

Duchesne County
Emergency Management

Community Wildfire Preparedness Plan 2019

Working Draft v.2

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Duchesne County - CWPP

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INITIATIVE OVERVIEW

Catastrophic wildfires in the Intermountain West are growing in impact and cost. Recognizing this, the Utah Legislature passed Senate Bill 122 (Wildland Fire Policy Updates) in 2016, which establishes a program that aims to lower the financial risk for communities that implement prevention, preparedness, and mitigation actions that are proven to reduce the risk and costs of wildland fire. The Utah Division of Forestry, Fire and State Lands (FFSL) has been charged to administer the program. Duchesne County has committed to participate in this program and selected Rural Community Consultants (RCC) to assist the county in preparing a Community Wildfire Preparedness Plan (CWPP). The following three-step process is being implemented to develop the CWPP, including: data gathering, public input, and plan adoption.

1. **Data Gathering** - RCC gathered historical and current data to assess the current state of the community and its potential risk. Relevant data includes vegetation patterns, historical fires, ignition sources, location of infrastructure, etc.
2. **Stakeholder Input** - RCC worked with the County to identify various stakeholders to provide expert and professional input on the plan. These stakeholders include the private landowners, applicable land management agency representatives, community leaders, county staff, and local fire department staff. RCC also initiated a public outreach campaign to further identify plan objectives. This campaign included a public survey, social media ads, and public open house events.
3. **Plan Adoption** - After all information was gathered, the plan was drafted and presented to the County for adoption. The county-approved plan was then sent to FFSL for final approval.

This process will help local leaders adopt an effective CWPP. Implementing the goals, policies, and suggested actions of the plan would alleviate the effect of future wildfires within the county.

PARTNERSHIPS + COLLABORATION

Duchesne County would like to give special thanks to stakeholders and various organizations that helped develop this plan. Specifically, the organizations that assisted in development were Duchesne County, _____, and the Utah Division of Forestry, Fire, and State Lands. Following is a list of endorsing signatures from members of public organizations involved in the process. These entities will be responsible for the carrying out of the goals and action steps listed in this plan.

Duchesne County

Utah Forestry, Fire, and State Lands

Hanna Water and Sewer District

Tabiona ____
(Dawn Opoulous)

Fruitland Fire Council
(Brad Wardle)

Argyle Canyon Fire
Council (Bryan Jensen)

COMMUNITY DESCRIPTION

Study Area for this Plan The boundaries of this plan’s goals and policies are confined to Duchesne County (see the Maps section of the Appendix).

Wildland-Urban-Interface (WUI) The transition zone where developments or structures intermingle with wildland and vegetative fuels is referred to as the Wildland-Urban Interface (WUI). WUI data provided by the Utah Wildfire Risk Assessment Portal (UWRAP) can be interpreted as areas where human life and property are threatened by fire, burning in wildland fuels. Population growth in the WUI considerably increases the risk of wildfire. According to the UWRAP data (in 2019), approximately 3% of the land cover or 72,258 acres of the County’s jurisdiction is within the WUI, and much of the WUI is at risk for wildfires.

Population and Demographics It is estimated that Duchesne County has a population of approximately 21,727 people as of 2018, the majority of which live in the cities and towns. According to population projections from the Kem C. Gardner Policy Institute, Duchesne County will have a population of 25,422 in 2030, with an expected growth rate of approximately 17% over that period. Areas near the incorporated communities are anticipated to accommodate the expected growth, and some of the residential and commercial development would occur within the WUI. Policies need to be implemented now to ensure that new developments in the WUI are designed prudently to reduce the risk to human life and property. Analysis of current housing data is needed to determine which properties are at risk, the appropriate mitigation measures to reduce risk, and the risk to new property developments.

The County has approximately 2,079,205 acres, and a total of 10,303 housing units as of 2018 (see attached socioeconomics report). The median home value is approximately \$201,565; meaning that up to \$2,077,661,768 of owner-occupied property within the county potentially needs to be protected. There are also numerous commercial and energy-related properties within the county that may be at risk for fire damage. The cost of fire-related damage to commercial properties is not limited to the value of those properties, but also the cost resulting in the loss of jobs and the subsequent adverse impact to the local economy.

This CWPP is intended to identify which resources may be most susceptible to wildfire-related damage, and to identify measures to reduce risk.

Existing Objectives and Policy Regarding Fire Management Prior to the 2019 CWPP, Duchesne County updated its General Plan (with an element dedicated to fire policy), and seven CWPP documents were created since 2002. This plan incorporates the general plan and supersedes the prior CWPPs for the study area. Below is a summary of existing Duchesne County objectives and policy as it relates to fire management:

Duchesne County General Plan, 2017 | Fire Management Policies

(p.14) Emergency Services / Law Enforcement: Residents feel that Duchesne County is a safe place to live and raise their families. Considering the County's demographic and economic profiles, citizens feel that their law enforcement, fire protection, emergency response, and search-and-rescue personnel and agencies are well-prepared and trained. As a County, they feel that maintaining this level of preparedness is a necessity.

Policy: The County is dedicated to expanding services, personnel, and capital facilities in support of emergency services and law enforcement, according to County growth and needs.

Duchesne County Resource Management Plan, 2017 | Fire Management Policies

(p.118-121) Wildland Fire Fuel Management - Objectives and Strategies:

- a. Reassess the existing education program to meet current and future needs.
 1. Make sure literature is updated as necessary to incorporate current research information.
 2. Identify gaps in research and pursue funding to address research needs.
 3. Distribute materials to community members, individual landowners, public officials, interagency partners and media for further dissemination and outreach.
 4. Maintain collaborative efforts with interagency partners to deliver and update information.
 5. Increase participation in state and national programs including Utah Living With Fire, Ready, Set, Go! Firewise USA and Fire-Adaptive Communities.
- b. Expand planning opportunities
 1. Utilize existing tools to effectively and efficiently expand planning opportunities to the 625 identified Communities at Risk within the State of Utah.
 2. Train urban and volunteer fire departments to deliver the National Cohesive Strategy objectives and strategies to more efficiently reach those in the Wildland Urban Interface.
 3. Update and modify as needed the planning documents to meet the needs of the State of Utah and intent of the Healthy Forest Restoration Act.
- c. Organizational development
 1. Provide technical and financial assistance to the 501c3, Utah Living with Fire.
 2. Standardize program delivery to improve consistency across the state.

3. Provide cross discipline training to meet needs of individuals and other programs.
4. Expand cross ownership contract sharing to reduce mitigation costs.

d. Wildland Fire legislation

1. Update statutes and codes to align more closely with current suppression management decision tools.
2. Establish a reward system through tax relief for preparing for wildland fire.
3. Provide increased funding to help communities prepare for wildfire.

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4. Create a funding mechanism which allows the participation for all interested entities for wildland fire suppression.

e. Program integration

1. Increase communication and cooperation among programs within the Department of Natural Resources and other State and Federal agencies.
2. Utilize when appropriate other programs to meet the intent of the National Cohesive Strategy.
3. Help to identify areas of potential integration through the Landscape Scale Restoration process.

f. Project identification and implementation

1. Identify both federal and non-federal mitigation projects identified in the priority areas of the Forest Action Plan, through the Interagency Fuels Committees and/or through the Catastrophic Wildfire Reduction strategy process.
2. Plan and complete projects that meet the needs of entire communities; focusing on resilient landscapes and fire adaptive communities.
3. Incorporate a maintenance schedule for communities that are achievable and effective.

(p.228-229) Fire Management - Policies:

- a. It is the policy of Duchesne County that adequate resources, including trained personnel and equipment, be made available in each community to manage fire events.
- b. It is the policy of Duchesne County that mutual aid agreements or fire protection agreements be maintained with each fire department to protect the lives and property of citizens.

Mt Tabby Springs, Community Fire Plan, 2014 | Goals

- a. Create a public awareness of hazard/risks of wildfires.
- b. Reduce fire fuel in subdivision.

- c. Establish a fire safe road program.
- d. Develop awareness of flammable fuel sites in subdivision.
- e. Improve communication between Mt. Tabby Springs and local community wildfire response organizations.
- f. Increase existing physical fuel reduction improvement.
- g. Develop and implement a comprehensive emergency response plan.
- h. Review/ evaluation of plan.
- i. Address regulatory issues.

Fruitland Community Fire Plan, 2013 | Draft CWPP Goals

1. Increase public awareness of the risks posed by wildfire to life safety and property of area residents through implementation of a wildfire hazard education program.
2. Increase life safety and enhance forest health through the implementation of a of “certified” defensible space program. Objective is to achieve 75% of the homes within the project area.
3. Develop and implement hazardous fuels mitigation program to establish fuel breaks where needed and to reduce hazardous fuel concentrations.

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4. Establish a fire safe road program.
5. Increase water supplies for fire suppression needs.
6. Work with county officials to promote wildfire safe building standards.

Argyle Canyon Community Fire Plan, 2013 | Goals

1. Decrease fuels to reduce wildfire intensity and impact in and around the canyon.
2. Increase life safety and enhance forest health through the implementation of a of “certified” defensible space program. Objective is to achieve 75% of the cabins within the project area.
3. Develop an emergency response plan that would alert canyon residences if a fire should occur, and the steps that should be taken to prevent loss of life.
4. Identify, evaluate, and maintain canyon wildfire preparation list of response equipment.
5. Evaluate water supplies for fire suppression needs, and work to develop more facilities and locations.
6. Regularly evaluate, update, and maintain planning commitments.
7. Place signs to mark canyons and other locations.
8. Work with State Forestry Department to improve forest health.

Neola Community Fire Plan, 2003 | Goals

1. Increase public awareness of the risks posed by wildfire to life safety and property of area residents through implementation of a wildfire hazard education program.
2. Increase life safety and enhance forest health through the implementation of a of “certified” defensible space program. Objective is to achieve 85% of the homes within the project area.
3. Develop and implement hazardous fuels mitigation program to establish fuel breaks where needed and to reduce hazardous fuel concentrations.
4. Establish a fire safe map of roads in the area.
5. Increase water supplies for fire suppression needs.
6. Thin out vegetation and treat and reseed the area with fire safe species.
7. Put an evacuation plan in place.

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RISK ASSESSMENT

Introduction Information from this section is intended to determine, based on the available data, the likelihood of wildfire within the study area, as well as the risk to structures and property in the event of a fire. This information is also intended to inform community leaders where mitigation efforts should be focused to reduce wildfire risk to the greatest extent possible. The data for this section was provided by FFSL through UWRAP.

Estimated Values at Risk Values at risk in the County consist of privately owned residential and commercial properties that could be adversely impacted by a wildfire. These at-risk values could also include, but

are not limited to public properties, utilities, and other infrastructure.

Communities-At-Risk Data The information in Table 1 (below) is derived from the Communities-At-Risk list that was developed to determine the scope of the challenges associated with the WUI, and to monitor the progress of fire hazard mitigation in these areas. The scale for all below-listed parameters is: 0=No Risk; 3=Extreme Risk. Thus, the higher the score, the more wildfire risk exists for a community.

Fire Occurrence The Fire Occurrence parameter is a measure of wildfire risk to a community based on the number of previously documented fires in the vicinity of the community within the last 10 years. The more frequent wildfires have occurred near the community within the last 10 years, the higher the score (see Table 1 below).

From 1999 to 2008, there were 591 reported fires in the study area. Considering data from this timeframe, most of the acreage burned during 2007 (532 acres, or 76% of all acreage burned in this time period). Wildfires during years 2002 and 2007 correlate well with regional drought in Utah. Most of the fires were classified as being ignited by ‘natural causes’ (71%). Most of the human-caused events caused by debris burning (9%) and ‘misc’ (9%) sources; and most of the remaining fires were caused by either campfires or equipment use (4% each).

Fires occurred during all non-winter months of the year (March through November). The month of July had the highest occurrence of fires (35% of all fires), followed by August (24%) and approximately 15% for each of the remaining non-winter months.

As unnatural ignition sources caused approximately 29% of the total fires, mitigation goals should be focused to address fire safety and responsibility through public outreach campaigns. The public outreach campaigns should be concentrated during the critical summer months of June through September.

Communities could evaluate and revise current burning policies to increase compliance and possibly consider more stringent enforcement. Communities could provide more opportunities for community burn days or community-sponsored chipping, allowing debris to be disposed of in a more-controlled environment. More stringent fireworks restrictions could also be implemented during the summer months.

Fuel Hazard The Fuel Hazard parameter is a measure of the fuel conditions in the vicinity of the community, including topography, weather conditions, and the vegetation types. The more hazardous the fuel conditions near a community, the higher the score (see Table 1 below).

The most dominant vegetation cover types in the study area are pinyon-juniper woodlands (21.1%) or sagebrush steppe (21.7%). Communities in higher-elevation areas are often bordered by timber stands and a dense understory.

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Common land cover also consists of subalpine forest (8.1%), barren (8.4%), and pine forest 6.6%. Developed and agriculture comprise 7.9% of total land cover. The establishment and proliferation of invasive weeds (e.g., cheatgrass) in these arid and semi-arid environments increases site susceptibility to wildfire (Brooks and Chambers 2011).

Fuel management is a key component of community wildfire preparedness as each of the vegetation cover types near areas that are susceptible to wildfire. Although the UWRAP data is a valuable reference to

vegetation and fuel conditions along the WUI, it is not a perfect representation of fuel conditions on the ground, and care must be taken to thoroughly evaluate fuel conditions along the WUI.

Fuel breaks interrupt contiguous fuels and are important for the protection of the WUI. Fuel breaks provide defensible space for firefighters to work and reduce or slow the spread of fire to and from structures. Fuel breaks are cost-effective means of protecting structures from wildfire and can be implemented and maintained by the property owner (FEMA 2008).

Green-stripping is the practice of establishing fire resilient vegetation along a strip or block of land to diminish the risk of wildfire starting or spread beyond the green strip. The Natural Resource Conservation Service (NRCS) recommends using green-stripping along common ignition areas such as railroads, farmlands, and highways; green-stripping can be used to protect homes or neighborhoods that are in high fire hazard areas (St. John 2009).

Values Protected The Values Protected parameter is a measure of human and economic values associated with the community or landscape, such as homes, businesses, and community infrastructure. The more potential risk to human and economic values resulting from a wildfire, the higher the score (see Table 1 below).

Protecting residential areas should be the highest priority; however, focused effort should also be made to protect commercial properties as wildfire-related damage could result in the loss of jobs, adversely impacting the local economy.

Water and other utilities may be impacted by wildfire, and adequate planning to respond to service interruptions will ensure minimal utility down-time.

Fire Protection Capability The Fire Protection Capability parameter is a measure of the fire protection abilities possessed by a community. Wildfire protection capabilities are measured indirectly by evaluating the community's Insurance Services Organization (ISO) rating; the higher the ISO rating (the more poorly equipped a community's firefighting capabilities), the higher the score (see Table 1 below). Fire protection capabilities should be evaluated frequently to identify weaknesses and plan actions to improve capabilities.

Table 1: 2016 Table of Communities-At-Risk Compared with Fire Occurrence, Fuel Hazards, Values Protected, and Fire Protection Capability Scores.

Altamont	1	1	2	1	5	Argyle Canyon	2	3	3	3	11	Bandana Ranch	3	3	2	3	11
Bluebell	1	1	2	2	6	Bridgeland	1	1	2	2	6	Cedar Ridge (View)	2	2	3	3	10
						Clark Estates	2	3	3	3	11	Current Creek Mt.	3	3	3	3	12
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						Defas Dude Ranch	2	2	2	3	9	Duchesne	1	1	2	1	5
						Fisher Private Property	2	2	2	2	8	Fruitland	3	3	3	3	12
						Golden Eagle	3	3	3	3	12	Hancock Cove	2	2	2	2	8
						Hanna	1	1	2	2	6	Indian Canyon	2	2	2	3	9
						Indian Canyon Private	2	2	2	2	8	Ioka	2	2	3	2	9
						Lake Canyon	2	2	2	2	8	Lower North Fork Priv.	2	2	2	2	8
						Mojado	2	3	1	3	9	Moon Lake Private	2	3	2	2	10
						Moon Lake Resort	2	3	3	2	10	Moondance	2	2	2	3	9
						Mountain Home	2	2	2	3	9	Mt. Tabby Springs	2	3	2	3	10

Myton Bench 1 1 2 1 **5** Myton 2 1 3 2 **8** Neola 3 1 2 1 **7** Orange Mountain 3 3 3 3 **12** Pinwillies 3 3 2 3 **11**
Pinyon Ridge 3 3 3 3 **12** Pleasant Valley 1 1 3 2 **7**
Rabbit Gulch 3 3 3 3 **12** Reid Ranch 2 2 1 3 **8** Reservation Ridge 2 3 2 3 **10** Robbin's Ranch 2 2 2 2 **8**
Rock Creek Canyon
h
2 3 2 2 **9** Rock Creek Ranch 2 3 2 2 **9** Roosevelt 2 1 2 1 **6** Stockmore 2 2 2 3 **9** Strawberry Pinnacles 2 2 2
3 **9** Tabiona 2 1 2 2 **7** Talmage 2 2 2 3 **9** Timber Canyon 2 3 2 2 **9** Uinta Canyon Summer 2 1 2 3 **8**
Upalco 2 1 2 3 **8** Utahn 1 1 2 2 **6** West Sundance 3 3 3 3 **12** Yellowstone Ranch 2 2 2 3 **9**
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** Total Score Risk Categories: 4-7 Moderate; 8-11 High; and 12 Extreme*

Implications for Communities-At-Risk Data Most of the communities in the study area have risk scores that are moderate to high and would require the implementation of some risk reduction measures; however, the outlying areas should receive more priority in risk reduction measure implementation. Specifically, fuel reduction treatments could be implemented to reduce hazardous fuel loading adjacent to the WUI, local officials could identify specific utility or infrastructure resources that are at risk and implement measures to protect those resources, and firefighting capabilities could be evaluated to identify cost-effective improvements.

Table 2: Overall Communities At Risk Data (Average Values for All Duchesne County Communities)

2.0 2.1 2.2 2.4 **8.8**

** Total Score Risk Categories: 4-7 Moderate; 8-11 High; and 12 Extreme*

Natural Resources-At-Risk Natural resources at risk within the CWPP study area include the watershed health, forest products and recreation and tourism opportunities. Resources can be directly impacted by wildfire or indirectly impacted by the effects of

Riparian Areas Riparian areas within the study area serve a variety of functions to protect water resources, including trapping pathogens and nutrient pollution, and maintaining biological diversity. If riparian areas are burned, water quality and wildlife habitat are jeopardized. Some reaches of riparian vegetation are more sensitive to wildfire impacts than others. According to the UWRAP, the most sensitive reaches of riparian area are generally associated with higher elevations, likely due to the erosion potential of these areas. The data indicates that 41.4% of riparian areas (75,617 acres) are considered the least sensitive to wildfires, 50.7% of riparian areas are considered moderately sensitive to wildfires, and 7.9% of riparian areas (14,413 acres) are considered the most sensitive to

Forest Assets Forest assets provide timber, fuel, aesthetics, recreational opportunities, wildlife habitat, water resources, etc. Fire management of forest assets under certain conditions, but fire in unfavorable conditions can result in catastrophic forest fires, jeopardizing forest health and long-term ecological stability. The study area has 967,479 acres of forest assets, almost all of which are managed by private landowners. Approximately 19.9% of forest assets are considered sensitive or tree species that are intolerant or sensitive to damage from fire. Approximately 52.8% of forest assets are considered resilient or tree species that have characteristics that help the tree resist damage whose adult stages can survive low-intensity fires. Approximately 27.2% of forest assets are considered adaptive or tree species that have the ability to regenerate following the fire by sprouting or serotinous cones. Unfortunately, the UWRAP data does not provide data on forest asset response to a high intensity fire situation, and it is assumed that most forest types would be much less resilient or adaptive to high intensity wildfires. Management priority should be given to the highest-value forest assets that are the least resilient to fire.

Wildlife

Wildlife commonly seen throughout the county include: muledeer, elk, racoons, rabbits, squirrels, jays, magpies, pheasants, woodpeckers, ducks, hawks, eagles, owls, vultures, and finches. Duchesne County generally is home to several state-sensitive and federally listed threatened or endangered species. Wildfire can drastically alter wildlife habitat and either displace or destroy wildlife. There is only one wildlife refuge in the county.

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The Scott Matheson Wetlands Preserve is managed for several species and recreation and is a management area within the study area. The Scott Matheson Wetlands Preserve is managed for several species and recreation and is a management area within the study area. The Scott Matheson Wetlands Preserve is managed for several species and recreation and is a management area within the study area. which would be substantially impacted if the area burned.

Soil Depending on the severity of a wildfire, much of the vegetation and litter are removed, leaving bare soil susceptible to erosion. On steep slopes, soil loss through sheet erosion can be significant, but is generally not as severe as on steep slopes; wildfires on steep slopes can result in rilling or gully formation, potentially resulting in severe soil loss.

Severe wildfires in forests and woodlands often cause soil hydrophobicity and/or soil sterilization, while also killing grasses and other plants. This hinders natural revegetation and managed seeding efforts, and ultimately leads to increased soil erosion. Management priority should be given to areas with steep slopes and dense fuels to prevent excessive soil erosion.

Water Resources Maintaining water quality and quantity is a high priority for Duchesne County communities. Much of the county's drinking water is sourced from the upper watersheds; for this reason, proper management of watersheds is vital to Duchesne County communities.

The UWRAP drinking water data is categorized by both the quality and quantity of public surface drinking water and is reported on a watershed scale. The most important watersheds for drinking water for residents within the County are the watersheds located in the northern part of the county. The UWRAP drinking water impacts data shows no watershed acres that have medium or high impacts to drinking water resources within the study area.

UWRAP Summary Report The following information is based on the UWRAP and Area of Interest (AOI) Summary Report. Reports are generated using a set of predefined map products developed by the West Wide Wildfire Risk Assessment (2012) project. The UWRAP Summary Report provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning.

Wildland Development Area (WUI) Impacts: Data set is derived using a Response Function modeling approach. To calculate the Wildland Development Area Impact Response Function Score, the Wildland Development Area housing density data was combined with the UWRAP drinking water impacts data and Response Functions assignments to represent potential impacts.

Wildfire Threat: A number that is closely related to the likelihood of an acre burning.

Wildfire Risk: Combines the likelihood of a fire occurring (Threat), with those of areas of most concern that are adversely affected (Fire Effects). Wildfire Threat Index is derived from historical fire occurrence, landscape characteristics including surface fuels, percentile weather derived from historical weather observations and terrain conditions. Fire Effects are comprised of Fire Hazard, Fire Exposure, and Suppression Difficulty.

Table 3: Total Acres/Percent Total Land Area for Each Parameter within the study area.

Low (1-4) 47,023 acres / 92.6% 1,564,885 acres / 75.3% 1,523,271 acres / 73.3%

Moderate (5-7) 3,611 acres / 7.1% 473,780 acres / 22.8% 530,243 acres / 25.5%

High (8-10) 136 acres / 0.3% 40,538 acres / 1.9% 25,690 acres / 1.2%

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RISK REDUCTION PRIORITY AREAS

Duchesne County identified four separate priority areas for wildfire risk reduction (see Figure 1). These areas include: 1 = Tab

2 = Fruitland Corridor

3 = Argyle Canyon

4 = Neola Area

Risk reduction goals for each priority area described below include goals related to wildfire prevention, preparedness, mitigation, and response. Management actions associated with each goal should create 1) resilient landscapes, 2) fire adapted communities, and 3) a coordinated wildfire response.

Figure 1: Duchesne County CWPP Priority Study Areas

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Priority Area 1: Tabby Valley

Extent + Location • Roughly 45,000 acres.

- Area extends along Hwy35 and is adjoining Wasatch County. It is just south of the Uinta Mountains.

Ownership + Access • Lands in the Tabby Valley are almost exclusively private, though Tribal lands are also located between Tabiona and Hanna.

- Roads access the surrounding areas in numerous points.
- One ingress and egress road in subdivisions and some communities. Alternate access need developed.

Geography + Vegetation • Fire fuel loads along the creek corridor in some areas are dense and significant.

- There are many areas where invasive trees have grown to maturity in the corridor.

Risks • UWRAP data characterizes this area as having overall risks that are greatest along the corridor because of and infrastructure development.

- No hazard planning for evacuation and no early warning systems.

- Homes are built of flammable materials (wood siding, shakes and patios).
- Fire equipment is hampered from protecting an area because of long, narrow, winding, or no driveways.
- Protecting the Moonlake substation near Mt Tabby Springs is one of the priorities for the area.

Forecast • Desire to live in a secluded area surrounded by natural vegetation without defensible space will increase demand for development.

- Inadequate water supply is likely going to be an ongoing issue.

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Priority Area 2: Fruitland Corridor

Extent + Location • Roughly 80,000 acres.

- Extends from the Wasatch County border along US40 until Starvation Reservoir.
- Only one community, Bandanna Ranch, has an actual home owners association (HOA) with a budget. The other communities such as Pinion Ridge, Clark Estates, Lower Red Creek, etc, are subdivisions but no HOA were ever formed.

Ownership + Access • Lands in the area are almost exclusively private, though there are large wildlife management areas.

- Roads access the corridor in numerous points.

Geography + Vegetation • Fire fuel loads in some areas south of US40 are dense and

significant.

Risks • UWRAP's wildfire threat overview estimates that there is a "very high risk" on lands directly east of Fruitland. The overview highlights the Tribal land south of the corridor as an area of concern.

- Misperception that fire protection in rural areas is equal to urban fire protection services.
- No hazard planning for evacuation and no early warning systems. Inadequate water supply.
- Poor signage and access to residences.
- Utility service lines and propane tanks.

Forecast • ???

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Priority Area 3: Argyle Canyon

Extent + Location • Roughly 40,000 acres.

- Consists of private land near Indian Canyon on the northern border of Carbon County.

Ownership + Access • Lands adjacent to the Creek are primarily under USFS and BLM jurisdiction. There are pockets of SITLA disbursed throughout.

- Access on Hwy191 is a concern because it has areas of extreme risk directly adjacent to it.
- Private Property includes recreation property with and without developed structures. The

several camps that provide for group camping, one such area is the LDS Timberlane property.

Geography + Vegetation • Vegetation consists of areas of mountain forest with several high mountain meadows growing grasses intermixed with small areas of sagebrush.

- Much of the wooded area is covered with down timber with areas of beetle infestation.
- The main Argyle Canyon bottom has a small stream with patches of willows interspersed along the stream bed. There are no streams in any of the side canyons except during spring runoff.

Risks • Fire risks are of concern due to both the density of fuels and the proximity to USFS land to the north.

- UWRAP data is shown as having pockets of high overall risk.
- Disbursed cabin locations in the general area increase the likelihood of fire events.

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- Homes are built of flammable materials (wood siding, shakes and patios).
- Utility service lines and propane tanks.

Forecast • Future development for the area is expected to continue because of the demand for recreation properties.

Priority Area 4: Neola Area

Extent + Location • Roughly 60,000 acres.

- This area is located on the border of Uintah County.

Ownership + Access • Jurisdiction for the lands north and west of Neola are Tribal.

- Roads easily access the perimeter of the area.

Geography + Vegetation • Fire fuel loads in some areas are dense and significant.

- Vegetation consists of areas of sagebrush and grass openings transitioning to forested areas with pinion and juniper, intermixed with scattered patches of Ponderosa Pine and Cottonwood along the riverbed.
- Several farms are located within the project area with areas in production for crops and pastures.

Risks • UWRAP data categorizes much of the private land in the area as low risk but it is identified as a priority because it is surrounded by Tribal lands with moderate risk to the north and west.

- One ingress and egress road in subdivisions and some communities.
- Poor signage and access to residences.
- No hazard planning for evacuation and no early warning systems.
- Utility service lines and propane tanks.

GOALS + SPECIFIC ACTIONS

The goals of this plan are categorized by intended timeframe, anticipated impact, organizational responsibility, and priority. Progress on these goals should be monitored by the County and reported regularly to the State.

A stakeholder meeting hosted by the County should also be held regularly to evaluate progress and refine the goals of this plan.

The following goals should be pursued as resources are available:

- A. Decrease fuels around key areas within and around communities to reduce wildfire intensity and impact.
- B. Work with state and federal agencies to decrease fuels on adjacent public land to reduce wildfire intensity and impact.
- C. Evaluate, improve, and maintain community wildfire preparations and response facilities/equipment.
- D. Coordinate with communities to develop a comprehensive emergency response plan.
- E. Train community leaders and educate community members to prepare for and respond to wildfire.
- F. Actively address identified regulatory issues impacting community wildfire prevention and response needs.
- G. Maintain the commitment to regularly evaluate, update, and maintain planning commitments.

Management Action Responsibility Impact* 1 2 3 4

A-1: Encourage individual lot cleanup and creation of defensible space. Provide guidance and inspection as needed and involve organizations.

- Duchesne County
- Land Owners
- Service Organizations

High + + + +

A-2: Work with landowners and service organizations to create defensible spaces around unoccupied or abandoned lots.

- Duchesne County
- Land Owners
- Service Organizations

High + + + +

A-3: Implement community roadside

- Duchesne County mowing/reseeding and limbing projects.
- Community Leaders
- Land Owners

High + + - +

A-4: Develop a list of residential properties and businesses with GPS coordinates to provide to emergency responders.

- Duchesne County
- Community Leaders
- Emergency Response Entities

High + + + +

A-5: Evaluate fuel loading around communities and identify priority areas for fuel reduction treatments. Specifically fuel projects near water sources (in order to maintain access).

- Duchesne County
- Community Leaders

Moderate + + + +

A-6: Conduct fuel reduction treatments in

- Duchesne County previously-identified priority areas.
- Community Leaders
- Land Owners

Moderate + + + +

A-7: Designate community burn/chipping days and assist residents in removal of fuels from their properties.

- Duchesne County
- Community Leaders Moderate + + + +

Management Action Responsibility Impact* 1 2 3 4

A-8: Maintain clear zones for utility corridors

- Duchesne County and infrastructure.
- Utility Companies
- Utility Operators

High + + + +

A-9: Work with landowners to firesafe their

- Duchesne County propane tanks.

- Propane Provider High + + + +

A-10: Control noxious weeds that contribute • Duchesne County Moderate + + + +

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to fire hazard. • County Weed Dept

A-11: Manage vegetation adjacent to roadways, trails, and railroad lines to prevent wildfire ignitions or to interrupt contigu

- Duchesne County

- Community Leaders Moderate + + + -

A-12: Reduce undesirable fuels adjacent to riparian areas to reduce fire impacts and maintain channel stability.

- Duchesne County

Low + + + +

Management Action Responsibility Impact* 1 2 3 4

A-13: Reduce beetle-killed timber within and

- Duchesne County adjacent to the study area.
- Community Leaders
- Land Owners

Moderate + + + -

A-14: Designate community shooting areas and create/enforce ordinances to prevent firearm ignitions.

- Duchesne County
- Community Leaders Moderate + + + +
- d

*Priority was designated by assessing the estimated value of the resources being protected by the management action. The higher the value of the resources protected, the higher the priority.

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Management Action Responsibility Impact* 1 2 3 4

B-1: Work with agencies to evaluate priority

- Duchesne County areas for fuel reduction treatments.
- Community Leaders

- BLM
- USFS
- FFSL
- SITLA
- UDWR
- UDOT

High + + + +

B-2: Assist agencies in identifying pinyon- juniper woodlands adjacent to WUI for treatment.

- Duchesne County
- BLM
- USFS
- FFSL
- SITLA
- UDWR

High + + + +

B-3: Prevent noxious/invasive weed proliferation through management, control, and reduction.

- Duchesne County
- BLM
- USFS
- SITLA
- UDWR

High + + + +

B-4: Manage mining and oil/gas operations to prevent wildfire ignitions and for the protection of their operations.

- Duchesne County
- USFS
- BLM
- UDOGM

High + + - +

B-5: Assist UDOT and railroad company in identifying areas along major transportation corridors that need fuels maintenance.

- Duchesne County
- UDOT
- Railway Owners

Moderate + + + -

B-6: Coordinate with agencies to plan upcoming fuel reduction treatments and offer county support to implement the treatments.

- Duchesne County
- Community Leaders
- BLM
- USFS
- FFSL
- SITLA
- UDWR

Moderate + + + +

Management Action Responsibility Impact* 1 2 3 4

B-7: Conduct fuel reduction treatments on

- Duchesne County USFS-administered land in high-priority

• USFS High + - + -

Duchesne County CWPP - 24 areas.

B-8: Conduct fuel reduction treatments on

- Duchesne County BLM-administered land in high-priority areas.

• BLM High - - + -

B-9: Conduct fuel reduction treatments on

- Duchesne County State-managed land in high-priority areas.

- FFSL
- SITLA
- UDWR

High + + + -

B-10: Support agencies in post-fire rehabilitation/watershed restoration projects to reduce adverse impacts after fires.

- Duchesne County
- Appropriate Agencies

High + + + +

B-11: Maintain clear zones for utility

- Duchesne County corridors and infrastructure.
- Utility Companies
- Utility Operators

High + + + +

B-12: Manage vegetation adjacent to roadways, trails, and railroad lines to prevent wildfire ignitions and to create green stream breaks.

- Duchesne County
- Land Owners
- Appropriate agencies

Moderate + + + +

B-13: Manage recreation (trails, campsites, etc.) to prevent wildfire ignitions and to reduce fuel loading.

- Duchesne County
- Land Owners
- Appropriate agencies

Moderate + + + +

B-14: Support wildlife habitat improvement

- Duchesne County projects that also reduce wildfire risk.
- Appropriate Agencies

Moderate + + + +

B-15: Reduce undesirable fuels adjacent to riparian areas to reduce fire impacts and maintain channel stability.

- Duchesne County
- Land Owners
- Appropriate agencies

Low + + + +

Management Action Responsibility Impact* 1 2 3 4

B-15: Reduce beetle-killed timber within and

- Duchesne County adjacent to the community.
- Appropriate Agencies

Moderate + + + +

B-16: Designate community shooting areas and create/enforce ordinances to prevent firearm ignitions.

- Duchesne County
- Appropriate Agencies

Moderate + + + +

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Duchesne County CWPP - 25

Management Action Responsibility Impact* 1 2 3 4

C-1: Inspect and test all hydrants, hoses, and

- Duchesne County equipment to ensure/maintain proper function.
- Community Fire Professionals

High + + + +

C-2: Identify GPS coordinates for available

- Duchesne County water sources for fire suppression.
- Community Leaders
- Emergency Response Entities

High + + + +

C-3: Identify suitable escape routes for

- Duchesne County residents and emergency response personnel.
- Community Leaders
- Emergency Response Entities

High + + + +

C-4: Work with community leaders to evaluate community wildfire preparedness and identify deficiencies (e.g., manpower, infrastructure, etc.).

- Duchesne County
- Community Leaders/Fire Professionals

High + + + +

C-5: Assist communities in correcting or mitigating community wildfire preparedness deficiencies as needed.

- Duchesne County
- Community Leaders High + + + +

C-6: Identify existing fuel breaks and propose

- Duchesne County other strategic fuel break locations.
- Community Leaders/Fire Professionals

High + + + +

C-7: Construct fuel breaks in priority areas. • Duchesne County Moderate + + + +

Management Action Responsibility Impact* 1 2 3 4

C-8: Review community signage to ensure escape routes and safe areas are clearly signed with fire resistant sign materials.

- Duchesne County
- Community Leaders
- Emergency Response Entities

Moderate + + + +

C-9: Evaluate bridges and culverts to ensure that the weight of emergency vehicles can be supported.

- Duchesne County
- Community Leaders
- Emergency Response Entities

Moderate + + + +

C-10: Work to anticipate future community • Duchesne County Moderate + + + +

Duchesne County CWPP - 26

growth and identify additional fire suppression resources that will be required in the future.

- Community Leaders
- Emergency Response Entities

Management Action Responsibility Impact* 1 2 3 4

C-11: Acquire additional fire suppression

- Duchesne County resources as dictated by anticipated needs.
- Community Leaders
- Emergency Response Entities

Moderate + + + +

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Duchesne County CWPP - 27

Management Action Responsibility Impact* 1 2 3 4

D-1: Develop an evacuation plan with safe

- Duchesne County areas.
- Community Leaders
- Emergency Response Entities

High

+ + + +

D-2: Identify homebound residents or other persons needing additional assistance for emergency evacuation.

- Duchesne County
- Community Leaders
- Emergency Response Entities

High

+ + + +

Management Action Responsibility Impact* 1 2 3 4

D-3: Develop reverse 911 notification system or other similar community communication plan.

- Duchesne County
- Community Leaders
- Emergency Response Entities

Low

+ + + +

Management Action Responsibility Impact* 1 2 3 4

D-4: Maintain and revise evacuation plan as

- Duchesne County necessary
- Community Leaders
- Emergency Response Entities

High

+ + + +

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Duchesne County CWPP - 28

Management Action Responsibility Impact* 1 2 3 4

E-1: Hold annual community wildfire preparedness meetings just prior to annual county CWPP review meeting.

- Duchesne County
- Community Leaders
- Fire Professionals

High + + + +

E-2: Educate the public on the emergency response plan and make it available to the public.

- Duchesne County
- Community Leaders

High + + + +

E-3: Fire awareness campaign including brochures, videos, school assemblies, radio advertisements, demonstration areas, public meetings.

- Duchesne County
- Community Leaders
- Fire Professionals

High

+ + + +

E-4: Schedule with residents and provide individual property assessments by a fire professional.

- Duchesne County
- Community Leaders
- Fire Professionals

Moderate + + + +

E-5: Distribute annual flier with dates of trainings, areas of special concern, anticipated fireworks restrictions, etc.

- Duchesne County
- Community Leaders

Moderate + + + +

Management Action Responsibility Impact* 1 2 3 4

E-6: Partner with agencies to provide basic and advanced trainings for community officials and fire professionals.

- Duchesne County
- Community Leaders
- Fire Professionals
- FFSL
- USFS
- BLM

High

+ + + +

E-7: Hold annual community wildfire preparedness meetings just prior to annual county CWPP review meeting during early

- Duchesne County
- Community Leaders
- Fire Professionals

High

+ + + +

E-8: Distribute annual flier with dates of trainings, areas of special concern, anticipated fireworks restrictions, etc.

- Duchesne County

- Community Leaders

Moderate + + + +

E-9: Promote improved house address

- Duchesne County signage.
- Community Leaders

Low + + + +

E-10: Develop and implement plan to educate

- Duchesne County new homeowners about emergency response
- Community Leaders

Low + + + +

Duchesne County CWPP - 29
plan.

Management Action Responsibility Impact* 1 2 3 4

E-11: Hold annual community wildfire preparedness meetings just prior to annual county CWPP review meeting.

- Duchesne County
- Community Leaders
- Fire Professionals

High + + + +

High + + + +

High + + + +

High + + + +

E-12: Distribute annual flier with dates of trainings, areas of special concern, anticipated fireworks restrictions, etc.

- Duchesne County
- Community Leaders

Moderate + + + +

Moderate + + + +

Moderate + + + +

*Priority was designated by assessing the estimated value of the resources being protected by the management action. The higher the value of the resource higher the priority.

Management Action Responsibility Impact* 1 2 3 4

F-1: Work with community leaders to review current ordinances to determine fire protection needs.

- Duchesne County
- Community Leaders

High + + + +

F-2: Promote ordinances that address fire

- Duchesne County protection needs.
- Community Leaders
- Fire Professionals

High + + + +

F-3: Review and revise or create county

- Duchesne County ordinances for weed management.
- Community Leaders

Moderate + + + +

Management Action Responsibility Impact* 1 2 3 4

F-4: Require fire protection measures in all new commercial and residential construction, including fuel breaks, fire-resistant materials, ingress/egress, etc.

- Duchesne County
- Community Leaders
- Fire Professionals

High

+ + + +

F-5: Promote zoning guidelines that promote adequate space for fire equipment movement and access.

- Duchesne County
- Community Leaders
- Fire Professionals

Low + + + +

Management Action Responsibility Impact* 1 2 3 4

F-6: ??? •

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Management Action Responsibility Impact* 1 2 3 4

G-1: Review goals and actions in CWPP

- All Stakeholders annually and update as needed.

High + + + +

G-2: Review vegetation maintenance

- Duchesne County schedule and alter as needed.
- Appropriate Agencies

High + + + +

Management Action Responsibility Impact* 1 2 3 4

G-3: Review goals and actions in CWPP

- All Stakeholders annually - and update as needed.

High + + + +

G-4: Review vegetation maintenance

- Duchesne County schedule and alter as needed.
- Appropriate Agencies

High + + + +

Management Action Responsibility Impact* 1 2 3 4

G-5: Review goals and actions in CWPP

- All Stakeholders annually and update as needed.

High + + + +

G-6: Review vegetation maintenance

- Duchesne County schedule and alter as needed.
- Appropriate Agencies

High + + + +

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Clicking on the map images below will open a larger pdf version. **Wildfire Risk
Overview**

(click for pdf version of the map)

Wildfire Threat Overview

(click for pdf version of the map)

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Vegetation Overview *(click for pdf version of the map)*

Duchesne County CWPP - 35

Wildland Development Areas Overview

(click for pdf version of the map)

Duchesne County CWPP - 36

Building Footprint Overview

(click for pdf version of the map)

Duchesne County CWPP - 37

Land Ownership Overview

(click for pdf version of the map)

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APPENDIX

Suggested WUI Interface Ordinance Language

ZONING ORDINANCE SUGGESTIONS **Purpose:**

The purpose of this zone is to establish minimum regulations consistent with nationally recognized good practice for the safe property. Regulations in this zone are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels. The development and use of urban interface areas is a potential threat to life and property from fire and resulting erosion. Safeguards to prevent the occurrence provide adequate fire-protection facilities to control the spread of fire in wildland-urban interface areas shall be in accordance with

General Regulations:

The supplementary regulations of this zone will be as outlined in the 2006 Wildland Urban Interface code as adopted in [\(the jurisdiction's code\)](#). The provisions of this zone shall apply to the construction, alteration, movement, repair, maintenance and use of any building premises within the Urban-Wildland Interface Overlay Zone.

Buildings or conditions in existence at the time of the adoption:

Buildings or conditions in existence at the time of the adoption of this zone are allowed to have their use or occupancy continued if the use or occupancy was legal at the time of the adoption of this zone, provided that continued uses do not constitute a distinct danger

Location of Overlay:

This zone will only be overlaid and shown on existing zoning districts on the [\(jurisdiction's official zoning map name\)](#). The zone will be additional to the requirements of the base zone on which the overlay has been placed.

Conflict:

In cases where the standards of the base zone and the overlay zone conflict, the stricter of the two requirements will stand and

Administration and Enforcement:

It will be the responsibility of the [\(insert whatever position does the building and fire inspections within your jurisdiction\)](#) to ensure that the standards of this zone are met.

BUILDING CODE SUGGESTIONS **Wildland Urban Interface**

Code:

(insert jurisdiction name) now adopts by reference the 2006 Utah Wildland Urban Interface Code, published by the International Fire Code Council, and it is made a part of this code as though fully printed in this section.

Administration and Enforcement:

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It will be the responsibility of the (insert whatever position does the building and fire inspections within your jurisdiction) to ensure that all applicable standards are met.

Location of WUI:

The location of the WUI as mentioned in the 2006 Utah Wildland Urban Interface Code, will be interpreted and shown as an overlay on (insert jurisdiction's official zoning map name).

Amendments:

Here list any amendments that your building and fire officials feel should be made to the international code after reviewing. (C) has already made some amendments and reviewing the County's amendments would be a great place to start when considering future amendments.

WUI INFORMATION PACKET SUGGESTIONS The Duchesne County development office makes information packets available to anyone considering building in the WUI area. The packets clarify the expectations before final application decisions are made.

Public Interaction with this CWPP Public information efforts were conducted in order to draw attention to this initiative, and to encourage residents and business owners to contribute to the creation of goals and strategies. There were several methods to interact with the public:

1. Stakeholder meetings were held in May and June.
2. The public was invited to all regularly-scheduled meetings of the Fire District and County Commission.
3. Material for the Duchesne County website was developed with information about wildfire planning.
4. Social media advertisements were also made to promote a survey, location of events, etc.

Suggestions for Future Public Outreach Public education and outreach to reduce the risk of wildfire can be cheap and effective. It can take many forms and can be difficult to know where to begin. This section includes some examples to help the community get started with their public education efforts.

Types of Outreach:

The first step in conducting a public education campaign, with attention paid to owners of vacant lots for wildfire awareness is to determine what will be covered and what the end goal is. After this though is another important step often overlooked, how is the message going to reach the audience. The platform or tool you use is almost as important as your message. Things such as videos about defensible space for homeowners, and more. Platforms like social media can be cheap and easy to use, fliers can be distributed in person, radio can be used if they have time and are listening, and newspapers can spark local change. Recently, social media has been used with increasing frequency by the public. If your organization's Facebook page doesn't reach enough people, buy an add. The return on investment is often less than you think who sees the ad. Overall, whatever method is chosen for the campaign should be clear and concise and have a strategy for why that method was used.

Inspections:

A recurring goal in the CWPP is the need for local inspections of at-risk properties. However, the community decides to conduct inspections, the required at the end of them is of less importance than the teaching opportunity. Use these inspections as an opportunity to hand out fliers to residents about how they can keep their property safe. This will often be motivation enough for a citizen to act.

Recurring Events:

Regular events that raise wildfire awareness are essential to effective education. People will most likely need to hear the message before it sinks in and even a couple more times before they act. A suggested event in the CWPP is a community chipper day, where residents bring vegetation from their property and have it disposed of for free. Also, any social media or advertising campaign needs to be repeated enough for the message to get across. This way residents will have a dependable source to look to when they have questions.

Area Specific:

Each area and jurisdiction have their own problems. Historic ignition sources may differ from place to place, so the types of concerns will change from place to place. Make sure that when a campaign is produced, it addresses specific concerns of that area.

Examples:

- Infographic on post-wildfire flooding risk | <https://tinyurl.com/PostFireFlooding>

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