbing agricultural nutrients. The state Water Authority and Legislature largely ignores the findings of these research reports.

The Agency's riparian and other forestry work, which is a key component of many of our programs, produced 20 miles of improved streambanks on 77 sites at a cost of \$1.5 million. Additionally, 92 enhanced or restored acres of emergent riparian wetlands through mechanical treatment, herbicide, and prescribed burning of Tamarisk contributed to water quality and quantity in the state. Nearly 800 forest management plans directing the implementation of management practices on about 17,000 acres furthered the contribution to water quality. Expanding our riparian work were 110 educational events with over 8,000 farmers, ranchers and youth. The Agency's 62nd annual conservation tree and shrub sale assisted landowners through low-cost plant material to incorporate in their conservation plantings. A total of 2,286 orders led to the growth, sale, distribution and planting of 276,575 tree and shrub seedlings that will all positively influence water quality and quantity.

Compounding some of the Agency's work were insect and disease issues. Emerald ash borer continues to be a concern; since the first detection in 2012, EAB has spread to eight northeast Kansas counties. Following close behind was Pine Wilt which has destroyed most all the state's Scots Pine trees, heavily impacted Austrian Pine resources, and is curbing interest in other pines. Moreover, the state experienced many abiotic issues including flooding and drought. Additionally we are experiencing ever-expanding zones of bush honeysuckle and eastern red cedar.

Lastly, 9,583 newly planted ornamental trees added shade, energy savings and beauty to Kansas' 95 Tree City USA communities. These trees showcase the state's growing interest in public tree management as fostered by the Kansas Forest Service and partners. In addition to adding more trees to the land, these same cities improved the character and safety of their community by correctly pruning 55,483 trees and removing 11,317 dead and dying trees.

In addition, six of the state's institutions of higher education fostered many campus improvement projects by planting, caring for and removing hundreds of trees. Two fitting complements were Westar Energy's, 19th year Tree Line USA achievement and their contribution of nearly \$5,000 in volunteer labor, trees and materials to 11 public projects across the state. Completing this work were 219 technical assists to communities and 50 educational events with over 4,200 attendees.

We look forward to continuing our forestry, wildland fire mitigation and response, and natural resource technical services across Kansas in 2019.

Sincerely,

Larry Biles

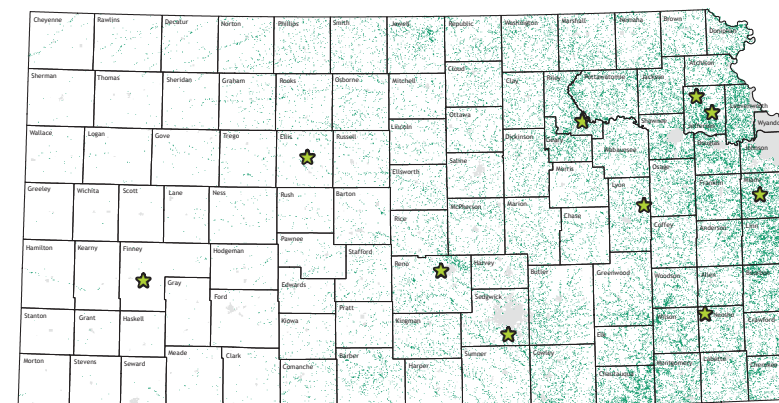
Larry Biles
State Forester



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ABOUT THE AGENCY

Kansas Forest Service serves the landowners, communities, forest and arboriculture industries and citizens of the state through protection and management of forests, woodlands and windbreaks. Our foresters provide guidance to private landowners who own 95% of the forests in Kansas. We are also tasked with serving rural and local fire departments by training, equipping, providing financial assistance and supporting programs in fuel mitigation and public education. We also provide assistance for the prevention of forest, brush and grassland fires.



Above: The Kansas tree canopy based on 2015 imagery.

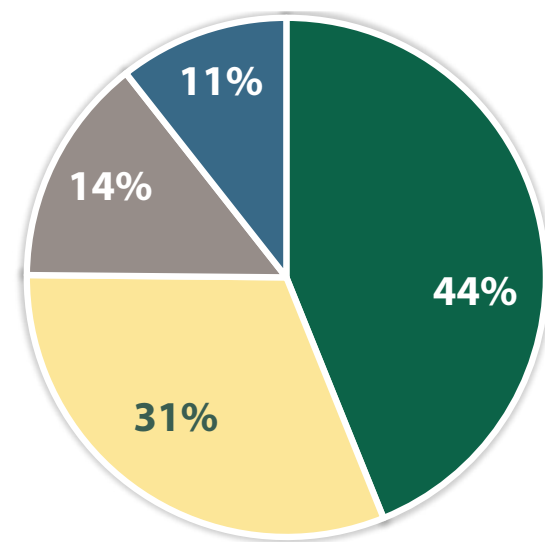
KANSAS FOREST ACTION PLAN

To address problems before they arrive and to target resources efficiently, broad public input was sought using experts best thinking to create the Kansas Forest Action Plan. The plan identifies the top seven threats and opportunities facing Kansas forests, woodlands and related natural resources, high priority areas and strategies for protection and management. This new approach helps the Kansas Forest Service prioritize and allocate funds and resources to produce the highest returns with respect to the ecological, social and economic benefits derived from our forests and agroforestry resources.

Threats and opportunities facing woodlands

1. Lessen threats to forest health
2. Minimize wildfire risk
3. Reduce loss of forestland
4. Increase water quality and quantity
5. Improve biodiversity and wildlife habitat
6. Sustain forest and agroforestry ecosystems
7. Create jobs and economic benefits of woodlands

KANSAS FOREST SERVICE BUDGET 2018



- Federal Funds - \$1,722,679
- Competitive Grants - \$1,226,331
- Fee Income - \$559,511
- State General Fund - \$416,158

The Kansas Forest Service contributes an estimated combined economic impact of \$34,394,562 annually at a cost of \$0.12 per capita.

Thompson, E., & Rosenbaum, D. (2011). *Economic Impact of the Kansas Forest Service*. Bureau of Business Research, University of Nebraska - Lincoln.

kansasforests.org



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WATER QUALITY & QUANTITY

To improve and maintain water quality and quantity in Kansas, we develop and implement programs to assist landowners in establishing and enhancing riparian forests and buffers. A major focus area includes priority watersheds to reduce sedimentation of reservoirs.

What We Did

- Worked to restore the Arkansas River corridor to reduce the decline of the Ogallala aquifer
- Partnered with the Kickapoo Tribe to conduct forest inventory and implement forest projects to reduce streambank erosion and sedimentation in the Delaware Watershed
- Promoted riparian buffer plantings to reduce sedimentation of federal reservoirs which provide water to two-thirds of the state's citizens
- Established a Water Quality Advocate Network to promote peer-to-peer outreach for the promotion of best management practices in priority watersheds including the Delaware, Tuttle Creek, Neosho Headwaters, Middle Neosho, Spring River and Twin Lakes

Results

- Stopped 200,598 cubic yards of sedimentation from entering federal reservoirs in priority watersheds
- Guided the planting of riparian buffers in 2018 that protected 66,096 lineal feet, or 12 miles, of streambank
- Focused riparian restoration above the Quivira National Wildlife Refuge, a RAMSAR Wetland of International Importance
- Removed 2,388 acres of tamarisk from the Arkansas River corridor
- Recruited 28 farmers, ranchers and landowners to the Water Quality Advocate Network

RESULTS ARE IN THE NUMBERS



CONSERVATION & HEALTH

Forests and grasslands provide space for Kansans to enjoy the outdoors and recognize the environmental and conservation benefits of those spaces. We support rural landowners and communities in establishing low-cost conservation plantings and maintaining the health of those plantings.


What We Did

- Offered the 62nd year of low-cost tree and shrub seedlings sales for conservation purposes
- Increased focus on pollinator-friendly and native species
- Expanded seed collection efforts to better utilize regional sources of conservation tree and shrub seeds including black walnut and bur oak
- Promoted planting a diversity of tree and shrub species to increase resiliency of forested lands in Kansas
- Helped mitigate the impact of emerald ash borer and other invasive pests
- Advocated for the removal of invasive plant species, such as Asian bush honeysuckle, and provided tools, outreach and financial assistance for removal

Results

- 276,575 conservation seedlings distributed to 2,286 households across Kansas
- Added nine species to the conservation tree and shrub seedling sale program
- Distributed information on removing Asian bush honeysuckle to 105 K-State Research and Extension County and District offices
- Participated in the peeling of emerald ash borer trap trees at five locations across the state
- Completed 55 community tree inventories across Kansas to prepare them for threats of disease and pests

 **200,598 cubic yards** of sediment stopped from entering federal reservoirs.

 **2,388 acres** of tamarisk removed from the Arkansas River corridor.



FIRE MANAGEMENT


Changes in climate and other factors have increased the risk of wildfires in Kansas, threatening lives and property and potentially causing severe economic impact. We empower fire departments to provide better service to Kansans through training, equipment, risk mitigation and financial assistance.

What We Did

- Provided information, facts and testimony to the Kansas Legislative Post Audit and to the Kansas Legislature on wildland fire management
- Assisted in the management of state and national level wildfires, providing valuable experience to KFS and to coordinating partners and departments
- Donated equipment to fire departments through various state and federal programs
- Administered the Volunteer Fire Assistance cost-share grant to qualifying fire departments and districts
- Provided training to fire departments, fire districts, students, the Kansas National Guard, Prescribed Burning Associations and other local/state agencies

Results

- Kansas Legislature is better equipped to designate a Wildland Fire Management Agency
- From January 4 – September 25, 7 full time and 27 temporary employees assisted in the suppression of wildfire in Kansas and 12 other states, providing 1,175 workdays on the fire line or in a support role
- Issued 28 trucks and other equipment, valued at \$2.2 million, to 21 counties
- Distributed \$394,000 of Volunteer Fire Assistance grant money to 121 fire departments protecting 514 communities
- Delivered 51 separate courses, totaling over 360 hours of instruction, to 700 students from 157 fire departments

 **264 days** KFS fire personnel assisted on national-level incidents in 13 states.

 **\$2.2 million** in trucks and equipment distributed to 21 counties.



COMMUNITY VITALITY

Research has demonstrated that forests have economic, environmental, psychological and aesthetic benefits. We assist local governments, citizen groups and volunteers in planting and sustaining healthy trees and establishing markets and interests for forest products.


What We Did

- Provided technical assistance to Kansas communities
- Supported 95 Tree City USA programs in the state, an Arbor Day Foundation program that supports communities in managing and expanding their public tree numbers
- Facilitated educational outreach programs to encourage communities to manage tree health and utilize forest resources waste
- Provided management recommendations for cities and universities to prepare for and respond to the detection of emerald ash borer
- Supported communities in informed decision making processes in connection to tree health through Tree Boards and volunteers

Results

- Community foresters provided technical assistance to 219 communities
- Facilitated the spending of \$19.3 million across 95 Tree City USA programs
- Benefited 2,037,576 individuals, or 86.5% of the population, across Kansas through technical assistance, outreach and education
- Tree Board members and volunteers logged 27,537 hours managing tree resources and providing advocacy and outreach
- Distributed \$20,000 in grant funds to further the development, promotion, education, and utilization of biochar

 **136 tree and shrub** species in the Demonstration Arboretum.

 **173 communities** mapped in the urban tree canopy project.



RURAL FORESTRY

Farmers, ranchers and other individuals own 95% of the 3.8 million acres of forest, woodlands and windbreaks in Kansas. We support landowners that actively manage and protect those resources on their property for economic, environmental and conservation benefits.

What We Did

- Promoted the renovation and establishment of windbreaks through the Great Plains Initiative 2, a regional effort to assess windbreak conditions and status
- Offered professional forestry services to the people of Kansas to sustain and manage windbreaks, woodlands and forestlands
- Provided assistance and guidance on the maintenance, planting and improvements of forests across Kansas
- Created connections with rural landowners through field days and on-site visits
- Forged partnerships with industry, state and university organizations by providing expertise and outreach and public education events

Results

- Provided professional forestry services to 1,160 landowners
- Wrote 49 long-term comprehensive Forest Management Plans for 8,730 acres
- 722 forestry practice plans were written to implement tree plantings, windbreaks and forest improvement projects on 8,664 acres
- Hosted the 24th annual Fall Field Day in partnership with the Kickapoo Tribe of Kansas
- Contributed expertise to various agricultural and water quality field days

 **276,575 seedlings** distributed in 2018 for conservation plantings.

 **50 active** sawmills in Kansas.



DEVELOPING LEADERS

We develop leaders in our agency and in the audiences we serve. Leaders in our organization are experts in their fields, serving others in their communities and industry. We foster that sense of servant leadership in the individuals we work with by providing opportunities for learning and sharing.

What We Did

- Created a social marketing regional outreach plan through the Great Plains Initiative 2 to engage landowners
- Recruited 28 landowners in priority watersheds to mentor their peers on best management practices for water quality
- Fire personnel assisted and provided leadership on state and national level incidents in 13 states
- Expanded state-wide presence of the Fire Management Program
- KFS staff participated in professional development, industry organizations and served in national and regional leadership roles within professional associations
- Completed the 45th year of arborist training

Results

- Trained 30 Great Plains foresters in social marketing Tools for Engaging Landowners Effectively through Great Plains Initiative 2
- Farmers, ranchers and landowners completed training to become peer mentors in the Water Quality Advocate Network
- Facilitated the participation of individuals from 11 counties on fires nationwide
- Provided forestry training to 3,004 landowners in Kansas
- Hired the first District Fire Management Officer based in Garden City, Kansas
- 265 arborists certified in Kansas through the Arborist Training Course

 **86.5% of Kansans** benefited through technical assistance, outreach and education.

 **28 producers** recruited to the Water Quality Advocate Network.