



Investment in State's Cooperative Programs

Program	FY 2021 Final	
Community Forestry and Open Space	\$0	
Cooperative Lands - Forest Health Management	\$191,724	
Forest Legacy	\$30,000	
Forest Stewardship	\$161,341	
Landscape Scale Restoration	\$294,990	
State Fire Assistance	\$909,110	
Urban and Community Forestry	\$431,623	
Volunteer Fire Assistance	\$133,169	
Total	\$2,151,957	

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

Cooperative Forestry programs are administered and implemented through partnerships between the Nevada Division of Forestry (NDF), USDA Forest Service (USFS) and other private and government entities. These programs promote the health and productivity of Nevada's forests, rangelands, watersheds, communities and economy. We emphasize conservation practices, water resource protection, forest product utilization, wildfire hazard reduction, wildlife habitat enhancement and support of local economies in order to sustain resilient natural landscapes and human health.

Program Goals

- Improve health of Nevada's watersheds, habitats and ecosystems through technical and financial assistance to landowners and land managers
- Promote science-based natural resource conservation, stewardship ethics and best management practices
- Provide technical and financial assistance that results in reduced threats to communities and natural resources from catastrophic wildland fires.
- Support safe and effective wildland fire response to protect human life, property, wildlife habitat, watersheds and other natural resource values.

Key Issues

- · High forest stocking and poor forest health across all land ownerships.
- Inadequate forest products industry and associated impacts on economic viability of vegetation management.
- Hazardous wildfire fuel buildup, invasive species and resulting catastrophic wildfires that impair ecosystem functions, destroy critical habitats and threaten human lives and property.
- Declining urban and community forest health and canopy cover which negatively impacts human health, economic prosperity and environmental quality.
- Riparian system degradation from non-native, invasive species and altered hydrology.
- Species of plants and animals that are endemic, rare and vulnerable to extinction.
- Maintaining consistent and sustainable supplies of high quality water for all uses, values and benefits.
- Climate change induced impairment of ecosystems and mitigation opportunities through natural and working land management.

Forest Facts and Accomplishments

Selected Facts	Value	FY 2021 Accomplishments	Value
Population	2,700,551	Landowners Receiving Educational or	1,241
Acres of Forest Land	10,567,675	Technical Assistance	
Acres of Nonindustrial Private Forest Land	212,000	Acres Covered by New or Revised Forest Stewardship Plans	47
Number of NIPF Landowners	15,000	Acres in Important Forest Resource Areas	32
Acres of Federal Land Under State Fire Protection	60,361,211	Covered by New or Revised Stewardship Plans	02
Acres of Private Land Under State Fire	8,570,823	Volunteer Fire Departments Assisted State Fire Communities Assisted	45
Protection			289
Number of Rural Fire Departments	211	Coop Forest Health Acres Protected	53
Cities and Towns	18	Forest Legacy Project Acquisitions	0
Forest Based Employment	3,131	Communities Provided Urban Forestry	31
Economic Impact of Forestry (by rank)	21	Program Assistance	51
State Forestry Budget (All Sources)	56,870,864	Population Living in Communities Provided Urban Forestry Program Assistance	2,015,244
		Urban Forestry Volunteer Assistance	687

Program Highlights

Community Forestry and Open Space

The Community Forest and Open Space Conservation Program (CFP) provides opportunities for communities to acquire and conserve forests that provide public access and recreational opportunities, protect vital water supplies and wildlife habitat, serve as demonstration sites for private forest landowners and provide economic benefits from timber and non-timber products. NDF continued outreach efforts to private landowners, municipalities, and eligible nonprofits to garner participation in CFP. The program was promoted through the agency's website, direct emails, public service announcements and other methods. There were no eligible landowners that applied for CFP funding in Nevada during the 2021 funding cycle.

Conservation Education

The Conservation Education and Outreach program provides science-based environmental education opportunities to Nevada's citizens. In 2021, Sierra Nevada Journeys was able to proceed with their elementary aged forestry education "Classrooms Unleashed" programming which provided, for each participant, two in-class lessons and a field study experience on wildland fire, drought, water quality and riparian ecosystems. In 2021, 550 students across 23 classrooms were served (funded by a mix of NDF and other sources). Pre- and post-assessments indicate a 40% increase in their awareness and understanding of natural systems thanks to these programs. NDF has been working to expand the program's public engagement by building partnerships with educators and organizations that we previously have not engaged and will improve outreach and accessibility to programmatic grant opportunities in 2022 through strategic planning efforts.

Cooperative Fire Protection

Nevada's state and local fire management agencies protect approximately 9.5 million acres of state and private land. During 2021, over 610 wildfires burned more than 134,136 acres in Nevada, including 50,000 acres in California under Nevada protection. NDF responded to 263 fires, cost-shared on 19, assisted with securing three Fire Management Assistance Grants and incurred suppression costs of \$13.8M. In 2021, NDF maintained cooperative fire protection agreements with 26 fire protection districts in 17 counties, continuing cooperation between state and local fire response and wildfire mitigation. Enhanced coordination with federal, state and local cooperators occurred by attending 69 critical interagency planning/operations meetings. One Type III, two Type IV and one Type VI wildland fire engines were acquired from the USFS through the FEPP program, which were added to the statewide inventory of approximately 530 pieces of equipment. In 2021, allocated funds supported maintenance on multiple existing apparatus used by local cooperators and a Rural Fire Protection Association. NDF held

21 public fire prevention education events both in person and virtual, contacting approximately 16,225 people in 2021. With COVID 19 restrictions lessened, NDF sent 402 personnel through wildfire-related training and provided 15 instructors for interagency trainings. Additionally, 1,788 inmates received wildfire-related training through a partnership with the Department of Corrections. NDF completed 5,507 acres of fuel reduction and resilient landscape projects, improving protection for dozens of communities. Pass-through funds were awarded to at-risk communities with current CWPPs, using an interagency competitive process.

Economic Action

NDF seeks to support local economies, natural resource-based industries and to offset the financial costs of ecosystem restoration by ensuring that land management actions and outcomes produce optimal amounts of goods, services and benefits to local landowners and communities. Increasing value-added products helps reduce air quality impacts through reduced slash burning; removes green waste from local landfills; restores the productivity of forests, rangelands and watersheds; and positively affects climate change goals. As such, NDF's biomass utilization and forest products promotion resulted in a fleet of woodchippers producing chips, some of which are sold at the state conservation nursery for soil stabilization, amendments and weed control mulching. Other portions of the chips are spread on the treatment sites to stabilize soils and reduce erosion. For NDF and other state partners to scale up treatments, NDF worked to renew the Fire and Fuels Good of State contract which enabled state agencies to contract out \$706,000 of work. The NDF Seedbank was granted \$75,000 through the Bureau of Land Management for collection of native plant seed that will be used for native seed increase projects, allowing private industry to scale up native seed production. The Seedbank was also actively engaged in the Nevada Native Seed Strategy working group and Seed Foundation Partnerships to develop funding opportunities for on-going restoration projects throughout the state. The NDF Seedbank sales tend to rise and fall based on wildfire rehabilitation needs in any given year. In 2021, the Seedbank sold a total of 16,270 pounds of seed totaling \$123,000 for restoration projects.

Fire Adapted Nevada Partnership

NDF collaborates with state, federal and local stakeholders to support Nevada communities' efforts to be better prepared to receive, respond to and recover from wildland fires. Fire Adapted Nevada (FAN) aims to create ignition-resistant communities by emphasizing homeowner responsibility and reducing structural ignitability. The FAN initiative adopted two National programs to support these activities--Firewise USA® and Ready, Set, Go! Four more communities received Firewise USA® recognition in 2021 for a total of 11 in Nevada. FAN completed construction of the Community Assessor Tool (CAT) in 2021 that will be used to support a statewide, county-level Community Wildfire Protection Plan update and Firewise USA support beginning in 2022. FAN developed a coordinating group that has strong partnerships and participation with the State, BLM, USFS, County and local officials which has resulted in the inter-agency coordination of FAN to assist with the program's growth. FAN has become a member of the Fire Adapted Communities Learning Network, FAN has joined forces with other western States to leverage the collective learning environment to better identify, understand, and implement shared solutions with proven efficacy to overcome the community wildfire mitigation challenges. FAN's 2021 accomplishments will allow NDF and its interagency partners to be a part of Western Region implementation of the National Cohesive Wildland Fire Management Strategy.

Forest Health Protection

The Forest Health Program (FHP) provides technical assistance to the citizens of Nevada on forest health issues. Technical assistance includes site visits, management recommendations, management plans or stewardship plans, project implementation, surveys and grant funding for forest health management or forest health monitoring. The USFS conducted an aerial survey of the Snake Range in Eastern Nevada. The most widespread impacts in the Snake Range were to the pinyon pine woodlands with 1,834 acres being impacted by pinyon needle scale and 1,232 acres infested by pinyon ips. Mountain pine beetle infestations totaled 386 acres, fir engraver infested 122 acres, Douglas-fir beetle infected 11 acres, and drought caused mortality on 14 acres. 2020 was the driest year on record in Nevada and with it an increase of acres impacted by forest pests was evident in 2021. In the Carson Range, moderate outbreaks of pine engraver occurred, and pinyon needle scale continued to impact large amounts of woodlands in the Pine Nut Mountains. Oystershell scale was detected for the first time in Nevada on aspen in Reno, and the development of a monitoring program will determine how widespread the occurrence has become.

Forest Legacy

The Forest Legacy Program (FLP) provides opportunities to protect privately owned forest lands through conservation easements or land purchases. Protection of private forests through FLP maintains a multitude of public benefits, including outdoor recreation, clean and abundant drinking water, habitat for fish and wildlife and forest product harvesting. In 2021, the Forest Legacy proposal submitted in 2020 was awarded for \$4.135 million. This project will conserve 500 acres of forested land along the Eastern Sierra Nevada Front in Washoe, Carson City and Douglas counties. The project encompasses three private land parcels owned by different families. The families were notified in late 2021 that the funding is coming. Collaborators on the project include the Nevada Land Trust and USFS. These acquisitions will protect these lands from development encroachment into the future. It is expected to take two years to close the project. The coordinator continues to work with interested state partners, local governments, non-profit organizations, and private landowners to develop eligible projects in the Northern and Western Regions of Nevada. Additional outreach efforts include highlighting the program on the agency's website, social media accounts and through press releases. In 2021, the Program Coordinator participated in the Western States Review Panel as one of six state government representatives. An article was published about the Ash Canyon Forest Legacy project in the Western Forestry Leadership Coalition's September 2021 publication.

Forest Stewardship

The Forest Stewardship Program (FSP) works in partnership with cooperative extension agencies and conservation districts to connect private landowners with the information and tools they need to manage their forests and woodlands. Actively managed forests provide timber, fuel wood, wildlife habitat, watershed protection, recreational opportunities and many other benefits. NDF staff continue to publicize the Forest Stewardship and Rural Forestry Assistance programs to local conservation districts and other interested landowners and groups throughout the state. NDF staff develop management plans for all project work on properties greater than 2 acres in size, which are entered into the Stewardship Mapping and Reporting Tool (SMART) national database. Two new Stewardship plans covering 47 acres were created in 2021 and a total of 15,166 acres across the state have active Stewardship Management plans. Management Plan monitoring was completed on six randomly flagged properties for a total of 1,754 acres in 2021; all properties were conducting suggested activities or had already completed them. Stewardship funds help support two plant conservation nurseries in the state. The nurseries assist in growing plant stock to rehabilitate riparian, wildlife, burnt and other degraded lands across the state; they provide a valuable resource for land stewardship activities. State conservation nurseries produced a total of 40,792 plants for restoration and revegetation projects throughout the state.

Landowner Assistance

During 2021, NDF and collaborating organizations (sub-grantees) provided 1,241 landowners and agency partners with technical assistance (287) or education (954) on issues related to forest health, wildland fire hazard reduction, post-fire rehabilitation, conservation plant materials, tree care, protected species management, noxious weed education and removal and other stewardship related topics. These contacts ranged from shorter on-site assessments, verbal education and written recommendations to longer engagements, including authored stewardship plans, permits, compliance consultations, grant assistance and treatment implementation.

Landscape Scale Restoration

In 2021, LSR funding was awarded to NDF to implement the Walker River Riparian Rehabilitation project through the Smith Valley Conservation District. The 2020 Upper Diamond Peak project completed a total of 32 acres of hand-thinning by North Lake Tahoe Fire Protection District. The 2019 Meadow Valley Riparian LSR Project worked with 15 landowners along the Meadow Valley Washoe to completed herbicide treatments on 1,500 acres to control noxious weeds, 3.6 miles of pole plantings to restore cottonwood gallery riparian forests, 400 acres of prescribed burns to control noxious weeds and decrease fire risk, 125 acres of seeding to out-compete invasive species and to restore fire-adapted native vegetation. The 2018 Truckee Meadows Weed project resulted in the removal of 170,492 pounds of weeds with the help of 1,560 volunteers. Students were educated virtually and in person; 176 students were reached. Several educational community outreach events occurred that engaged 204 people. An invasive and noxious weeds educational outreach campaign on social media received 16,275 impressions. Washoe County began activities in Feb 2021 and they have completed the following: 50 acres of weed inventories; 297 acres of herbicide treatment; targeted grazing, mowing and/or hand pulling

on 56 acres; restoration via plantings and seeding (plus irrigation) on 5 acres. The 2016 Nevada Pinyon-Juniper (PJ) Encroachment project continued to expand its impact by forming new partnerships through the local conservation district, partnering with the US Fish and Wildlife Service "Partners" program and the Nevada Department of Wildlife to reduce PJ encroachment into sagebrush habitats, improve riparian health and reinvigorate sagebrush ecosystems through eradication of decadent shrubs on 86 acres. A booklet entitled "Selecting and Maintaining Trees for Urban Desert Landscapes" was finalized by University of Nevada for the "Optimizing Urban Tree Canopy Coverage under Water Conservation" FY16 LSR.

Nevada Shared Stewardship

Nevada celebrated the two-year anniversary of Nevada's Shared Stewardship Agreement execution, a multi-agency strategy focused on reducing the risk and impacts of catastrophic wildfire to help protect Nevada families, communities and the natural environment. The Agreement establishes a framework for state and federal public land and natural resource agencies to work collaboratively to create healthy forests and rangelands that are more resistant and resilient to wildfire, drought, invasive species and other ecological impacts exacerbated by climate change. The Agreement is a collaborative effort among numerous state and federal land agencies, including the Nevada Department of Conservation and Natural Resources, Nevada Department of Wildlife, Nevada Department of Agriculture, U.S Forest Service, U.S. Bureau of Land Management, U.S Fish and Wildlife Service, Tribes and the Natural Resources Conservation Service. An overarching goal of the agreement is to increase the pace and scale of forest and rangeland health projects statewide. In just the last two years under the Agreement, state and federal land agencies in Nevada have successfully carried out critical forest and rangeland health projects on more than 450,000 acres in areas that pose the greatest risk of catastrophic wildfire. This is a 47% annual increase compared to previous years, and in 2021, for the first time in over a decade, more acres were treated than burned by wildfire in Nevada. Together, the interagency team developed a Strategic Plan, established 13 priority landscapes, and has formed Executive, Technical and Local Landscape working groups to facilitate management of natural resources across the State by focusing on three core components: safe and effective fire suppression, fire-adapted communities and wildfire-resilient landscapes.

NV Energy Wildfire Risk Management Partnership

Utilizing funding from Senate Bill 508 (2019), NDF and NV Energy (NVE) created a public-private partnership focused on protecting communities, critical infrastructure, wildlife habitat and natural resources. NDF sub-granted most SB 508 funds to local government fire districts for implementation of various wildfire prevention treatments. Using SB 508 funds, NDF, NVE and local fire protection districts have completed the following since 2019: 157 fuel reduction projects, treating more than 9,000 high-risk acres statewide; removed vegetation under more than 8,217 power poles (i.e. pole grubbing); hired additional NDF support staff to facilitate project planning and compliance, as well as fiscal management; hired 170 qualified firefighters at the fire protection district level to implement fuel reduction/mitigation/prevention projects and be available for initial attack wildfire response; responded to 58 fires in Nevada and California; and purchased and activated 19 Type 5/6 engines, 6 chip trucks with public messaging on side to raise awareness, 5 tree chippers, 1 tactical water tender, 6 masticators, 2 tracked chippers, 2 tractors with mowers, 8 UTV herbicide spray units, 1 water supply trailer, and 13 crew trucks. The entire \$5 million one-shot appropriation from SB 508 has been sub-granted or allocated to projects in high fire risk communities around the state. NDF anticipates that the funds will be fully executed by the deadline of June 2023.

Urban and Community Forestry

The Urban and Community Forestry Program (U&CF) promotes active management of urban forest resources through fostering education of green industry professionals, delivery of management tools for canopy-related assessments, providing technical and financial assistance to municipalities and tree canopy focused organizations and by providing technical assistance to citizens. The program area supported Arbor Day events throughout the state and was awarded a State Urban Forest Resilience project to bolster the City of Las Vegas' tree "grow up" support program. This program will aid the selection, production and out-planting of rarely utilized tree species through methods that increase growth rate, tree health and resilience. The goal is to provide larger, more beneficial trees to underserved areas. Other 2021 activities include support of the return of "Desert Green", Nevada's largest green industry training workshop; providing 100 trees for restoring the forest canopy at the campground at Big Bend State Recreation Area; developing new sub-grant partnerships, including one with Desert Research

Institute to evaluate methods to increase business engagement and support of tree planting and maintenance; and a sub-grant to develop Nevada's first website clearinghouse for Nevada specific tree care information and training, connecting organizational resources and events and producing site and region specific training video content. NDF continued to sponsor and support the Tree City USA program in Nevada and coordinate the renewal of the 12 currently qualified cities and two Tree Campuses. NDF supported the recruitment of more municipalities and entities to join the program.

Contact Information

Nevada Division of Forestry



Kacey KC State Forester 2478 Fairview Drive Carson City, NV 89701 775-684-2522 kaceykc@forestry.nv.gov

US Forest Service Intermountain Region

Tim Garcia Director, State & Private Forestry USDA Forest Service 324 25th Street Ogden, UT 844401 406-329-3250 timothy.p.garcia@usda.gov