



2020 Annual Report to the Nevada Legislature

Fire Prevention and Forest Health in the Nevada portion of the Lake Tahoe Basin



Background

This update is produced in accordance with NRS 528.150, and was a recommendation of the California-Nevada Fire Commission following the 2007 Angora Wildfire. This is the ninth update, and provides a listing of activities and accomplishments of the State and Federal land management agencies and the two fire protection districts in the Nevada portion of the Lake Tahoe Basin as defined by NRS 528.150. The reader is referred to the original report, produced in 2009, and the subsequent updates for documentation of activities and accomplishments previous to this annual update. Click [here](#) to view those documents.

Forest restoration and wildfire hazard reduction/prevention activities are ongoing activities carried out by several entities at Lake Tahoe. In the Nevada portion of the Lake Tahoe Basin, those entities are Nevada Division of Forestry (NDF), Nevada Division of State Lands (NDSL), Nevada Division of State Parks (NDSP), USDA Forest Service - Lake Tahoe Basin Management Unit (USFS/LTBMU), North Lake Tahoe Fire Protection District (NLTFPD), Tahoe-Douglas Fire Protection District (TDFPD), and the Tahoe Regional Planning Agency (TRPA). Following passage of the White Pine County Conservation, Recreation, and Development Act of 2006, a 10-year Multi-Jurisdictional Basin-wide plan was developed by the agencies listed above (updated in 2014), along with several California Agencies, to direct fuel reduction planning and implementation. Since then, availability of federal funds through direct Forest Service Grants, the California Grant Clearing house, the Southern Nevada Public Land Management Act (SNPLMA), and other sources has led to sustained annual accomplishments in wildfire hazard reduction/prevention by responsible agencies. Accomplishments by these agencies and non-profits include coordinated planning for wildfire hazard reduction/prevention, fuel reduction on thousands of acres since 2007, coordinated public information campaigns, electronic tracking of progress, and modifying and streamlining the regulatory environment.

2020 Accomplishments

Many agencies, organizations and individuals contributed to the communication of vital fire safety and natural resource conservation or restoration information as well as to the planning and implementation of fuels reduction and ecosystem restoration projects in 2020. The 2020 report update maintains the format provided by NRS 528.150.

NRS 528.150 Report concerning fire prevention and forest health in Lake Tahoe Basin; contents of report.

1. On or before January 1 of each year, the State Forester Firewarden shall, in coordination and cooperation with the Tahoe Regional Planning Agency and the fire chiefs within the Lake Tahoe Basin, submit a report concerning fire prevention and forest health in the Nevada portion of the Lake Tahoe Basin to:

(a) The Legislative Committee for the Review and Oversight of the Tahoe Regional Planning Agency and Marlette Lake Water System created by [NRS 218E.555](#) and to the Director of the Legislative Counsel Bureau for transmittal to the Legislature;

(b) The Governor;

(c) The Tahoe Regional Planning Agency; and

(d) Each United States Senator and Representative in Congress who is elected to represent the State of Nevada.

2. The report submitted by the State Forester Firewarden pursuant to subsection 1 must address, without limitation:

(a) **The status of:**

(1) **The implementation of plans for the prevention of fires in the Nevada portion of the Lake Tahoe Basin, including, without limitation, plans relating to the reduction of fuel for fires;**

(2) **Efforts concerning forest restoration in the Nevada portion of the Lake Tahoe Basin; and**

(3) **Efforts concerning rehabilitation of vegetation, if any, as a result of fire in the Nevada portion of the Lake Tahoe Basin.**

(b) **Compliance with:**

(1) **The goals and policies for fire prevention and forest health in the Nevada portion of the Lake Tahoe Basin; and**

(2) **Any recommendations concerning fire prevention or public safety made by any fire department or fire protection district in the Nevada portion of the Lake Tahoe Basin.**

(c) **Any efforts to:**

(1) **Increase public awareness in the Nevada portion of the Lake Tahoe Basin regarding fire prevention and public safety; and**

(2) **Coordinate with other federal, state, local and private entities with regard to projects to reduce fire hazards in the Nevada portion of the Lake Tahoe Basin.**

Accomplishments - Nevada portion of Lake Tahoe

NRS 528.150 requires the Nevada State Forester Firewarden to prepare a report concerning fire prevention and forest health in Lake Tahoe Basin.

(a) The Status of:

1. The implementation of plans for the prevention of fires in the Nevada portion of the Lake Tahoe Basin, including, without limitation, plans relating to the reduction of fuel for fires

Nevada Division of Forestry

The Spooner Front Country Project is a multi-phased project that includes the construction of a new administrative structure and the reduction of fuel around the new structure and within the surrounding landscape. Phase one of the project was started in 2020, which includes a defensible space and fuels management plan that was written and approved by the State Fire Marshall's office and TRPA for this unit of Lake Tahoe Nevada State Park. Implementation of the defensible space and fuels management plan also occurred and included clearing along fire lanes for access and defensible space around the construction site for the planned new park entrance station and headquarter facility. A total of four acres were treated, generating approximately 100 cords of fuelwood and 750 cubic yards of chips. Future phases will include the construction of the facility as well as thinning and fuel reduction in management units in the broader landscape beyond the 100-foot defensible space that was treated in 2020.

Nevada Division of State Lands

A total of two parcels were treated by hand thinning, dead tree removal, or snow damaged riparian vegetation cleanup. Fuel remains in burn piles on some parcels and need implementation of prescribed fire to complete the treatment. Vegetation management and forest restoration are ongoing components of the overall maintenance of the agency's conservation areas on the east shore of Lake Tahoe. However, due to a vacancy of the Forester position for most of the year, the agency was limited in treatment efforts. A portion of the work was funded by Southern Nevada Public Land Management Act (SNPLMA) Round 15.

Tahoe Douglas Fire Protection District

The TDFPD provided chipping services to 162 residential properties. In addition, the District's crews spent 14 days in seven different neighborhoods creating and maintaining defensible space with their "Community Workday" program. Two hundred and eighty tons of biomass was disposed of with the "Compost Your Combustibles" program. This program allows homeowners to dump their pine needles, slash, and brush free of charge. The District and Tahoe Refuse haul and disposed of the biomass free of charge. Tahoe Douglas FPD performed project implementation only on the California side of the basin and not the Nevada side in 2020.

USFS Lake Tahoe Basin Management Unit

A hand thinning contract was secured by the US Forest Service in 2019 that resulted in 172 acres of forest thinning within the wildland urban interface at Incline Village in 2020. Additionally, 55.5 acres of slash piles were burned in the Spooner Summit area this year.

North Lake Tahoe Fire Protection District

NLTFPD's implementation work is in alignment with the projects described within the 2015 Community Wildfire Protection Plan for Lake Tahoe Basin. These projects also adhere to the Lake Tahoe Basin - Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy that was created by the Tahoe Fire and Fuels Team partner agencies and published in August 2014. In 2020, NLTFPD began to implement SB 329 (2019) and a crew was re-established to address fire hazards along powerline corridors.

Each year the agency creates an Incident Action Plan (IAP) to guide project work throughout the year. The IAP for NLTFPD is compiled with IAPs from partner organizations of the Tahoe Fire and Fuels Team (TFFT) to create a more comprehensive action plan for fuels reduction in the Lake Tahoe Basin. The IAP for NLTFPD for 2020 outlines objectives for completing a base level of defensible space inspections and chipping requests for the year. It also outlines where hand thinning, pile burning, and understory burning will take place. Crews work to complete items in the IAP, as well as respond to wildland fire calls. In 2020, this included treatments taking place as part of our Incline Village Prescribed Fire Project (SNPLMA 15), the Nevada Regional Fuels Reduction Project (SNPLMA



Completed fuels reduction as part of the Lake Tahoe Powerline Resilience Corridor Project.

16), and the implementation of Senate Bill 329 (2019) – Lake Tahoe Powerline Resilience Corridor Project. Smaller project work, including fuels management within pump station and water tower properties, was funded by the Incline Village General Improvement District (IVGID). The District works to implement plans to ensure effective water delivery to businesses and residents, and fire flow water to hydrants throughout Incline Village. Treatments implemented in NLTFPD included 113 acres of hand thinning and 226 acres of slash pile burning.

2. Efforts concerning forest restoration in the Nevada portion of the Lake Tahoe Basin

Nevada Division of Forestry

Work continued at the Bon Pland Hazardous Fuels Reduction project, located south of Incline Village and within Lake Tahoe Nevada State Park. The US Forest Service Lake Tahoe Basin Management Unit (LTBMU) secured funding to ensure completion of the project. COVID-19 infections and management protocols limited crew availability for the project this field season and only one acre of treatment was completed.

Satin Moth Study. NDF is supporting a research project concerning the Satin Moth, which is being conducted by Assistant Professor Dr. Sarah Bisbing at the University of Nevada, Reno (UNR). The research is being funded through the Lake Tahoe License Plate Grant Program and will identify the extent, severity, and potential impacts of the Satin Moth, a non-native defoliator, on quaking aspen. The research project will continue through July of 2021.

Aspen Update. A project is underway that will identify aspen stands in the Lake Tahoe Basin that re-grow following conifer removal. This data will be used to delineate areas based on their suitability for aspen restoration. Researchers are using high resolution remote sensing techniques to: (1) model long-term changes in aspen canopy cover; (2) investigate the primary drivers of aspen stand performance including climate, topography, and conifer encroachment; and (3) map aspen restoration potential and site suitability. The findings from this project will inform future forest management decisions and guide restoration planning by locating priority areas for treatment and aspen regeneration. This project will provide online maps of aspen restoration suitability and will be presented to Lake Tahoe Basin resource managers and stakeholders. This project is funded through the Lake Tahoe License Plate Grant Program and terminates June 30, 2021.

Aspen restoration is an annual activity of the Environmental Improvement Program implemented by the Nevada Tahoe Resource Team. The Spooner Landscape Resilience Project was a priority this year, which included 10 acres of second-entry treatments to finalize conifer removal.

Tree Mortality. Lake Tahoe Nevada State Park has experienced some tree mortality, most noticeably on the dry west facing slope east of Sand Harbor. The mortality is still classified as endemic. As such, continued monitoring of the forest is necessary to detect any significant increase or “hot spot”. The mortality includes low levels in both white fir and Jeffrey pine. There was also mountain pine beetle-related mortality in western white pine, lodgepole pine, and whitebark pine in the high elevation areas northwest, north, and east of Marlette Lake. The present course of action is to monitor the activity level of the insects. Additional action, if warranted, would become an immediate priority.

Nevada Division of State Lands

The transplanted Jeffrey and Ponderosa pine seedlings on the seven-acre state parcel were monitored during summer 2020 and survival rate was calculated at 95 percent in late September 2020. This is a very high survival rate given the dry summer weather conditions and lack of water

for seedlings. Conversion to a pine-dominated stand will create greater stand resilience and improve ecological function on the parcel. Additionally, one quarter of an acre of cheatgrass was hand-pulled and bagged for removal at this site.

North Lake Tahoe Fire Protection District

Fuel reduction treatments performed by NLTFPD are configured to function as forest restoration treatments. These treatments work to reduce wildfire threat by mimicking the effect of natural fire on the landscape. The first step is to remove the backlog of excessive and unnatural fuel loading that is a result of fire suppression and neglected forest management since the extensive clearcutting of the Comstock era. Reducing shrub cover and removing smaller subdominant 'ladder fuels' improves the health and resiliency of the larger dominant trees. At the end of 2020, very few acres of land owned by the Incline Village General Improvement District (IVGID) remain untreated for fuels reduction, which is considered synonymous with forest restoration.

In 2020, new grant funding was awarded to NLTFPD by the Nevada Division of Forestry (NDF) through the Landscape Scale Restoration Program. Funding will be utilized to treat 65 of the 90 acres that remain untreated at the Diamond Peak Ski Area. Additionally, NLTFPD submitted a proposal to the Western States Fire Managers program through NDF that, if funded, will allow the District to treat the remaining 25 acres and tie treatments together across federal, municipal, and privately owned properties. Also, a new round of SNPLMA funding became available and NLTFPD submitted the Defense Zone Improvement Project (SNPLMA 18) which will restore 12 acres of Stream Environment Zone along Wood Creek, reduce fuels on 14 acres of untreated land along Tyner Way, and perform maintenance treatments or understory prescribed fire on 200 acres of land owned by IVGID north of Hwy 431. Efforts are also underway to reduce fuels on multiple federal, state, and private urban lots that comprise the 1st and 2nd Creek Stream Environment Zones. Funding, property owner agreements and methodology to complete this work remain challenging.



Pile burning on IVGID property - November and December 2020

3. Efforts concerning rehabilitation of vegetation, if any, as a result of fire in the Nevada portion of the Lake Tahoe Basin

Fortunately, there were no large fires in the Tahoe Basin in 2020. There were, however, many small fire incidents, but nothing requiring any rehabilitation.

(B) Compliance with:

1. The goals and policies for fire prevention and forest health in the Nevada portion of the Lake Tahoe Basin

All fuel reduction/forest restoration projects comply with all rules and regulations in the Tahoe Basin in compliance with all goals and policies related to fire prevention and forest health in the Nevada portion of the Lake Tahoe Basin. Specifically, the fuel reduction/forest restoration projects address the three tenets of the National Cohesive Wildland Fire Strategy to restore and maintain resilient landscapes, create fire adapted communities, and provide safe and effective wildfire response.

The Lake Tahoe Basin has been a model of collaboration through the multi-agency Tahoe Fire and Fuels Team (TFFT). The TFFT agencies, including the agencies in this report, are signatory to the *Lake Tahoe Basin Multijurisdictional Fuel Reduction and Wildfire Prevention Strategy*, *The Lake Tahoe Basin Community Wildfire Protection Plan*, and work together on Fire Adapted Communities development, fuel reduction planning, and collaborates on funding requests. The TFFT formed in 2008.

Nevada Division of Forestry

NDF completed a vegetation management plan in 2020 for the Spooner Phase I project. This plan will allow the State Park's development of the Spooner property to comply with the 2018 International Wildland Urban Interface Code. The vegetation management plan provides direction for treatment activity on a 42-acre tract within the state park so that vegetation treatment can be accomplished using one contract for all phases of park development. Four fuel management zones were identified for the parcel with specific objectives for each zone as part of the strategy for mitigating fire risk and improving public safety in a high use recreation setting.

North Lake Tahoe Fire Protection District

The on-going goal for the Fuels Management Division at NLTFPD is described in the North Lake Tahoe Chapter of the 2015 Community Wildfire Protection Plan. In summary, it matches our mission statement "To Reduce our Community's Wildfire Risk and Improve Forest Health by Effective Fuels Management Practices."

NLTFPD's goal for the number of treated acres for fire prevention and forest health varies by year. In 2020, despite a very active fire season, the District treated 160 acres with hand thinning and 226 acres with pile burning. Weather conditions allowed for safe implementation of both spring and fall pile burning, as snow remained later into the spring, and fall/winter snows were early. However, dry conditions over the summer prevented safe implementation of understory prescribed fire this year. Treatment plots are ready for this activity and NLTFPD aims to put this good fire on the ground in future years.

NLTFPD began to implement provisions of SB 329 (2019) this year. The specific requirements of this Act are being developed, however NLTFPD was able to begin the most critical work along

powerline corridors in Incline Village. This work resulted in 27.6 acres treated for fuels reduction within 30' of powerlines.

NLTFPD works to remain compliant with regulations administered by local, state, and federal authorities as well as funding agencies for managing the implementation of projects. The District works within the requirements of the TRPA Code of Ordinances, Chapter 61: Vegetation and Forest Health. Each project is assessed using the Initial Environmental Checklist (IEC), and a tree removal permit is obtained from the TRPA Forester prior to initiating project work. NLTFPD also works within the requirements of the Nevada State Historic Preservation Office receiving approval letters prior to initiating project work. Projects meet the requirements of the National Historic Preservation Act of 1966. Based on 36 CFR 800.13.b.3 and NRS 383.150-383.190, NLTFPD will seek additional consultation should unidentified resources be located. All projects are governed by 2 CFR 200 including Cost Principles 2CFR Part 225 (A-87) and Subpart E; 200.416, 200.417. Audits, if applicable, will be completed using A-133. Quarterly and annual updates are provided to the BLM for projects funded by SNPLMA 15 and 16 as described in 2 CFR 200.328 and further described in the SNPLMA Implementation Agreement Parts One and Two. Project work is governed by NRS 528, where applicable. Controlled burns are conducted in accordance with NRS 527.122-128 inclusive, adhering to an authority approved Burn Plan and conducted in compliance with laws related to air pollution. Activities are reported in accordance with NRS 528.150 - Report concerning fire prevention and forest health in Lake Tahoe Basin. Nevada Administrative Code (NAC) provides guidance for various operations during fuels management operations in the field. NLTFPD conforms to the appropriate sections of NRS and the compatible NAC.

2. Recommendations concerning fire prevention or public safety made by a fire department or fire protection district

North Lake Tahoe Fire Protection District

As a fire protection district, the NLTFPD is compliant with the Fire Building Code and the Wildland Urban Interface Code as adopted by the fire district. NLTFPD is also actively engaged with fuels reduction on land they manage in the Wildland Urban Interface, Defense and Threat Zones.

(c) Any Efforts to:

1. Increase public awareness regarding fire prevention public safety

Public education is a critical component to reduce the threat of catastrophic wildfire at Lake Tahoe. In recognition of this, the Tahoe Fire and Fuels Team formed the Fire Public Information Team (Fire PIT) to meet this important need. The Fire PIT is comprised of public education and communications professionals to implement a comprehensive outreach strategy to raise awareness of wildfire issues at Tahoe to increase defensible space practices on private property. Members of the Fire PIT include Tahoe Basin fire agencies, CAL FIRE, NDF and related state agencies, University of California and Nevada Cooperative Extensions, the Tahoe Regional Planning Agency, the U.S. Forest Service Lake Tahoe Basin Management Unit, conservation

districts from California and Nevada, the California Tahoe Conservancy, and the Lahontan Regional Water Quality Control Board.

The Fire PIT team remains active and member agencies meet monthly. The team regularly develops and distributes press releases and opinion columns for local and regional newspapers and advertisements in multiple publications. Community events and a host of other activities also spread key messages about fire safety and fuel reduction projects at Lake Tahoe.

Nevada Division of State Lands

NDSL provides ongoing informal resident contact while responding to inspection requests. During this process staff provide technical assessments and recommendations based on questions posed by home and landowners. Defensible space literature, such as Fire Adapted Communities brochures and Living with Fire program information, is provided to ensure that the residents can remain informed of their opportunities to improve forest health and fire safety on their properties and in their neighborhoods.

North Lake Tahoe Fire Protection District

Public outreach was challenging this year due to impacts and safety guidelines regarding the COVID-19 pandemic. Virtually all normal and regularly scheduled classroom, community-based and field observations used to educate the public about the importance and effectiveness of fire prevention and forest restoration practices were cancelled due to COVID-19 guidelines. NLTFPD looks forward to a healthy and productive 2021 when these important activities can safely occur.

During 2020, the District's efforts focused on working within COVID-19 safety guidelines to communicate with as many homeowners as possible. The District worked extensively in the 2nd Creek neighborhood of Incline Village to bring many properties into compliance with defensible space requirements. NLTFPD typically hosts a block party within the neighborhood, but this year the event was held on Zoom. Signage was put up in the neighborhood so people could register for the event. A letter and a curbside defensible space evaluation were mailed to each homeowner in the targeted area, which also included an invitation to the Zoom event.



Zoom Defensible Space block party and invitation where fundamental defensible space concepts and opportunities were discussed.

Approximately 30 residents attended the Zoom block party. Residents were made aware of the services that are available to them; including free defensible space evaluations and chipping services, a free half-hour of crew time to implement defensible space, and a cost share rebate

for properties needing more extensive defensible space work. NLTFPD's ability to offer these services is due to our partnership with the Tahoe Resource Conservation District and their SNPLMA 16 Project: Tahoe Network of Fire Adapted Communities

2. Coordinate with other federal, state, local and private entities with regard to projects to reduce fire hazards in the Nevada portion of the Lake Tahoe Basin.

Nevada Division of Forestry

NDF coordinated with NV Energy to mitigate large hazard trees along the power distribution line within the Sand Harbor unit of Lake Tahoe Nevada State Park near Incline Village, Nevada. This required meeting onsite with representatives from the utility company, NDF, and the Nevada Department of Wildlife biologist. This is in an area of high-use recreation that parallels the East Shore Multi-Use Path and State Highway 28.

Nevada Division of State Lands

NDSL continued to work closely with federal, state and local agencies, including the TFFT. An interlocal agreement is in place with North Lake Tahoe Fire Protection District through December 31, 2021 to provide qualified work crews to conduct hazardous fuels reduction work on state owned parcels.

North Lake Tahoe Fire Protection District

In 2019, NLTFPD entered into an agreement with the US Forest Service LTBMU to complete pile burning operations on 200 acres of federally owned land within the jurisdiction of NLTFPD. By the end of 2020, 121.5 acres had been treated with pile burning and the remaining acres are planned for early 2021.

The Nevada Regional Fuels Reduction Project (SNPLMA 16) project will result in 286 to 436 acres treated for fuels reduction using various methods. Of the areas planned for treatment, only 87 acres are owned by the local water district, and all remaining acres are owned by private individuals. The importance of fuels reduction has been discussed with the private landowners and collectively have agreed to a modest cost share arrangement to complete the necessary work. Hand thinning and pile burning occurred on these properties in 2020.

Other agency collaboration occurred across the state line in California with the California Tahoe Conservancy and the North Tahoe Fire Protection District.

Summary of Treatment Acres

Table 1 shows the cumulative effort of all major jurisdictions in the Tahoe Basin in addressing reduction of wildfire fuels.

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