



Investment in State's Cooperative Programs

Program	FY 2020 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$244,000
Forest Legacy	\$25,000
Forest Stewardship	\$132,633
Landscape Scale Restoration	\$300,000
State Fire Assistance	\$547,348
Urban and Community Forestry	\$220,127
Volunteer Fire Assistance	\$132,124
Total	\$1,601,232

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 2020 Accomplishments	Value
Population	2,700,551	Landowners Receiving Educational or	913
Acres of Forest Land	10,607,454	Technical Assistance	
Acres of Nonindustrial Private Forest Land	212,000	Acres Covered by New or Revised Forest Stewardship Plans	26
Number of NIPF Landowners	15,000	Acres in Important Forest Resource Areas	25
Acres of Federal Land Under State Fire Protection	20,920,000	Covered by New or Revised Stewardship Plans	20
Acres of Private Land Under State Fire	9,500,000	Volunteer Fire Departments Assisted	164
Protection		State Fire Communities Assisted	16
Number of Rural Fire Departments	211	Coop Forest Health Acres Protected	361
Cities and Towns	18	Forest Legacy Project Acquisitions	0
Forest Based Employment	2,961		17
Economic Impact of Forestry (by rank)	21	Communities Provided Urban Forestry Program Assistance	17
State Forestry Budget (All Sources)	53,580,673	Population Living in Communities Provided Urban Forestry Program Assistance	1,822,615
		Urban Forestry Volunteer Assistance	0

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. NDF produced a GIS map for the Lake Tahoe Basin, showing qualifying private properties in Nevada, that will be used to target landowner outreach in future years. There were no eligible landowners that applied for CFP funding in Nevada during the 2020 funding cycle.

Conservation Education

The Conservation Education and Outreach program provides science-based environmental education opportunities to Nevada's citizens. In 2020, conservation education modules for students and teachers throughout the state were canceled due to COVID-19. A sub-grant is being awarded to the Sierra Nevada Journeys (SNJ) conservation education program as they adapt their program to meet new COVID-19 protocols in 2021. Conservation Education funds were used in 2020 for an educational display at the Sparks Museum and Cultural Center that focused on the history of NDF's role in wildfire management, land stewardship, landscape restoration and practical approaches for natural resource conservation. The displays provided technical examples of land management challenges related to forest health, post-wildfire soil conservation, protecting communities from wildfire, the loss of sagebrush habitats and invasive species. Contacts for NDF staff were provided so the public could seek additional information not provided in the display and numerous handouts. NDF, SNJ and the Southern Nevada Conservancy reinvigorated the Project Learning Tree steering committee, which will be active in 2021.

Cooperative Fire Protection

Nevada's state and local fire management agencies protect approximately 9.5 million acres of state and private land. During 2020, over 800 wildfires burned more than 291,000 acres in Nevada and NDF responded to 253 fires, cost-shared on 22, assisted with securing five Fire Management Assistance Grants and incurred suppression costs of \$5.1M. In 2020, NDF maintained cooperative fire protection agreements with 25 fire protection districts in 16 counties, continuing cooperation between state and local fire response and wildfire mitigation. Enhanced coordination with federal, state and local cooperators occurred by sending 149 staff to critical interagency planning/operations meetings. A Type VI wildland fire engine, acquired from the USFS through the FEPP program, was added to the statewide inventory of

approximately 421 pieces of equipment. In 2020, allocated funds supported maintenance on multiple existing apparatus used by local cooperators and a Rural Fire Protection Association. NDF held 10 public fire prevention education events, contacting approximately 1,519 people during the first quarter of 2020 prior to the establishment of the COVID-19 pandemic. Due to the pandemic, additional outreach events for the remainder of the year were canceled. COVID-19 also caused significant reduced firefighter and first responders training. NDF sent 76 personnel through wildfire-related training and provided 23 instructors for interagency trainings. Additionally, 723 inmates received wildfire-related training through a partnership with the Department of Corrections. Despite limits in field implementation capacity and staffing due to COVID-19, NDF completed 4,745 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 by ensuring that land management actions and outcomes produce optimal amounts of goods, services and benefits to local landowners and communities. Increasing valueadded products helps reduce air quality impacts through reduced slash burning; removes green waste from local landfills, offsetting treatment costs; and positively affects climate change goals. Utilization of wood harvested from forest restoration and fuel reduction projects was reduced in 2020, primarily because of the restrictions on crew work associated with COVID-19. NDF had a slow year for firewood sales, selling only two cords valued at \$100, although 38 cords were donated to the public. The NDF Seedbank sales tend to rise and fall based on wildfire rehabilitation needs in any given year. In 2020, NDF sold a total of 15,078 pounds of seed at a value of \$100,215.

Fire Adapted Nevada (formerly Nevada Network of Fire Adapted Communities)

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! Seven communities received Firewise USA® recognition in 2020.

FAN was launched at a virtual summit with nearly 200 participants. Video presentations are available to view on a website hosted by the University of Nevada, Reno Cooperative Extension's Living with Fire program. The summit featured renowned speakers including Dr. Jack Cohen, USFS (Ret.), Program Managers from National Fire Protection Association-Firewise USA, International Association of Fire Cheifs-Ready, Set, Go! and Fire Adapted Communities Learning Network (FAC Net). Nevada Senator Catherine Cortez Masto provided a state and national policy update and the Fire Adapted Colorado Executive Director provided a workshop on their Community Ambassador approach.

FAN began construction of the Community Assessor Tool (CAT) that will be used to support a statewide, county-level Community Wildfire Protection Plan update beginning in 2021. A strong partnership with the BLM has resulted in the inter-agency staffing of FAN to assist with the program's growth.

Through increased involvement and alignment with FAC Net, 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 2020 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

NDF provided technical Forest Health Protection assistance to 10 cooperators that included private landowners, one state park and two county parks. Assistance resulted in recommendations, treatments and improved conditions on 50 acres. Technical assistance was also provided to one state and two county parks. Forest pest control projects on private lands addressed conifer encroachment in aspen stands, tamarisk eradication in riparian woodlands and hazard tree removal in state and county parks. Ongoing post-fire restoration work continued and will be completed in Big Bend State Park for a total of 230 acres to be rehabilitated.

Cooperative bark beetle monitoring continued in the Spring Mountains and the Carson Range, which included participation from Nevada Department of Agriculture, USFS and Mt. Rose Ski Resort.

Populations in trapping areas remained mostly at endemic levels, except in the Carson Range. Approximately 2.7 million acres were monitored during the annual Aerial Detection Survey and Monitoring Program conducted in portions of central and all of western Nevada. Mountain pine beetle impacted 3,500 acres with moderate outbreaks in the Carson range, and pinyon needle scale impacted 4,400 acres in the Pine Nut mountains. Aspen defoliation from the non-native satin moth decreased again in the same areas as 2019, with defoliation intensity averaging 30%. Since detection surveys were limited in 2020 due to COVID-19 restrictions, damage estimates, at 14,600 acres, are likely low and therefore not fully representative of statewide conditions. Limited site visits and statewide travel resulted in the documentation of increased damage in the Jarbidge Mountains, Ruby Mountains and Schell Range.

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 2020, the Coordinator worked with interested state partners, local governments and private landowners to develop eligible projects in the Northern and Western Regions of Nevada. Specifically, NDF worked with the Nevada Land Trust, Carson City Open Space and three local landowners to submit a combined Forest Legacy application for three projects. If awarded, these projects will conserve 500 acres of forested land along the Sierra Nevada Front in Washoe, Carson City and Douglas counties. Additional outreach efforts included highlighting the program on the agency's website, social media accounts and through press releases. In 2020, the Program Coordinator participated in the Western States Review Panel as one of six state government representatives. Nevada's sole existing project, the Ash Canyon Forest Legacy property, was monitored as required and the 5-year self-certification statement was completed. This included the securing of the deed held by Carson City. An article was produced about the Ash Canyon Forest Legacy project, which will appear in the Western Forestry Leadership Coalition's Spring 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 were created in 2020 and a total of 15,507 acres across the state have active Stewardship Management plans. The NDF Advisory Committee held virtual meetings in April and October. The meetings focused on reviewing project preproposals submitted to NDF for the Landscape Scale Restoration grants and discussions about how NDF could improve its outreach and assistance provided through the Stewardship Program. Management Plan monitoring was not completed for 2020 due to COVID-19 restrictions. 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 54.083 plants for restoration and revegetation projects throughout the state.

Landowner Assistance

During 2020, NDF provided 913 landowners and agency partners with technical assistance (205) or education (708) on issues related to forest health, wildland fire hazard reduction, post-fire rehabilitation, conservation plant materials, tree care, protected species management 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 2020, LSR funding was awarded to NDF to implement the Upper Diamond Peak Hazardous Fuels Reduction and Forest Restoration Project. Hand-thinning on 65 acres of steep slopes will begin in the Spring of 2021 with North Lake Tahoe Fire Protection District fire crews.

The 2019 Meadow Valley Riparian LSR Project manager worked with 11 landowners to implement weed control and riparian restoration treatments and they have completed a scoping meeting with two State Parks that will be treated. Archaeological clearances and noxious weed inventories were completed and entered into a GIS databases for treatment planning.

The 2018 Truckee Meadows Weed project resulted in the removal of 209,608 pounds of weeds with the help of 1,747 volunteers that contributed 5,850 volunteer hours. Four-hundred and eighty students were educated on the Weed Warrior Curriculum in 23 classrooms across Reno. Several educational community outreach events occurred that engaged 486 people. An invasive and noxious weeds educational outreach campaign on social media received 32,992 impressions.

The 2016 Nevada Pinyon-Juniper (PJ) Encroachment project manager monitored photopoints and vegetation across included properties, conducted weed surveys, wrote treatment plans, rehabilitated beaver dam analogues in the watercourses, thinned 10 acres of PJ to reduce fire risk around structures and improve forest health, treated 10 acres of noxious weeds, repaired fences to protect riparian corridors from grazing and destruction from the over-capacity feral horse population and installed "sagebrush caches" into sparsely vegetated areas to facilitate sagebrush establishment. The project area was expanded by 80 acres in a multi-agency partnership in 2020.

Optimizing Urban Tree Canopy Coverage under Water Conservation Programs 2016 project is in the final review and draft for publication of the irrigation handbook.

NV Energy Wildfire Risk Management Partnership

In 2020, NDF entered into a \$5 million, 3-year contractual partnership with NV Energy (NVE), a primary utility provider throughout Nevada. The contract enables NDF and local fire protection district partners to reduce wildfire risk along critical utility corridors and within high risk communities. The purpose of this partnership is to further common risk reduction goals and increase capacity among the partners. Senate Bill 508 (2019) allocated \$5 million in funding to NDF for the purposes of wildfire prevention, mitigation and rehabilitation. These state funds required a dollar for dollar match, which was satisfied by the NVE contractual partnership. NDF has utilized the combination of NVE and state funds to scale up vegetation management and hazard risk reduction in priority areas identified collectively by NVE and NDF. Additionally, NDF has currently entered into further sub-agreements with five local fire protection entities to pass through funds to assist with local capacity building and risk reduction efforts. This included the acquisition of fuel mitigation equipment, staffing, supplies and other necessary resources. Two of the fire protection district partners have treated over 100 acres surrounding critical infrastructure and associated landscapes. NDF successfully removed approximately 150 hazard trees along the primary powerline that serves communities in the Spring Mountains in Southern Nevada. NDF resources completed additional work along three miles of NVE transmission infrastructure in the Mt. Rose area of Washoe County, providing increased protection from potential ignitions. At least three additional local sub-agreements are currently being negotiated to be implemented in 2021. Hundreds of additional acres of treatment using these funds are in the planning stages for implementation by all cooperators involved during 2021.

Sagebrush Ecosystem Program and Technical Team

NDF provides staff to the Sagebrush Ecosystem Technical Team (SETT), an interdisciplinary team addressing sagebrush ecosystem conservation and greater sage-grouse (GRSG) threats, at the direction of the Governor's Sagebrush Ecosystem Council. In 2020, SETT focused on the Nevada Conservation Credit System (CCS), a compensatory mitigation program for large-scale disturbances impacting greater sage-grouse habitat. With a regulation now in place requiring the CCS to be used for mitigation in Nevada, NDF staff assisted with CCS implementation, which included seven mitigation transactions during 2020. These transactions were established to offset debits associated with large-scale disturbances, which accounted for 1,078 credits transferred and conservation of nearly 4,500 acres of high value GRSG habitat from five private land credit projects for a minimum of 30 years.

In 2020, four new credit projects, accounting for approximately 25,000 acres of habitat, were awarded seed funding to begin credit projects with approximately \$750,000 in state funds. These funds were used to determine the credits available for mitigation offsets from quantification of habitat quality and quantity. The funds were also used to develop management plans and to implement habitat improvement efforts. Funds are expected to be returned to the state when credits are sold for mitigation. All 17 credit project proponents from previous years submitted their annual monitoring and management reports, which serve

to ensure long-term durability of projects. These projects are predominantly focused on stewardship actions and preservation, but also have elements of riparian and meadow improvement, removal of encroaching pinyon-juniper, weed treatment actions and improved grazing practices, among others. Significant treatments were minimal in 2020 in part due to the COVID-19 pandemic.

Urban and Community Forestry

The Urban and Community Forestry Program (U&CF) promotes active management of urban forest resources through delivery of management tools for canopy-related assessments, fostering education of green industry professionals and providing technical and financial assistance. The U&CF Program hired a new Coordinator in January 2020. However, COVID-19 issues slowed U&CF Program progress and that decline is reflected in 2020 accomplishments. Many NDF U&CF sponsored events (the Annual Desert Green event in Las Vegas and multiple Arbor Day Events) were canceled due to COVID-19 concerns and restrictions. The U&CF Program funded a tree planting and Arbor Day celebration in Carson City (25 trees planted behind the Carson-Tahoe Cancer Center) and in West Wendover (25 trees planted). NDF sponsors and supports the Tree City USA program in Nevada and coordinates the renewal of the 12 currently qualified cities, while also supporting the recruitment of more cities to join the program. The University of Nevada, Las Vegas (UNLV) and University of Nevada, Reno (UNR) both continued their qualifications as Tree Campus USA's and were recognized. The U&CF Program will be reaching out to health care facilities to encourage participation in the Arbor day Foundation-Tree Campus Healthcare program in 2021.

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