



**PALOMINAS FIREWISE COMMUNITY BOARD
COMMUNITY WILDFIRE PROTECTION PLAN
11/10/4**

SIGNATURE PAGE

Katie Salwei, Chairperson, Palominas Firewise Community

Date

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Kirk Rowdabaugh, State Forester, Arizona

Date

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INTRODUCTION

WHAT

The Firewise Communities USA (Firewise) program is intended to help communities deal with fires in the wild land/urban interface. Palominas, with its increasing population and large lot residential development is an example of this wild land /urban interface. The Firewise program is a federally based effort by the National Wildfire Coordinating Group to lessen the impacts of wildfire on developed areas. The coordinating group consists of the agencies that are responsible for wild land fire management all over the United States. In Arizona, Firewise communities are guided by the Arizona Interagency Coordinating Group, a partnership of federal and state organizations. In the Palominas area, the United States Forest Service (USFS), the Bureau of Land Management (BLM), the University of Arizona, Cochise County and local fire districts are all part of the state effort.

As part of the state effort a Wildfire Hazard Assessment and Mitigation Plan (WHAMP) was developed for the Upper San Pedro Watershed by BLM during 2003. This plan assessed the type of wildfire fuels in our area and related this to the location of residences, water supplies and fire fighting resources. The plan came up with a wildfire hazard rating and a risk assessment for the Palominas area. The plan identified "areas of concern" in which fuels and risk combine to pose a significant threat to life and property.

This plan and its assessment of the areas of concern was the primary motivation for the formation of a local Firewise community board. The Firewise program enables local groups to come together to address the problem of wildfire with an approach tailored to the particular area. A Firewise community may apply for funding of its efforts through federal sources. These federal dollars are to be used to assist the local community in mitigating and preparing for wildfire events. This group may operate independently from other governments or agencies.

WHO

A group of seven Palominas residents who share a common interest in addressing local wildfire risks have joined together to establish the Palominas Firewise Community (PFC) board. Informal meetings have been held to discuss the problem of wildfire in our area and how or if Firewise status will help. Members attended Arizona Firewise Communities workshops in Tucson and Sierra Vista. The local federal advisor, David Peters, Fire Mitigation Specialist for the BLM, gave a WHAMP presentation to the board and answered questions about what might be appropriate for the Palominas area. Cooperative agreements have been signed to date with the Palominas Fire District (PFD), Palominas Community Alliance (PCA), Huachuca Fire Partners, Palominas School District, BLM, Cochise County Board of Supervisors and Sheriff, Arizona State Land Department (ASLD), and the University of Arizona.

WHERE

The focus of the PFC has been along the San Pedro River corridor between the Mexican border on the south and Hereford Road on the north. This area encompasses the areas of concern identified in the BLM WHAMP. A map of the proposed area is included in this report. Within this area the PFC may provide assistance and funding for wildfire mitigation and preparation.

WHY

Over the last few years the San Pedro River corridor has experienced several large range fires. These fires have been both human caused and natural. While property damage and loss of life has been minimal, several residences have been close to destruction and one was lost in the area. The BLM WHAMP identifies significant potential for property loss and for loss of life, both human and livestock, in our area. To address wildfire concerns at a national level, the federal government along with state governments, insurance companies and private organizations have initiated the Firewise program. Grants and funding are available for any community that cares enough about wildfire risks to form an alliance. This money can be used to purchase equipment, conduct awareness programs, plan responses to fire events, improve preparedness and develop mitigation strategies. The PFC seeks to lessen the impact of future fires in the area. The goals of the PFC are to protect private property, to preserve the aesthetics and wildlife within the riparian area, and to partner with the BLM and other public and private entities in managing fire risk in and around the San Pedro Riparian National Conservation Area (SPRNCA).

BACKGROUND

Location

The PFC is located approximately 18 miles Southeast of Sierra Vista off of Highway 92 and adjacent to the U.S. and Mexico border to the south. The primary access north of Highway 92 is Hereford Road and Palominas Road. South of Highway 92 much of the area is accessed via Smith Road. There are many residential secondary roads both to the north and south of Highway 92. The PFC consists primarily of the area on both sides of the San Pedro River from the international border north to Hereford Road.

Ownership

Most of the land in the community is privately owned. However, the BLM owns or manages a significant amount of land adjacent to the San Pedro River, and the ASLD has about one and a half sections near the junction of Hereford Road and Highway 92. Many of the privately held residential lands consist of parcels four acres and smaller. A few larger residential and ranch parcels are scattered throughout the area, predominately to the south of Highway 92.

Cultural Resources

The San Pedro River valley has long been inhabited, and the Palominas area has several locally significant historic sites. There are several Clovis and later archeological sites. The well-known Lehner Mammoth site is off Palominas Road, and the Bead Hill and Kidney Village sites are near the Hereford Bridge. Native Americans in the area included the HoHokam, Salado and Apache. The San Pedro River was on the route of the Coronado Expedition during its search for the fabled Seven Cities of Gold. On the Mexican border is the Los Corrales site, which was important during the cattle ranching heyday of the 1870's. The area near the Hereford Road Bridge is the site of historic Hereford. Hereford was a rail stop on the line between Benson and Naco. Cattle from the several large ranches in the area were loaded here. The town had several buildings and at one time a school and post office. South of the river crossing on Hereford road was a rich farming area, and the site of the Hereford Dairy farm. The dairy supplied milk that was delivered fresh daily to Bisbee miners, families, and businesses. Just south of the Highway 92 bridge is the river crossing used by the Mormon Battalion in December of 1846. Today the area is best known for the SPRNCA, managed by the BLM. The SPRNCA includes 58,000 acres of public land between the Mexican border and St. David, Arizona. The area is a rare remnant of the desert riparian ecosystem, a trace of the extensive network of similar riparian systems that once existed throughout the Southwest. The San Pedro River was the first internationally recognized bird migration corridor. It is a significant wildlife corridor, and is famous as one the leading bird viewing areas in the United States.

Land Form

The PFC is located entirely in the valley of the San Pedro River. The valley is formed by fault-block drop typical of the Arizona basin and range topography. Slopes average less than five percent and a few washes cross the area leading to the river. Most of the area is between 4200 and 4400 feet in elevation.

Climate

The Palominas climate is typical of the high desert grassland found in southeast Arizona. Temperatures are moderate and comparable to nearby Sierra Vista. Rainfall averages 15 inches per year with about half occurring during the summer monsoons from July to mid September. The local temperature range along the San Pedro River tends to be warmer in the summer and colder in the winter. Windiest months averaging over 8 miles per hour are in the spring, usually from the southwest, which corresponds with the driest fire season.

Biotic Communities

The San Pedro River corridor within the PFC has been recognized as one of The Nature Conservancy's ten "Last Great Places" for its biotic diversity and importance. In 1988 Congress established the SPRNCA in order to protect the plant, animal, human and water resources of the

area. It is located at the juncture of several different ecosystems: the Sonoran Desert, the Chihuahuan Desert, and the Sierra Madre Mountain Range of Mexico.

The Palominas area is predominately semi-desert grassland. The dominant grass species are Tobosa, Grammas, Three Awn, Cottontop, Vine Mesquite and Buffalo Grass, while Mesquites, Soapstone Yucca, Desert Hackberry, White Thorn Acacia and Creosote are the dominant shrubs in the area. The San Pedro River riparian area is a very rare Fremont Cottonwood/ Godding Willow forest type with other deciduous trees such as Arizona Black Walnut and Arizona Ash. Within and adjacent to the riparian zone are numerous tall grass meadows, primarily Sacaton, and some Mesquite Bosques. Rare plants such as the Huachuca Water Umbel can be found in the riparian area. The San Pedro River corridor within the PFC contains a linear stand of large cottonwood trees which can carry a crown fire great distances in a short time.

The animal community is also very diverse due to the river corridor. More than 10 animals federally listed as threatened or endangered are found in the area. These include fish such as the Yaqui Chub, birds such as the Aplomado Falcon, and mammals such as the Ocelot. Mule Deer, Badger, Jack Rabbit, Collared Peccary and small burrowing rodents are common throughout the Palominas area, and Mountain Lions are occasionally sighted. The best-known component of the local fauna is the diverse bird life found along the river and in the adjacent grasslands and bosques. Over 350 species of birds have been observed. Less known is the area's rating as second in the world in number of mammal species.

Fuels and Fires

Past and present land use practices have changed the historical fire regime and the resultant fuel profile in the Palominas area. Patchy fuel continuity and ground fuels pose a moderate problem with slash, vegetation and ladder fuels. Vegetation in the area contains a low slash component. The area contains dense vegetation and has a moderate ladder fuel component. The fuels are characterized as dense shrubs with a moderate to high grass under story. The BLM lists the Palominas area as a "class 2 condition" area, which means that the fire regime is moderately altered from the historical range. The risk of loss from fire is increased due to the change in fire size, frequency, intensity and severity.

According to the WHAMP the predominate fuel types are Anderson's Fuel Model 1 and 6:

- Fuel Model 1 is short grass, less than 1 foot high. Fire occurs at the surface and moves rapidly through the cured grass and associated material.
- Fuel Model 6 represents dormant brush and hardwood slash, generally not exceeding 6 feet in height. Fires carry through the shrub layer where the foliage is more flammable than Fuel Model 5, but this requires moderate winds, greater than 8 miles per hour at mid-flame height. Fire will drop to the ground at low wind speeds or at openings in the stand.

Many of the fires in the area begin as grass or range fires that can move quickly. Once these fires

reach the river or residential areas they encounter woody vegetation. These landscape items along with the presence of propane tanks can intensify the fire. Along the river the mature cottonwoods have dropped many limbs that serve as ladder fuels. The downed wood within the forest also acts to retain fires in stumps and large woodpiles. The cottonwoods can become totally involved in a crown fire, killing the trees. Less of the area is grazed than in the past, thereby increasing the density of the grass cover and fuel loading. Non-native species such as Johnson grass, Salt Cedar and Arundo have proliferated and pose an increased fire hazard. Late winter and spring are when the most dangerous and destructive fires have occurred. In many areas limited road access and lack of water hamper suppression of the fires.

Large areas within the PFC have been identified as areas of concern in the WHAMP. Areas of concern arise when the hazard classification combined with the values at risk show continuity. Simply put, when areas of high fuel loading are intermixed with structures and people there is a concern for fire safety. Much of the area north of Highway 92 and between Palominas Road and Hereford Road is classified as an area of concern. An additional area of concern is to the south of Clinton Road near the river. These areas contain many residences, as well as the school site at the corner of Highway 92 and Palominas Road. The objectives of the PFC include reducing fuel loads.

The primary agency responsible for fire suppression in the area is the Palominas Fire District (PFD), and all volunteer organization. The 28 volunteers receive training on a regular basis to improve their wild land and structure fire fighting skills. The PFD works regularly with adjoining (Bisbee) and distant (Fry) fire districts. Additionally, the PFD must work with federal land management agencies, which are responsible for fire suppression on their lands. There is a fine line, which the district must observe when working with the USFS or BLM on wild land fires. The USFS and BLM tend to view wild fires as a tool to replenish the land, while the PFD views wild fires as a threat to life and structures. The PFD is primarily an organization that battles wild land fires. The fire fighters have less experience and equipment needed for structure fire fighting. In 2003 the PFD responded to ninety fire calls. Twenty-five of these, about thirty percent, were wild land fires, compared to six structure fires in the same time period. The district depends on grants and property taxes to pay for its equipment. The district has adopted five-year goals, which include additional equipment for fighting wild land fires. Due to the rapid urbanization within the district, there is need for more equipment that can be used to combat fire in the wild land/ urban interface. The objectives of the PFC include obtaining required equipment.

Population

A population estimate was made based on information from the Cochise County Planning Department using maps that show roads and indicated addresses. The number of homes and commercial buildings in the area was determined. This number was multiplied by the United States Census Bureau average of 2.5 persons per residence to give an estimate of the number of people in the area. The total of 300 addresses suggests a population of 750 within the PFC.

Preparedness

All fire services in the area are provided by the PFD. Within the PFC is one fire station, one mile north on Palominas Road. Another fire station is located just to the east of the PFC off of Highway

92. The district is in need of additional equipment to fight fires in the wild land/urban interface. The BLM and the ASLD are responsible for fire suppression on their lands, but are often not the first responders. The majority of the private roads are of substandard design and construction. Most are long dead end roads without adequate turn-around space. Signage is needed to indicate fire danger and evacuation routes. Water supplies are adequate but in almost all cases require transportation to the fire site. Generally, public readiness for a wild land fire emergency is low, especially among the many newer residents. However, residents who have lived in the area for a few years are aware through personal observation of the potential of wild land fire. The objectives of the PFC include planning response to emergencies, identifying additional water sources, raising community awareness and increasing preparedness.

ATTACHMENTS TO CWPP

1. PFC Action Plan (Goals, Objectives, Current Projects) 8/4/4
2. PFC Contacts
3. PFC Boundary Map
4. BLM SPRNCA WHAMP Overview
5. WHAMP Areas of Concern Map

SEPARATE REPORTS AS ATTACHMENTS TO FIREWISE COMMUNITIES USA APPLICATION

1. Upper San Pedro Watershed WHAMP Summary Report
2. Upper San Pedro Watershed WHAMP Palominas Community
3. Upper San Pedro Watershed WHAMP Hereford Community
4. Highway 92 Bridge Project Report

PALOMINAS FIREWISE COMMUNITY BOARD
ACTION PLAN
8/4/4

GOALS

1. To protect private property from wildfire and related damages in the area.
2. To preserve the aesthetics and wildlife within the riparian area.
3. To partner with the BLM and other public and private entities in managing fire risk in and around the SPRNCA.

OBJECTIVES

(Objectives to meet goals were developed & prioritized through education, consultation, brainstorming and multi-voting processes. Ongoing SWOT analysis of objectives helps identify what projects to pursue.)

1. REDUCE FUELS

Projects in Place/ In Progress:

BLM Firebreaks & Prescribed Burns Plan
Highway 92 bridge firebreak partnership

Remaining Needs:

Roadside mowing program (see WHAMP)
Community chipper & mower acquisition
Fuel reduction in riparian "Gap" (private land)

Opportunities:

Partner with BLM & others
Grants & grant writer

Barriers:

Environmental Assessments
Landowner apathy

2. OBTAIN EQUIPMENT

Projects in Place/ In Progress:

Remaining Needs:

Community chipper & mower
Palominas Fire Department equipment
Generators for water pumping (PFD & private)

Opportunities:

Computers & Red Zone software for PFD
New technologies (such as foams, home sprinklers, etc.)
Grants & grant writer

Barriers:

Lack of information on PFD needs

3. BURY POWER & TELEPHONE LINES

Projects in Place/ In Progress:

APS line upgrade & substation projects
Cell tower installation at Valley View School

Remaining Needs:

Bury utilities within PFC boundaries

Opportunities:

Grants & grant writer

Barriers:

Lack of information on feasibility & cost

4. PLAN EMERGENCY RESPONSE

Projects in Place/ In Progress:

Cochise County emergency response plan

Remaining Needs:

See list from brainstorming session

Opportunities:

Computer & Red Zone software for PFD
Signage grants (see WHAMP) & grant writer

Barriers:

Lack of information on county plan R/T identified needs

5. IDENTIFY WATER SOURCES

Projects in Place/ In Progress:

Remaining Needs:

See WHAMP recommendations

Opportunities:

Flyover survey
Grants & grant writer

Barriers:

Landowner willingness & cost
Impact of "Water Wise" program

6. PROVIDE HOMEOWNER ASSISTANCE

Projects in Place/ In Progress:

Home fire audits completed for WHAMP
Recent educational opportunities

Remaining Needs:

Chipper & mower availability
Work crews

Opportunities:

Grants & grant writer

Barriers:

Landowner apathy
Lack of landowner finances, time, physical ability, equipment
Large properties

7. INCREASE COMMUNITY AWARENESS

Projects in Place/ In Progress:

Home fire audits for WHAMP 2003
Educational mailings to landowners for WHAMP 2003
Community meetings for WHAMP 2003
Arizona Firewise Communities workshops, Tucson 2003 & Sierra Vista 2004
Formation of Palominas Firewise Community Board 2003

Remaining Needs:

100% home fire audits in area
Children's program for Palominas School

Opportunities:

Firewise Trailer
Signage grants & grant writer

Barriers:

Landowner apathy

8. RECOMMEND FIRE ORDINANCES IN COUNTY CODE

Projects in Place/ In Progress:

Remaining Needs:

Evacuation & firefighter access per WHAMP

Opportunities:

Partnership with Huachuca Mountain Fire Management Group

Existing professional standards & community examples

Government & community attitudes post recent fires

Barriers:

Historical government & community attitudes R/T regulations

CURRENT PROJECTS

(See Project Worksheets for details on specific projects.)

1. Highway 92 Bridge Firebreak
2. Fire Education Signage
3. Roadside Mowing Program
4. Community Chipper & Mower Acquisition
5. Meet with PFD Chief re: equipment needs (Sept.)
6. Utility Lines Research
7. Meet with County Emergency Services Director re: county plan (Oct.)

PALOMINAS FIREWISE COMMUNITY CONTACTS

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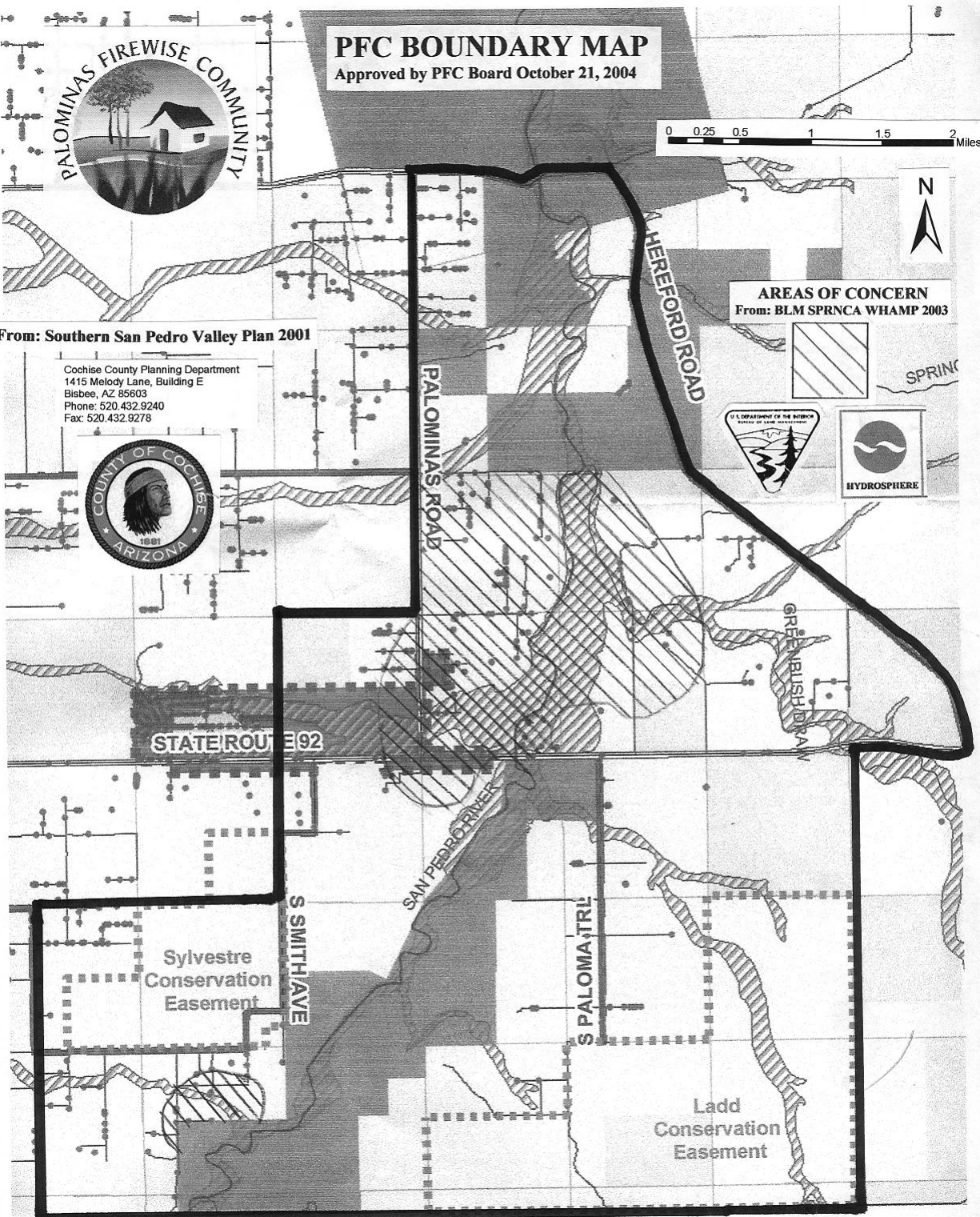
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Republic of Mexico



HYDROSPHERE

Wildfire Hazard Assessment and Mitigation Plan Upper San Pedro Watershed, Cochise County, Arizona

The San Pedro River is one of the most important migratory corridors for birds in the Western Hemisphere. The San Pedro Riparian National Conservation Area (SPRNCA), a 40-mile-long section of the San Pedro River in southern Arizona, is home to more than 100 species of breeding birds and provides invaluable habitat for up to four million migratory birds each year.

The U.S. Bureau of Land Management contracted with Hydrosphere and its subcontractor, Anchor Point, to complete a Wildfire Hazard Assessment and

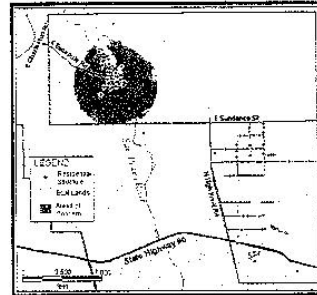


Mitigation Plan for the lands adjacent to the SPRNCA. Wildfire Hazard Assessments and Mitigation Plans were developed for six communities and three rural areas adjacent to the Conservation Area, encompassing 173 square miles.

The goal of the hazard assessment and mitigation plans was to evaluate the potential for wildland fire within the assessment areas and to identify specific actions to reduce the risk of loss of life, property, structures and other valued resources.

Local expertise was gained through six public meetings, personal interviews with fire and emergency services personnel, and questionnaires sent to community leaders.

The physical wildfire hazard was based on BEHAVE model runs, which uses factors such as fuels, slope, aspect and weather. The




susceptibility of homes to fire was based on 7 community-level surveys, and individual assessments of more than 400 homes. Intersecting the maps of high fire hazard and home location results in areas of concern where mitigation recommendations were focused.

Specific recommendations included:

- reducing fuels along specific property boundaries and access roads, creating fire breaks to prevent fire spread;
- increasing cooperation between private land owners, the local fire departments and the BLM;
- increasing the capabilities and efficiency of the local fire departments through the improvement of water supplies, neighborhood access, and street and address signage.

Individual home survey information was provided to the BLM Tucson Field Office. Homeowners can obtain a copy of their assessment, which includes specific recommendations about how to reduce the wildfire hazard for their property.

Report for 5600 E HIGHWAY 90



5600 E HIGHWAY 90
Is structure redwood or dry visible from street?

Present and reflective ("I" or greater)
One red in/out
Yes
None
Darkening
Aspen
Non-flammable
None Present
None

Address and signs
Is access to the home good?
Prevalent background FUEL TYPE in the neighborhood?
Describe the defensible space?
What type of Roofed Abolence?
What is the Gully Material?
Compatible Materials applied to roof?
Primary outside water source for firefighters?
Specific items the homeowner can mitigate?
Hazard Class

Low

Hydrosphere Resource Consultants

www.Hydrosphere.com / San Pedro

WILDFIRE HAZARD-RISK EVALUATION - AREAS OF CONCERN RATING

The Areas of Concern Theme shows the results of the Areas of Concern Evaluation in which the Hazard Classification is combined with the Values at Risk assessment.

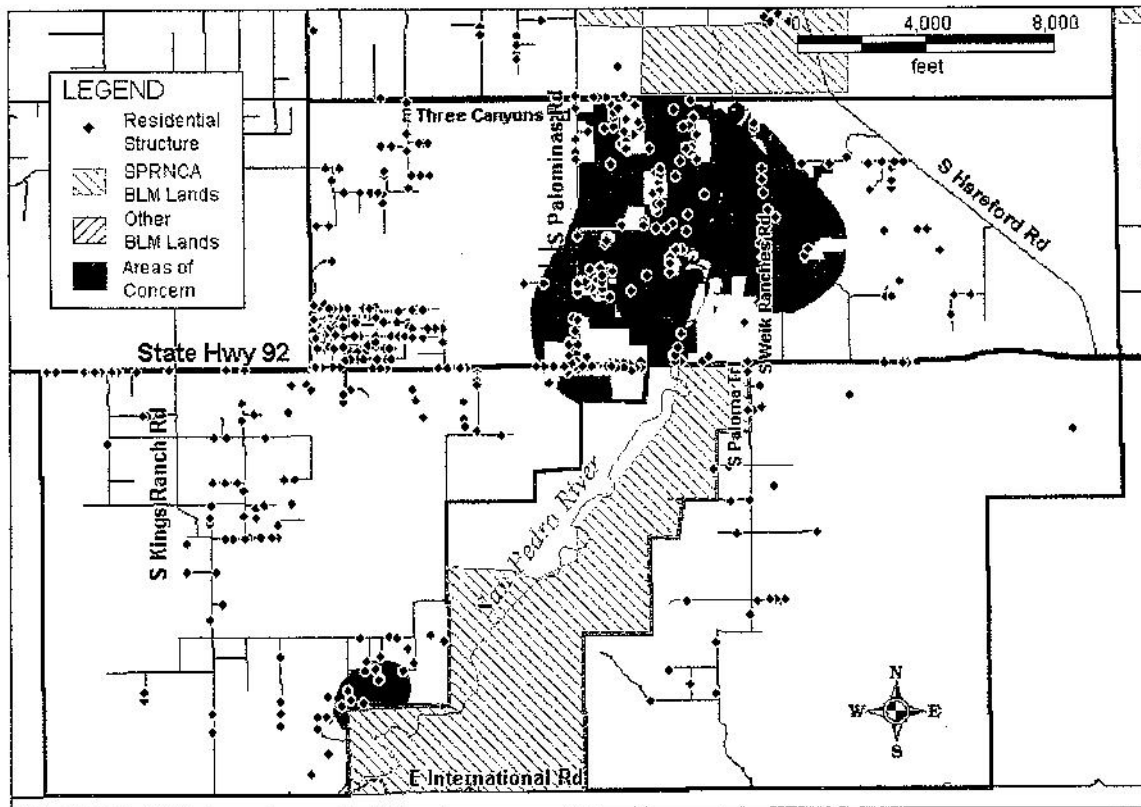


Figure 8. Areas of Concern