



2021 Annual Report to the Nevada Legislature

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



Background

This Annual Report is produced in accordance with NRS 528.150 and was a recommendation of the California-Nevada Fire Commission following the 2007 Angora Wildfire. This update 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.

Forest restoration and wildfire hazard reduction/prevention activities are ongoing activities carried out by several entities within the Lake Tahoe Basin. 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.

2021 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 fuel reduction and ecosystem restoration projects in 2021. The 2021 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

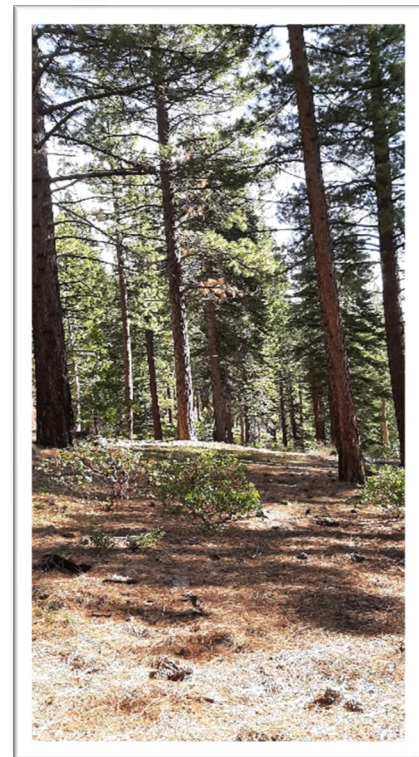
Nevada Division of Forestry

The Spooner Front Country Project is a multi-phased treatment that includes the construction of an interpretive center and the continued reduction of fuel within the surrounding landscape. Phase one of the project was continued in 2021, which included expanded defensible space and fuel management around the new visitor facility and constructed access roads at the Lake Tahoe Nevada State Park.

Nevada Division of State Lands

A total of 25 parcels were treated by thinning, dead and bark beetle infested tree removal, brush reduction and ladder fuel removal operations. Vegetation management and forest restoration are ongoing components of the overall maintenance of the Nevada Division of State Lands (NDSL) urban lots on the east shore of Lake Tahoe. Maintaining healthy vigorous forests that are less susceptible to bark beetle infestation, have reduced wildfire fuel loading, have preserved wildlife habitat, and are managed for erosion control and water quality are the core elements of NDSL's forest management strategy for the Urban Lot program. NDSL was able to conduct a brush and ladder fuel reduction operation on several parcels located within a HOA in conjunction with wildfire fuel reduction work the HOA was performing on their property.

A portion of the work performed in 2021 on NDSL conservation areas was funded by Southern Nevada Public Land Management Act (SNPLMA) Round 15.



Brush reduction and ladder fuel removal operation on a NDSL Urban Lot in Incline Village Nevada conducted November 5, 2021.

USFS Lake Tahoe Basin Management Unit

The U.S. Forest Service completed 522 acres of prescribed fire pile burning in the Spooner, Secret Harbor and Incline Village areas. Field preparation for additional thinning treatments on 190 acres associated with the Incline Hazardous Fuel Reduction Project were conducted in anticipation of treatment implementation in 2022. Additionally, planning and resource survey

work was conducted on the Lake Tahoe Powerline Resilient Corridor Strategy, which will authorize approximately 5,000 acres of forest thinning and fuel reduction on National Forest System lands on the Nevada side of the Tahoe Basin. The Forest Service anticipates completing NEPA planning in April 2022 and plans to work with NV Energy to begin treatment implementation during the 2022 field season.

North Lake Tahoe Fire Protection District

All fuel reduction project work performed by the North Lake Tahoe Fire Protection District (NLTFPD) is in accordance with the Lake Tahoe Basin - Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (August 2014), and the Lake Tahoe Basin Forest Action Plan (August 2019). NLTFPD is also continuing to implement projects listed in the 2015 Community Wildfire Protection Plan for Lake Tahoe Basin. Further, they are addressing priority projects regarding the Lake Tahoe Powerline Resilience Corridor Strategy. Lastly, in 2021 NLTFPD began to implement Nevada's Forest, Range and Watershed Action Plan (2020), with the awarded Landscape Scale Restoration Project.

Annually, an 'Incident Action Plan' (IAP) is created internally to guide NLTFPD project work for the year. The IAP is compiled with IAPs from partner organizations of the Tahoe Fire and Fuel Team (TFFT) to create a more comprehensive action plan for fuel reduction in the Lake Tahoe Basin, crossing both sides of the State line. The IAP for NLTFPD 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 over the year and how the project work will be funded.



Fuel reduction project work completed in 2021 on the 123 Incline-Brunswick Transmission Line. A priority project as part of the Lake Tahoe Powerline Resilience Corridor Strategy.

Crews work to complete items in the IAP, while remaining available to respond to wildland fire calls. In 2021, accomplishments included fuel reduction treatments taking place as part of the Nevada Regional Fuel Reduction Project (SNPLMA 16), the Landscape Scale Restoration Project funded through the Nevada Division of Forestry (NDF) and the implementation of priority fuel reduction projects as part of the Lake Tahoe Powerline Resilience Corridor Project. Additional project work was made possible by the Incline Village General Improvement District (IVGID) and includes fuel management of forested areas and water treatment infrastructure properties within the Incline Village Community.

Caldor Fire Preparation

The Caldor Fire burned 221,835 acres over a period starting on August 14th to October 21st, 2021. The wildfire started near Somerset, California and burned to South Lake Tahoe, California. As the Caldor Fire advanced toward the Tahoe Basin, Governor Sisolak, federal, state and local resource and fire management agencies, local businesses, and utility providers on the Nevada side of the Basin coordinated to create and implement a plan that would mitigate the impacts of the Caldor Fire if it crossed the state line. The project was called the NVE Stateline Preparedness Project and the purpose was to remove hazard trees and hazardous fuel along the power corridor along Kingsbury Grade (from the Tahoe Basin down into the Carson Valley). The goal was to protect power infrastructure ahead of the fire and to expand those treatments to create a fuel break for community protection in the process. Work crews were in place for 16 days to complete the project and were being supported by a Type III Incident Management Team Approach with a base camp set up in the parking lot of the Hard Rock Casino in South Lake Tahoe. All personnel were fed onsite using the NDF Sonoma Kitchen Unit and provided rooms and camping locations by the Casino. Two NDF foresters guided work and ensured compliance with rules, regulations, and standards while working with private, federal and state partners to expand projects off the utility corridors for the Senate Bill 508 (2019)-funded portions. The actions taken resulted in 25.5 miles of contingency fireline and wildfire fuelbreaks that coincided with energy transmission infrastructure protection and the Lake Tahoe Powerline Resilience Corridor Project. Personnel and equipment for the project were provided by Truckee Meadows Fire, Carson City Fire, North Lake Tahoe Fire, Central Lyon County Fire, Storey County, Lincoln County Fire, East Fork Fire and NV Energy. In addition, NDF supplied six Conservation Camp squads, which included 12 NDF crew supervisors, three Nevada Department of Corrections custody officers and 95 inmate workers, to assist reducing wildfire fuel in these critical areas. These actions were made possible through an agreement between NDF and NV Energy, as well as the associated sub agreements with the local fire protection districts, a portion of which is matched by Senate Bill 508 (2019) funds where applicable.

Fuel reduction in and around the California side of the Basin provided some valuable lessons learned and validation for similar fuel reduction work being performed on the Nevada side of the basin. For example, pre-suppression, land conservation, and fuel reduction work was instrumental in helping to keep the Caldor Fire out of the greater Tahoe Basin and preventing the fire from spreading to the Nevada side of the Basin. Reports from firefighters indicate that in some areas fire behavior changed from 150-foot flame lengths to 15-foot flame lengths when the fire entered fuel reduction areas, which allowed firefighters to take more aggressive suppression action. Firefighters relied heavily on fuel reduction areas to protect communities and construct containment lines. Treatment of open-space parcels and the extensive defensible space and home hardening efforts of residents helped firefighters control the fire's edge, catch spot fires, and have safer working areas to contain the blaze. This highlights the need for continued proactive pre-suppression funding for fuel reduction projects through the Environmental Improvement Program, bond sales, and other sources in the Tahoe Basin and statewide to help protect Nevada families, communities, and natural ecosystems from catastrophic wildfire - particularly given the mounting impacts of climate change and drought, which continue to make wildfire a constant threat to the Basin.

While the chance of destructive wildfires may not be fully eliminated, Nevada has taken strong steps to prepare and ease the impacts of catastrophic wildfires. The actions that bi-state partners and the public have taken together helped improve conditions for firefighters protecting homes and neighborhoods on the Caldor Fire. Although substantial progress has been made, prolonged drought and megafires continue to threaten the Sierra Nevada. There is still much more work to be done. Moving forward, Nevada must continue to invest in critical forest health projects to create a healthy, fire-resilient landscapes in all corners of the state.

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 Fuel Reduction project, located south of Incline Village and within Lake Tahoe Nevada State Park. Eleven acres of hazardous fuel reduction were completed on the project this year despite COVID-19 infections and management protocols that limited crew availability. The project boundary was modified so that the fuel break connects directly to the fuel reduction work being implemented on the NV Energy 4100 line located to the west of the project.

The Sand Harbor Defensible Space Project was initiated in 2021. This project will create defensible space around the park housing and throughout the portion of the park that is west of State Highway 28. A continuous fuel bed of mature brush will be thinned at the administrative site and the heavily used picnic area. This in conjunction with the park staff decision to remove the charcoal barbeques, will significantly reduce the wildland fire risk in this popular recreation area. NDF utilized a chipper to process the woody material and the biomass was transported in 40 cubic yard bins away from the site. Seven acres were completed this fall and work will continue next spring.



Bon Pland project site where thinning and piling occurred in 2021. The burn piles will be burned when weather windows are suitable for a controlled burn in the winter of 2022.

Satin Moth Study. NDF supported a research project concerning the Satin Moth, which was conducted by Assistant Professor Dr. Sarah Bisbing at the University of Nevada, Reno (UNR). The research was funded through the Lake Tahoe License Plate Grant Program and identified the extent, severity, and potential impacts of the Satin Moth. Satin Moth is a non-native defoliator, affecting the health and vigor of quaking aspen stands in and around the Lake Tahoe Basin. The research project was completed, and the final report was submitted.

Aspen Update. Researcher from UNR, Tom Dilts- PhD and Tyler Refsland- PhD, completed a project that identified aspen stands in the Lake Tahoe Basin that re-grew following conifer removal. This data will be used to delineate project areas based on their suitability for aspen restoration. UNR researchers used 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.

Aspen restoration is an annual activity of the Environmental Improvement Program implemented by the Nevada Tahoe Resource Team. Four acres of pile burning were completed in aspen stands on the east shore of Spooner Lake. Aspen suckering is prolific following removal of conifers and pile burning.

Tree Mortality. Jeffrey pine beetle and fir engraver populations increased within Lake Tahoe Nevada State Park as prolonged drought conditions continued. Tree mortality has increased but is not indicative of epidemic levels of beetle activity yet. Dying trees were starting to become more visible late in the fall of 2021 and continued monitoring is necessary in 2022 to determine if this upward trend will continue and reach epidemic levels. Additional action, if warranted, would become an immediate priority. 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. This drought related mortality has been continuing. The present course of action is to monitor the activity level of the insects. Much of this activity is in scattered patches of trees in areas with difficult access.

Nevada Division of State Lands

NDSL conducted a land restoration project in October of 2021 on a 7.8-acre forested parcel in



Condition of the restoration project site when acquired.



Foundation after filled in and graded to match original contour of the land. A seed mix of native vegetation was applied at the conclusion of grading.

Douglas County off Highway 207. The parcel had a large hole for the foundation of a home when it was acquired. NDSL was able to utilize soil from the Lake Tahoe Basin excavated for the Spooner Front Country Improvements Phase 1 Visitor Center and Amphitheater project to fill in the excavation of the foundation. Once the foundation was filled in, it was graded to match the contour of the surrounding land. After the grading was complete a seed mix of a native vegetation was applied to the treated area.

North Lake Tahoe Fire Protection District

Fuel reduction treatments performed by NLTFPD are low impact forest restoration treatments. These treatments work to reduce the wildfire threat by creating conditions on the landscape that are representative of historical stand conditions and are implemented without the use of heavy equipment on the landscape. Within the jurisdiction of NLTFPD, natural fire has a return interval of 2-35 years. If fire returned to the landscape within this time conditions on the landscape would be favorable for large diameter trees with an open understory and minimized shrub vegetation and ground fuel. The fuel reduction treatments first remove the back log of excessive and unnatural fuel loading that is a result fire suppression and neglected forest management since the extensive clearcutting of the Comstock era (1860-1880). Reducing shrub cover and removing smaller subdominant 'ladder fuel' improves the health and resiliency of the larger dominant trees, creates forests better able to withstand more frequent natural fire, and keeps healthy forests intact for further carbon sequestration and general ecosystem function. At the end of 2021, less than 5% of land owned by the Incline Village General Improvement District (IVGID) remains untreated for fire fuel reduction and resulting forest restoration. This remaining land will be treated in coming years as part of NLTFPD's ongoing program, along with continued maintenance, as necessary, on already treated lands.

In 2021, NLTFPD began implementation of a project funded by NDF through the Landscape Scale Restoration Program which resulted in 32 acres treated by hand thinning at the top of the Diamond Peak Ski Resort. Additionally, a subgrant award is being drafted for the Community Protection Grant Program offered through NDF to continue further Diamond Peak treatments. This will fund the Diamond Peak 25 Project planned for implementation in 2022 thereby completing fuel reduction treatments across the ski resort. Together, these projects connect multiple fuel reduction treatments across the landscape on federal, municipal, and privately owned properties. Further, NLTFPD was recently awarded funding for the Defense Zone Improvement Project (SNPLMA 18). This project will implement initial and maintenance fuel reduction treatments including understory prescribed fire on at least 210 acres of land within NLTFPD jurisdiction. It will also restore 12 acres of stream environment zone along Wood Creek by removing unnatural coniferous vegetation, restoring the riparian area and improving stream flow. This funding may also be used to reduce fuel on multiple federal, state, and private, urban lots that are part of the 1st and 2nd Creek Stream Environment Zones.

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 on the Nevada side of the Tahoe Basin in 2021 that required rehabilitation of vegetation.

(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 and forest restoration projects in the Nevada portion of the Lake Tahoe Basin comply with Tahoe Basin specific and all general rules and regulations related to fire prevention and forest health. 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 Fuel Team (TFFT). The TFFT agencies, including the agencies in this report, are signatory to both the *Lake Tahoe Basin Multijurisdictional Fuel Reduction and Wildfire Prevention Strategy* and *The Lake Tahoe Basin Community Wildfire Protection Plan*. This multi-agency and stakeholder team work together on development and maintenance of fire-adapted communities, planning and implementing fuel reduction projects, and providing early and aggressive wildfire response across jurisdictional and state lines. The TFFT formed in 2008.

Nevada Division of Forestry

NDF implemented a vegetation management plan in 2021 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.

The Nevada Tahoe Resource Team submitted a SNPLMA Round 19 proposal for a 452 acres hazardous fuel reduction project that will tie together a large contiguous area of treated land administered by both the U.S. Forest Service – Lake Tahoe Basin Management Unit and the Nevada Division of State Parks. The project is designed to buffer the Marlette Basin from a wildland fire and will also buffer the Clear Creek Watershed to the east. A decision would be issued in 2022 on whether the project qualifies for the requested funding.

Nevada Division of State Lands

The NDSL forester is revising a treatment schedule for all 492 Urban Lot parcels that are managed by NDSL in the Lake Tahoe Basin. Treatment applications will focus on 1) brush and ladder fuel reduction; 2) forest thinning operations to reduce basal area to produce residual forests that are

more resilient to bark beetle infestation; 3) maintaining suitable habitat for wildlife; 4) and managing for erosion control and water quality.

North Lake Tahoe Fire Protection District

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

The goal that NLTFPD sets for treating acres for fire prevention and forest health varies annually depending on project needs and staffing capacity. Reaching these goals depends heavily on the fire season and the subsequent availability of their wildland hand crews. In 2021, despite an exceptionally active fire season, a total of 124 acres were treated with hand thinning and 246 acres with pile burning. Priority projects related to fuel reduction in powerline corridors resulted in vegetative clearance of 1,246 power distribution poles, 154 transmission poles, 21.2 acres of fuel breaks and 41.6 acres of piles burned. Extremely dry conditions over the summer prevented safe implementation of understory prescribed fire this year. However, two areas have been prepared for understory prescribed fire in the Mill Creek area and NLTFPD aims to put this beneficial fire on the ground in the Spring of 2022, if conditions favor those specified in the burn plan.



Hand Thinning of the East Shore Project - Zone 1, as part of the Lake Tahoe Powerline Resilience Corridor Project.

NLTFPD 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 an approval letter 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 would 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, adhering to an authorized Burn Plan and conducted in compliance with laws related to air pollution. Activities are reported in accordance with Nevada Revised Statute 528.150: Report concerning fire prevention and forest health in Lake Tahoe Basin. NAC provides guidance for various operations during fuel management operations in the field. NLTFPD conforms to the appropriate sections of Nevada Revised Statutes and the compatible Administrative Codes.

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 fuel 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 Fuel 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, though the team met weekly during the Caldor Fire to address consistent messaging and provide the public wildfire information. 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 Forestry

The NDF representative on the Nevada Tahoe Resource Team participated in a public service announcement video produced by NLTFPD and funded by NV Energy that highlighted the fuel reduction work done by the fire protection district for the last 20 plus years and mentioned the

collaboration with the agency as an important aspect of the partnership that continues with the work along the NV Energy 4100 line.

Nevada Division of State Lands

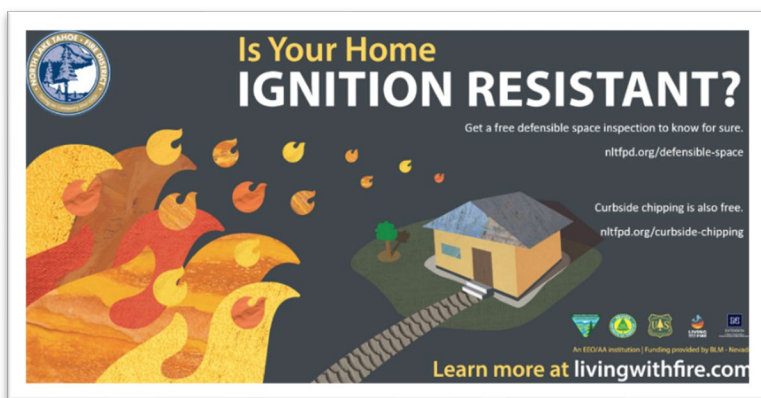
NDSL provides ongoing informal resident contact while responding to inspection requests. During this process, staff provide technical assessments and recommendations based on questions posed by home and landowners. Defensible space literature, such as Fire Adapted Communities brochures and Living with 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

Like in 2020, direct public outreach was again challenging due to impacts and safety regarding the Covid-19 pandemic. In general, very few public events were held in 2021, making for subdued public awareness in general, with a few exceptions. In June, NLTFPD presented at the Rotary Club of Incline Village meeting, to raise awareness on defensible space, fuel reduction and evacuation preparedness activities. Approximately 10 people were reached. The annual 4th of July pancake Breakfast was held at NLTFPD Station 11 and 50 people were reached on the same topics. Lastly, in late July, an event was held for Incline Village Residents, reaching an additional 30 residents.

Unfortunately, NLTFPD was unable to be in the classroom with 8th graders this year. This time is usually used to provide education on defensible space, evacuation preparedness, and the importance of fuel reduction treatments. NLTFPD intends to hold a field trip each year for community members and interested stakeholders showcasing the effectiveness of fuel reduction treatments within their jurisdiction. NLTFPD is hoping to return to this annual event in the summer of 2022, as well as to generally increase the public awareness campaigns in the Basin. For 2021, in lieu of a field trip for community members, NLTFPD is producing a public outreach video that showcases their fuel reduction treatments including understory prescribed fire and the resulting improvements in forest health. This video should be available at the end of this calendar year.

NLTFPD continued to communicate with homeowners regarding their defensible space working across the Incline Village and Crystal Bay areas but especially in the Upper Tyner Neighborhood. A series of letters were mailed to homeowners in this neighborhood



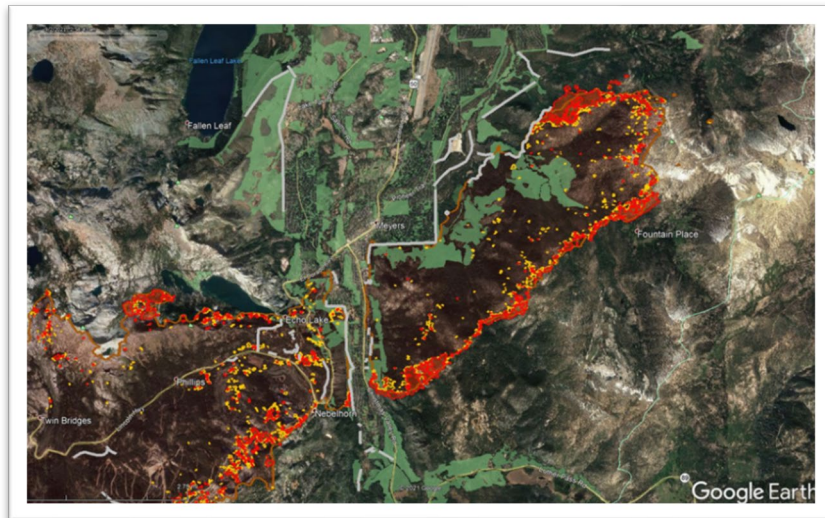
Working with the Living with Fire Team from the University of Nevada Reno Cooperative Extension, NLTFPD shares their public messaging campaign as part of more consistent social messaging taking place in the Lake Tahoe Basin.

advising them of their status regarding defensible space compliance. This is a fire prevention public safety effort that increases public awareness while improving defensible space compliance. A block party is being planned in this neighborhood for 2022, which will provide education on evacuation preparedness, local fuel reduction treatments and the importance of neighborhood wide compliance with defensible space code. The event also allows for neighbors to get to know each other and their fire district better.

Caldor Fire Preparation

As part of the preparation for the Caldor entering the Tahoe Basin and Nevada, the Type 1 Incident Management Teams coordinated with local press as well as emergency management, land management, and fire suppression agency public information officers to ensure that daily and even more frequent updates were provided to the public, via dedicated social media and websites, on the projected fire growth and the impacts likely to occur to anyone within or ahead of the fire threat area.

Additionally, a large press campaign was fostered to help the public see and understand the benefits of the large-scale fuel reduction efforts that were being implemented ahead of the fire to protect critical infrastructure and enable the continuance of service of key utilities necessary to



Green depicts fuel reduction treatments implemented; Red and yellow depict the heat signature of the Caldor fire; Orange border depicts the Caldor Fire perimeter.

fight the fire and support firefighters based in and near the Basin. Governor Sisolak, Federal, State and Local representatives provided press conferences, social media posts, lessons learned and promotional videos ([NV Energy - Protecting our Communities through Partnership & Collaborations - YouTube](#); [Forest Service video about fuel treatments and the Caldor Fire - Wildfire Today](#)), and field tours to ensure that the goals were well understood, and the actions were meeting the goals of prevention of wildfire destruction and public safety. There were also documented accounts of community protection fuel reduction activities that were implemented in previous years being highly effective at moderating fire behavior enough to allow fire suppression forces to protect homes and reduce the number of losses substantially, as cited in early portions of this report. In wildland settings, prescribed fires implemented in previous years also were documented at slowing, stopping and reducing fire spread, by significantly reducing ground and ladder fuels,

which was identified in many media outlets to ensure that the public understood the value and effectiveness of these treatments.

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. This work was completed in 2021, as drought related mortality required removal of additional trees on top of the work done the previous year.

Nevada Division of State Lands

NDSL continued to work closely with federal, state, and local agencies, including the TFFT. An interlocal agreement is being extended with North Lake Tahoe Fire Protection District from December 31, 2021, to December 31, 2024, to continue to provide qualified work crews to conduct hazardous fuel reduction work on state owned parcels. An interlocal agreement is currently being drafted between NDSL and TDFPD and will be in place by the Spring of 2022.

The NDSL Nevada Tahoe Resource Team (NTRT) drafted a scope of work and a right of entry agreement for a wildfire fuel reduction project along the NV Energy 4100 line on state-owned land from State Land in Crystal Bay and continuing South from State Land in the Rocky Point subdivision to the U.S. Forest Service boundary South of Sand Harbor. The fuel reduction work along NV Energy's Line 4100 is being performed by NLTFPD and NV Energy in accordance with NV SB 329 and NV Energy's Natural Disaster Protection Plan.

North Lake Tahoe Fire Protection District

Extensive project work was carried out in 2021 due to the partnership between NLTFPD and NV Energy. This partnership began in 2019 and is proving to be a solid partnership that will continue into the future.

NLTFPD remained in partnership with the USFS Lake Tahoe Basin Management Unit (LTBMU) to continue with pile burning operations as part of their Incline Hazardous Fuel and Healthy Forest Restoration Project. Early in 2021, 87.3 acres of piles were burned within the jurisdiction of NLTFPD. Efforts of coordinate with the LTBMU will continue in future years.

NLTFPDs Regional Fuel Reduction Project (SNPLMA 16) project will result in 286 to 436 acres treated for fuel reduction using various methods. Of the areas intended for treatment, only 87 acres are owned by the local water municipality where NLTFPD is responsible for fuel reduction. All remaining acres are owned by private individuals. In 2021, NLTFPD worked with a private land holder on their properties within the jurisdiction of NLTFPD. With land use agreements in place, both hand thinning and pile burning occurred on this property in 2021.

NLTFPD remains in good standing with partner agencies and land holders in Nevada and the Lake Tahoe Basin. Future project work and other engagements will be entertained as applicable.

Caldor Fire Preparation

In the face of the advancing threat of the Caldor Fire from California, Governor Sisolak declared a State of Emergency on August 30th, 2021. This allowed Douglas County, Carson City, and Washoe County to set up evacuation sites for Tahoe residents and those within Douglas County being evacuated in front of the fire. Along with the Declaration, the Governor monitored actions taken by Federal, State and Local agencies and organizations to ensure the Caldor Fire response and recovery efforts met the goal of a “Whole of Government Approach.”. Evacuations and fire suppression actions were coordinated with federal and state land managers, the National Guard, utility providers, counties, local municipalities, local grocery stores, non-profit community service organizations, local businesses, and all emergency management and first responders from both Nevada and California. This high level of coordination and advanced emergency planning and action implementation allowed a record number of residents and visitors to evacuate the Basin well ahead of the fire entering the Basin, allowing safe travel and fire suppression response to occur at prudent times.

As the Caldor Fire grew and threatened crossing state lines from California to Nevada, the complexity of the incident required the activation of a second Type 1 Incident Management Team on the head of the fire headed into Nevada to handle the socio-political challenges with that occur in the basin, including the large-scale evacuation, security of evacuated areas, Lake Tahoe water clarity concerns, smoke impacts, as well as shelter and food coordination for evacuees. The effort also included the coordination and implementation of pre-suppression fuel reduction activities along and around high priority energy transmission and distribution facilities as described in Section (a) 1 of this report. Part of the coordination efforts included the use of NV Energy’s new Cell on Wheels (COW) units that provided extra bandwidth, cellular coverage and bandwidth in places with existing and those locations without those services.

Summary of Treatment Acres

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

YEAR	NDF for NDSP	NDSL	NLTFPD		TDFPD	USFS-LTBMU		TOTAL
2000	50	26	151	**	Unk.	677	*	904
2001	55	24	215	**	Unk.	691	*	985
2002	100	23	240	**	Unk.	1,260	*	1,623
2003	270	32	145	**	Unk.	1,254	*	1,701
2004	253	12	178	**	Unk.	1,918	*	2,361
2005	101	17	377	**	Unk.	1,913	*	2,408
2006	171	20	Unk.		Unk.	2,160	*	2,351

2007-09	1,362	149	591		432	3,031		5,565
2010	210	108	305		164	108		895
2011	247	77	367		97	1,572		2,360
2012-13	894	91	207		287	1,714		3,193
2014	407	26	136		204	594		1,367
2015	131	42	90		157	565		985
2016	375	38	59		101	1,273		1,846
2017	52	32	234		183	598		1,099
2018	300	31	175		187	591		1,284
2019	318	293	176		80	22		889
2020	14	3	339		-	228		584
2021	22	6	370		-	522		920
TOTAL	5,332	779	4,355		1,892	20,691		30,927
*Includes lands in Nevada and California								
**NLTFPD includes projects on federal lands, which were also reported by the USFS/LTBMU; therefore, the NLTFPD accomplishments were reduced by 42%, the amount of federal land in the fire district. Source: TRPA Fuel Reduction Plan prepared by Steve Holl Consulting (2007), NDSL, USFS/LTBMU								