

State of Utah

Terra 2005

Community Fire Planning

For the Wildland – Urban Interface

Protecting Life, Property, and
Community Values
Through
Community-Based Planning

TERRA



Department of Natural Resources
Division of Forestry, Fire and State Lands



1594 West North Temple, P.O. Box 145703, Salt Lake City, UT 84114-5703

Utah Community Fire Planning

OBJECTIVES OF COMMUNITY FIRE PLANNING IN UTAH

- Facilitate organization of citizen fire councils to guide planning and coordinated action
- Improve community safety through:
 - ✓ Coordination
 - ✓ Education
 - ✓ Training
 - ✓ Fuel modification
 - ✓ Fire Prevention
 - ✓ Public Safety
- Enhance fire protection through:
 - ✓ Improved fire prevention and public education
 - ✓ Improved coordination within the community
 - ✓ Development of long-term strategies
- H Reduce the potential for and the consequences of wildfire.

STATEMENT OF LIABILITY

The activities suggested by this guidance document, the assessments and recommendations of fire officials, and the plans and projects outlined by the citizen fire council, are made in good faith according to information available at this time. The community wildfire committee is responsible for the actions taken under this plan. The Utah Division of Forestry, Fire and State Lands can make no guarantees regarding the level of success users of this plan will experience. Wildfire still occurs, despite efforts to prevent it or contain it; the intent of all decisions and actions made under this plan is to reduce the potential for and the consequences of wildfire.

ABOUT THIS DOCUMENT

This document provides the outline for and specifies the information recommended for inclusion in a wildfire plan. Instructions are provided throughout the document to explain what information can be included.

Part I – Community Description

The community description identifies community resources that can be used to complete the goals of the plan, and a physical description of the community to guide wildfire preparation and response decisions.

Part II – Community Prescription

The community prescription includes the goals of the plan, identifies specific actions needed to complete the goals of the wildfire plan and identifies responsible parties, resources and priorities.

Part III – Resources

This section contains a list of wildfire preparation and response resources that are selected by the community for retention in a community wildfire reference library.

Part IV – Technical Assessments

This section includes fire officials' assessments and ratings of the wildfire hazard in the community, and their recommendations for actions to mitigate hazards.

Appendix

The information to be included in the appendix is primarily determined by the community and fire officials: data, assessments, maps, contact lists, project worksheets – whatever might prove useful to the community.

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RESOURCES

For resources to complete a wildfire plan for your community, consider organizations such as the following:

- ✓ Local / Primary fire protection provider
- ✓ Local Resource, Conservation and Development Districts
- ✓ Utah Division of Forestry, Fire and State Lands
- ✓ Utah State Fire Marshal (Dept. of Public Safety)
- ✓ Utah Comprehensive Emergency Management
- ✓ Utah Living With Fire
- ✓ Fire Wise
- ✓ County fire agencies
- ✓ County emergency management services
- ✓ American Red Cross
- ✓ USDA Forest Service
- ✓ U.S. Department of Interior Agencies
- ✓ Utah Resource Conservation Districts
- ✓ Utah Soil Conservation Districts

Contact information for some of the above-listed agencies is included in the back of this document.

For information concerning the Community Fire Planning guidance document, or to obtain a workbook version of this document, contact the Utah Division of Forestry, Fire and State Lands, P.O. Box 145703, Salt Lake City, Utah 84114-5703. Or, e-mail JenniferGregerson@utah.gov. **Completed Community Fire Plans should be submitted to your local Area Manager or Fire Management Officer from the Utah Division of Forestry, Fire and State Lands.**

ACKNOWLEDGMENTS

The Utah Division of Forestry, Fire and State Lands would like to thank Kathy Hammons and Janet Johnson of Community Solutions, Inc. for their input and work on this document. The Division also appreciates those agencies whose publications inspired the creation of this document, such as the Pennsylvania Model Prevention, Pre-suppression and Preparedness Plan, the Colorado State Forest Service Wildfire Hazard Mitigation and Response Plan, the Big Sky Fire Management Strategy, Utah's Wildland-Urban Interface Fuel Load Reduction Community Level Protection document, and others. Finally, thanks to Arthur W. DuFault, former Utah State Forester and National Fire Plan Coordinator, who initiated this endeavor for the State of Utah.

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Community Fire Planning Checklist

INSTRUCTIONS

This checklist is provided to help the community track its progress in development of its community wildfire plan. The Community Wildfire Council is responsible for completing Sections I and II; fire officials are responsible for completing Section IV. Section III and the Appendix should be a joint effort between the community and fire officials.

It is requested by state fire officials that the structure of the community fire plan follow this outline; this will provide continuity among Utah's community fire plans, and facilitate information sharing in emergency situations.

Community: Terra

County: Tooele

Primary Contact Gerry Neil

Phone: 435-831-5553

Secondary Contact: Jon B. Palmer

Phone: 435-837-2327

Section		Completed by Printed Name / Signature	Date
I.	Community Description		
	Declaration and Concurrence	_____ / _____	_____
	Planning Committee Members List	_____ / _____	_____
	Community Legal Structure	_____ / _____	_____
	Population	_____ / _____	_____
	Values at Risk	_____ / _____	_____
	Natural Resources at Risk	_____ / _____	_____
	Commercial Entities	_____ / _____	_____
	Formal Associations	_____ / _____	_____
	Media Support	_____ / _____	_____
	Schools	_____ / _____	_____
	Transportation (Railroad, Highway)	_____ / _____	_____
	Private Emergency Service and Equipment Capabilities	_____ / _____	_____
	Restricting Covenants, Ordinances	_____ / _____	_____
	Insurance Rating	_____ / _____	_____
	<i>Physical Description</i>		
	Access	_____ / _____	_____
	Roads	_____ / _____	_____
	Driveways	_____ / _____	_____
	Structures	_____ / _____	_____
	Bridges, Culverts, Gates	_____ / _____	_____
	Utilities	_____ / _____	_____
	Sewage System	_____ / _____	_____

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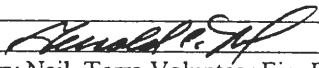
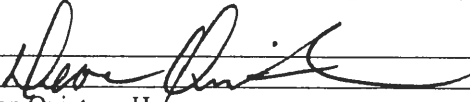
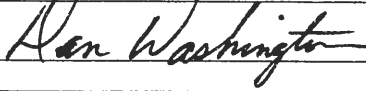
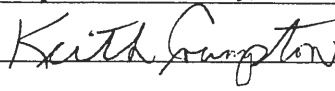
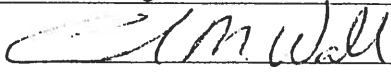
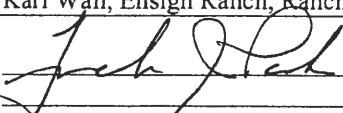
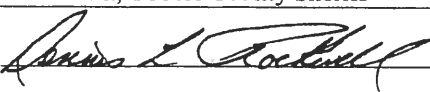
Section		Completed by Printed Name / Signature	Date
II.	Community Prescription		
	Goals of Plan	_____ / _____	_____
	Identification of Actions	_____ / _____	_____
	Identification of Responsible Parties, Resources, and Priorities	_____ / _____	_____
III.	Resources		
	List of resources available in a community wildfire reference library.	_____ / _____	_____
IV.	Technical Assessments		
	A. Community Description		
	Area	_____ / _____	_____
	Topography and Vegetation	_____ / _____	_____
	Infrastructure	_____ / _____	_____
	Water Supply	_____ / _____	_____
	Emergency Services / Equipment Capabilities	_____ / _____	_____
	<i>Hazard Evaluation:</i>		
	Area Fire History	_____ / _____	_____
	Subdivision Hazard Rating	_____ / _____	_____
	Property / Structure Ratings	_____ / _____	_____
	Expected Fire Behavior	_____ / _____	_____
	B. Community Prescription		
	Fuel Modification Projects	_____ / _____	_____
Infrastructure Improvements	_____ / _____	_____	
Education	_____ / _____	_____	
Wildfire Response / Pre-Attack Plan	_____ / _____	_____	
Monitoring and Evaluation	_____ / _____	_____	
Evacuation Plan	_____ / _____	_____	
	Appendices		
	Emergency contact lists	_____ / _____	_____
	Technical Assessments	_____ / _____	_____
	Maps (topography, escape routes, etc.)	_____ / _____	_____

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INSTRUCTIONS

Declaration and Concurrence Page

This list needs to be customized to the individual plan. Provide the names and affiliations of all fire partners. This page will then be signed after all fire partners have reviewed the plan and concur with its contents. An Area Manager or Fire Management Officer from the Utah Division of Forestry, Fire and State Lands must be included.

 Gerry Neil, Terra Volunteer Fire Department Fire Chief	27 Jan 05 Date
 Deon Quintana Homeowner	1/27/05 Date
_____ Andy DiCarlo Mayor, Town of Terra	_____ Date
_____ Jon B. Palmer Ass't Fire Chief, Tooele Volunteer Fire Department	_____ Date
_____ Roice Arnold, Tooele County Fire Chief	_____ Date
 Keith Crumpton, Utah Forestry, Fire and State Lands,	2-17-05 Date
 Dan Washington, Bureau of Land Management, WUI Coordinator	1/27/05 Date
 Karl Wall, Ensign Ranch, Ranch Supervisor	2/2/05 Date
 Frank Park, Tooele County Sheriff	2/10/05 Date
 Dennis Rockwell, Tooele County Commission	Feb. 8, 2005 Date

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PART I COMMUNITY DESCRIPTION

<u>Name</u>	<u>Affiliation</u>	<u>Phone Number</u>	<u>E-mail</u>
Jon B. Palmer	Resident	435-837-2327	
Gerry Neil	Terra Volunteer Fire Department	435-831-5553	Gneil@dpg.army.mil

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Terra Water Board	Gerry Neil	435-831-5553	Gneil@dpg.army.mil

Terra is an unincorporated town

Total number of homes:	30
Full-time residents:	100
Part-time residents:	N.A.
Visitor population:	6,500, throughout the fire season
Commercial entities:	2:Ensign Ranches, Goshute Landfill

The estimated values at risk of residential and commercial property in the year 2004 are approximately \$14,000,000.

The town of Terra borders Federal Public Lands.

Wildlife in the form of Chukkers, Pheasants, Sage Grouse, Cougars Turkeys and Badgers.

Recreation areas are another natural resource at risk, specifically White Rocks Recreation Area and Clover Creek campground.

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number / E-mail</u>	<u>Address</u>
Ensign Ranches	Karl Wall	(435) 830-7729	Ensign Ranches

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Boy Scouts, "Blazers"	Jake Palmer	435-837-2327	JPalmer@DPG.Army.mil
LDS Church	Ron Barbaro	435-837-2363	

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Tooele Transcript Bulletin	Karen Scott	435.882.0050	kscott@transcriptbulletin.com
Salt Lake Tribune		801.257.8525	
Clear Channel Radio Stations			
KSL		801.575.5560	
Metro News		801.281.6772	

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number / E-mail</u>	<u>Address</u>
Dugway Elementary	Joe Mulhomed	831 4259	Dugway
Dugway High School	George Bruce	831 4566	Dugway

<u>Organization</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>E-mail</u>
Utah Department of Transportation		(435) 882-1378	

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11. Gerry

Type of Equipment Contact Person Phone Number; E-mail Address



TERRA VOLUNTEER FIRE DEPT EQUIPMENT LIST

1998	Ford Explorer	Command		
1997	Ford Utility	Brush truck	300 Gal	
1990	Chev 1Ton	Brush truck	300 Gal	
1998	Chev 1 Ton	Brush truck	300 Gal	
1985	Ford Utility	Brush truck	300 Gal	
1982	Chev P/U	Brush truck	200 Gal	
1973	Gamma Goat 6x6	Brush truck	300 Gal	
1969	2 ½ Ton 6x6	Eng Military	1100 Gal	
1998	Ford 4x4	3 Ton Eng	1000 Gal	
1992	Ford	Pumper	550 Gal	
1976	Dodge R-9	Tanker	5000 Gal	
1985	Chev Blazer	EMS Rescue		

All vehicles listed above are operational and in good working order.
Vehicles listed below are not operational.

1970	Semi Tractor 5 ton		
1971	Semi Tractor 5 Ton w/tanker trailer	5000 Gal	

INSTRUCTIONS

12. Restricting Covenants, Ordinances, etc.

Describe any pertinent restricting covenants, ordinances, etc. concerning wildfire in the community. For example, requirements regarding gated communities, building construction materials, vegetation removal, etc.

13.

Fire Insurance Rating: Class 6

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INSTRUCTIONS

14. PHYSICAL DESCRIPTION

While completing the following assessments of the community, consider the height, width, weight, and turnaround needs of emergency equipment. Exact clearance requirements may vary by community.

Road clearance height	≥ 13'6"	Dead end street turnaround	≥ 100' diameter
Road clearance width	≥ 20'	Bridge/culvert weight limit	≥ 20 tons per axle
Driveway clearance height (outside)	≥ 13'6"	Driveway turnarounds*	≥ 30' (inside turning radii), 45'
Driveway clearance width	≥ 12'	Driveway turnouts**	≥ 10' wide and 30' long * for driveways in ** for driveways in
excess of 150' in length			
excess of 200' in length and less than 20' in width			

If desired, section 14 (pages 10 – 12) can be copied, completed, and included in the community fire plan.

A. Access

- i. Directions to community:
From Rush Valley, go West on Highway 199 for 15 miles.
Terra Fire Department is located in the center of town
- ii. All-weather access: Highway 196

B. Roads

- i. All road signs are present.
- ii. 100% are gravel;
- iii. All roads will support all traffic.
- iv. Some are loop roads.
- v. Some are dead-end roads. Of these, all have inadequate turnaround space available at the end of the road for emergency equipment.

C. Driveways

- i. Most driveways width and height clearance, road grades and vegetation appearance are adequate for emergency equipment.
- ii. Many individual homeowners have posted their name and address.

D. Structures

- i. Most/all is of wood-frame construction.
- ii. Some have wood decks or porches.
- iii. None have wood shake or shingle roofs.
- iv. Some are visible from the main subdivision road.

E. Bridges, Culverts, Gates

- i. All bridges support emergency equipment.
- ii. All gates provide easy access to emergency equipment.
- iii. All culverts are easily crossed by emergency equipment.

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F. Utilities

- i. Telephone service is above ground.
Provided by: Beehive
Telephone number: (435) 837-6639

- ii. Electrical service is (below/above) ground.
Provided by: Utah Power
Telephone number: (888) 222-7070
Emergency (877) 548-3768

- iii. 100% of homes utilize propane tanks
All are above ground; marked by a red marker.
See assessment for locations.

- iv. No homes utilize natural gas.

- v. Primary water sources
Approximately 100% of homes use individual wells.
Approximately 45% of homes have additional private water source.
Water provided by: Terra Water Corporation Telephone number: 435-837-2363

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PART II: COMMUNITY PRESCRIPTION

Directions: This section is to be completed by the Community Wildfire Committee. A community prescription includes the goals of the plan, identifies specific actions needed to complete the goals of the wildfire plan and identifies responsible parties, resources and priorities.

INSTRUCTIONS

1. Goals of Plan

Provide a brief statement of the goals of the Community Wildfire Plan. **Each plan must address the following: Fuel Reduction, Facilities and Equipment, Education, Emergency Response Plan (including comprehensive plans for shelter-in-place and evacuation), Regulative Issues, and Evaluation and Maintenance.**

I. GOALS/PURPOSE OF PLAN

- A. Community will decrease fuels to reduce wildfire intensity and impact in and around the community.
- B. Community will evaluate, upgrade and maintain community wildfire preparation and response facilities and equipment.
- C. Community will help educate community members to prepare for and respond to wildfire.
- D. Community will develop and implement a comprehensive emergency response plan.
- E. Community will actively address identified regulative issues impacting community wildfire prevention and response needs.
- F. Community will regularly evaluate, update and maintain planning commitments.

INSTRUCTIONS

2. Identification of Actions

Describe projects that need to be done to complete the goals of the plan, and to perform annual and periodic maintenance of the plan.

Goal A: Community will decrease fuels to reduce wildfire impact in and around the community.

ACTION 1: The Fire Committee will implement fuel modification projects.

- Education campaign: Information meetings, brochures, individual assessment of property by fire expert, video tape check out, demonstration areas
- Group purchases of services, i.e. hauling, cutting, chipping, roofing
- Boy Scout "Blazers" will help coordinate clean-up day for Terra
- Fuel break maintenance and implementation
- Community Burns; slash piles
- Community roadside cutting, spraying, reseeding projects

ACTION 2: The Fire Committee will work with state/federal fire officials to develop and implement a perimeter fuel break plan.

See attached document.

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INSTRUCTIONS

3. Identification of Responsible Parties, Resources and Priorities

Outline how the actions described in Item 2 will be accomplished, by listing responsible parties (person who is responsible for each action), resources (assets needed to complete actions), and priorities (designating of each action as high, medium or low priority).

Goal	Action	Resources	Responsible Party	Priority
1. Fuel Reduction	<p>1. The Fire Committee with Terra VFD will continue to implement Terra's fuel reduction projects.</p> <p>Education Campaign</p> <ul style="list-style-type: none"> • Brochures • Video tapes • Demo areas • Meetings • Property assessment by fire professional <p>Fuel break volunteer time & equipment</p> <p>Community burning and cutting.</p>	<ul style="list-style-type: none"> • www.Firewise.org • Forestry, Fire & State Lands Fire Mgmt Officer • Bureau of Land Mgmt • National Forest Service • Utah Living With Fire • Tooele Co. Fire Warden • Local Fire Department • www.utahfireinfo.gov 	Fuel Reduction Wildfire Council alongside homeowners.	High
	<p>2. Community will work with state/federal fire officials to develop and implement a perimeter and interior fuel break plan.</p>	<ul style="list-style-type: none"> • Forestry, Fire & State Lands Fire Mgmt Officer • Tooele Co. Warden • Local Fire Department • Civic Organizations • Land owners • Ensign Ranches 	Fuel Reduction Sub-committee Chairperson	Medium

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PART III: RESOURCES

List of Resources

The following information can be obtained from the Terra Fire Department,

Informational Materials

General Fire Prevention

- “Are You Living in the Red?” pamphlet (Utah Fire Assessment Project: Bureau of Land Management et.al.)
- “How to Protect Your Home: It Could Happen to You” (USDA Forest Service)
- “How to Reduce Wildfire Risk” Tree City USA Bulletin (The National Arbor Day Foundation)
- “Living With Fire” video and pamphlet (Utah Living With Fire)
- “Protect Your Hide-away Home” pamphlet (Utah Department of Natural Resources)
- “Protecting Residences from Wildfire” (USDA Forest Service)
- “Protecting Your Home Against Wildfire” video (National Wildfire Coordinating Group)

Landscaping/Building

- “Fire wise Plants for Utah Landscapes” Utah Forest Facts newsletter (Utah State University Extension)
- “How to Landscape for Safer Hillside Living” pamphlet (Los Angeles City Fire Department)

Community Planning

- “Community Involvement in Fire Prevention” (Fire Management Notes Vol. 42)
- “Community Planning: An Introduction to the Comprehensive Plan” (Kelly, Becker; Island Press)
- “County Land Use Planning: How Can Planners Help the Fire Services in Protecting Homes from Wildfire” (USDA Forest Service, General Technical Report INT 251)
- “Development Strategies in the Wildland/Urban Interface” (Western Fire Chiefs Association)
- “The Greenbelt Concept: Safeguarding Your Community with Planning Buffer Zones” (American Fire Journal)

Websites

- Fire Wise Home Page -- <http://www.firewise.org>
- Forest Service Fire Management Website -- <http://www.fs.fed.us/r3/sfe/fire/index.html>
- Insurance Services Office (town fire ratings) -- <http://www.isomitigation.com/>
- National Fire Protection Association -- <http://www.nfpa.org>
- National Interagency Fire Ctr, Wildland Fire Prevention/Education – <http://www.nifc.gov/preved/rams.html>
- U.S. Department of Agriculture “How to Get Information” (contacts) – <http://www.usda.gov/news/howto/nre.htm>
- Utah BLM Fire Management Website – <http://www.ut.blm.gov/fire/Assessment/assessment.html>
- Utah Twenty-First Century Communities Program - <http://utahreach.usu.edu/comm21/index.htm>

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PART IV: TECHNICAL ASSESSMENTS

Directions: This section is to be completed by fire officials. Include any technical data and information, which will support or supplement the information, provided by the Community in Parts II and I. Specific information is requested in order to provide consistency among fire plans within the state.

INSTRUCTIONS

A. Community Description

Fire officials are to provide detailed assessments and information regarding this community. This section can be used as a worksheet – copied, completed, and inserted into the community’s fire plan. Or, fire officials may prefer to use this as a guide rather than a worksheet; if so, please make sure that the final community plan includes the following information. Documentation from assessments, ratings, surveys, etc. should be included in the Appendix, along with maps.

1. Physical Description

a. Area

Legal description: T 6S R 7W Section 3

USGS Map Quadrangle (optional):

VOR RAD distance (optional):

b. Topography and Vegetation

Slope 5-15%
 Average 15%
 Range 5 % to 15%
 Aspect (predominate) west/southwest
 (Cardinal direction) W/SW

Describe the vegetation in the area:
 Juniper, Sage, Russian Thistle, and Cedars.
 600 square miles.

c. Water Supply

Ponds / Creeks / other natural water sources:

Type:	Location / GPS Coordinates	Status:	Helicopter	Pump	# Gallons
<u>Pond / Creek</u>		<u>Permanent / Intermittent</u>	<u>Access?</u>	<u>Required?</u>	<u>or CFS*</u>
Pond	40°19' 30.9" 112°37' 20.9" UTM 362180 4464882 Zone 12	intermittent	Yes	Yes	

** Ponds: measure 1000's of gallons; Creeks: measure in cfs during fire season*

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Hydrants:

<u>Location</u>	<u>Type:</u> <u>Dry / Pressurize</u>	<u>Data:</u> <u>*TP&S</u>	<u>GPM (max.)</u> <u>Output</u>	<u>Comments</u>
n/a				

** Thread Pressure and Size*

Water Tanks / Other available water storage: (underground cisterns, swimming pools, etc.)

<u>Location</u>	<u>Access</u>	<u># of gallons*</u>	<u>Responsible</u> <u>Entity</u>	<u>Phone / E-mail</u>
n/a				

1000's of gallons

d. **Emergency Services / Equipment Capabilities**

Describe the types of emergency services and equipment available from local, county, state and federal resources.

911 Services: Yes, Tooele Dispatch.

Local: Neighborhood, yell out the window to one another

County, State and Federal: Tooele County Dispatch

2. **Hazard Evaluation**

a. **Area Fire History-see appendix**

b. **Subdivision rating**

The subdivision is rated (high) for wildfire hazard.

(Documentation for this rating should be included in the Appendix.)

c. **Property / Structure Rating**

All lots will be rated for wildfire hazard, as arranged by the Fire Council with fire officials and as permitted by the owners.

Documentation of individual property ratings should be included in the Appendix.

d. **Expected Fire Behavior**

Describe expected fire behavior. Detailed documentation should be included in the Appendix.

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INSTRUCTIONS

B. Community Prescription

Based on the information collected, provide recommendations for action under each of the following categories. Fuel modification project plans should include recommendations for ongoing maintenance. This section can be used as a worksheet – copied, completed, and inserted into the community’s fire plan. Or, fire officials may prefer to use this as a guide rather than a worksheet; if so, please make sure that the final community plan includes the following information. **Attach project worksheets for each project, and similar documentation for other goals.**

1. Fuel Modification Projects

<u>Project(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Establish fire breaks	1998-present	Gerry Neil
Community Slash Burning	1998-present	Gerry Neil
Chainsaw Thinning	1998-present	Gerry Neil

2. Infrastructure Improvements (Utilities, Water Developments, Equipment Acquisition / Repair, etc.)

<u>Project(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Possession of 6 hydrants from Dugway Proving Grounds	In process	Gerry Neil
Roic-fill in acquired property		

3. Education

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Community Meetings	1998-present	Andy DiCarlo, Gerry Neil
Distribution of clean-up brochures	2000-present	Gerry Neil Bill Conlin, BLM and FFSL

4. Wildfire Response / Pre-Attack Plan

A Pre-Attack Plan should be in place, with a detailed description attached. It should address the following:

Roice, work with Gerry on this.

The evacuation plan is in place, just needs to be documented please.

Emergency notification procedures	Factors in determining evacuation vs. shelter-in-place
Fire protection responsibilities among agencies (private, state, federal lands; response times)	Traffic Control
Command responsibilities	Briefing of personnel on safety and hazards
Pre-determined locations for...	Determining Operational Mode
Command Post	Determining resource needs
Staging Areas	(aircraft, mechanized, hand crews, water / chemical delivery systems)
Safety Zones	Determining assignments
Helibase / Helispots	(reconnaissance, medical suppression, rehab)

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
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5. Monitoring and Evaluation

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>
Reevaluation of fuels	Annual Review	Gerry Neil, BLM, UT FFSL

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APPENDIX

INSTRUCTIONS

This section is to be filled as needed by both the Community Wildfire Council and fire officials. Items can include, but are not limited to:

- Contact Lists
- Assessment Project Worksheets
- Maps
- Homeowner Checklists
- Examples / Sample documents
- Glossary

Appendix A – Contact Lists

Utah Division of Forestry, Fire and State Lands
USDA Forest Service Districts
Emergency Call-Down List
Forest Products Directory

Appendix B - Maps

Topography
Boundaries
Vegetation/Fuel Types (Hazard area)
Escape routes
Safety zones

Appendix C – Assessments / Worksheets

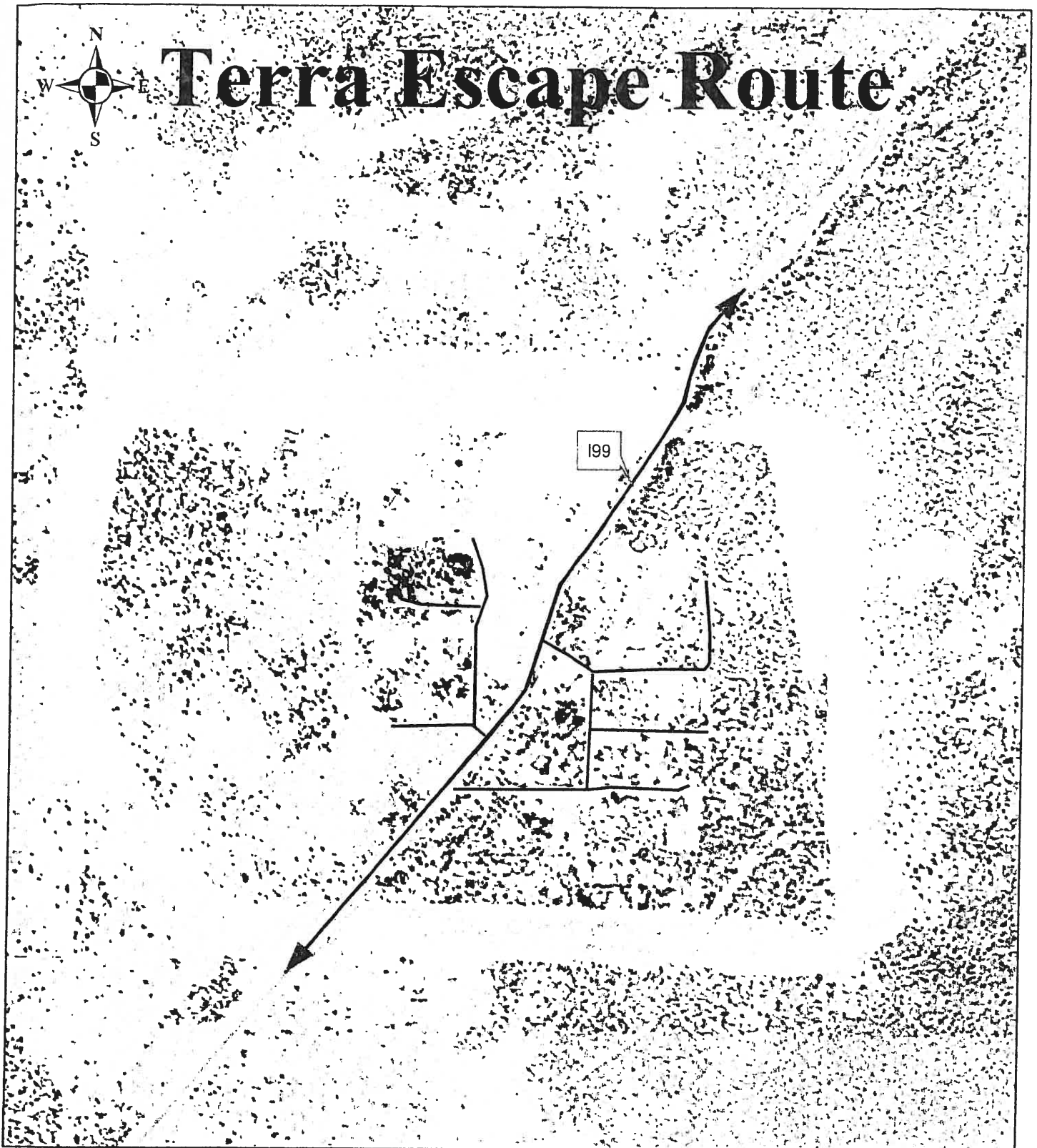
Defensible Space Assessment Worksheets
Wildfire Hazard Rating Form
Wildland Urban Interface Project Sheet (funding)

Appendix D – Checklists / Homeowner Information

Fire Disaster Potential Checklist for Homeowners
Fire Disaster Potential Checklist for Developers
Landscaping and Defensible Space Checklist
Construction Checklist
Fire Resistant Plants
Emergency Response checklist
Zoning recommendations checklist

Appendix E – Other

Wildfire Glossary
Sample County Fire Ordinances
Tooele County Ordinances



I-99 is the only road in and out of Terra so depending on the direction of the wind and the direction of the fire will determine the direction that we will evacuate. If we evacuate to the east we will meet at the Rushvalley Fire Department, which is approximately 10 miles to the east of Terra or if we evacuate to the west we will meet at the LDS church which is approximately 20 miles to the west of Terra. From these locations we will conduct a head count to see whom we are missing and to determine our next form of action.



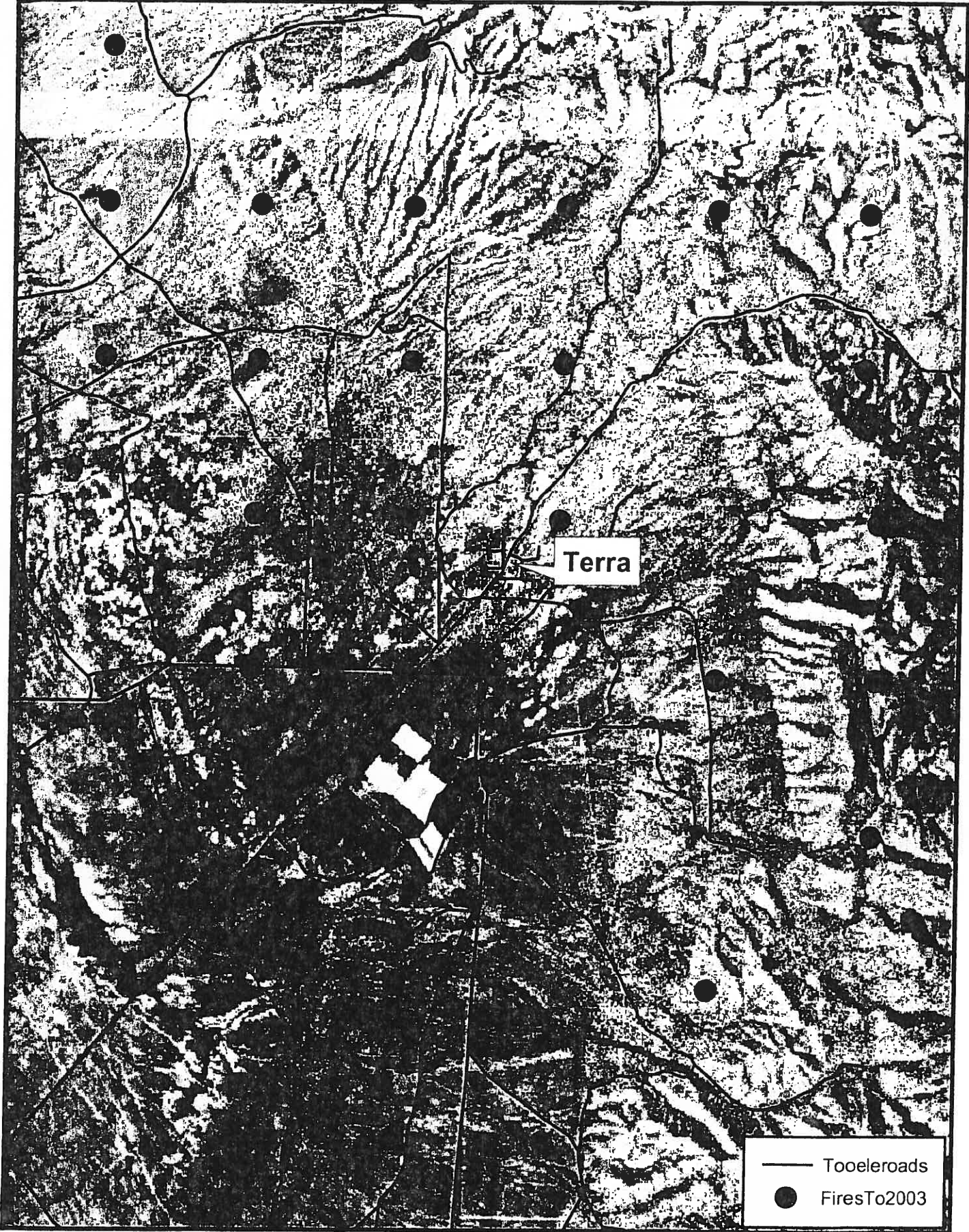
**TERRA
VOLUNTEER FIRE DEPT
EQUIPMENT LIST**

1998	Ford Explorer	Command	
1997	Ford Utility	Brush truck	300 Gal
1990	Chev 1Ton	Brush truck	300 Gal
1998	Chev 1 Ton	Brush truck	300 Gal
1985	Ford Utility	Brush truck	300 Gal
1982	Chev P/U`	Brush truck	200 Gal
1973	Gamma Goat 6x6	Brush truck	300 Gal
1969	2 ½ Ton 6x6	Eng Military	1100 Gal
1998	Ford 4x4 3 Ton	Eng	1000 Gal
1992	Ford	Pumper	550 Gal
1976	Dodge R-9	Tanker	5000 Gal
1985	Chev Blazer	EMS Rescue	

All vehicles listed above are operational and in good working order.
Vehicles listed below are not operational.

1970	Semi Tractor 5 ton		
1971	Semi Tractor 5 Ton w/tanker trailer		5000 Gal

Terra Fire History Up to 2003



Modules: SURFACE, SAFETY, SIZE, SPOT, IGNITE, RH

Description		Terra
Fuel/Vegetation		
Fuel Model		2
Mean Cover Height	ft	15
Tree Height	ft	20.0
Spot Tree Species		PINECH
D.B.H.	in	8
Fuel Moisture		
1-h Moisture	%	4
10-h Moisture	%	25
100-h Moisture	%	50
Live Herbaceous Moisture	%	100
Live Woody Moisture	%	100
Weather		
20-ft Wind Speed	mi/h	75
Wind Adjustment Factor		1
Direction of Wind Vector (from upslope)	deg	0
Air Temperature	oF	100
Dew Point Temperature	oF	65
Terrain		
Slope Steepness	%	60
Ridge-to-Valley Elevation Difference	ft	750
Ridge-to-Valley Horizontal Distance	mi	1.0
Spotting Source Location		VB
Fuel Shading from the Sun	%	60
Fire		
Number of Torching Trees		20
Elapsed Time	h	1.5
Suppression		
Number of Personnel		50
Area per Person	ft2	20
Number of Heavy Equipment		10
Area per Heavy Equipment	ft2	300

(continued on next page)

Input Worksheet (continued)

Run Options

Calculations are only for the direction of maximum spread.

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations.

Wind and spread directions are degrees clockwise from upslope.

Wind direction is the direction the wind is pushing the fire.

Safety zone calculations are based on the flame length in the direction of maximum spread.

Flame length is used as a worst-case estimate of flame height.

Output Variables

Rate of Spread (maximum) (ch/h)

Heat per Unit Area (Btu/ft²)

Fireline Intensity (Btu/ft/s)

Flame Length (ft)

Direction of Maximum Spread (from upslope) (deg)

Maximum Wind Exceeded?

Area (ac)

Perimeter (ch)

Safety Zone Separation Distance (ft)

Safety Zone Size (ac)

Spotting Distance from Torching Trees (mi)

Probability of Ignition from a Firebrand (%)

Relative Humidity (%)

Notes

Terra-CFP

Terra

Rate of Spread (maximum)	1379.9 ch/h
Heat per Unit Area	494 Btu/ft ²
Fireline Intensity	12505 Btu/ft/s
Flame Length	34.5 ft
Direction of Maximum Spread (from upslope)	0 deg
Maximum Wind Exceeded?	Yes
Area	33271.2 ac
Perimeter	4208 ch
Safety Zone Separation Distance	138 ft
Safety Zone Size	2.18 ac
Spotting Distance from Torching Trees	1.4 mi
Probability of Ignition from a Firebrand	79 %
Relative Humidity	32 %

AGENCY CONTACT INFORMATION

(as of March, 2002)

**Utah Department of Natural Resources
Division of Forestry, Fire and State Lands**

Bear River Area Office

Craig Pettigrew, Area Manager

1780 N. Research Parkway, Ste 104
 N. Logan, UT 84341-1940
 (435) 752-8701

Wasatch Front Area Office

*Dick Buehler, Area Manager
 Barbara Gardner, Area Forester*

1594 W. North Temple, Ste 3520
 Salt Lake City, UT 84116
 (801) 538-5555

Southwestern Area Office

*Ron Larsen, Area Manager
 Larry LeForte, FMO*

585 North Main
 Cedar City, UT 84720-2643
 (435) 586-4408

Northeastern Area Office

*Dale Jablonski, Area Manager
 Stephen Rutter, FMO**

152 East 100 North
 Vernal, UT 84078-2126
 (435) 781-5463

Central Area Office

*Kelly Allen, Area Manager
 Mike Melton, FMO*

115 East 900 North
 Richfield, UT 84701-1847
 (435) 896-5697

Southeastern Area Office

*Gary Cornell, Area Manager
 Heather O'Hanlon, Interface
 Project Coordinator*

1165 S. Highway 191, Suite 6
 Moab, UT 84532-3002
 (435) 259-3766

* FMO = Fire Management Officer

Utah Resource & Development Councils

Bear River RC&D

1860 N. 100 East
 No. Logan, UT 84341
 (435) 753-3871

Color Country RC&D

2460 W. Highway 56 #5
 Cedar City, UT 84720
 (435) 586-7449

Panoramaland RC&D

3490 N. 600 E.
 Richfield, UT 84701
 (435) 896-8965 ext. 42

Castlelands RC&D

P.O. Box 1287
 Huntington, UT 84528
 (435) 687-2985

Dinosaurland RC&D

240 W. Highway 40
 Roosevelt, UT 84066
 (435) 722-0884

Bonneville RC&D

5370 S. 1030 W.
 Murray, UT 84123
 (801) 262-6838

Mountainlands RC&D

2210 S. Hwy 40, Suite B
 Heber City, UT 84032-3527

Utah Associations of Government (AOG)

Bear River AOG
170 N. Main
Logan, UT 84321
(435) 752-7242

Mountainland AOG
586 East 800 North
Orem, UT 84097-4146
(801) 229-3800

Southeastern AOG
375 S. Carbon Ave., Box 1106
Price, UT 84501
(435) 637-5444

Five County AOG
906 N. 1400 W., Box 1550
St. George, UT 84770
(435) 673-3548

Six-County AOG
250 North Main
Richfield, UT 84701
(435) 896-9222

Uintah Basin AOG
855 E. 200 N. (112-3)
Roosevelt, UT 84066
(435) 722-4518

Other Planning / Training Resources

Community Solutions, Inc.
Kathy Hammons, Janet Johnson
386 East 600 North
Midway, UT 84049
(435) 657-0668

Utah Rural Development Council
351 W. Center Street, Admin 304D
Cedar City, UT 84720
(435) 586-7852

Wasatch Front Regional Council
420 W. 1500 S., Ste 200
Bountiful, UT 84010
(801) 292-4469

American Red Cross

Cache County Chapter
1115 North 200 East, Ste 140
Logan, UT 84341
(435) 752-1125

Greater Salt Lake Area Chapter
465 South 400 East, Box 3836
Salt Lake City, UT 84110-3836
(801) 323-7000

Southern Nevada Chapter
3672 N. Rancho Drive
Las Vegas, NV 89130
(702) 791-3311

Ogden Chapter
2955 Harrison Boulevard
Ogden, UT 84403
(801) 627-0000

Mountain Valley Chapter
865 North Freedom Blvd.
Provo, UT 84604-3315
(801) 373-8580

Western Colorado Chapter
506 Gunnison Avenue
Grand Junction, CO 81501
(970) 242-4851

Emergency Management / Fire Agencies

Federal Emergency Mgmt Agency
Denver Federal Center
Building 710, Box 25267
Denver, CO 80225-0267
(303) 235-4800

**Utah Comprehensive
Emergency Management**
Rm. 1110, State Office Bldg.
Salt Lake City, UT 84114
(801) 538-3400

Utah State Fire Marshal
5272 S. College Dr., Ste 302
Murray, UT 84123-2611
(801) 284-6350

State of Utah
County Emergency Management Coordinators

Beaver County
 Deputy Brian Lacy
 (435) 438-6449
 quackerjack11@hotmail.com

Grand County
 Doug Squire
 (435) 259-1363
 dsquire@grand.state.ut.us

Sanpete County
 Kevin Holman
 (435) 835-2191
 holmank@sanpeteso.org

Box Elder County
 Denton Beecher
 (435) 734-3357
 sbosgieter@boxeldercounty.org

Iron County
 Vern Grimshaw
 (435) 586-3061
 icelpc@accesswest.com

Summit County
 Merlin Rudd
 (435) 655-0133
 mrudd@hotmail.com

Cache County
 Capt. Bob DeGasser
 (435) 750-7406
 bdegasser@cache.state.ut.us

Juab County
 Gary Corbin
 (435) 623-1762
 (currently no e-mail)

Tooele County
 Kari Sagers
 (435) 843-3260
 kari@tcem.org

Carbon County
 Dennis Dooley
 (435) 636-3290
 slehman@co.carbon.ut.us

Millard County
 Lt. Forrest Roper
 (435) 743-5302
 froper@millard.state.ut.us

Uintah County
 Dale Peterson
 (435) 789-1911
 countylepcs@hotmail.com

Daggett County
 Shirley Slaugh
 (435) 784-3389
 wslauch@union-tel.com

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 Terry Turner
 (801) 845-4048
 tturner@wfol.net

Wasatch County
 Kent Berg
 (435) 654-1661
 kberg@co.wasatch.ut.us

Davis County
 Sgt. Brian Law
 (801) 451-4129
 brianlaw@co.davis.ut.us

Piute County
 Sheriff Marty Gleave
 (435) 577-2893
 delta1@hotmail.com

Washington County
 Mr. Dean Cox
 (435) 673-4824
 deanc@washco.state.ut.us

Duchesne County
 Georg Adams
 (435) 738-1181
 georg@hotmail.com

Rich County
 Dan Ames
 (435) 793-2285
 lazya@cut.net

Wayne County
 Vicky Bower
 (435) 425-3100
 vtaft@wco.state.ut.us

Emery County
 Deputy Martin Wilson
 (435) 381-2404
 martin@ecso.com

Salt Lake County
 Bob Halloran, Bureau Chief
 (801) 743-7102
 bhalloran@co.sl.c.ut.us

Weber County
 Lance Peterson
 (801) 778-6682
 lpeterson@co.weber.ut.us

Garfield County
 Ms. Chris Hatch
 (435) 676-2678
 gcso@color-country.net

San Juan County
 Rick Bailey
 (435) 587-3225
 sanjuan.rbailey@state.ut.us

Utah Soil Conservation Districts

Alpine Soil Conservation District 1350 W. Anderson Lane Lindon, UT 84042 (801) 785-2884	Green River Soil Cons. District P.O. Box 153 Green River, UT 84525 (435) 564-8142	San Rafael Soil Cons. District Box 263 Ferron, UT 84523 (435) 384-2397
Beaver Soil Conservation District P.O. Box 746 Beaver, UT 84713 (435) 438-2326	Juab Soil Conservation District 290 East 300 North Mona, UT 84645 (435) 623-1048	Sanpete Soil Conservation District P.O. Box 3056 Chester, UT 84623 (435) 436-8698
Blacksmith Fork Soil Cons. District 1835 West 3200 South Logan, UT 84321 (435) 752-7573	Kamas Valley Soil Cons. District 472 East 3600 North Kamas, UT 84036 (435) 783-4714	Sevier County Soil Cons. District 245 North 500 West Richfield, UT 84701 (435) 896-5883
Canyonlands Soil Cons. District P.O. Box 243 Escalante, UT 84726 (435) 826-4252	Kane County Soil Cons. District 165 West Kanab Creek Drive Kanab, UT 84741 (435) 644-2774	Shambip Soil Conservation District 90 South West Park Rush Valley, UT 84069 (435) 837-2244
Daggett Soil Conservation District Box 267 McKinnon, WY 82938 (435) 784-3113	Millard Soil Conservation District Box 159 Holden, UT 84636 (435) 795-2618	Summit County Soil Cons. District 1430 East Chalk Creek Coalville, UT 84017 (435) 335-2204
Davis Soil Conservation District 1649 West 700 South Syracuse, UT 84075 (801) 825-1772	Morgan Soil Conservation District 1360 West Island Road Morgan, UT 84050 (801) 829-6327	Timp-Nebo Soil Cons. District 4083 West 12680 South Payson, UT 84651 (801) 465-2777
Delta Soil Conservation District 4161 West 2100 North Delta, UT 84624 (435) 846-3379	North Cache Soil Cons. District 20 East 1600 South Lewiston, UT 84320 (435) 258-2828	Twin M Soil Conservation District Box 942 Milford, UT 84751 (435) 387-2690
Dixie Soil Conservation District 322 West 1300 South Hurricane, UT 84737 (435) 635-2992	Northern Utah Soil Cons. District P.O. Box 175 Tremonton, UT 84337 (435) 257-7201	Uintah Soil Conservation District Box 760036 Tridell, UT 84076 (435) 247-2527
Duchesne Soil Cons. District Box 832 Duchesne, UT 84021 (435) 738-5710	Piute County Soil Cons. District RFD Antimony, UT 84712 (435) 624-3247	Upper Sevier Soil Cons. District 160 S. Main, P.O. Box 128 Panguitch, UT 84759 (435) 676-2686
E & I Soil Conservation District P.O. Box 2557 Cedar City, UT 84720 (435) 586-4063	Price River Soil Cons. District 6495 South 3000 East Price, UT 84501 (435) 637-3474	Wasatch Soil Conservation District 2787 East 2400 South Heber City, UT 84032 (435) 654-1486
Fremont River Soil Cons. District Box 1513 Lyman, UT 84749 (435) 836-2772	Rich Soil Conservation District P.O. Box 67 Laketown, UT 84038 (435) 946-3221	Weber Soil Conservation District 2910 West 2550 South West Haven, UT 84401 (801) 731-0546
Grand Soil Conservation District 2941 E. Bench Road Moab, UT 84532 (435) 259-6235	Salt Lake Soil Cons. District 1275 West 6850 South West Jordan, UT 84084 (801) 262-4735	West Box Elder Soil Cons. District HC 72 Box 2324 Malta, ID 83342 (435) 827-5724
Grantsville Soil Conservation District 358 E. Church Road Erda, UT 84074 (435) 882-0465	San Juan Soil Cons. District P.O. Box 219 Monticello, UT 84535 (435) 587-2724	

Utah Department of Natural Resources

Divisions other than Forestry, Fire and State Lands

Division of Wildlife Resources

1594 W. North Temple
Salt Lake City, UT 84116
(801) 538-4700

Regional Office – Ogden
(801) 476-2740

Regional Office – Vernal
(435) 789-3103

Regional Office – Springville
(801) 489-5678

Regional Office – Price
(435) 636-0263

Regional Office – Cedar City
(435) 865-6103

Division of Oil, Gas & Mining

1594 W. No. Temple, Ste 1210
Salt Lake City, UT 84116
(801) 538-5340

Division of Water Rights

1594 W. No. Temple, Ste 220
Salt Lake City, UT 84116
(801) 538-7240

Regional Office – Logan
(435) 752-8755

Regional Office – Vernal
(435) 781-5327

Regional Office – Price
(435) 637-1303

Regional Office – Richfield
(435) 896-4429

Regional Office – Cedar City
(435) 586-4231

Division of Water Resources

1594 W. No. Temple, Ste 310
Salt Lake City, UT 84116
(801) 538-7230

Division of Parks & Recreation

1594 W. No. Temple, Ste 116
Salt Lake City, UT 84116
(801) 538-7220

Northeast Region
(435) 649-9109

Northwest Region
(801) 533-4229

Southeast Region
(435) 259-3755

Southwest Region
(435) 586-2789

*For information on State Parks:
<http://www.stateparks.utah.gov>*

Utah Geological Survey

1594 W. No. Temple, Ste 3110
Salt Lake City, UT 84116
(801) 538-3300

U.S. Department of Agriculture Forest Service – Utah Offices

Intermountain Regional Office

Federal Building
324 25th Street
Ogden, UT 84401
(801) 625-5306

Ashley National Forest

355 North Vernal Avenue
Vernal, UT 84078
(435) 789-1181

Dixie National Forest

1789 N. Wedgwood Lane
Cedar City, UT 84720
(435) 865-3700

Fishlake National Forest

115 East 900 North
Richfield, UT 84701
(435) 896-9233

Manti-LaSal National Forest

599 West Price River Drive
Price, UT 84501
(435) 637-2817

Uinta National Forest

88 West 100 North
Provo, UT 84601
(801) 342-5780

Wasatch-Cache National Forest

8236 Federal Building
125 South State Street
Salt Lake City, UT 84138
(801) 524-3900

U.S. Department of Interior
Bureau of Indian Affairs ~ Utah Offices

PHOENIX AREA OFFICE
for Arizona, Nevada, Utah
P.O. Box 10
Phoenix, AZ 85001
(602) 379-6600

Southern Paiute Field Station
P.O. Box 720
St. George, UT 84711
(435) 674-9720

Uintah & Ouray Agency
P.O. Box 130
Fort Duchesne, UT 84026
(435) 722-2406

Tribes

Skull Valley Goshute Reservation
P.O. Box 150
Grantsville, UT 84029
(801) 363-7726

**Paiute Indian Tribe
Of Utah Tribal Council**
600 North 100 East Paiute Drive
Cedar City, UT 84720
(435) 586-1112

**Uintah & Ouray Tribal
Business Committee**
P.O. Box 190
Fort Duchesne, UT 84026
(435) 722-5141

Goshute Business Council
P.O. Box 6104
Ibapah, UT 84034
(435) 234-1136

U.S. Department of Interior
Bureau of Land Management ~ Utah Offices

Salt Lake Field Office
2370 South 2300 West
Salt Lake City, Utah 84119
(801) 977-4300

Price Field Office
125 South 600 West
Price, Utah 84501
(435) 636-3600

Kanab Field Office
318 North First East
Kanab, Utah 84741
(435) 644-4600

Vernal Field Office
170 South 500 East
Vernal, Utah 84078
(435) 781-4400

Moab Field Office
82 East Dogwood
Moab, Utah 84532
(435) 259-2100

Monticello Field Office
435 North Main, P.O. Box 7
Monticello, Utah 84535
(435) 587-1500

Fillmore Field Office
35 East 500 North
Fillmore, Utah 84631
(435) 743-3100

Cedar City Field Office
176 East D.L. Sargent Drive
Cedar City, Utah 84720
(435) 586-2401

**Grand Staircase-Escalante
National Monument**
190 E. Center
Kanab, UT 84741
(435) 644-4300

Richfield Field Office
150 East 900 North
Richfield, Utah 84701
(435) 896-1500

St. George Field Office
345 East Riverside Drive
St. George, Utah 84720
(435) 688-3200

U.S. Department of Interior
Fish and Wildlife Services ~ Utah Offices

Ecological Services Field Office
2369 West Orton Circle
West Valley City, UT 84119
(801) 975-3330

Fish Springs Natl. Wildlife Refuge
Highway 36, Pony Express Trail
Ibapah, UT 84034
(435) 831-5353

Colorado River Fishery Project
1380 South 2350 West
Vernal, UT 84078-2042
(435) 789-4078

Senior Resident Agent – Ogden
P.O. Box 2369
Ogden, UT 84402
(801) 625-5570

**Colo. River Wildlife Mgmt Refuge,
Ouray Natl. Wildlife Refuge**
19001 East Wildlife Refuge Road
Randlett, UT 84063-2042
(435) 545-2522

**Fish & Wildlife Service
Management Assistance Office**
1380 South 2350 West
Vernal, UT 84078-2042
(435) 789-0354

U.S. Department of Interior
National Park Service ~ Utah Offices

Arches National Park
P.O. Box 907
Moab, UT 84532-0907
(435) 719-2100 (Headquarters)

Cedar Breaks Natl. Monument
2390 W. Highway 56, Suite 11
Cedar City, UT 84720-4151
(435) 586-9451 (Visitor Info)

Natural Bridges Natl. Monument
HC 60 Box 1
Lake Powell, UT 84533-0101
(435) 719-2100 (Headquarters)

Bryce Canyon National Park
P.O. Box 170001
Bryce Canyon, UT 84717-0001
(435) 834-5322 (Headquarters)

Glen Canyon Natl. Recreation Area
P.O. Box 1507
Page, AZ 86040-1507
(928) 608-6200 (Headquarters)

Pony Express Natl. Historic Trail
Long Distance Trails Office
325 South State St., Ste 324
Salt Lake City, UT 84145-0155
(801) 539-4093 (Headquarters)

California Natl. Historic Trail
324 S. State Street, Suite 250
P.O. Box 45155
Salt Lake City, UT 84145-0155
(801) 539-4095 (Headquarters)

Golden Spike National Historic Site
P.O. Box 897
Brigham City, UT 84302-0897
(435) 471-2209 (Visitor Info)

Rainbow Bridge Natl. Monument
PO Box 1507
Page, AZ 86040-1507
(520) 608-6200 (Headquarters)

Canyonlands National Park
2282 S. West Resource Blvd.
Moab, UT 84532-3298
(435) 719-2100 (Headquarters)

Hovenweep National Monument
McElmo Route
Cortez, CO 81321
(435) 719-2100 (Headquarters)

Timpanogos Cave Natl. Monument
R.R. 3, Box 200
American Fork, UT 84003-9803
(801) 756-5239 (Headquarters)

Capitol Reef National Park
HC 70 Box 15
Torrey, UT 84775-9602
(435) 425-3791 (Visitor Info)

Mormon Pioneer Natl. Historic Trail
Long Distance Trails Office
324 South State, Suite 250
Salt Lake City, UT 84145-0155
(801) 539-4095 (Headquarters)

Zion National Park
SR 9
Springdale, UT 84767-1099
(435) 772-3256