Deseret Power Cooperative Wildland Fire Protection Plan

Version 1.2 July/15/2020



Contents

Introduction -Deseret Power	3
Description of Transmission Lines and Electrical Infrastructure:	4
Procedures, and standards that Deseret Power will use to perform vegetation management	6
Proposed modifications or upgrades to facilities and preventative programs Deseret Power will	
implement to reduce the risk of its electric facilities causing a wildland fire	7
Procedures for de-energizing power lines and disabling reclosers to mitigate potential wildland fires	
taking into consideration	8
Procedures Deseret Power intends to use to restore its electrical system in the event of a wildland f	ire . 8
Community outreach and public awareness efforts before and during a wildland fire season	9
Deseret Power Contact List	9
Coordination with US Forest Service, state or local wildland fire protection plans	9
Forestry, Fire and State Lands	10
Area Managers and Contact Information	10
Attachment 1	11
Infrastructure Overview Map	11
Wildland Fire Risk & Threat Index	12
Attachment 2	22
Surface Land Management	22
Attachment 3	27
Utah Land Ownership Public Map	27
Attachment 4	28
Forestry, Fire, and State Contacts	28
Attachment 5	29
Vegetation Management Program	29
Attachment 6	33

Double Circuit Tower Wind Sway	33
·	
Single Circuit Tower Wind Sway	34

Introduction -Deseret Power

Deseret Power (Deseret Generation & Transmission Cooperative) is a regional generation and transmission cooperative headquartered in Utah serving six-member retail cooperatives providing service in 5 western states. Deseret Power owns and operates a 500 MW Coal fired Power Plant near Vernal, Utah and jointly owns other power plants located in Utah.

Blue Mountain Energy, Inc. (BME) is a subsidiary of Deseret Power located in Rio Blanco County, near Rangely Colorado. BME operates the Deserado coal mine providing fuel for the Bonanza Power Plant. BME also operates an electric 50 kV railroad from the Deserado coal mine to the Deseret Power Plant. BME owns and maintains approximately 37 miles of railroad track including the adjacent 50 kV catenary.

Deseret Power is a wholesale power provider and transmission owner that serves no retail or end use load at distribution class voltage levels.

Deseret Power owns and maintains approximately 300 miles of transmission lines, three substations, and related facilities ranging from 50 kV to 345 kV. A description of each line and location is outlined in the next section of this plan. An overview map can be found in Attachment 1. The lines and substations associated with the State of Utah are as follows:

Deseret Bonanza Substation:

- 2 345 kV line terminals
- 4 138 kV line terminals
- 1 69 kV line terminal
- 1 50 kV line terminal
- 1 138 kV line intertie with PacifiCorp.

Deseret Upalco Substation:

- 2 138 kV line terminals.
- 1 138 kV bus tie to adjacent PacifiCorp 138 kV substation.
- 1 138 kV bus tie to Moon Lake Electric 69 kV substation.

Deseret Southwest Rangely Substation (SWR):

- 4 138 kV line terminals.
- 2 138 kV ties to Moon Lake Electric 69 kV substation.
- 1 138 kV intertie with WAPA.
- 1 138 kV intertie with Tristate.

<u>Description of Transmission Lines and Electrical Infrastructure:</u>

Bonanza-Mona 345 kV Line:

The Bonanza-Mona 345 kV line is a Deseret Power owned line 171 miles long. The transmission corridor falls within Uintah County, Duchesne County, Wasatch County, Utah County, Sanpete County, and Juab County, Utah. The line is located on Private, BLM, Tribal, State Wildlife Reserve, State Trust, National Wilderness, and National Forest lands. The line terminates at Deseret's Bonanza 345 kV substation in Northeastern Utah and PacifiCorp's Mona 345 kV substation in central Utah. The line is exhibited in the Surface Land Maps in Attachment 2.

Bonanza-Upalco 138 kV Line:

The Bonanza-Upalco 138 kV line is a Deseret Power owned line and is 53 miles long. The transmission corridor falls within Uintah County and Duchesne County Utah. The Line is located on Private, Tribal, State Trust, and BLM lands. The line terminates at Deseret Power's Bonanza 138 kV substation in Northeastern Utah, and Deseret Power's Upalco 138 kV substation located near Roosevelt Utah. The line is exhibited in the Surface Land Maps in Attachment 2.

Bonanza-SWR 138 kV Line:

The Bonanza-Southwest Rangely 138 kV line is a Deseret Power owned line and is 26 miles long. The transmission corridor falls within Uintah County Utah. The line is located on BLM, and State Trust lands. The line terminates at Deseret Power's Bonanza 138 kV substation in Northeastern Utah and Deseret Power's Southwest Rangely 138 kV substation located in Rio Blanco county, Rangely Colorado. The line is exhibited in the Surface Land Maps in Attachment 2.

Bonanza-Vernal 138 kV Line:

The Bonanza-Vernal 138 kV line is a Deseret Power owned line and is 25 miles long. The transmission corridor falls within Uintah County Utah. The line is located on Private, BLM, and Sate Trust lands. The line terminates at Deseret Power's Bonanza 138 kV substation in Northeastern Utah and WAPA's Vernal 138 kV substation located near Vernal Utah. The line is exhibited in the Surface Land Maps in Attachment 2.

Blue Mountain Energy 50 kV Railroad:

The Blue Mountain Energy 50 kV railroad catenary is owned by BME. The electric railroad corridor falls within Uintah County Utah. The railroad is located on BLM lands. The 50 kV catenary terminates at Deseret Power's Bonanza Substation 50 kV bus in Northeastern Utah. There are 37 miles of railway track and catenary between the Bonanza Power Plant and the Deserado coal mine, which 15 miles fall in Utah and located on BLM lands. The railroad is exhibited in the Surface Land Maps in Attachment 2.

Areas that may be subject to heightened risk and threat of wildland fire

The attached Wildland Fire Index maps (Attachment 1) were used to perform a risk and treat analysis. Data from the Utah Wildland Fire Risk Assessment Portal was used to develop the maps and determine the risk. All of Deseret Power's transmission lines in Utah have been overlaid on the Wildland Fire Index maps to identify the high-risk and threat areas. Deseret Powers High Voltage power line corridors fall within primarily rural areas. Each line segment listed above have been reviewed for risk and threat levels. The following identifies the risks and threats for each line segment.

- Deseret Power's Bonanza-Mona 345 kV line has various risk and threat levels throughout
 Uintah, Duchesne, Utah, Sanpete, and Juab counties of Utah. The risks range from Very Low to
 Extreme risk. The threat levels range from Very Low to High Threat. A review of Attachment 1,
 Maps 1 through 10, pages 12 to 21 identify approximately 10 miles of line in Juab and Utah
 Counties as Extreme Risk and Extreme Threat (Attachment 1, map 9, & 10, page 21) The
 remainder of the line is located within Very Low to Moderate Risk as shown on the Wildland Fire
 Risk and Threat Maps in Attachment 1.
- Deseret Power's Bonanza-Upalco 138 kV line is located within desert terrain and is considered
 Very Low risk with Very Low threat level. A small segment of this line (0.25 mile) is identified to
 be Extreme risk with Moderate threat as shown on the Wildland Fire Risk and Threat Maps
 (Attachment 1, Maps 1 to 5. pages 12 to 16). This segment is located at the Hwy. 40 road
 crossing in Duchesne County.
- Deserte Power's Bonanza-SWR 138 kV line is located within desert terrain considered to be Very Low risk with Very Low threat levels as shown on the Wildland Fire Risk and Threat Maps in Attachment 1 (Map 1, page 12)
- Deseret Power's Bonanza-Vernal 138 kV line is located within desert terrain considered to be Very Low risk with Very Low threat levels as shown on the Wildland Fire Risk and Threat Maps in Attachment 1 (Maps 1 to 3, page 12 to 14).

Deseret's BME 50 kV Electric Railroad is located within desert terrain considered to be Very Low risk, with Very Low threat levels as shown on the Wildland Fire Risk and Threat Maps in Attachment 1 (Map 1, page 12).

<u>Procedures, Standards, and Timeframes used to Inspect, and Operate.</u>

Annual work plans (Vegetation Management) are developed by the Deseret Power-Power Systems Department, and are based on ground inspections and/or aerial visual patrols of the transmission lines listed above. Each line is scheduled to receive one inspection or patrol per calendar year, with no more than 18 calendar months in-between inspections. The ground and/or aerial inspections are performed throughout the year. Corrective work identified during an inspection is scheduled by the Deseret Power's Power Systems Superintendent and performed by internal crews or contractor. Any required vegetation control will be accomplished by manual clearing. This inspection routine and procedure is outlined in Deseret Power's approved Vegetation Management Plan (VMP) in Attachment 5.

If an encroachment into the Minimum Vegetation Clearance Distance (MVCD) is observed in Real-time to pose a threat of flashover, the Power Systems Superintendent will immediately be contacted and advised of the problem. The electrical crew member(s) will be directed to remove the problem vegetation and will remain at the location taking precautions to minimize fire risk until the encroachment can safely be removed. To safely remove the encroachment, a determination will be made whether a line outage is required. If a line outage is required, PacifiCorp Grid Operations will be contacted and an emergency request for a line outage will be made. The crew member(s) will remove the tree or trees that pose a risk of fire or outage upon receiving notice of the line being removed from service.

If a confirmed vegetation encroachment condition is found that is likely to cause a flashover at any moment and could result in a fire or system outage, the crew will contact PacifiCorp Grid Operations without any delay and request that the line be removed from service. The encroachment will then be removed.

<u>Procedures, and standards that Deseret Power will use to perform</u> vegetation management

Deseret Power developed and implemented a Vegetation Management Program (VMP) in August of 2007 as required by the Federal Energy Regulatory Commission (FERC-FAC-003). The objective of the Vegetation Management Program (VMP-Attached as Attachment 5) is to ensure the reliable operation of Deseret Power's Transmission by managing vegetation located within the transmission rights of ways (ROW), and to minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of fire and vegetation-related outages. The Deseret VMP includes procedures, vegetation standards, and timeframes used in vegetation inspection for safe and reliable operation that prevent the risk or threat of fire to the transmission system. These procedures have been audited by the Western Electric Coordinating Council several times since 2007 and revised as required. All Deseret Power owned transmission lines are inspected annually as per the VMP and as described in more detail below. Any vegetation encroachments during an inspection are noted and removed. Thorough records are kept and managed.

Deseret Power's maintenance strategy is to ensure that the Minimum Vegetation Clearance Distance (MVCD) as described in the VMP, is never violated in the transmission corridor and also to maintain adequate clearance to prevent the encroachment of vegetation into the MVCD. It is Deseret Power's maintenance practice to clear cut any vegetation within 15 feet below the conductors for grow-in and 27 feet to the side of conductors to accommodate for conductor swing and sway (See Attachment 6). Deseret Power uses herbicides for control of nuisance trees (Russian Olive) that have been clear cut at the base. Herbicides are reapplied annually. The Power Systems Superintendent has discretion to apply more stringent criteria based upon vegetation problems, landownership, terrain, contract easement, or permit rights to remove such trees.

Deseret Power uses the Utah State University Tree Browser (www.treebrowser.org) to determine vegetation growth rates for the species of trees located within Deseret Power's transmission line corridors. As determined from the Tree Browser program, two feet per year is the most that any tree

species located within the corridors could grow that would be a clearance concern. Transmission line corridor inspections are conducted with enough frequency to maintain the required clearances.

All transmission lines in Deseret power's system are visually inspected for vegetation growth. The inspections are carried out by experienced linemen patrolling with surface vehicles (ground patrol) and/or helicopter (aerial patrol). The purpose of these patrols is to identify vegetation and transmission line potential problems (damaged equipment or potential flash over items). Trees that have breached the **15-foot** grow-in clearance, or **27-foot** side sway clearance are scheduled for removal.

All trees that are designated to be removed are clear cut at the base, de-limbed and the trunks are cut into six-foot lengths. Governing Agencies may have specifications as to how to deal with the limbs and tree trunks in special situations. Any special specifications regarding disposal of limbs and trunks will be followed and coordinated when issued by the Governing Agencies.

Blue Mountain Energy's (BME) main objective to prevent fire along the railroad and catenary is vegetation control. BME uses a mix of the following control agents: Tordon K, Diuron, Glyphosate, (Round-Up), 2-4-D and Surfactant for vegetation control. These agents are sprayed 8' out from center line of the Railroad track. BME employees also physically remove any remaining vegetation around catenary poles. Where growth is heavy on the ROW, vegetation removal is done by grader work.

During the summer months BME keeps firefighting equipment parked at mile post 16.5 (Midway) prepared to travel in either direction loaded with 2,500 gallons of water. The pump is hydraulically driven at 207 gallon per minute with 150 feet of hose.

<u>Proposed modifications or upgrades to facilities and preventative</u> <u>programs Deseret Power will implement to reduce the risk of its electric</u> <u>facilities causing a wildland fire</u>

Deseret Power budgets for tree service contractors annually for vegetation control along the transmission corridors that are in high risk areas. All contractors used by Deseret are International Society of Arboriculture (ISA) certified.

Deseret Power does not own any distribution equipment (i.e. fuses, transformers, capacitors etc.) that could be additional fire risk due to equipment failure. Deseret Power does not have any plans to change out structures and/or equipment currently. If new transmission lines are proposed for construction, fire risk will be taken into consideration during engineering and design.

<u>Procedures for de-energizing power lines and disabling reclosers to</u> mitigate potential wildland fires, taking into consideration

Deseret Power's High Voltage transmission lines are not typically removed from service, nor do they have reclosing disabled during the fire season. Deseret Power's High Voltage lines remain in service continually for the reliability of the Western "Bulk Electric System" (BES) to prevent over loading of the BES, and/or system cascading.

In the event of wildfire, Deseret Power provides personnel to work directly with Incident Command and attends all incident meetings to provide input and coordination between fire operations and Deseret Power's system operation. Included in this Plan below is a list of Deseret Power's and BME's fire related personnel contact information. Contact information for the associated U.S. Forest Service, State, BLM, and Counties that Deseret Power proposes to coordinate with the event of a fire incident is contained in this plan below. If during a fire a transmission line is requested to be removed from service for the safety of firefighting personnel, Deseret Power will work closely with Incident Command using industry clearance and safety procedures for any line outages to ensure the safe operation of fire crews and equipment.

<u>Procedures Deseret Power intends to use to restore its electrical system</u> in the event of a wildland fire

Deseret Power's transmission systems should always be considered energized.

In the event a line has tripped, the line will be test energized. If the line does not hold after the first attempt, a Deseret Power crew will be dispatched to perform an inspection of the line. If after a line inspection it is determined the line fault was due to smoke from Wildland fire, the line will be test energize again and put back into service. If after an inspection, a determination is made that a line had a phase to phase fault due to smoke from wildland fire, the line will be test energized and put back in service. If a line trips from wildland fire and a Deseret Power representative is on site at the fire and can verify no damage to the line, it will be test energized and put back in service.

In the event that a line has been taken out of service and a clearance put on the line for the safety of wildland fire crews and/or the public, the Wildland fire Incident Commander and/or the infield leading authority will be required to provide an estimated timeframe for clearance to be held on the line and work closely with the Deseret Power's representative requesting and/or holding the line clearance. The Incident Commander will be required to sign off the clearance held by Deseret before the clearance can be released and the line reenergized. If the line had tripped before the line clearance was issued, the line will need to be inspected in coordination with wildland fire authorities before reenergization.

Community outreach and public awareness efforts before and during a wildland fire season

Deseret Power has provided draft copies of this plan to the U.S Forest Service, the State, BLM, Member Cooperatives and associated Counties for initial review and comment. Most of the comments and/or recommendations have been incorporated into the plan. Deseret Power has also had a third-party review completed by SWCA Environmental Consultants. Deseret Power will make an attempt annually to coordinate with the above entities by providing an updated copy of Deseret Power Cooperative Wildland Fire Protection Plan. The below contact information for Deseret Power representatives will be reviewed and updated annually.

Deseret Power is a member of the Uintah County Emergency Management "Local Emergency Planning Committee" (LEPC) and attends the Utah Department of Public Safety "Uintah Basin Infrastructure Resilience Council" (IRC). Deseret Power works in coordination with the Utah Department of Public Safety, and other state, and government officials during wildland fire events. Deseret will also participate with state and government officials on any possible community public outreach awareness programs.

Deseret Power Contact List

Name	Title	Office Phone	Cell Phone	Email
L'Dee Curtis	Power Systems	435-781-5832	801-209-6169	lcurtis@deseretpower.com
	Superintendent			
Dave Gurr	Transmission	435-781-5833	801-842-1033	dgurr@deseretpower.com
	Substation			
	Supervisor			
Bonanza Power	Control Room	435-781-5751	801-842-1034	
Plant	24/7 Operation			
Nathan Powell	Dir. of	801-619-6504	801-367-4915	npowell@deseretpower.com
	Transmission			
	Services			
Phil Solomon	VP/Chief Engineer	801-619-6560	435-703-0912	psolomon@deseretpower.com
				_
Kimball	President & CEO	801-619-6555	801-244-7844	krasmussen@deseretpower.com
Rasmussen				

Coordination with US Forest Service, state or local wildland fire protection plans

Deseret Power has provided final copies of the Deseret Power Fire Protection Plan to the US Forest Service, BLM, and Counties. The contact information for each of the State, or government entity in Deseret's Fire Protection Plan is listed below. The Deseret Fire Protection Plan will be reviewed annually and updated, as necessary. The revised plan will be forwarded to each of the entity contacts.

Forestry, Fire and State Lands

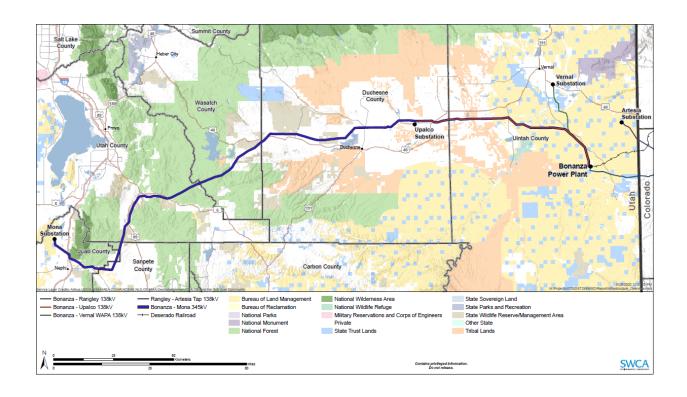
Area Managers and Contact Information

Northeast Area	Mike Eriksson	435-671-9170	mikeeriksson@utah.gov	Attachment 4
Uintah & Duchesne				
Wasatch Front	Brian Trick	385-214-5269	btrick@utah.gov	Attachment 4
Area				
Southeast Area	Jason Johnson	435-210-4578	jasonajohnson@utah.gov	Attachment 4
Central Area	Jason Torgerson	435-201-7601	jtorgerson@utah.gov	Attachment 4
Uintah County Fire	Jeremy Raymond	435-828-6541	uintahfire@ubtanet.com	LEPC Chair
Utah Department of	Matt Beaudry	801-834-8942	mbeaudry@utah.gov	
Public Safety				
BLM Vernal Field	Chris Deets	435-781-4444	cadeets@blm.gov	
Office				
Duchesne County	Mike Lefler	435-822-2417	mlefler@duchesne.utah.gov	
Fire/Emergency				
Manager				
Wasatch County	Jeremy Hales	435-671-6025	jhales@wasatch.utah.gov	
Sheriff's	,			
Office/Emergency				
Manager				

This Deseret Power Fire Protection Plan was reviewed and approved by the Deseret Board of Directors on May 21, 2020. Any revisions or updates will also be reviewed and approved by the Deseret Board of Directors. This Plan will be reviewed regularly as needed to keep the information up to date.

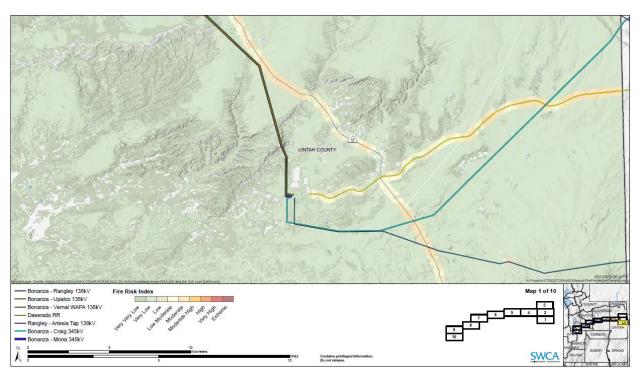
Version	Date	Reviewed By	Approved By	Notes
1.0	5/1/2020	L'Dee Curtis	Phil Solomon	Draft plan prepared for third party review
1.0.(a)	5/19/2020	L'Dee Curtis	Phil Solomon	Third party review completed by SWCA. Comments and recommendations reviewed by Deseret and plan updated
1.1	5/21/20	Phil Solomon	Deseret Board of Directors	Plan approved by Deseret Board of Directors
1.2	7/15/20	L'Dee Curtis	Phil Solomon	Added new contacts Final changes after comment period

Infrastructure Overview Map

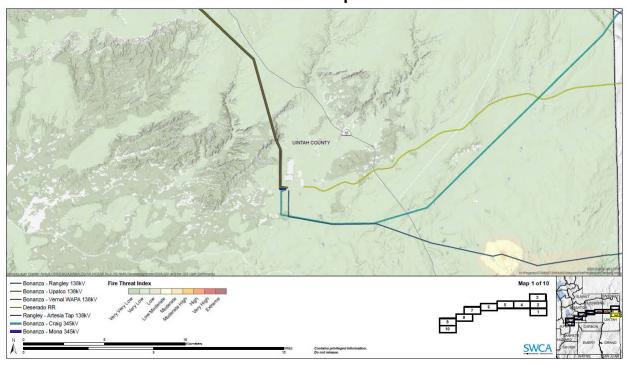


Wildland Fire Risk & Threat Index

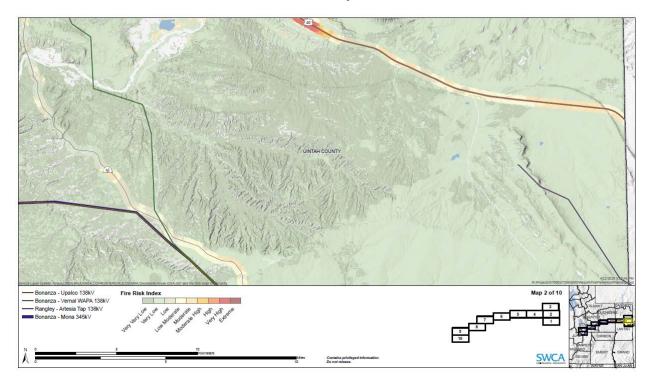
Risk Map 1



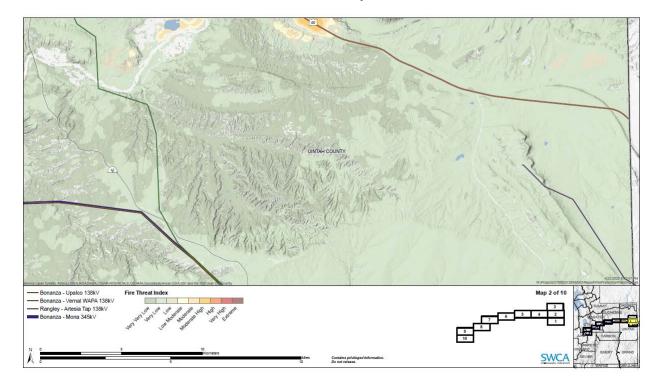
Threat Map 1



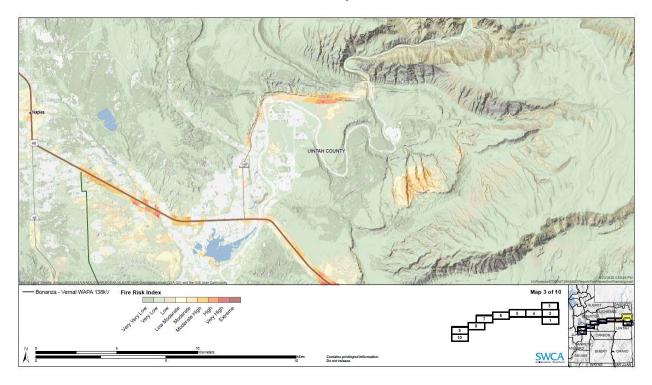
Risk Map 2



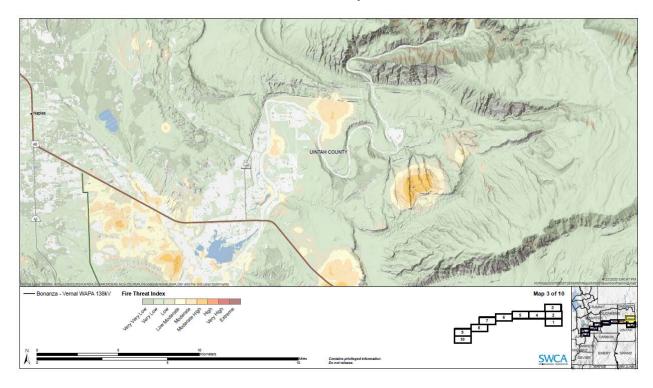
Threat Map 2



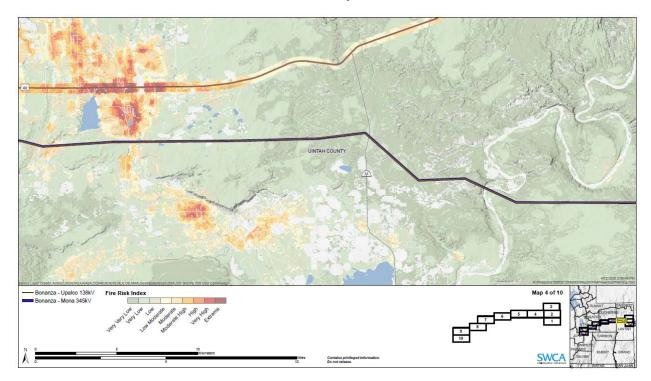
Risk Map 3



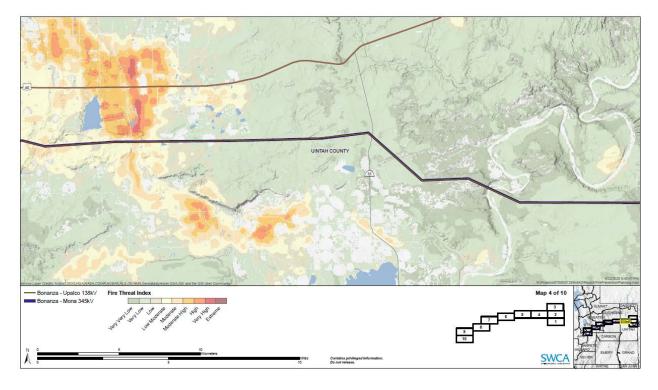
Threat Map 3



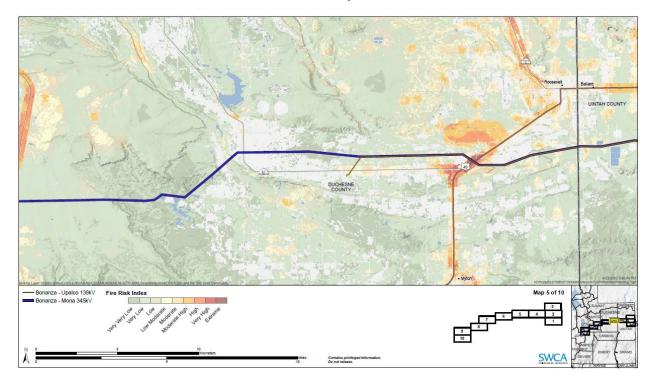
Risk Map 4



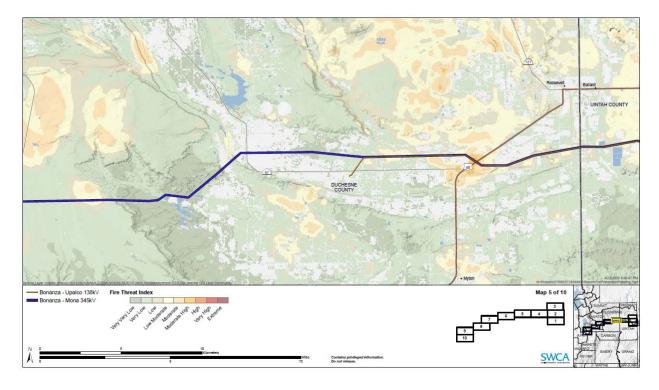
Threat Map 4



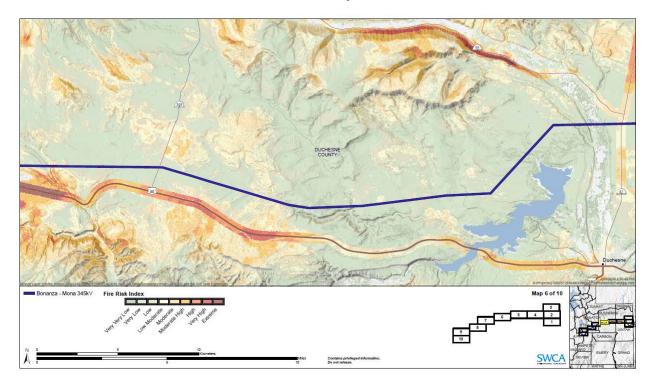
Risk Map 5



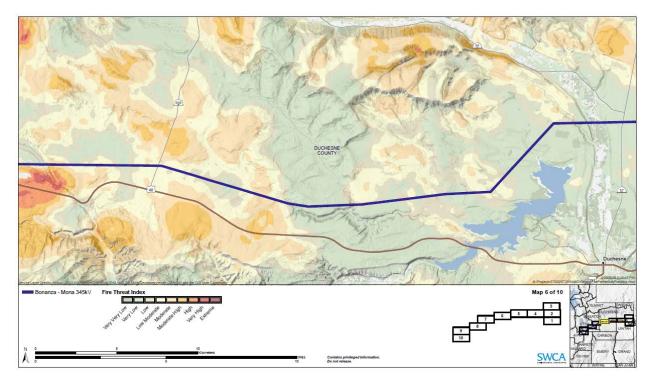
Threat Map 5



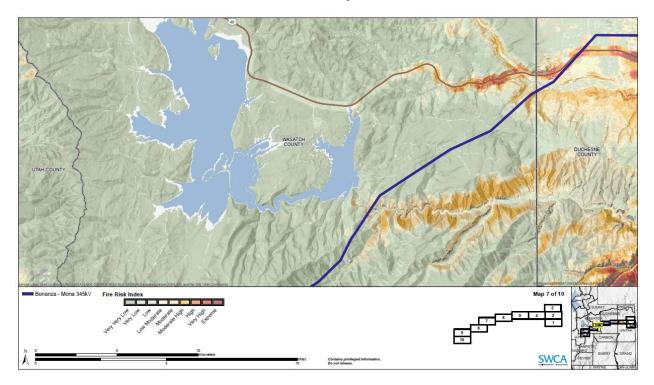
Risk Map 6



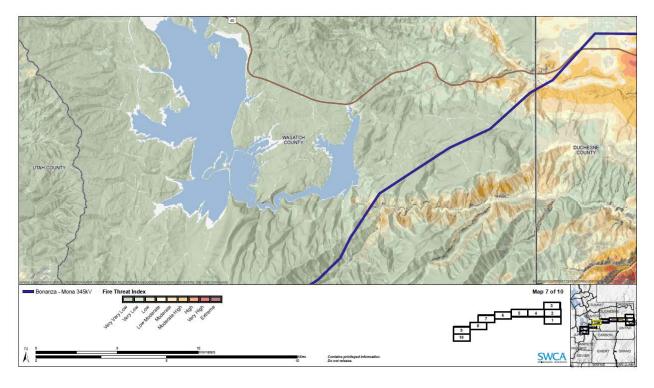
Threat Map 6



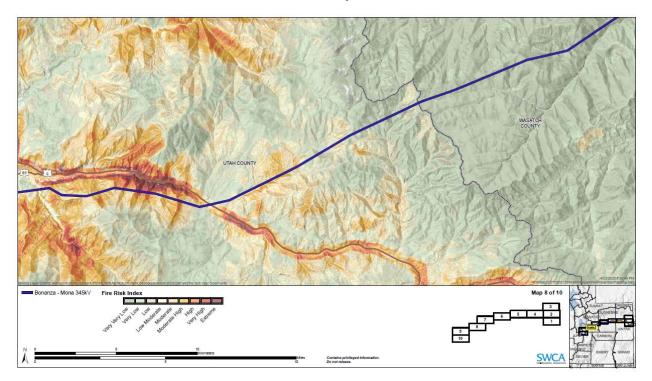
Risk Map 7



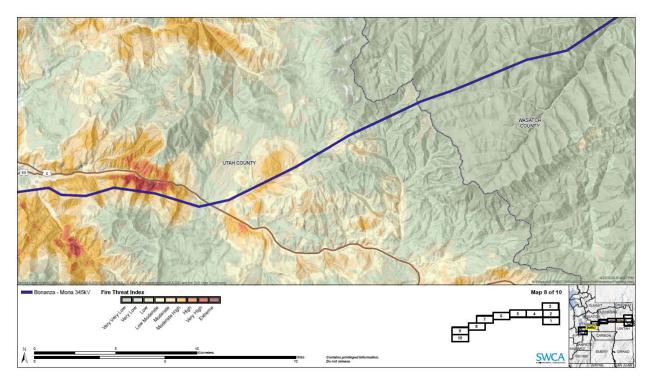
Threat Map 7



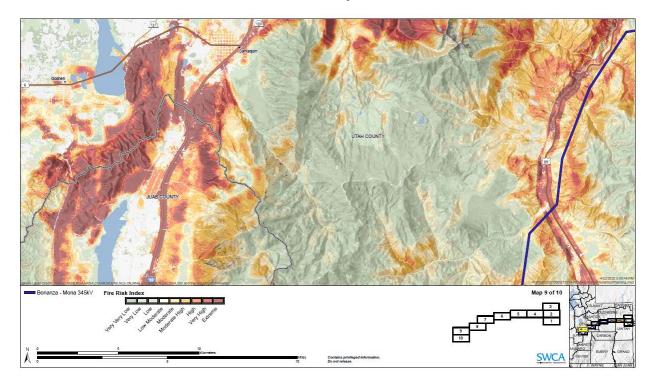
Risk Map 8



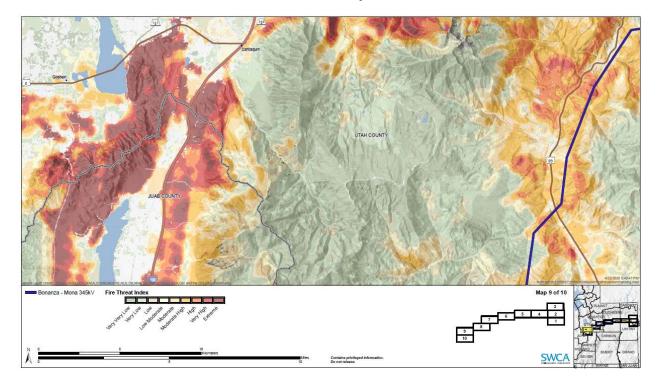
Threat Map 8



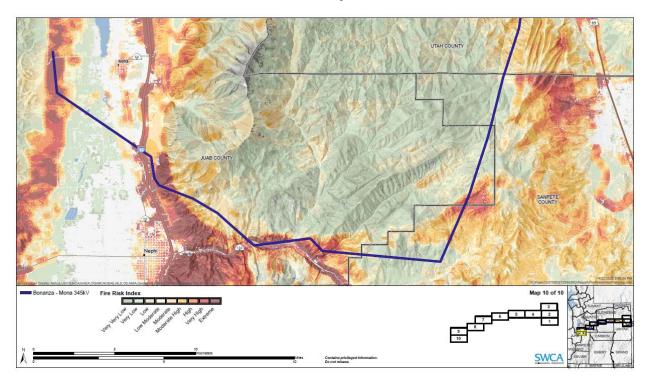
Risk Map 9



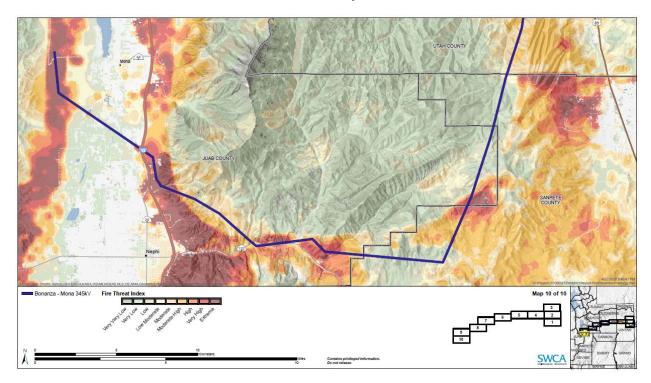
Threat Map 9



Risk Map 10

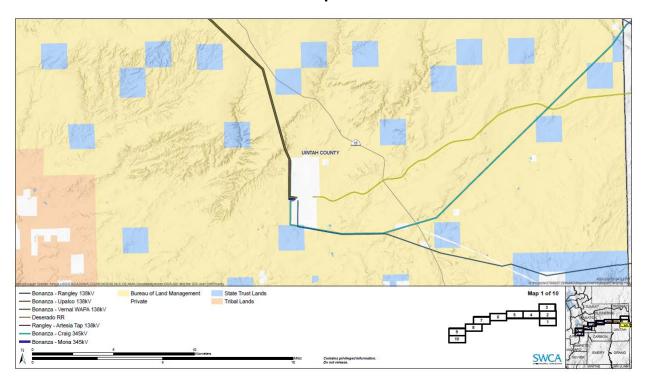


Threat Map 10

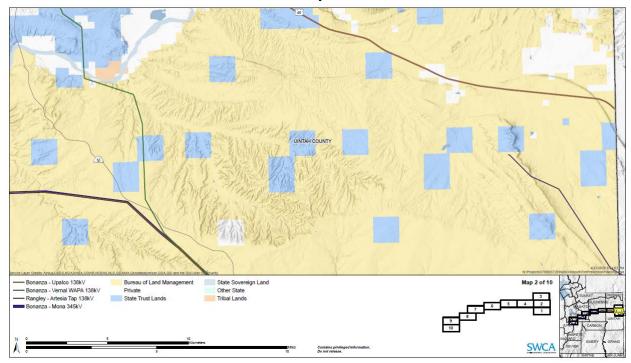


Surface Land Management

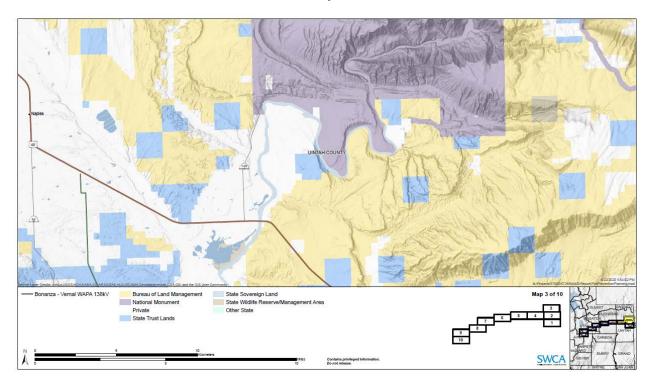
Map 1



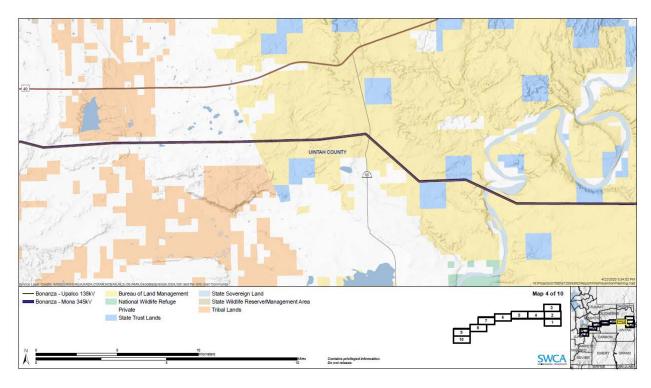
Map 2



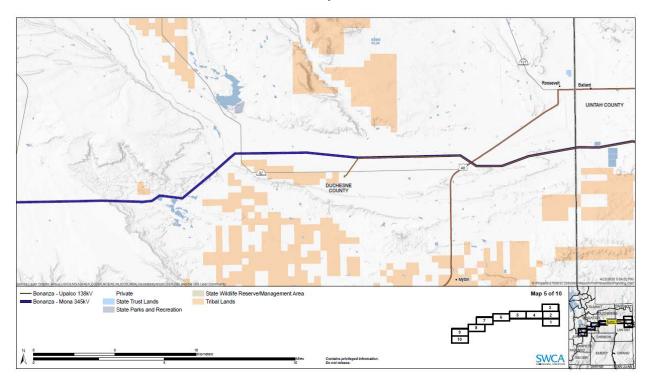
Map 3



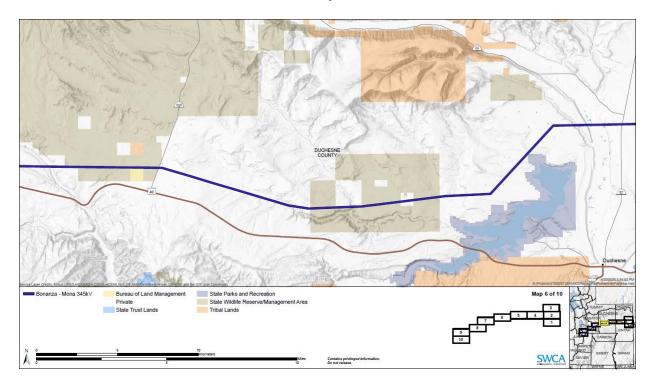
Map 4



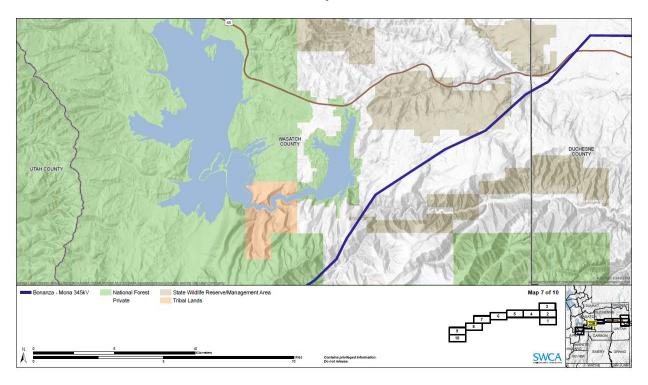
Map 5



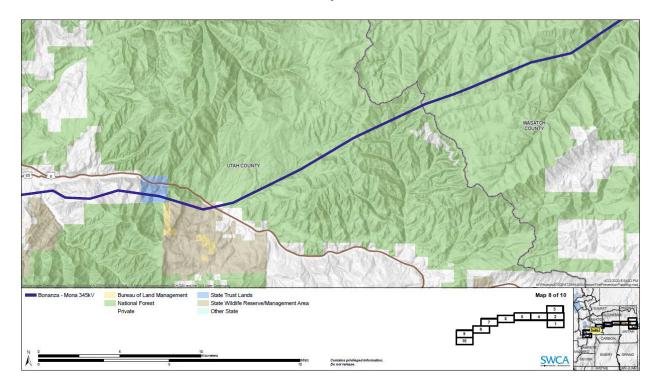
Map 6



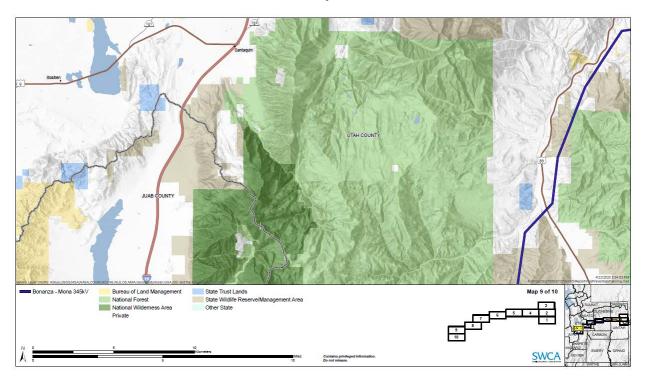
Map 7



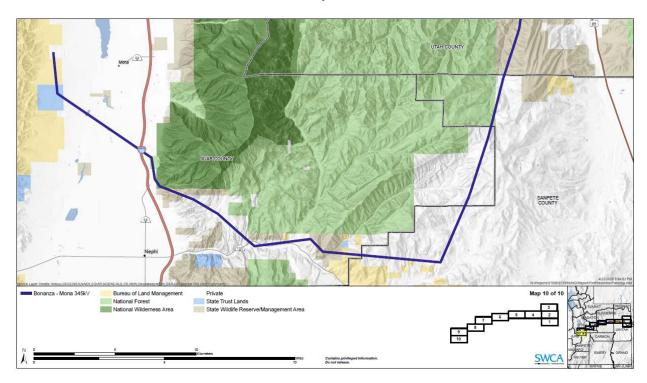
Map 8



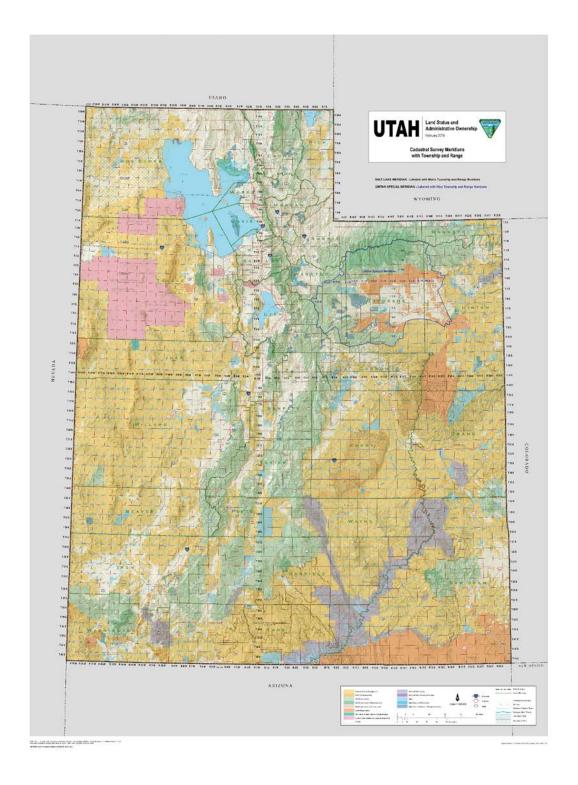
Map 9



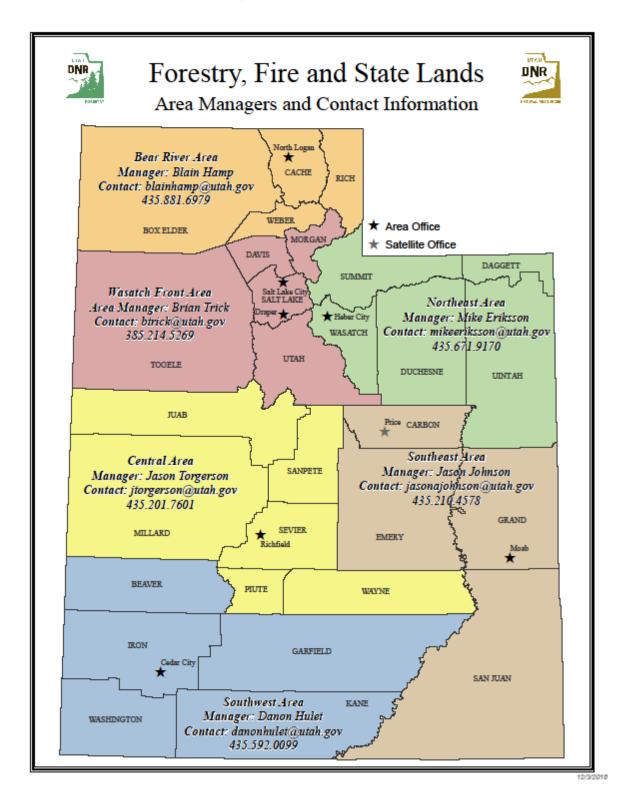
Map 10



Attachment 3 Utah Land Ownership Public Map



Forestry, Fire, and State Contacts



Vegetation Management Program

Desert Power

Vegetation Management Program

Objective

The objective of the Vegetation Management Program (VMP) is to ensure the reliable operation of Deseret's Transmission, and Generation lines by managing vegetation located on the transmission rights of ways (ROW), and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of vegetation-related outages.

Maintenance Strategies and Clearances

Deseret's maintenance strategy is to ensure that the Minimum Vegetation Clearance Distance (MVCD) is never violated in the transmission corridor. And is to maintain adequate clearance and prevent the encroachment of vegetation into the MVCD. Deseret's Power System Superintendent has the authority and responsibility for maintenance of Deseret's Transmission Line Corridor.

Deseret owns and operates one Generator (Bonanza Unit 1). The Bonanza Unit does not require any vegetation management. The transmission line from the Unit to the Transmission Owners facility's (Deseret) does not extend greater than one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard to the point of interconnection with the Transmission Owner's Facility, and does have a clear line of sight from the generating station switchyard fence to the point of interconnection with a Transmission Owner's Facility.

Deseret owns the Bonanza-Mona 345 kV line that requires vegetation maintenance on approximately 20 to 30 percent of the line. Deseret also owns a portion of the SWR-Meeker 138 kV line that is listed as TOT 1A Path 30 in the current table of Major WECC Transfer Paths in the Bulk Electric System. Deseret conducts annual inspection activities designed to detect and correct potential vegetation encroachments before they result in a transmission line sustained outage.

It is Deseret's maintenance practice to clear cut any vegetation within 15 feet below the conductors for grow-in and 27 feet to the side of conductors to accommodate for conductor swing and sway.

Processes

Tree removal will be performed to maintain the MVCD from the nearest point on a tree to the conductor when the clearance is less than 15 feet below the conductor, and within 27 feet to the side of the conductor. The Power Systems Superintendent has discretion to apply more stringent criteria based upon vegetation problems, landownership, terrain, and contract easement or permit rights to remove such trees.

Deseret uses the Utah State University Tree Browser (www.treebrowser.org) to determine vegetation growth rates for the species of trees that grow along Deseret's transmission line corridor. As determined from the Tree Browser program, the most that any tree species grow that would be a clearance concern is two feet per year. Transmission line corridor inspections are conducted with enough frequency to maintain the required clearances.

Approved Procedures

Approved procedures and methods that are to be used for removing trees are included in the document titled Procedures for Felling of Trees near Powerlines.

All transmission lines in Deseret's system are visually inspected for vegetation growth. The inspections are carried out by experienced linemen patrolling with surface vehicles (ground patrol) and/or helicopter (aerial patrol). The purpose of these patrols is to identify vegetation and transmission line potential problems. Trees that have breached the 15-foot grow-in clearance, or 27-foot side sway clearance are scheduled for removal.

If during an inspection of the transmission line corridor an encroachment into the MVCD of 5.2ft on the Bonanza-Mona 345 kV line, or 2.6ft on the SWR-Meeker is observed in Real-time, absent a sustained outage, the Power Systems Superintendent will be contacted and advised of the problem. If the Power Systems Superintendent is not available a member of Senior Management will be contacted. The Power Systems Superintendent or a member of Senior Management will determine if a temporary reduction in line rating is needed. If a reduction of load is needed PacifiCorp Grid Operations and the Bonanza Power Plant control room will be contacted and requested that unit load be reduced. A determination will be made whether a line outage, or Hot Line Order (HLO) is needed. If a line outage, or HLO is needed PacifiCorp Grid Operations will be contacted, and an emergency request for a line outage, or HLO will be made. Also, a crew will be immediately dispatched to remove the tree or trees that pose a sustained outage threat.

If a confirmed vegetation condition is found that is likely to cause a fault at any moment the crew that has found the condition, will contact PacifiCorp Grid Operations without any intentional time delay.

Work Specifications

All trees that are designated to be removed are clear cut at the base, de-limbed and the trunks are cut into six-foot lengths. The US Forest Service may have specifications as to how to deal with the limbs and tree trunks in special situations. Any special specifications regarding disposal of limbs and trunks will be followed when issued by the US Forest Service.

Annual Work Plan

Annual work plans are developed by the Power Systems department from ground and/or aerial patrols of transmission lines. The lines are scheduled to receive one patrol per calendar year, with no more than 18 calendar months between inspections. The ground and/or aerial inspections are performed throughout the year. Corrective work identified during patrol is scheduled by the Transmission Supervisor. Any required vegetation control will be accomplished by manual clearing.

The large clearance margin between Deseret's maintenance practice, and the MVCD, as well as the average maximum vegetation growth rate (2 feet per year), provides flexibility for movement of applicable line conductors under their Rating and all Rated Electrical Operating Conditions, and unforeseen changing conditions that may occur.

Access to Transmission Corridor

The Bonanza Mona 345 kV transmission line, and SWR-Meeker 138 kV line crosses both private and Federal land under the terms of various right of way and easement agreements. Deseret will comply with all the right of way and easement agreement provisions for access to the transmission corridor for inspection and for vegetation control. Generally, affected landowners will be contacted prior to any vegetation control taking place. Deseret will consider the terms of the various right of way and easement agreements when it prepares the annual work plan. The large clearance margin between Deseret's maintenance practice, and the MVCD, as well as the average maximum vegetation growth rate, provides flexibility for constraints that may lead to a vegetation encroachment into the MVCD prior to the implementation of the next annual work plan.

Training

The Power System Superintendent will develop a training program to train the personnel that will be administering the vegetation management. The training program will address line clearance inspections, safe tree removal methods, personal protective equipment, and the use and maintenance of power tools and equipment, as found in the document titled Procedures for Felling of Trees near Powerlines.

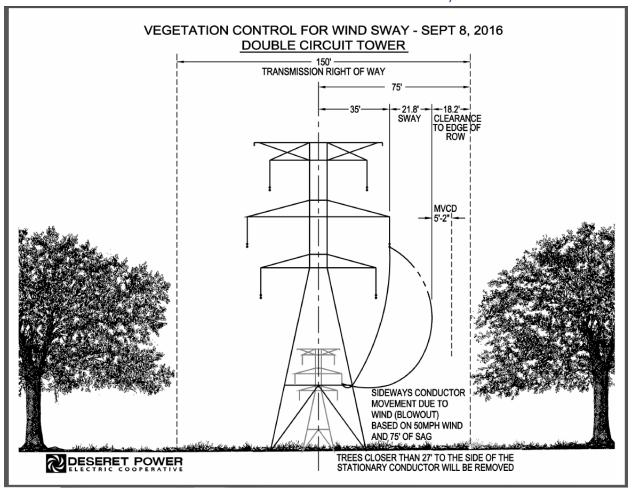
Use of Contractors

Deseret may use contractors for vegetation control along the transmission line ROW's. All contractors used by Deseret will be International Society of Arboriculture (ISA) certified. Contractors are responsible for developing their own training, safety and cutting procedures. When contractors are used for vegetation control Deseret's transmission personnel will monitor the contractor's progress and verify that the required vegetation has been removed. Deseret's Vegetation Inspections, and Corrective Actions requires two signatures. One from the personal in the field observing, and verifying the work has been completed, and one from the department

supervisor. The Work Plan, and Corrective Actions are also reviewed annually by the Power Systems Superintendent/FAC-003 SME.

Version	Date	Prepared By	Approved By	Notes
1	8/21/07	L'Dee Curtis	Ed Thatcher	
2	1/28/08	L'Dee Curtis	Ed Thatcher	Updated per annual review
3	12/29/08	L'Dee Curtis	Ed Thatcher	Updated per annual review
4	01/07/10	L'Dee Curtis	Ed Thatcher	Change made to wording in training section
5	05/20/10	L'Dee Curtis	Ed Thatcher	Change made to wording in scheduled inspection on ground inspections.
6	7/14/10	L'Dee Curtis	Ed Thatcher	Various updates
7	8/30/10	L'Dee Curtis	Ed Thatcher	Addition aerial inspections
8	3/22/11	L'Dee Curtis	Ed Thatcher	Change made to clearance 1.
9	1/1/13	L'Dee Curtis	Ed Thatcher	Various changes made to document
10	5/19/14	L'Dee Curtis	Ed Thatcher	Various changes made to comply with FAC-003-3
11	1/5/16	L'Dee Curtis	Phil Solomon	Updated per annual review
12	9/12/16	L'Dee Curtis	Phil Solomon	Updated MVCD to comply with FAC-003-4
13	1/3/16	L'Dee Curtis	Phil Solomon	Various changes made to Use of Contractors
14	1/25/18	L'Dee Curtis	Phil Solomon	Various changes made for the addition of the SWR-Meeker Line
15	1/23/19	L'Dee Curtis	Phil Solomon	2018 review no changes made
16	1/23/20	L'Dee Curtis	Phil Solomon	2019 review no changes made

Double Circuit Tower Wind Sway



Single Circuit Tower Wind Sway

