

# Chapter 1. Introduction

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## 1.1 OVERVIEW OF REGIONAL AND COMMUNITY WILDFIRE PROTECTION PLANS

Wildland fires are a natural part of the ecosystems of Southwest Utah and over the years have shaped the forests and rangelands. However, the forests and rangelands in Southwest Utah have been significantly altered, especially in the last 50 years or so, resulting in increased fuels and fires that tend to burn more intensely than in the past. In addition, population growth has led to residential development occurring close to the forests and rangelands, in what is called the Wildland-Urban Interface or “WUI”.

To address these issues, a multi jurisdictional group of agencies, organizations, and individuals have collaborated to develop the Southwest Utah Regional Wildfire Protection Plan, hereinafter also referred to as “SURWPP”.

The purpose of the SURWPP is to be a tool in the effort to protect human life and reduce property loss due to catastrophic wildland fires in the communities and surrounding areas located in the Southwest Utah counties of Beaver, Garfield, Iron, Kane, and Washington.

This plan has been created in recognition of firefighter safety and the existing potential for personal harm and property damage to residents living in the WUI areas of Southwest Utah. Although reducing the threat of wildland fires is the primary motivation behind this plan, managing the forests and rangelands for hazardous fuel reduction and fire resilience is a part of the larger picture.

Residents and visitors alike want healthy, fire resilient forests that provide habitat for wildlife, recreational opportunities, and scenic beauty. As communities grow and as new communities are developed, urban areas encroach upon wildland ecosystems to create a situation where flammable wildland fuels are in close proximity to houses and community structures. This problem creates conflicts between a community and its wildland surroundings.

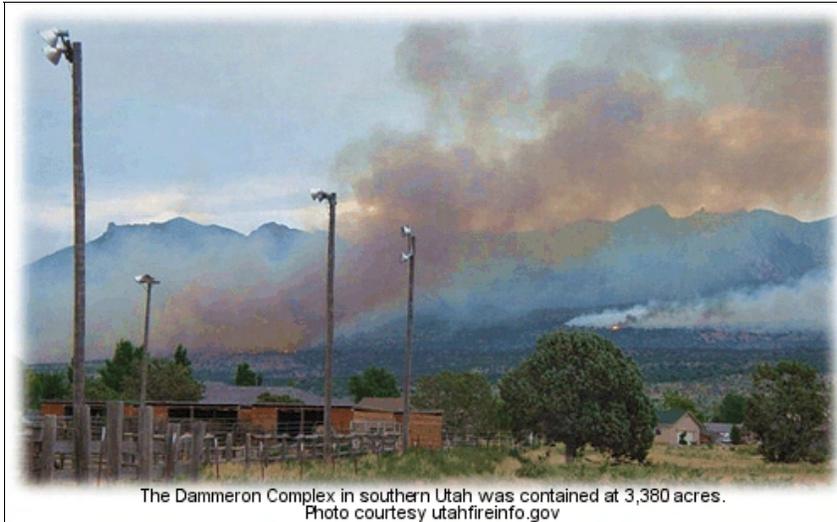
This planning process represents a portion of the long term investments that local, state and federal agencies are making to help protect natural resources, critical infrastructure, community facilities, businesses and residential structures, and most importantly the lives of firefighters and the public. This plan epitomizes a long-term commitment based on cooperation and communication between the State of Utah Forestry, Fire and State Lands, federal agencies, local governments, and the interested public. The SURWPP begins with an overview that includes the forests and associated lands at risk. This also includes the people, the Community Assistance Program, and the principles advocated in this plan. Each county in Southwest Utah is analyzed, together with current fuel hazard reduction efforts.

The planning process includes convening of the decision makers, development of a “core” team of professionals, establishment of regional base maps, with comprehensive community

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risk assessments that include communities at risk, and local firefighting capabilities. The Plan concludes with an action plan and assessment strategies.



The most recent authority for community fire planning comes under the Healthy Forests Restoration Act of 2003 (HFRA). Title III of HFRA provides guidance for developing Community Wildfire Protection Plans (CWPPs). This project developed a regionally-based plan we have called a Regional Wildfire Protection Plan, or RWPP.

Utah regions with an RWPP in place may receive significant benefits in the future should funding be appropriated through HFRA for fuels reduction and fire prevention. HFRA provides clear guidance for what should be developed in a Wildfire Protection Plan. The Southwest Utah RWPP is designed to address the CWPP requirements, along with guidelines and requirements in the FEMA Disaster Mitigation Act of 2000, the National Fire Plan, and other state and federal programs.

This Regional Wildfire Protection Plan for Southwest Utah identifies and prioritizes issues related to wildfire prevention and fuel mitigation in the Wildland-Urban Interface areas on a large scale. The intent of this plan is to capture landscape level information. This plan is not intended to interfere with or take the place of state of Utah “Community Fire Plan” process and results. The Southwest Utah Regional Wildfire Protection Plan will result in defensible space reduction planning at a landscaping level. In addition to providing oversight and guidance in planning objectives, the heart of this plan is a collaborative effort to promote the interest, education, and long-term involvement within the residents of Southwest Utah in realizing the danger of wildfire and identifying strategies that will reduce the risk around their homes and in their communities.

The Southwest Utah Regional Wildfire Protection Plan (SURWPP) is one of five regional plans covering each of the wildfire planning and protection regions of Utah. The goal of each RWPP is to assist the region and its counties, communities, and government agencies in reducing the risk of catastrophic wildfires within that region.

Wildland fires in Southwestern Utah are well documented; yet in the past there has been limited awareness about the investment required to maintain sufficient fire protection.

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However, the scale of the community protection task is enormous. In short, many communities in Southwestern Utah are surrounded by massive amounts of accumulated fuel which must be removed or modified. Over the past decades, and updated by current Community Fire Risk Assessments, it has become clear that the possibility of a major disaster, in the form of uncontrollable wildfires has grown enormously. There is no other time in the area's recorded history with such a high potential for disaster.

### **1.2 OVERVIEW OF FEDERAL PROGRAMS FOR WILDFIRE MITIGATION**

#### **Summary of the National Fire Plan, the Healthy Forest Restoration Act of 2003, and FEMA Disaster Mitigation Act of 2000**

The National Fire Plan of 2000 (NFP) was initiated by the Secretaries of the United States Department of the Interior (USDI) and the United States Department of Agriculture (USDA) to address the needs of firefighters, private land and home owners, and governmental land management agencies. The National Fire Plan (NFP) is not an actual document, but a nationally coordinated effort to protect communities and natural resources from the harmful effects of increasing wildland fire occurrences and severity in the United States. Acting as an umbrella the NFP established the purpose and goals, which are articulated and carried forward through the 10 Year Comprehensive Strategy (USDA 2001), the Cohesive Strategy for Protecting People and Sustaining Natural Resources (USDA 2001), and other supporting documents. The four primary goals of the National Fire Plan are:

1. Improve fire prevention and suppression.
2. Reduce hazardous fuels.
3. Restore fire adapted ecosystems.
4. Promote community assistance.

To provide a more detailed framework for accomplishing the goals of the National Fire Plan the 10-year Comprehensive Strategy was prepared in 2001 by the USDI, USDA, and the Western Governors Association. This strategy emphasizes a collaborative community-based approach to address wildland fire issues and identifies guiding principles and management actions for agencies to follow in implementing the National Fire Plan. The five guiding principles of the Comprehensive Strategy include:

1. Public and firefighter safety is the first priority in all fire management operations.
2. Prioritize hazardous fuels reduction where the negative impacts of wildland fire are the greatest.
3. Prevent invasive species and restore watershed function and biological communities through short-term stabilization and long-term rehabilitation.

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4. Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically severe fires on a priority watershed basis through long-term restoration.
5. Promote better fire prevention planning and action in local communities through technical assistance and cost sharing incentives.

As part of the NFP, the Cohesive Strategy for Protecting People and Sustaining Natural Resources was prepared in 2000 by the USDA. It projects the quantity and rate of fuel reduction treatments required on a landscape scale to restore fire adapted ecosystems and protect communities from increasing wildland fire. Under current conditions the Cohesive Strategy estimates fuel reduction treatments needed to increase five-fold in order to achieve the goals. It also concludes that treatments are needed both within and outside the Wildland-Urban Interface (WUI) areas.

The NFP, HFRA, and National Environmental Policy Act (NEPA) and FEMA's Pre-Disaster Mitigation Act of 2000, provided landmark legislation, guidance, and statutory incentives to several agencies, including the U.S. Forest Service (USFS,) the Bureau of Land Management (BLM,) and the Utah Division of Natural Resources through the Division of Forestry, Fire and State Lands. These agencies have joined together to confront the urgency of an unprecedented wildfire threat.

In December of 2003, President George W. Bush signed into law the HFRA of 2003. This legislation encouraged ground floor public participation during the development and assessment process and in working with state, federal and local leaders to decrease hazardous fuels and maintain environmental principles. The Healthy Forests Initiative gives guidance for the nation's forests and rangelands through the use of scientific principles to reduce the risk of catastrophic wildfires in or near communities, to help save the lives of residents and firefighting personnel, and to protect wildlife and nature's endangered species.

The purpose of the HFRA is to:

- Development of high priority forest health projects through public participation.
- Diminish complicated and involved environmental investigation procedures thus allowing federal land agencies to vigorously administer the land under their stewardship by using the best scientific techniques.
- Plan for and provide a more adequate appeal procedure by encouraging initial public participation near the beginning of the project planning process.
- Issue comprehensible directions for court conflicts aimed against forest health projects.

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The HFRA builds on existing efforts to restore healthy forest conditions near communities and essential community infrastructure by authorizing expedited environmental assessment, administrative appeals, and legal review for hazardous fuels projects on federal land. The act emphasizes the need for federal and state agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatment areas identified by communities in their Community Fire Plans.

The HFRA has received strong support throughout the Five County area of Southwest Utah, at a local level, as well as from the State of Utah Forestry, Fires and State Lands; the Color Country Fuels Committee; the U.S. Forest Service and the National Parks Service; and other federal and state agencies.

The HFRA provides communities with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands and how additional federal funds may be distributed for projects under the Community Assistance Program for projects on non federal lands. A Community Fire Plan (CFP) is the most effective way to take advantage of this opportunity.

HFRA is also supported by the Southwest Utah Support Area (SUSA) representing the Bureau of Land Management. SUSA's purpose is to establish firefighter and public safety as their priority in all fire management activities, along with a collaborative effort to reduce wildfire risk to communities SUSA is a long-term commitment based on cooperation and communication among federal agencies and state agencies, local governments, Native American tribes, and interested private citizens. Included in the SUSA is a Fire Management Plan (FMP). Additional information on the Fire Management Plan is available through <http://fpa.nifc.gov>

This Fire Management Plan encompasses 5,141,154 million acres of Bureau of Land Management administered lands within the SUSA. Because the boundaries of the SUSA include federal, state, and private lands, an effective fire management program requires close coordination among local and regional jurisdictions. Information available in the FMA will help to refine and strengthen the ongoing fire management coordination efforts of the BLM, Arizona Strip Field Office, the United States Forest Service (USFS), Bureau of Indian Affairs (BIA), National Park Service, (NPS), and Utah Division of Forestry, Fire and State Lands.

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### **1.3 RWPP PLANNING PROCESS**

A variety of agreements are currently utilized to coordinate the fire management program of the SUSA with the Dixie National Forest (DNF), Utah Division of Forestry, Fire and State Lands, National Park Service and the Bureau of Indian Affairs. The agencies jointly conduct mutual interest projects, within their authority, to maintain and improve fire management capabilities. The agencies and local governments are collaborating with the Five County Association of Governments to initiate this SURWPP. These efforts are part of the community assistance/protections planning efforts developed through public meetings within the region's Wildland-Urban Interface (WUI). Future projects may involve such activities as prescribed by fire/fuels management personnel, a detailed pre-suppression plan, preparedness preparations, rehabilitation of chemically and mechanically removed fuel areas, prevention and education to communities involved, and public affairs news releases.

Discussions prior to and during the development of the regional Fuel Management Plan (FMP) included federal, state, county, public, and tribal groups within the Southern Utah Support Areas (SUSA) which resulted in a coordinated FMP. At the federal level, the BLM conducted briefings and coordinated with the U.S. Forest Service and the USFWS. Information sharing among all the interested parties was of high importance to the SUSA, and has been a top priority since the preliminary and developmental stages of the Fire Management Plans of 2001 and 2003.

Several laws and Executive Orders exist to ensure that the BLM consults with federally recognized Native American tribes when planning a project or activity. The Southern Utah Support Areas invited the Paiute tribal staff to participate in the development of the Southern Utah Support Areas Fire Management Plan. The SUSA will continue to meet the federal trust guidelines. Government-to-government consultation with the BIA will be initiated through the Southern Utah Support Area early in any project planning process. Local sovereign Native American tribal governments and other interested groups will also continue to be informed and consulted as the information and strategies in the Fire Management Plan are updated.

The Federal Emergency Management Agency (FEMA) requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000 have been adopted by the State of Utah and each of the five southwestern counties. This legislation specifies criteria for state and local hazard mitigation planning which require local and Native American tribal governments applying for Pre-Disaster Mitigation (PDM) funds to have an approved local mitigation plan. These may include county-wide or multi-jurisdictional plans as long as all jurisdictions adopt the plan. Eligible activities for funding include management costs, information dissemination, planning and technical assistance, and mitigation projects.

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A public informational meeting was held on July 7, 2004, in Cedar City, Utah to discuss the FMP and the planning process. Public comments were also solicited. The meeting helped provide the groundwork that resulted in developing the processes through which this plan was formulated.

To provide communities with guidance in developing a wildfire protection plan, the Society of American Foresters, along with the National Association of Counties, National Association of State Foresters, Western Governors' Association, and the Communities Committee developed a “how to” handbook entitled "*Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*". That handbook outlined eight steps, shown in Table 1.1, for developing a CWPP, and provided guidance in preparing this Southwest Utah RWPP.

**Table 1.1 - Eight Steps for Developing a CWPP**

- Step One:** Convene Decision-makers. Form a core team composed of representatives from the appropriate local governments, local fire authorities, and state agencies responsible for forest, fire, and hazard management.
- Step Two:** Involve Federal Agencies. Identify and engage local representatives of the USFS and BLM. Contact and involve other federal land management agencies as appropriate.
- Step Three:** Engage Interested Parties. Contact a broad range of interested organizations and stakeholders and encourage their active public involvement in plan development.
- Step Four:** Establish a Community Base Map. Work with decision-makers and stakeholders on a baseline map of the region that depicts the communities' WUIs, other inhabited areas at risk, forested areas that contain critical human infrastructure, and forested areas at risk of large-scale fire disturbance.
- Step Five:** Develop a Community Risk Assessment. Work with partners to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk (CVARs); and local preparedness capability. Rate the level of risk for each factor and incorporate into the base map as appropriate.
- Step Six:** Establish Community Priorities and Recommendations. Use the base map and risk assessment to identify local priorities for fuels treatments, opportunities to reduce structural ignitability, and other issues of interest. Clearly indicate whether priority projects are directly related to 1) protection of communities and essential infrastructure or 2) reduction of wildfire risks to other CVARs.
- Step Seven:** Develop an Action Plan and Assessment Strategy. Develop a detailed implementation strategy to accompany the CWPP, as well as a monitoring plan that will ensure its long-term success.
- Step Eight:** Finalize CWPP. Finalize the CWPP and communicate the results to regional and community leaders, decision-makers, and key partners.

Source: Society of American Foresters, 2004

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The Five County Association of Governments was contracted to help facilitate stakeholder and Core Team meetings, undertake a risk assessment, facilitate public meetings and compile public comments, and write the plan document.

### Step One – Involved Local, State, and Federal Agencies

#### Stakeholders Advisory Committee

The initial step in developing this regional wildfire protection plan was the formation of an operating group with representation from local government, local fire authorities, federal land management agencies, and the state agency (Forestry, Fire and State Lands) responsible for wildland management. Together, these entities form the core decision-making team that is responsible for the development of this RWPP. The Stakeholder Advisory Committee must mutually agree on the plan's final contents. The stakeholders for this planning process are listed in Table 1.2.

Billie Dalton	Beaver County Commission
Sheriff Mark Gower	Iron County Sheriffs Office
Al Cooper	Community Support Officer, Utah Dept. of Emergency Services, Division of Homeland Security
Richard Holland	Fire Chief, New Harmony Fire Protection District
Mayor Bruce Harris	Glendale Town
Jim Hubble	President, Rainbow Meadows Water Users Assoc.
Jeff Hunt	Fire Chief, Enterprise City
Ken Johnson	Fire Chief, Cedar Mountain Fire Protection District
Ken Olson	Beaver City
Commissioner Clare Ramsey	Garfield County Commission
John Schmidt	Utah Forestry, Fire & State Lands
Brandon Smith	Fire Chief, Panguitch Lake Fire Protection District
Commissioner Wayne Smith	Iron County Commission
Anne Stanworth	Bureau of Land Management, Cedar City Office
Vicki Tyler	Coordinator, Color Country RC&D Council
Les Whitney	Chair, Beaver County LEPC

#### Core Team

Members of the Core Team share perspectives, priorities, and other information relevant to the planning process. Because of their on-the-ground experience, mapping capabilities, and knowledge of natural resource planning, these local land management professionals

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are key partners. In some landscapes, they are largely responsible for implementing the priorities established in this RWPP. The Core Team members are listed in Table 1.3.

Susan Bailey	State of Utah Forestry, Fire & State Lands
Paul Briggs	Bureau of Land Management
Walter Burdick	F.M.O., Bureau of Land Management
Bruce Fields	F.M.O., U.S. Park Service, Bryce Canyon National Park
Al Cooper	Community Support Officer, Utah Dept. of Emergency Services, Division of Homeland Security
Joseph Fluder	SWCA Environmental Consultants
Kevin Greenhalgh	U.S.F.S. Dixie National Forest
George Humphries	Beaver County Fire Warden
JoAnn Larsen	U.S.F.S. Fuels Planner
Earl Lavanger	Kane County Fire Warden
Susan Marzec	Bureau of Land Management
Mike Melton	F.M.O., State of Utah Forestry, Fires and State Lands
Vacant	F.M.O., U.S. Park Service, Zion National Park
Ryan Riddle	Iron County Fire Warden
John Schmidt	State of Utah Forestry, Fire & State Lands
Vacant	Washington County Fire Warden
Josh Soper	Garfield County Fire Warden
Jeramie Ybright	F.M.O., Southern Paiute Agency
Vicki Tyler	Coordinator, Color Country RC&D Council

### Step Three – Engaged Interested Parties

Step Three involved encouraging local participation from interested organizations and stakeholders throughout the planning process. As early as possible, Core Team members contacted and sought active involvement from key stakeholders and constituencies such as:

- Existing collaborative forest management groups
- City/County Council/Commission members
- Resource Advisory Committees
- Local and /or state emergency management agencies
- Watershed councils

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### **Step Four – Developed GIS Maps**

Using GIS technology and available data, as well as local expertise from the Core Team, a base map for each county was developed. A general ownership map for the region is presented as Map 1.2. A more detailed ownership map for each county is presented in Appendix A. The following were key outcomes of the digital mapping:

- Identified critical infrastructure at risk, i.e., major power lines, etc.
- Identified areas of extreme, high, medium or low wildfire risk by county.
- Identified, quantified and estimated values of residential structures when they were within a WUI area.

### **Step Five – Developed a Risk Assessment**

- In an interagency effort, assembled a risk assessment that considered fuel hazards, risk of wildfire occurrences.
- Identified community values at risk.
- Identified local preparedness capability.
- Incorporated the risk levels into the maps where appropriate.

The risk assessment includes:

- **Fuel Hazards:** To the extent possible at a landscape scale, the Plan evaluated the vegetative fuels on federal and non federal land within or near CARs and the WUI areas. The Plan identified general areas where the condition of vegetative fuels is such that, if ignited, would pose a significant threat to the community or essential community infrastructure. State and federal resource planning documents were used as a valuable source of information on local forest and public land conditions.
- **Risk of Wildfire Occurrence:** Using historical data and local knowledge, the Plan identified common causes and relative frequency of wildfires in the regional area.
- **Residential Units and Essential Infrastructure at Risk:** The Plan categorizes all identified WUI's using risk rating of extreme, high, medium, or low on the base map. The plan does not segregate the residential structures into separate tables for low, medium, high or extreme risk. The plan does, however, quantify the acreages and percentage of each WUI that is in each level of risk.
- **Local Preparedness and Firefighting Capability:** The Plan contains information on local/county/regional structural fire and wildfire fighting capabilities and preparedness information. These are presented in Appendix B.

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### **Step Six – Established Focus Areas and Recommendations**

The regional assessment and the base maps were developed through participation of the Core Team and local public participation. A key objective of these discussions was the development of focus areas for fuel treatment projects on federal and non federal lands in the WUI, along with recommendations for potential treatment methods for those areas.

Recommended priorities of the SURWPP:

- Improve wildland fire prevention and suppression safety
- Reduce hazardous fuels
- Improve restoration of fire dependent ecosystems
- Provide community assistance

### **Step Seven – Developed an Action/Strategic Plan**

- Prioritized the values to be protected, and develop strategies to accomplish desired outcomes.
- Identified responsible parties and timetables to accomplish general goals.

### **Step Eight – Finalized the RWPP**

The final steps in completing the Regional Plan will be to present the Plan to the Stakeholders Committee for concurrence. The Plan was presented to the Steering Committee of the Five County Association of Governments, the Natural Resources Committee and finally to each of the five County Commissions in southwest Utah for adoption and signature.

The serious problem of invasive cheatgrass is discussed in detail in a report by Scott Tobler which is presented in its entirety in Appendix C.

## **1.4 PROJECT BOUNDARY**

Originally the State of Utah and the BLM planned on organizing the RWPP by Interagency Fire Center coverage area. To better address county or community funding requests, the Core Teams for each of the five regions were aligned by county boundaries. Thus, the Southwest Utah region encompasses the counties of Beaver, Garfield, Iron, Kane, and Washington. Also, contained within the boundaries of the southwest district are lands belonging to several recognized Bands of Paiute Indian Tribe of Utah.

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Map 1.1 illustrates the five county area of Utah comprising the area covered by this Southwest Utah Regional Wildfire Protection Plan that also identifies the County Seat of each County. Map 1.2 illustrates five county area of Utah and identifies the land ownership in the area covered by this plan.

### **1.5 PUBLIC INVOLVEMENT**

A county commission meeting in each of the five counties was attended by staff of the Five County Association of Governments. The presentation made by staff was designed to educate the public about the goals of the plan and to solicit input from community leaders and the general public regarding wildfire issues and concerns. These commission meetings were conducted in the county seats of each of the counties covered by the RWPP.

The SURWPP project was introduced to the elected officials and the public during county commission meetings held during August and September of 2006 in each of the five counties. The following were the specific dates of those meetings:

- August 15, 2006 - Washington County Commission meeting
- August 28, 2006 - Garfield County Commission meeting; Kane County Commission meeting
- September 5, 2006 - Beaver County Commission meeting
- September 11, 2006 - Iron County Commission meeting

Throughout the process of developing this plan, the Core Team was involved. Numerous meetings were held, mostly at the Color Country Interagency Fire Center in Cedar City.

A public draft was presented by the staff of the Five County Association of Governments in June 2007 at “Open House” presentations advertised locally in each of the five counties of southwestern Utah. These were held in the following locations:

- June 11, 2007 in Beaver City
- June 13, 2007 in Kanab City
- June 15, 2007 in Cedar City
- June 19, 2007 in St. George City
- June 28, 2007 at Ruby’s Inn in Garfield County

The draft was also available online at [www.fcaog.state.ut.us/wildfire.html](http://www.fcaog.state.ut.us/wildfire.html). In addition to the open houses, the plan was presented to the Local Emergency Planning Committees

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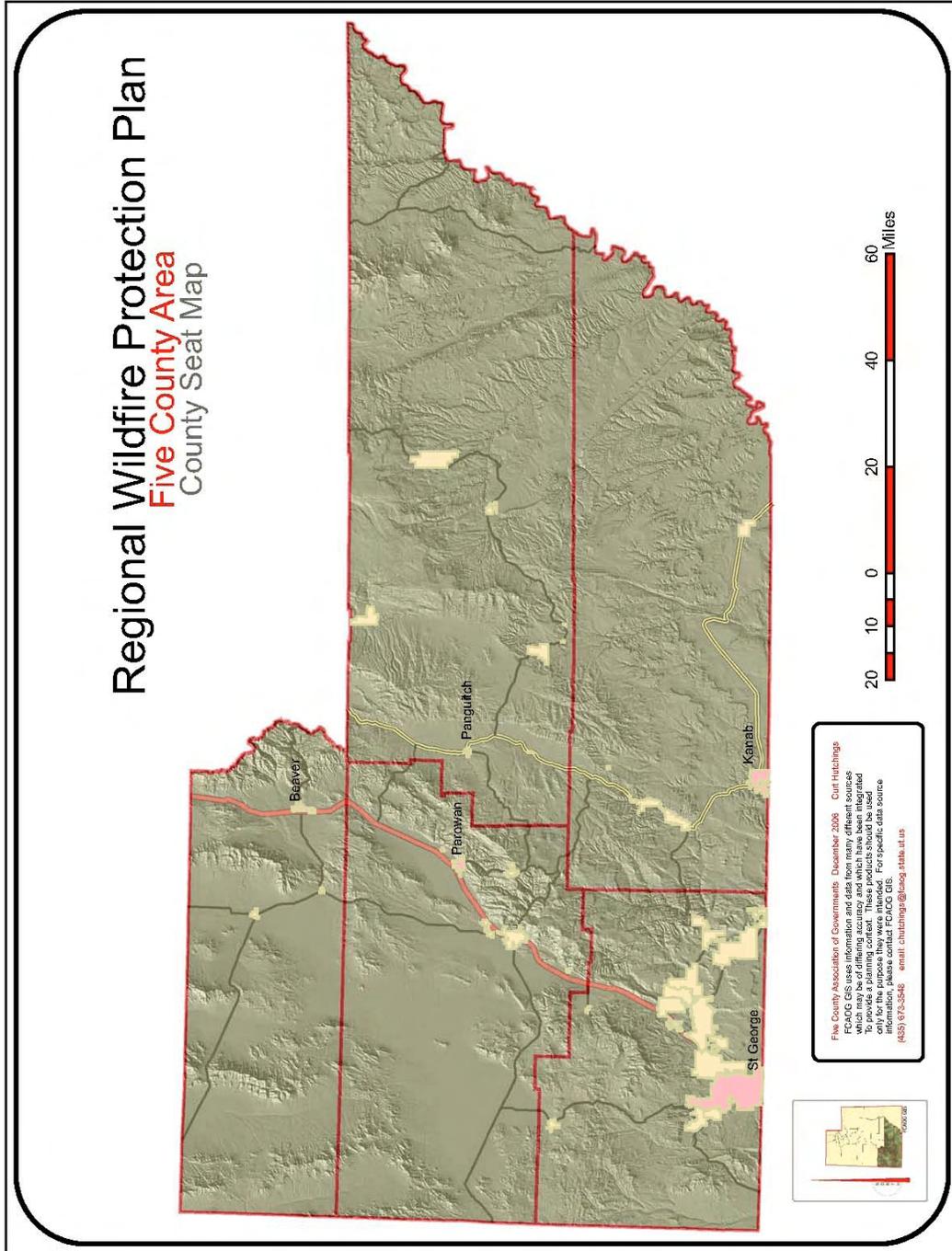
(LEPC) in each of the five counties. The meetings of the LEPCs coincided with the dates of the advertised open house meetings.

Comments were solicited from attendees at the open house presentations as well as at the LEPC meetings. The aforementioned web site also solicited comments and provided an e-mail address as well as alternatives to provide comments. Copies of comments received are provided in Appendix E.

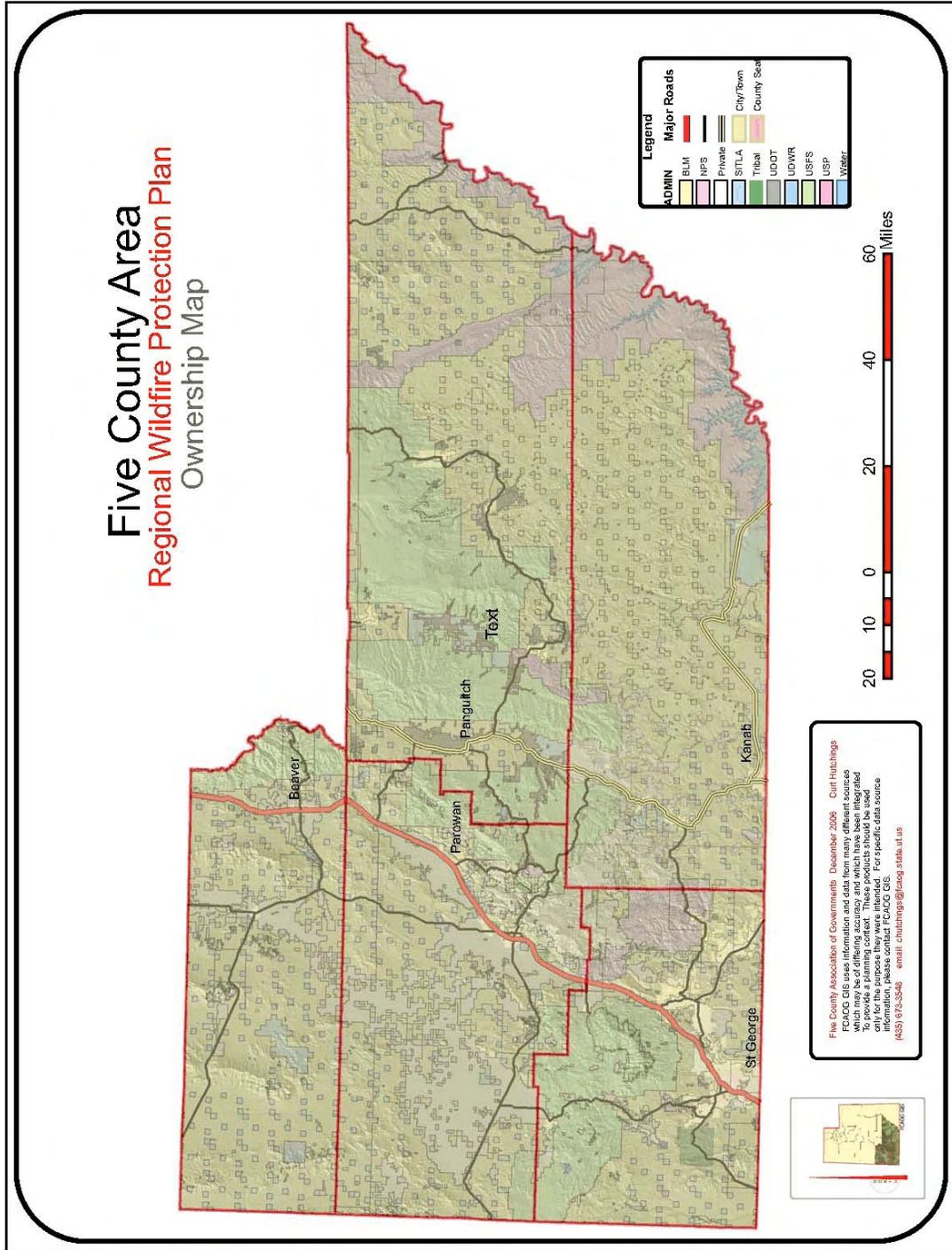
### **1.6 DEFINITION OF WILDLAND-URBAN INTERFACE (WUI) IN THE PLANNING REGION**

Wildland fires pose a threat to residents, homes, infrastructure and firefighters when they occur near to and spread into the WUI, which is commonly defined as the geographic area where residential development intermixes with wildland or vegetative fire. Federal legislation, such as the National Fire Plan and the Healthy Forest Restoration Act, place a priority on defining risk in the WUI area. Under the HFRA, at least 50% of all funds appropriated for projects must be used within a defined WUI.

Map 1.1 County Seat Map



Map 1.2 - Regional Ownership Map



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The Southwest Utah Regional Wildfire Protection Plan Core Team held several meetings and agreed upon a description of the Wildland Urban Interface (WUI) in southwestern Utah for the purposes of this document.

All categories of WUI zones are based upon location of Communities At Risk (CARs) and boundaries of "Level 12 Watersheds". The description of the watersheds used for this Plan (e.g. 12-digit HUC watershed) is based on the Hydrologic Unit Code (HUC) system, which is a standard watershed map system used by state and federal agencies. Watersheds in each mapping level are progressively subdivided into smaller watershed mapping levels, and with each subdivision, two digits are added to maintain a unique identifier code for each watershed. The 5<sup>th</sup> level (10-digit HUC) and 6<sup>th</sup> level (12-digit HUC) of watershed mapping are most relevant to individual National Forests. This Plan uses the 12-digit HUC. If a CARs community is located on the edge of a watershed, a 1.5 mile radius from the community was extended beyond the watershed boundary.

There are three categories (types) of WUI, the Interface, Intermix and Occluded. The risk assessment of specific Community at Risks (CARs) describes the category (Class) found at each CAR.

### **Category 1 – Interface**

Structures directly abut wildland fuels. There is a clear line of demarcation between residential, business, and public structures & wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire.

### **Category II – Intermix**

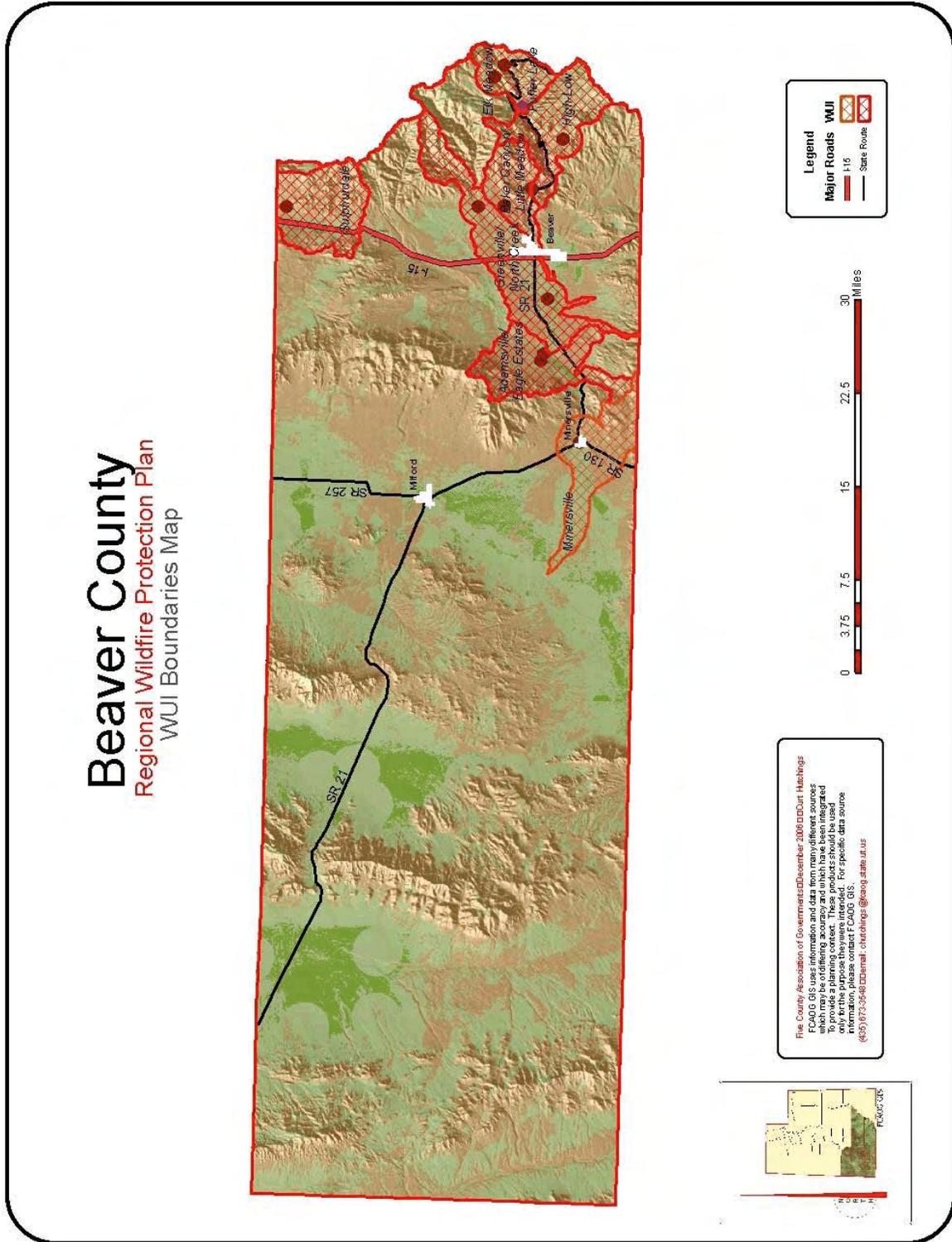
Structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. The development density in the Intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities.

### **Category III – Occluded**

Generally exists in a situation, often within a city, where structures abut an island of wildland fuels (e.g., park or open space). There is a clear line of demarcation between structures and wildland fuels. The development density for an occluded community is usually similar to those found in an interface community, but the occluded area is usually less than 1,000 acres in size.

WUI maps, which also identify the Communities At Risk, in each of the five counties, are presented in Maps 1.3 through 1.7.

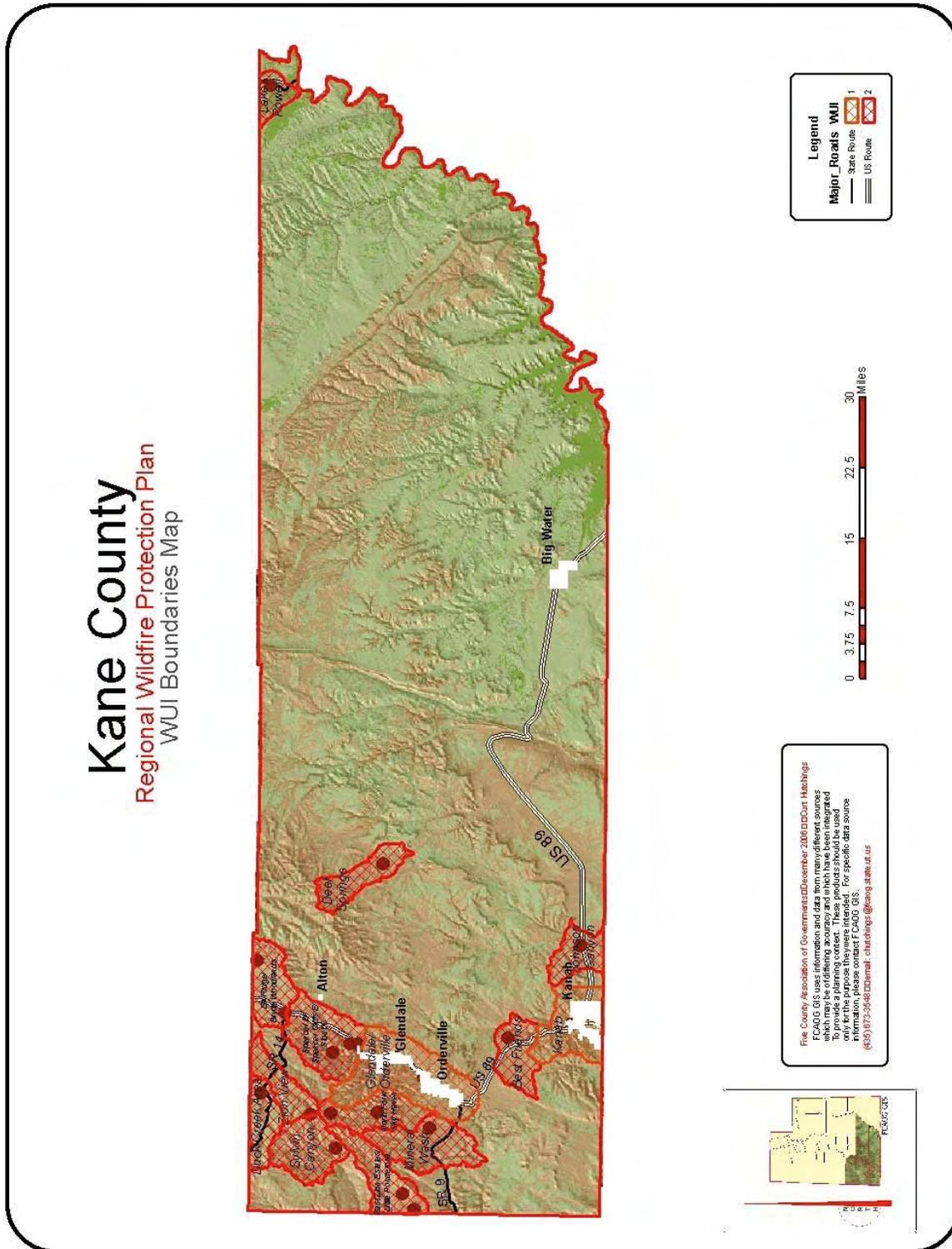
Map 1.3 - Beaver County WUI Boundary Map



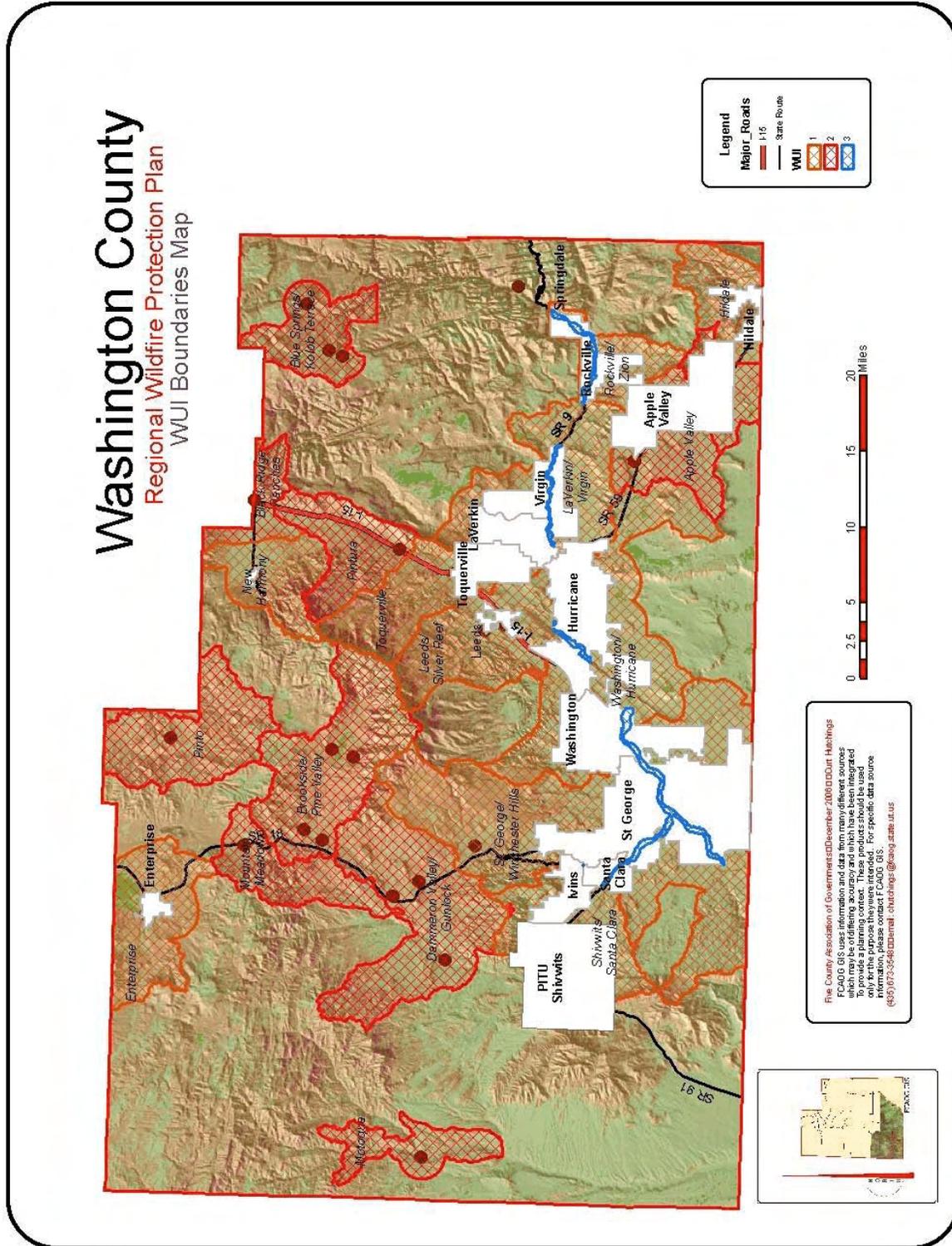




Map 1.6 - Kane County WUI Boundary Map



Map 1.7 - Washington County WUI Boundary Map



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### **1.7 COMMUNITIES AT RISK (CARs)**

Using National Fire Plan guidelines, the Utah Division of Forestry, Fire, and State Lands (UDFFSL) has worked with national and local wildland fire officials to create a statewide list of CARs. As of 2005, there were over 600 communities listed statewide and 148 are located in the southwestern Utah region.

The Color Country Fuels Committee (CCFC), comprised of representatives from state and federal fire management programs in southwest Utah, has been nationally recognized for its work in hazardous fuel treatments. Beginning in 2000, the CCFC undertook an intensive assessment of the 148 identified communities at risk (CARs) in the Color Country fire management response area. These assessments have been the foundation for prioritizing fuels treatments, determining focus areas, and targeting the development of Community Wildfire Protection Plans within the Color Country Interagency Fire Management area.

The CCFC compiled data that included standardized internal and external risk assessments, digital photos, maps, and other information to prioritize hazardous fuels target areas and to aid in suppression efforts. A large amount of data was generated through this process, housed at local offices and at the Color Country Interagency dispatch center. In 2004, the Committee chose to organize and centralize the data by creating a database which could be accessible to all agency partners and all field offices in Color Country. The original assessments and the Community Fire Plans that have been generated from them are housed at the Interagency Dispatch Center in Cedar City.

Each CARs was given a score ranging from 0 (no risk) to 12 (extreme risk) based on the sum of multiple risk factors (e.g., fire history, local vegetation, firefighting capabilities) analyzed in every area. The scoring system allows Utah's fire prevention program officials to assess the relative risk in a given area of the state and open communication channels with these communities to help them better prepare for wildfire.

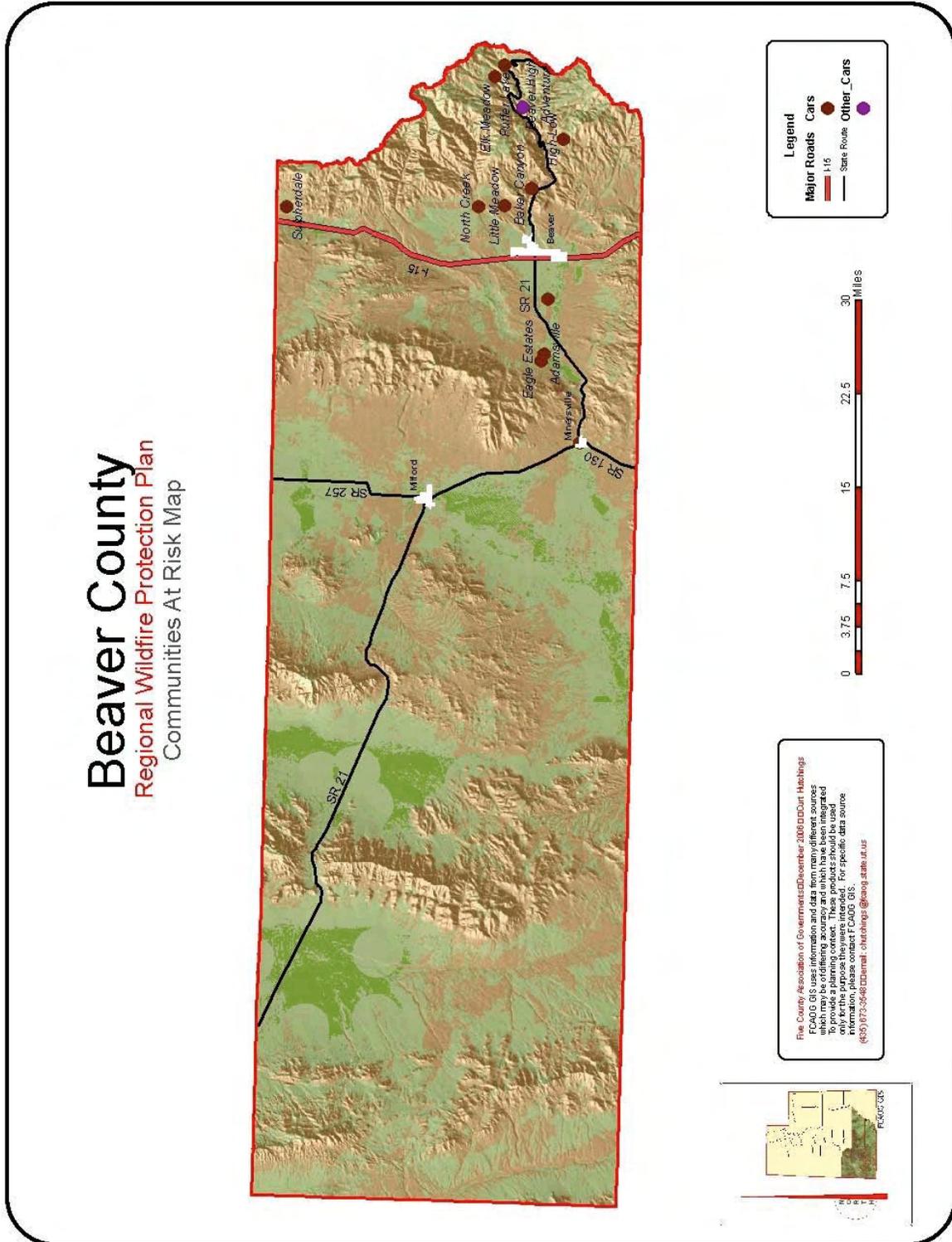
A list of the CARs in southwestern Utah region is presented in tables 1.4 through 1.8. Maps 1.8 through 1.12 identify the general location of the Communities At Risk in each of the five counties.

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Adamsville	7
Baker Canyon	11
Eagle Estates	7
Elk Meadow	12
Greenville	8
High-Low	9
Minersville	7
North Creek	10
Puffer Lake	9
Sulpherdale	11

Map 1.8 - Communities At Risk in Beaver County

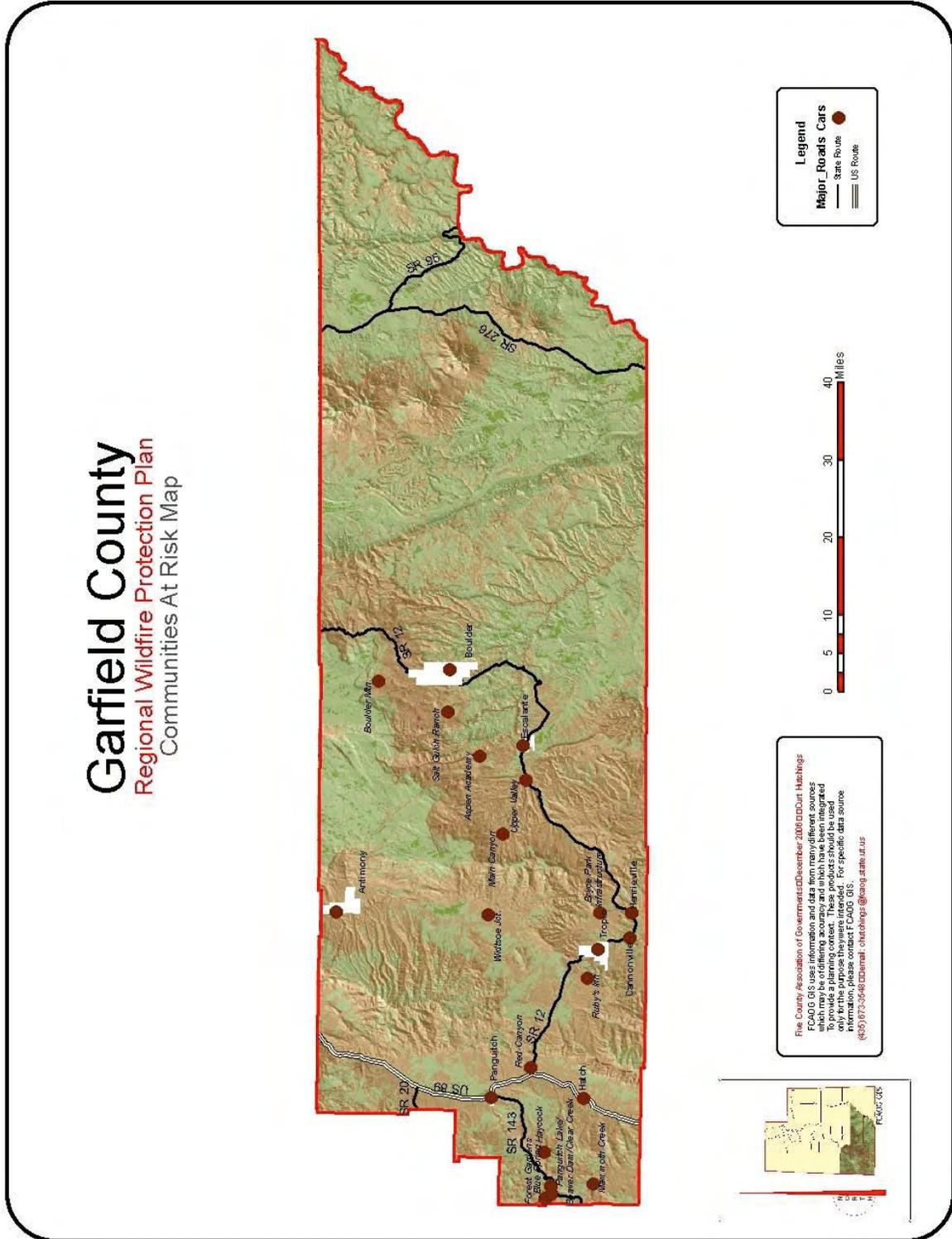


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Antimony	8
Aspen Academy	8
Blue Spring	10
Boulder	9
Boulder Mtn.	7
Cannonville	7
Escalante	8
Forest Gardens	6
Hatch	8
Haycock	7
Henrieville	7
Main Canyon	9
Mammoth Creek	12
Panguitch	8
Panguitch Lake/Beaver Dam/Clear Creek	10
Red Canyon	9
Ruby's Inn	9
Salt Gulch Ranch	7
Tropic	10
Upper Valley	8
Widtsoe Jct.	8

Map 1.9 - Communities At Risk in Garfield County

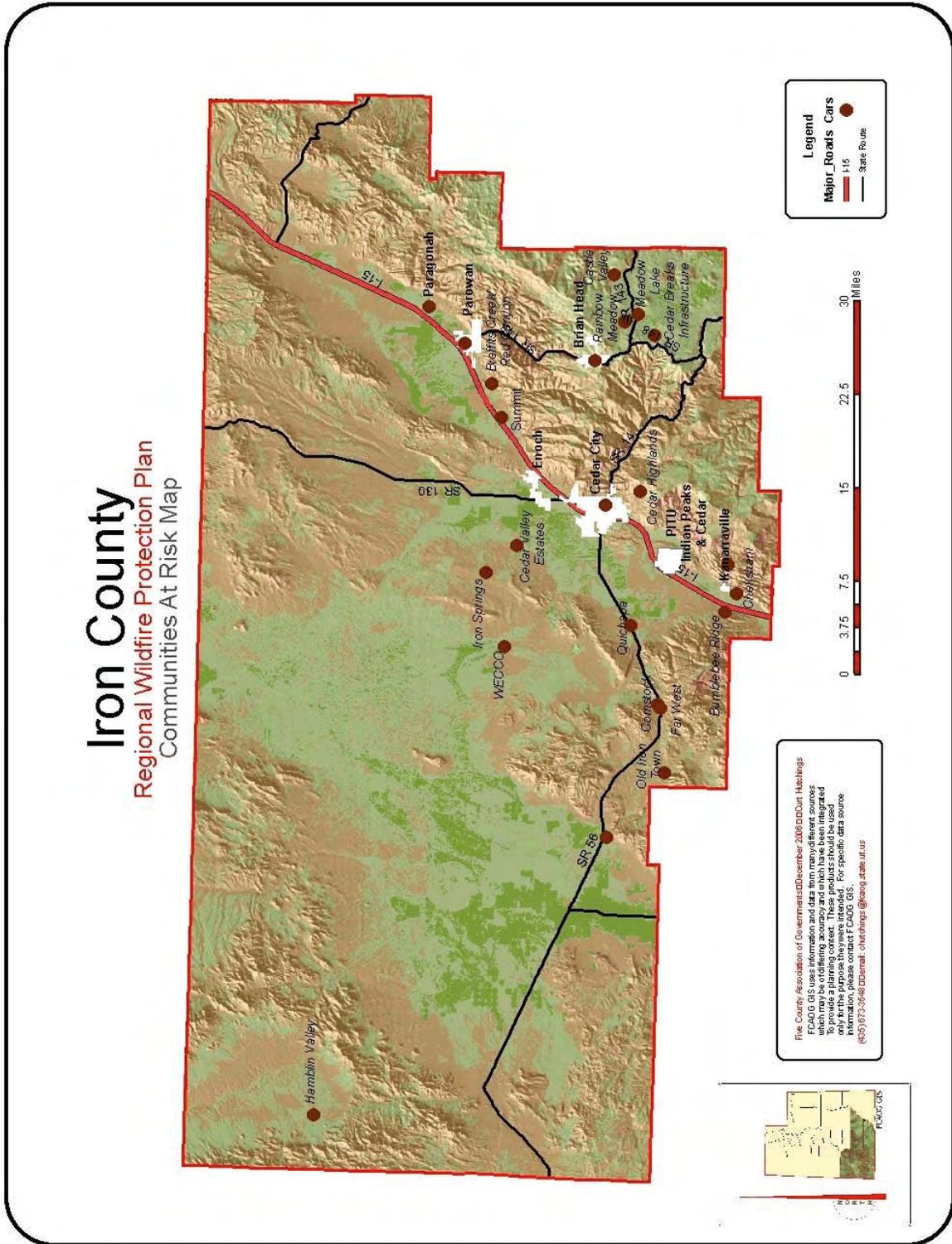


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Hamblin Valley	8
Braffits Creek/Red Canyon	8
Brian Head	11
Bumblebee Ridge	10
Castle Valley	10
Cedar City	6
Cedar Highlands	10
Cedar Valley Estates	7
Chekshani	10
Comstock	11
Far West	11
Ireland Meadow	10
Iron Springs	11
Kanaraville	9
Meadow Lake	8
New Castle	8
Old Iron Town	11
Paragonah	8
Parowan	8
Quichapa	12
Rainbow Meadow	10
Summit	9

Map 1.10 - Communities At Risk in Iron County

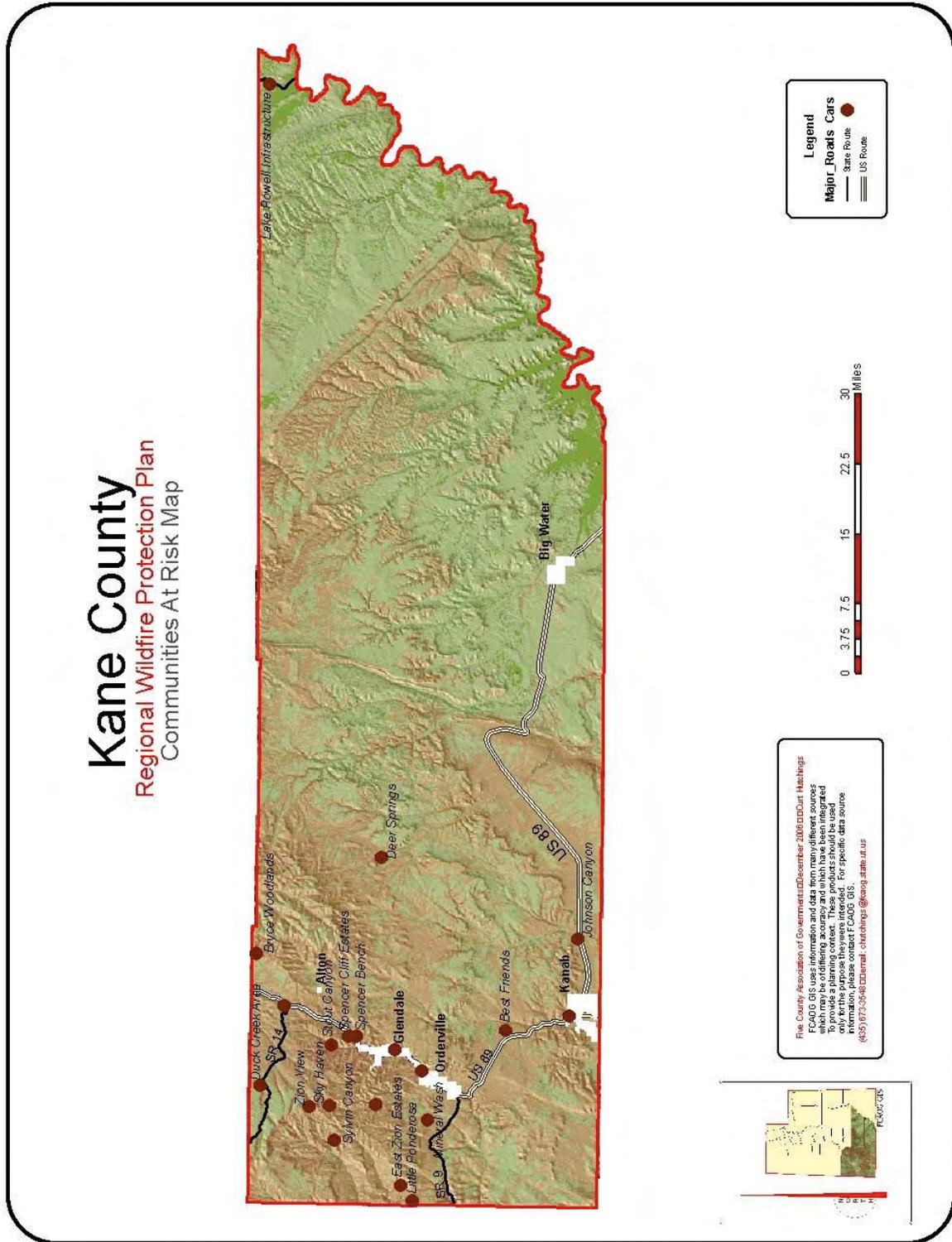


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Best Friends	10
Bryce Woodlands	10
Deer Springs	9
Duck Creek Area	11
East Zion Estates	11
Elk Ridge	11
Glendale	10
Johnson Canyon	8
Kanab	7
Little Ponderosa	10
Mineral Wash	9
North Fork Drainage	11
Orderville	8
Sky Haven	10
Spencer Bench	10
Spencer Cliff Estates	10
Stout Canyon	11
Sylvin Canyon	10
Zion View	11

Map 1.11 - Communities At Risk in Kane County



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Anderson Jct.	9
Apple Valley	7
Black Ridge Ranches	10
Bloomington	9
Blue Springs	10
Brookside	11
Central	11
Dammeron Valley	10
Diamond Valley	10
Enterprise	8
Grass Valley	7
Gunlock	9
Harrisburg	7
Hilldale	7
Hurricane	7
Ivins	6
Kolob Terrace	10
Laverkin	8
Leeds	8
Motoqua	10
Mountain Meadow	10
New Harmony	10
Pine Valley	11
Pinto	10

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Pintura	11
Rockville	9
Santa Clara	9
Shivwits	10
Silver Reef	9
Springdale	9
St. George	7
Toquerville	9
Veyo	10
Virgin	9
Washington	8
Winchester Hills	9
Zion Panarama	11



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### **1.8 COMMUNITY VALUES AT RISK**

Community Values At Risk (CVAR) is a way to measure people, property, natural resources, and other resources that, if lost in a wildfire event, would be a collective loss to the community. Examples of CVARs include the following:

- Housing
- Infrastructure
- Natural resources (including wildlife and water resources)
- Cultural resources
- Tribal concerns and values
- Recreation areas and open space
- Scenic resources (including significant landscapes)

This plan focuses primarily on the risk to residential properties as these are the most prevalent in the WUI area. As this is a landscape level plan covering large areas, a more detailed assessment of resources that may be lost in a wildfire should be determined when completing community-level wildfire protection plans.