Appendix B

Neighborhood Ignitability Analysis and Recommendations

Purpose

The purpose of this appendix is to examine in greater detail the neighborhoods in the study area. Of the 27 neighborhoods delineated by the Hazard and Risk Analysis within the City of Santa Fe Fire Department response area, two were found to represent an extreme hazard, thirteen were rated as very high hazard, four as high hazard, six as moderate hazard and two as low hazard (see **Figure 1**). For easy reference, the map of neighborhoods presented in the main text has been reproduced here as **Figure 2**. **Figure 3** displays this grouping graphically. **Table 1** has been included for quick identification.

Figure 1. Neighborhood Groupings by Hazard Class

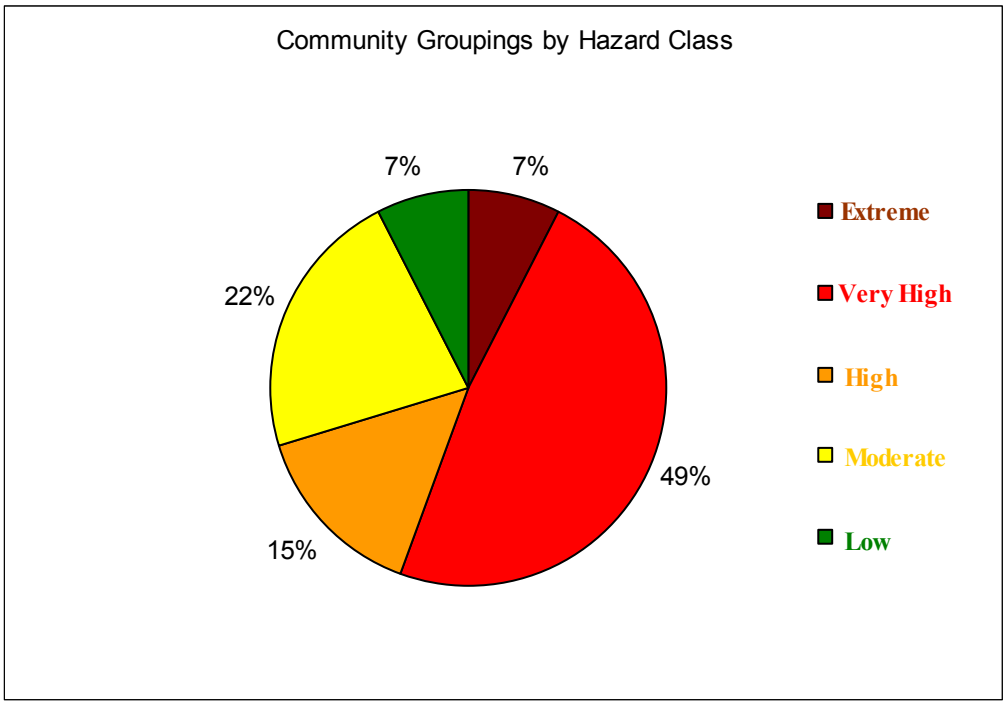


Figure 2. Santa Fe Neighborhoods by Hazard

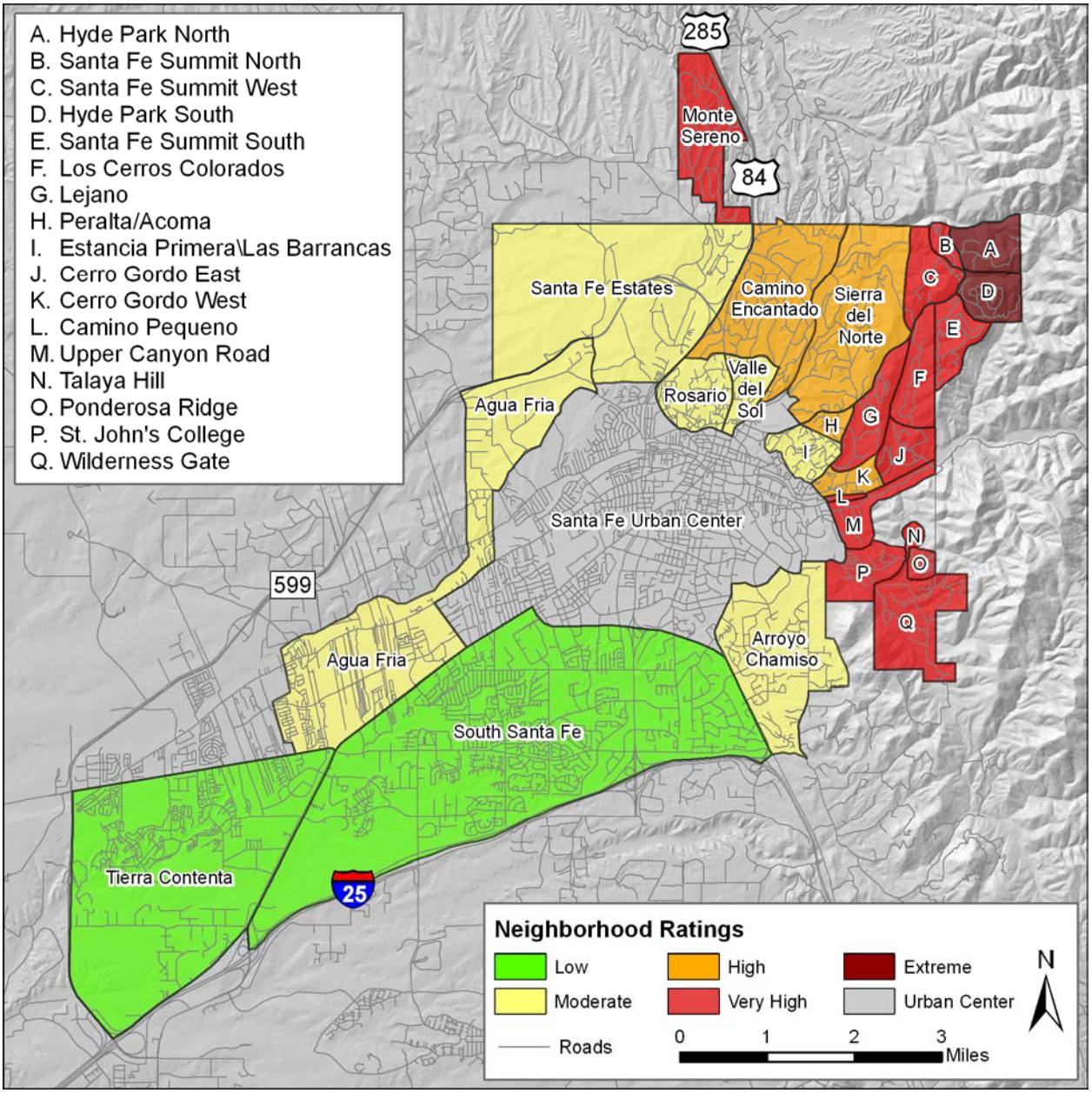
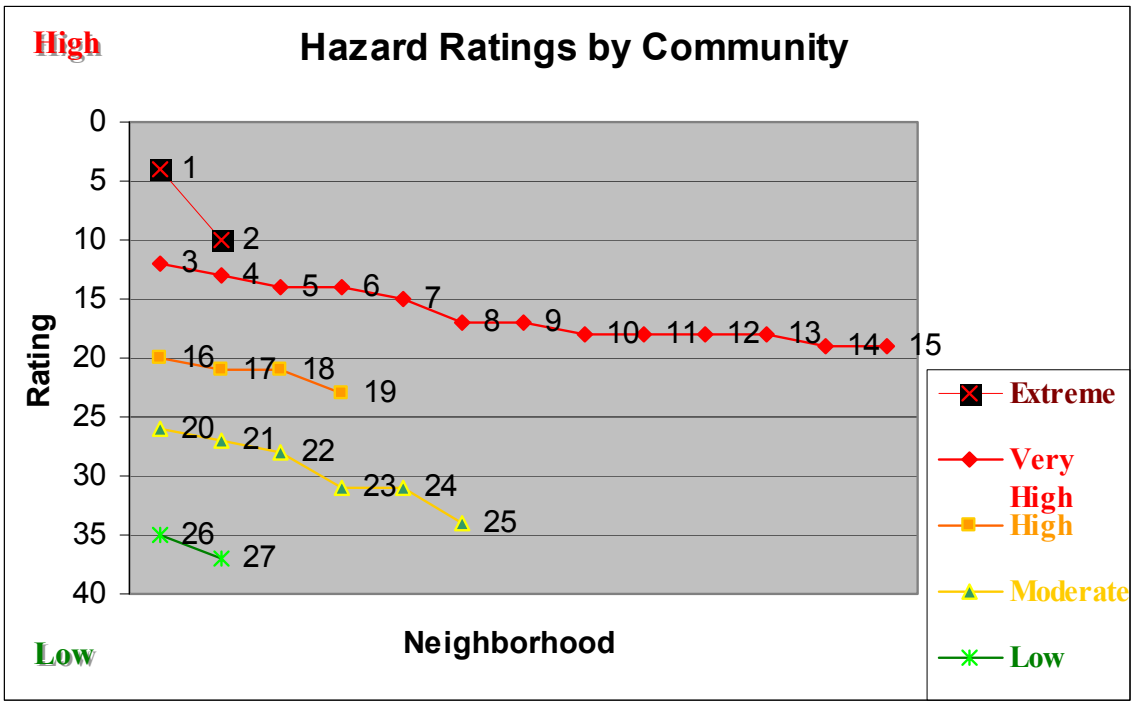


Figure 3. Hazard Ratings by Neighborhood



Extreme Very High High Moderate Low

1. Hyde Park North	15. St. John's College
2. Hyde Park South	16. Camino Encantado
3. Santa Fe Summit North	17. Peralta/Acoma
4. Santa Fe Summit West	18. Cerro Gordo West
5. Wilderness Gate	19. Sierra del Norte
6. Talaya Hill	20. Arroyo Chamiso
7. Ponderosa Ridge	21. Rosario
8. Cerro Gordo East	22. Santa Fe Estates
9. Camino Pequeno	23. Estancia Primera/Las Barrancas
10. Los Cerros Colorados	24. Agua Fria
11. Lejano	25. Valle del Sol
12. Santa Fe Summit South	26. South Santa Fe
13. Monte Sereno	27. Tierra Contenta
14. Upper Canyon Road	

Table 1. Neighborhoods by Hazard Rating

General Recommendations

Access improvements, ignition-resistant construction, and fuels reduction all contribute to a safer environment for emergency service personnel, and provide reasonable protection to structures from a wildfire. Additionally, these techniques should significantly reduce the chances that a structure fire could become an ignition source to the surrounding wildlands.

In addition to the suggested mitigations listed for the individual neighborhoods, several general measures can be taken to improve fire safety. The following recommendations should be noted and practiced by all who live in the Wildland-Urban Interface (WUI):

1. Be aware of the current fire danger in the area.
2. Clean roofs and gutters at least two times a year, more often if necessary.
3. Stack firewood uphill or on a side contour, at least 30 feet away from structures.
4. Don't store combustibles or firewood under decks.
5. Maintain and clean spark arresters on chimneys.
6. When possible, maintain an irrigated greenbelt around the home.
7. Connect and have available a minimum of 50 feet of garden hose.
8. Post reflective lot and/or house numbers so that they are clearly visible from the main road. Reflective numbers should also be clearly visible on the structure itself.
9. Trees along driveways should be limbed and thinned as necessary to maintain a minimum 13' 6" vertical clearance for emergency vehicle access.
10. Maintain defensible space constantly:
    - Mow grass and weeds to a low height.
    - Remove any branches overhanging the roof or chimney.
    - Remove all trash, debris, and cuttings from the defensible space.
11. Check with your propane supplier to be sure your tank is safe and complies with local codes and standards. Most explosions occur as a malfunction of pressure release valves as they provide an automatic reaction to the pressure gauges. Keep all wood stacks at least thirty feet from your LP tank and barbecue, further away if possible. Be sure to keep weeds and other flammable vegetation at least 10 feet away from your LP tank. LP tanks should be located at least 30 feet from all structures and never downhill of the home.

Note

All neighborhoods with a rating of high to extreme hazard are recommended for a parcel level analysis. In the moderate level neighborhoods, a parcel level analysis was recommended only if the evaluator found that a significant number of homes had no or ineffective defensible space, or if a significant number of hazards near homes were detected. The recommendation was made only if the evaluator felt a parcel level analysis could generate a noticeable improvement in the neighborhood's defensibility.

Technical Terms

The following definitions apply to terms used in the **Description** and **Comments and Mitigation** sections of this appendix. Please see the glossary at the end of the main report for additional definitions.

Defensible Space: An area around a structure where fuels and vegetation are modified, cleared, or reduced in order to slow the spread of wildfire toward or from the structure. The design and distance of the defensible space is based on fuels, topography, and the design and materials used for the construction of the structure.

Extended Defensible Space: A defensible space area where treatment is continued beyond the minimum boundary. This zone focuses on forest management, with fuels reduction being a secondary function.

Extended Response: An indication that the road system is poorly maintained, requires four wheel drive or high clearance vehicles, is curvy and/or narrow or possesses other features and conditions that constitute an extended response time for fire apparatus.

Fuelbreak: A natural or constructed discontinuity in a fuel profile that is used to segregate, stop, or reduce the spread of fire. As a practical matter, fuel breaks in the WUI are most effective against crown fires, although no constructed fuelbreak will be effective against crown fires in heavy timber fuels during extreme burning periods.

Shelter-in-Place Areas: There are several ways to protect the public from an advancing wildfire. One of these methods is evacuation, which requires relocating the threatened citizens to a safer area. Another method is to instruct people to remain inside their homes or public buildings until the danger passes. This concept is new to wildfire in the United States, but not to hazardous materials incident management (such as a toxic gas leak) where time, hazards, and sheer logistics often make evacuation impossible. This concept is the dominant operating procedure for public protection from wildfires in Australia, where fast moving, non-persistent fires in light fuels make evacuation impractical. The success of this tactic depends on a detailed preplan that takes into account the construction type and materials of the building used, topography, depth and type of the fuel profile, as well as current and expected weather and fire behavior. For a more complete discussion of the application and limitations of shelter-in-place concepts, see the **Addressing, Evacuation and Shelter-in-Place FMU** section in the main report.

Neighborhood Assessment Methodology

The methodology for this assessment uses a Wildfire Hazard Rating (WHR) that was developed specifically to assign an aggregate weighting to hazards commonly found in neighborhoods within the WUI.[1] The WHR model combines physical infrastructure (structure density, roads, etc.) and fire behavior components (fuels, topography, etc.) with the field experience and knowledge of wildland fire experts. This model has been proven and refined through use in rating over 1,400 neighborhoods throughout the United States.

To develop this model, numerous fire management professionals were queried about specific environmental and infrastructure factors as they relate to wildland fire hazards. Weightings within the model were established through these queries. The model is designed to be applicable throughout the western United States.

The WHR model was developed from the perspective of performing structural triage on a threatened neighborhood in the path of an advancing wildfire with moderate fire behavior. The WHR analysis and field verification of fuel models are accomplished by field surveyors with WUI fire experience. A final numeric rating is assigned by combining field survey data with statistical data relating to the geography (physical and political) of each neighborhood. This geographical data is generated by a zonal analysis of the neighborhood polygons using ArcGIS. The rating system assigns up to 60 points based on seven categories: structural combustibility, average lot size, slope, primary aspect, dominant fuel type, fuel continuity, and surface fuel loading. The higher the neighborhood scores, the lower its wildfire hazard. For example, a neighborhood with an average lot size of less than 1 acre and slopes of greater than 30% would receive 0 points for those factors, whereas a neighborhood with an average lot size of 5 acres and slopes of less than 15% would receive 16 points for the same factors. Additional hazards are then subtracted from the subtotal of points earned in the seven categories, to give a final numeric value. The final value is then used to group neighborhoods into one of five hazard ratings: **Extreme, Very High, High, Moderate** or **Low**.

It is important to note that not all groupings occur in every geographic region. There are some areas with no low-hazard neighborhoods, just as there are some areas with no extreme neighborhoods. The rankings are also based in part on local custom. For example, a high-hazard area on the plains of Kansas may not look like a high-hazard area in the Sierras. The goal of the system is to create a meaningful and reproducible adjective rating of neighborhood hazards in relation to the other neighborhoods in the study area. It is designed to be applied by experienced wildland firefighters who have a familiarity with structural triage operations and fire behavior in the interface.

[1] White, C. "Community Wildfire Hazard Rating Form." *Wildfire Hazard Mitigation and Response Plan.* Colorado State Forest Service. Ft. Collins, CO. 1986.

The following briefly describes the highlighted neighborhood attributes and their relevance as used in the neighborhood descriptions.

Questions:

Does the neighborhood have dual access roads?

- Dual access to a neighborhood is essential, because it provides separate travel ways for evacuating citizens and responding fire fighters. Fire managers are also more willing to send suppression forces into neighborhoods with alternative escape routes, in the event that the primary access is compromised by fire, heat, or smoke.

Are there road grades ≥ 10%?

- For heavy fire apparatus, steeper roads can significantly slow response times. Additionally, steeper roads indicate greater slope, which can increase fire behavior.

Are all access roads of adequate width?

- Adequate road width is defined by the National Fire Protection Association as providing a drivable surface of 12 feet or more.

What is the average lot size?

- Neighborhoods with larger lots are rated as less hazardous. Large lots allow for better defensible space and provide a lower density of structures to protect and people to evacuate.

What fuel models are found in the neighborhood?

- This attribute is derived from the fuels modeling conducted for the study area. Different fuels have different burning characteristics and pose greater or lesser hazards to the neighborhood. All the fuel models are given a weighting in the WHR model.

How good is the water supply?

- Water supply is a crucial element in suppressing fires and protecting structures.

What hazards exist?

- Hazards such as steep slopes, ravines, natural chimneys, and inadequate roads are noted, and increase the neighborhood's hazard rating. The dominance of flammable construction types, such as shake roofs and wooden balloon structures, also increases the neighborhood's hazard rating.

1. Hyde Park North

Figure 4

Hazard Rating:	Extreme
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	>5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	None
Hazards:	Steep slopes, ravines, no water supply, inadequate roads

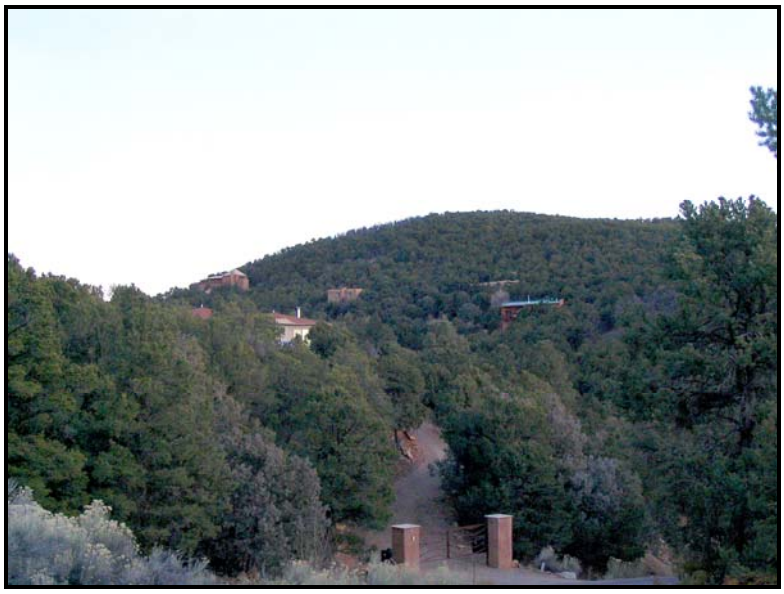
Description: This is a moderate-density area of large to moderate size homes on large lots. Construction styles are mixed in this neighborhood with some homes of ignition-resistant construction and some homes with wooden siding, decks and canopies. Some homes also have large windows in close proximity to heavy fuel loads. Access is one-way in and out and could be easily cut off by heat and smoke from fires in the adjacent shrub fuels. There are dirt roads in this neighborhood, and while most access roads are of adequate width, there are some long, narrow driveways and gated properties. Some access roads have washboard surfaces and there are steep grades and narrow sections. There is no water supply for fire suppression and the homes in this neighborhood are from 4 to more than 5 miles from the nearest fire station. Homes are built mid-slope and at the top of ridges surrounded by heavy fuels. There are some defensible spaces in this neighborhood, but in many cases there is vegetation growing right up to the structure. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) mixed with ponderosa pine beginning at the higher elevations (FM 10). Fuels are heavy and continuous. Topography is steep and complex throughout this neighborhood.

1. Hyde Park North Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Consider extended defensible space for homes designated as last resort shelter-in-place areas, and homes with flammable siding and projections.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage replacement of flammable roofs.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks or stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendation** in the main report).
- Consider creating a shelter-in-place plan that includes preplanned escape routes for evacuating residents of homes with flammable construction types to homes designated as last resort shelter-in-place areas. Concentrate thinning on heavy pockets of fuels below primary access roads to these homes.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading wash-boarding is especially recommended.
- Investigate the possibility of adding cisterns, especially at homes designated as last resort shelter-in-place areas.

2. Hyde Park South

Figure 5



Hazard Rating:	Extreme
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	>5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, natural chimneys, inadequate roads, homes in saddles

Description: This is a moderate-density area of large to moderate size homes on moderate size lots. Construction styles are mixed in this neighborhood. Some homes have ignition-resistant construction and some have wooden siding, decks, and canopies. Some homes also have large windows in close proximity to heavy fuel loads. Access is one-way in and out and could be easily cut off by heat and smoke from fires in the adjacent shrub fuels. There are dirt roads in this neighborhood, and while most access roads are of adequate width, there are some long, narrow driveways. Some access roads have washboard surfaces and there are steep grades and narrow sections. There are hydrants located throughout this neighborhood which are on the County hydrant system and are fed by a water tank at the top of the hill. Homes in this neighborhood are from 3½ to more than 4 miles from the nearest fire station. Homes are built mid-slope and at the top of ridges surrounded by heavy fuels. There are few defensible spaces in this neighborhood and there is frequently vegetation growing right up to the structure. There are propane tanks, many with fuels growing beneath and around them, and overhead power lines. Fuels in this area are primarily heavy loads of old-growth piñon/ juniper (FM 6), with a high ladder fuel component mixed with ponderosa pine beginning at the higher elevations (FM 10). Fuels are heavy and continuous in this area. Topography is steep and complex, and some deep arroyos cross this neighborhood.

2. Hyde Park South Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Consider extended defensible space for homes designated as last resort shelter-in-place areas, and for homes with flammable siding and projections.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the replacement of flammable roofs.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (see **Access Route Fuels Modification Recommendations** in the main report).
- Clear flammable vegetation away from low power lines and lines near homes.
- Clear weeds and flammable vegetation to at least 10 feet away from propane tanks.
- Consider creating a shelter-in-place plan that includes preplanned escape routes for evacuating residents of homes with flammable construction types to homes designated as last resort shelter-in-place areas. Concentrate thinning on heavy pockets of fuels below primary access roads to these homes.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.
- Investigate the possibility of adding cisterns, especially at homes designated as last resort shelter-in-place areas.

3. Santa Fe Summit North

Figure 6

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, natural chimneys, access road threatened by heavy fuels

Description: This is a low-density area of large homes on large lots. Newer ignition-resistant construction is dominant, but some homes have large windows in close proximity to heavy fuel loads. The primary access to this neighborhood could easily be cut off by heat and smoke from fires in the adjacent fuels. This access road crosses a slope of heavy decadent mixed conifer with a deep duff layer and plentiful ladder fuels (FM 10). While most access roads are of adequate width and have good surfaces, there are some long, narrow driveways and gated properties. Some access roads cross above heavy fuel loads, have steep grades and/or narrow sections. Most roads are dead ends. Homes in this neighborhood are from 4 to 5 miles from the nearest fire station. Homes are built mid-slope and at the top of ridges surrounded by heavy fuels. There are some defensible spaces in this neighborhood, but frequently there is vegetation growing right up to the structure. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) mixed with ponderosa pine beginning at the higher elevations and near the access road (FM 10). Fuels are heavy and continuous. Topography is steep and complex throughout this neighborhood. Evacuation would be difficult and dangerous due to long winding access and fuels near the roads. Shelter-in-place tactics are highly recommended due to high-quality ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

3. Santa Fe Summit North Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (saddles, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- When combined with defensible space treatments, shelter-in-place tactics are highly recommended in this neighborhood, due to the dominance of modern ignition-resistant construction and the danger and difficulty of evacuation.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and projections on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. Fuels reduction is especially important in the heavy fuels below the entrance to this neighborhood and for the mid-slope road segments above these fuels (see **Access Route Fuels Modification Recommendations** section in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.

4. Santa Fe Summit West

Figure 7

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 8
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate roads

Description: This is a low-density area of large homes on large lots. Newer ignition-resistant construction is dominant, but some homes have large windows in close proximity to heavy fuel loads. Heavy mixed conifer (FM 6 and 8) impinges access roads throughout this neighborhood. While most roads are of adequate width and have good surfaces, there are some long, narrow driveways and gated properties. Some access roads cross above heavy fuel loads, have steep grades and/or narrow sections. Most roads are dead ends. Homes in this neighborhood are from just under 3 to almost 5 miles from the nearest fire station. Homes are built on the upper one-third of slopes and at the top of ridges surrounded by heavy fuels. There are some defensible spaces in this neighborhood, but frequently there is vegetation growing right up to the structure. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) mixed with ponderosa pine beginning at the higher elevations and near the access (FM 8). Fuels are heavy and continuous, but surface fuel loads are lighter than in Santa Fe Summit North. Topography is steep and complex throughout this neighborhood. Evacuation would be difficult and dangerous due to long winding access and fuels near the roads. Shelter-in-place tactics are highly recommended due to high-quality ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

4. Santa Fe Summit West Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (saddles, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- When combined with defensible space treatments, shelter-in-place tactics are highly recommended in this neighborhood, due to the dominance of modern ignition-resistant construction and the danger and difficulty of evacuation.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and projections on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for mid-slope road segments above heavy fuels (see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.

5. Wilderness Gate

Figure 8

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	>5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	None
Hazards:	Steep slopes, ravines, natural chimneys, inadequate roads, no water supply

Description: This is a moderate-density area of large to moderate size homes on large lots. Construction styles in this neighborhood are primarily ignition-resistant, although some older homes have flammable siding, decks, or projections. Many homes are built mid-slope and at the top of ridges and closed elevations surrounded by heavy fuels. There are few defensible spaces in this neighborhood, and frequently there is vegetation growing right up to the structure. Access is one-way in and out and could be cut off by heat and smoke from fires in the adjacent shrub fuels. There is a potential secondary egress, but it is gated, crosses private land and runs through heavy fuels. Most of the access roads in this neighborhood are dirt, many of which have washboard surfaces, steep grades, and narrow sections. There are properties with long, narrow driveways. There is no water supply for fire suppression other than a few small cisterns. Homes in this neighborhood are from 3 to almost 5 miles from the nearest fire station. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) with a high ladder fuel component mixed with ponderosa pine beginning at the higher elevations (FM 10). Fuels are heavy and continuous. Topography is complex, but not as steep as the extreme neighborhoods. Shelter-in-place tactics are recommended for homes with ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

5. Wilderness Gate Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Consider creating a shelter-in-place plan that includes preplanned escape routes for evacuating residents of homes with flammable construction types to homes designated as shelter-in-place areas. Thin heavy pockets of fuels along primary access roads to these homes.
- Consider extended defensible space for homes designated as shelter-in-place areas, and homes with flammable siding and projections.
- Strongly discourage the use of the dangerous secondary access as an escape route by residents.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading washboarding is especially recommended.
- Consider adding small individual cisterns (1,000 to 2,000 gallons) or larger group cisterns (20,000 to 30,000) along key roads in this neighborhood. Water for fire suppression is a critical need in Wilderness Gate.

6. Talaya Hill

Figure 9

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate roads, no water supply

Description: There are approximately four homes, as well as some illegal squatters in this neighborhood, which borders open space. Construction styles are primarily ignition-resistant, although some homes have flammable decks or projections. Homes are small to moderate in size on moderate to large lots. Many homes are built on slopes and closed elevations surrounded by heavy fuels. There are no defensible spaces in this neighborhood and there is frequently vegetation growing right up to the structure. Access is one-way in and out and could be cut off by heat and smoke from fires in the adjacent shrub fuels. Access roads in this neighborhood are dirt, many of which have washboarded surfaces, steep grades, and narrow sections. There are properties with long, narrow driveways. Some homes have yards cluttered with flammable debris. There is a hydrant located at the entrance to this neighborhood, but there is no other water supply for fire suppression. Homes in this neighborhood are between 3 and 4 miles from the nearest fire station. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) with a high ladder fuel component or ponderosa pine mixed conifer (FM 10). Fuels are heavy and continuous. Topography is complex, but not as steep as the extreme neighborhoods. Shelter-in-place tactics are recommended for homes with ignition-resistant construction in the interior (north end) of this neighborhood, but only if combined with defensible space treatments to reduce the radiant heat load.

6. Talaya Hill Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Consider creating a shelter-in-place plan that includes preplanned homes designated as shelter-in-place especially in the interior (north end) of this neighborhood. Concentrate thinning on heavy pockets of fuels below these homes.
- Consider extended defensible space for homes designated as shelter-in-place areas, and for homes with flammable siding and projections.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU**).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Clear weeds and flammable vegetation to at least 10 feet away from propane tanks.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading washboarding is especially recommended.
- Consider adding small individual cisterns (1,000 to 2,000 gallons) to all properties that are not near the single hydrant at the entrance to this neighborhood.

7. Ponderosa Ridge

Figure 10

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	None
Hazards:	Steep slopes, ravines, inadequate roads, fuels threatening access, no water supply

Description: There are approximately 20 lots in this neighborhood, not all of which are built out. Construction styles are primarily ignition-resistant, although some homes have flammable decks or projections. Homes are large on moderate to large lots. Most homes are built on slopes and closed elevations surrounded by heavy fuels. There are few defensible spaces in this neighborhood and there is frequently vegetation growing right up to the structure. Access is one-way in and out and could easily be cut off by heat and smoke from fires in the adjacent shrub fuels. Access roads in this neighborhood are dirt and most have washboard surfaces, steep grades, and narrow sections. There are properties with long, narrow driveways. There are few pullouts and turnarounds for apparatus. There is no water supply for fire suppression, but a pumped hydrant system is planned. Homes in this neighborhood are between 3 and 4 miles from the nearest fire station. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6) or ponderosa pine/mixed conifer (FM 10). Fuels are heavy and continuous. Topography is complex, but not as steep as the extreme neighborhoods. Shelter-in-place tactics are recommended for homes with ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

7. Ponderosa Ridge Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (saddles, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home and for homes with flammable siding and projections.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Add reflective addressing to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.
- Completion of the hydrant system is a critical need in Ponderosa Ridge.

8. Cerro Gordo East

Figure 11

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants, too far apart
Hazards:	Steep slopes, ravines, overhead power lines, inadequate roads

Description: This is a moderate-density area of large to moderate size homes on large lots. Construction styles are mixed and older, but ignition-resistant construction is still dominant. Many homes are built mid-slope and at the top of ridges and closed elevations surrounded by heavy fuels. There are few defensible spaces in this neighborhood, and frequently there is vegetation growing right up to the structure. The access roads in this neighborhood are dirt, many of which have washboard surfaces, steep grades, and narrow sections. Roads are poor with few pullouts and turnarounds for apparatus. This is a high traffic area due to its proximity to open space access. There are hydrants in this neighborhood, but some homes are as much as ½ mile from the nearest one. Homes in this neighborhood are between 2½ and 4 miles from the nearest fire station. Fuels in this area are moderate to heavy loads of piñon/juniper (FM 6) with heavy riparian vegetation in the drainages. Fuels are continuous throughout this neighborhood. Topography is complex, with moderate to steep slopes. There is a deep arroyo that runs parallel with Cerro Gordo Road. This arroyo has intermittent water flows and heavy riparian vegetation. Evacuation would be difficult considering the poor roads, high traffic, and additional hazards from overhead power lines. Shelter-in-place tactics are recommended for homes with ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

8. Cerro Gordo East Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details), and extended defensible space is recommended for homes located in dangerous topography (saddles, above natural chimneys, mid-slope on steep slopes or summits). Extended defensible space is also recommended where there are heavy fuel loads near or below the home, for homes with flammable siding and projections, and for homes designated as shelter-in-place areas.
- Consider creating a shelter-in-place plan that includes preplanned escape routes for evacuating residents of homes with flammable construction types to homes designated as last resort shelter-in-place areas. Concentrate thinning on heavy pockets of fuels below primary access roads to these homes.
- Clean needle litter from roofs and gutters and away from foundations.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes and clear flammable vegetation away from low power lines and lines near homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Investigate the possibility of adding cisterns, especially at homes far away from hydrants due to difficult access.
- Some homes have reflective addressing at the road, but many do not. Reflective addressing should be added to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.

9. Camino Pequeno

Figure 12

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	2, 8
Water supply:	One hydrant on the west end
Hazards:	Steep slopes, ravines, inadequate water supply, numerous slash piles, inadequate roads

Description: This is a small area along a bosque with intermittent water flow that separates this area from the Upper Canyon Road neighborhood. Most homes are of ignition-resistant construction, but some have flammable decks and projections. There is one dead-end road that accesses the homes in this neighborhood. It is dirt and narrow with few spots for turnarounds and pullouts for apparatus. This neighborhood dead-ends in a wildlife preserve with moderate to heavy fuel loads with a continuous flashy fuel component in the understory. There is only one hydrant on the west end of this neighborhood and a tender shuttle would be difficult to establish on the narrow access road. Homes in this neighborhood are approximately 2 miles from the nearest fire station and most are close to the access road. Dominant fuels are closed and open stands of riparian hardwoods, a large portion of which has a heavy understory of grass and chamisa (FM 2 and 8). This area also has a notable quantity of slash piles and timber litter. A coyote fence separating this neighborhood from the Upper Canyon neighborhood adds to the fuel load. This area has overhead power lines and few address markers. Topography is generally flat to low in this neighborhood.

9. Camino Pequeno Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Clean needle litter from roofs and gutters and away from foundations.
- Remove slash piles and mow grass and chamisa away from homes.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. Fuels reduction is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Clear flammable vegetation away from low power lines and lines near homes.
- Wherever possible, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways.
- Reflective addressing should be added to all driveways and homes.
- Evacuation is recommended over shelter-in-place tactics in this neighborhood, due to the small number of homes and the short distance to major roads.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.

10. Los Cerros Colorados

Figure 13

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate roads

Description: This neighborhood is a moderately dense area of large to moderate size homes on moderate sized lots. Homes in this neighborhood are primarily newer, ignition-resistant construction types. Access is one-way in and out and could be cut off by heat and smoke from fuels near the road or by heavy evacuation traffic. Although all the access roads are paved and have good surfaces, the one-way, split access used in the southern end of this neighborhood is quite narrow and would be easily blocked. There are few turnarounds and no pullouts adequate for large apparatus in this area. This area is serviced by a good network of hydrants. Homes in this neighborhood are between 3 and 5 miles from the nearest fire station. Many homes are built mid-slope and at the top of ridges. There are some defensible spaces in this neighborhood, but most homes still have flammable vegetation growing too close to the structure. Fuels in this area are primarily heavy loads of old-growth piñon/juniper with a high ladder fuel component, mixed with smaller, younger stands with lighter surface loads (FM 6). Fuels are heavy and continuous. Topography is complex, and moderately steep. Slopes below this neighborhood to the east are on open space and have heavily used trails. Shelter-in-place tactics are recommended for homes with ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load. Evacuation is only recommended if it is ordered well ahead of the arrival of fire due to difficult access, heavy fuels and poor position.

10. Los Cerros Colorados Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for most homes due to dangerous topography (structures at the top of steep slopes with heavy fuels below). This is especially important for homes on the east side of this neighborhood where ignition risks are greater due to heavy use of the open space.
- Clean needle litter from roofs and gutters and away from foundations.
- Remove slash piles and mow grass and chamisa away from homes.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** section in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways.
- Reflective addressing should be added to all driveways and homes.

11. Lejano

Figure 14

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, overhead power lines, inadequate roads

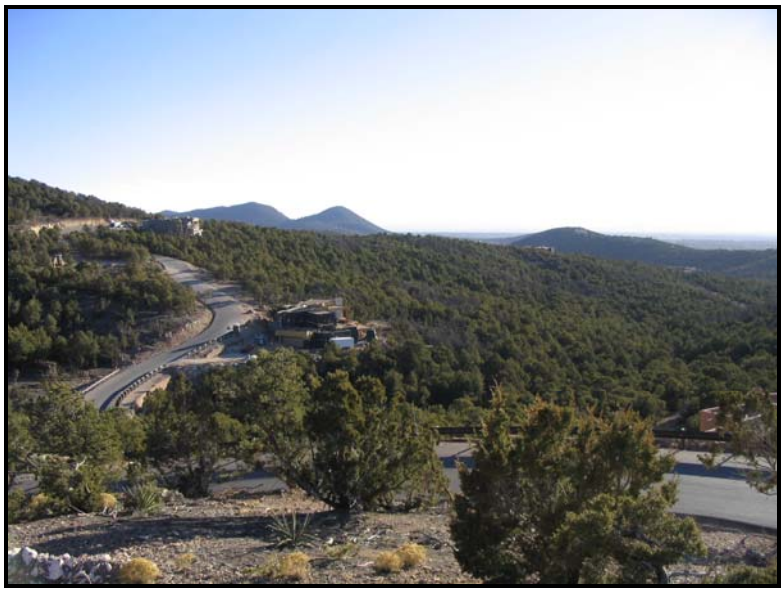
Description: This is a moderately dense area of large to moderate size homes on moderate size lots. Construction styles are mixed, but most homes are newer, ignition-resistant construction types. Many homes are built mid-slope and at the top of small ridges. There are few defensible spaces in this neighborhood and frequently there is vegetation growing too close to the structure. Addressing is poor. Most homes only have mailbox markers, some of which are missing or difficult to read. Especially confusing are neighborhood driveways where clustered mailboxes provide the only clue as to what addresses are located off the main driveway. The access roads in this neighborhood are dirt, many of which have washboard surfaces and narrow sections, except in the Canada Ancha subdivision (Canada Ancha is a small gated subdivision within this neighborhood). There are few turnarounds and pullouts adequate for large apparatus in this area. Lejano is serviced by a good network of hydrants. Homes in this neighborhood are 2 to 3 miles from the nearest fire station. Fuels in this area are moderate to heavy loads of piñon/juniper with light to moderate litter loads (FM 6). Fuels are continuous throughout the area. Topography is complex with moderate to steep slopes. Shelter-in-place tactics are recommended for homes with ignition-resistant construction, if combined with defensible space treatments to reduce the radiant heat load.

11. Lejano Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter from roofs and gutters, and mow grass and chamisa away from homes away from foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for narrow driveways and road segments (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.

12. Santa Fe Summit South

Figure 15



Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate access roads

Description: This is a low-density area of large homes on large lots. Newer ignition-resistant construction is dominant. Homes are built on the upper third of slopes and at the top of ridges surrounded by heavy fuels. Although there are few homes in this neighborhood, there are several that are under construction. Since most of the lots in this neighborhood have not been built yet, this is a good time to stress defensible space planning to homeowners. Roads are of adequate width and have good surfaces, but they cross steep arroyos with heavy fuel loads, and have some steep grades. This neighborhood is single access with dead-end spurs and loops. Reflective address markers at driveways and on homes are recommended. There is a good network of hydrants in this neighborhood. Homes in this neighborhood are from 3 to over 5 miles from the nearest fire station. Fuels in this area are primarily heavy loads of old-growth piñon/juniper (FM 6). Fuels are heavy and continuous, and the topography is steep and complex throughout this neighborhood. Evacuation would be difficult and dangerous due to long winding access and fuels near the roads. Shelter-in-place tactics are highly recommended, due to high-quality ignition-resistant construction, especially when combined with defensible space treatments to reduce the radiant heat load.

12. Santa Fe Summit South Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses and other flammable debris from roofs, gutters and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for driveways and road segments with heavy fuels below (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

13. Monte Sereno

Figure 16

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Ravines, steep slopes, homes above natural chimneys

Description: This is a new development. Although few homes have been built in this neighborhood, there are several under construction and most of the lots have been sold. When completed, this will be a moderately dense neighborhood of large to moderate sized homes on moderate lots. Newer ignition-resistant construction is dominant. Arroyos run all through this area, although they are not as steep as in some other neighborhoods in Santa Fe. Many of the existing homes are constructed on slopes with heavy fuels below, and a few are located at the head of chimneys. Since most of the lots in this neighborhood have not been built yet, this is a good time to stress defensible space planning. Roads are generally good, but flammable Rocky Mountain juniper is being planted as landscaping along most of the access roads. Reflective address markers at driveways and on homes are also recommended. A network of hydrants is being built in this neighborhood. Homes in this neighborhood are from 3 to almost 5 miles from the nearest fire station. Fuels in this area are primarily heavy loads of old-growth piñon/juniper mixed with younger stands (FM 6). Fuels are heavy and continuous, and the topography is moderately steep and complex throughout this neighborhood. Shelter-in-place tactics are recommended only if combined with defensible space treatments to reduce the radiant heat load, especially for homes in dangerous topography.

13. Monte Sereno Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Discourage the use of Rocky Mountain juniper and other flammable species for roadway landscaping.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways. This is especially important for driveways and road segments running above heavy fuels (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

14. Upper Canyon Road

Figure 17

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	2, 6, 8
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate roads, overhead power lines

Description: This is a moderate density area of older homes. Ignition-resistant construction is dominant and most homes are on moderate size lots. Most homes are close to the access roads, but roads and bridges are very narrow. Addressing is poor, consisting mostly of mailbox markers. There are few turnarounds or pullouts for apparatus. There is a hydrant network in this neighborhood. Homes in this neighborhood are from 2 to just over 3½ miles from the nearest fire station. This area is adjacent to the bosque, and numerous arroyos cut through it. In these drainages there are heavy loads of riparian hardwoods with leaf litter and grasses in the understory (FM 2 and FM 8). There are also pockets of sage and piñon/juniper (FM 6) varying from light to moderate loading. Fuels on the east end of this neighborhood transition to heavier loads of piñon/juniper (FM 6). The area along the bosque is generally flat, but the topography becomes steeper and more complex on the east end. This neighborhood abuts open space and is a high traffic area. Evacuation would be difficult, due to high traffic and very narrow roads, unless done well ahead of the arrival of the fire.

14. Upper Canyon Road Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways (please see the **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.

15. St. John's College

Figure 18

Hazard Rating:	Very High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 10
Water supply:	Hydrants
Hazards:	Some steep slopes, ravines, inadequate roads, heavy non-resident use

Description: This is a moderately dense area of moderate to large homes on moderate sized lots. Most homes have ignition-resistant construction. Most homes do not have defensible space and some have vegetation growing right up to the structure. Many homes are located mid-slope in heavy to moderate fuel loads. This neighborhood has a single access, and dead-ends into Wilderness Gate. There is at least one gated subdivision within this neighborhood. The main access is primarily flat, but many side roads are steep and narrow. Addressing is generally poor. There are hydrants in this neighborhood, but some side roads do not have any hydrants. Homes are between 2 and 3½ miles from the nearest fire station. Fuels are primarily moderate loads of piñon/ juniper and chamisa (FM 6) near homes, transitioning to heavier piñon/juniper mixed with ponderosa pine at the east end (FM 10). Topography is moderate but complex with ravines and saddles. Saint John's College is located in this neighborhood and is both a potential ignition source and evacuation problem, due to high numbers of non-resident students. Shelter-in-place tactics are recommended in this neighborhood, due to the number of students and high traffic (this area also has popular open space trails). Defensible space is highly recommended, especially for homes located in dangerous topography and/or adjacent to heavy fuels.

15. St. John's College Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways (please see **Access Route Fuels Modification Recommendations** in the main report).
- A fuels modification project is recommended for the area adjacent to Saint John's College, in order to reduce the threat that the college could become an ignition source, and also to enhance the college's viability as a shelter-in-place area (please see **Landscape Scale Fuel Modifications FMU** in the main report).
- Consider adding small individual cisterns (1,000 to 2,000 gallons) to properties on dead-end roads that do not have hydrants.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

16. Camino Encantado

Figure 19

Hazard Rating:	High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Steep slopes, natural chimneys, ravines, inadequate access roads, low overhead power lines

Description: This is a moderately dense neighborhood of small to moderate size homes on moderate size lots. Ignition-resistant construction is dominant, but some homes have flammable decks and projections. There are overhead power lines in this neighborhood and some are close to the ground. Many homes need defensible space, and there are homes with flammable vegetation, debris, and coyote fencing against the structure. Most access roads are dirt, and while they are generally of adequate width, there are steep, washboarded sections. Vegetation is encroaching on the roads in some areas. There is a good hydrant network that serves this neighborhood. This is a large neighborhood and distances to the nearest fire station vary from less than 1 mile to slightly over 3 miles. Fuels are a mix of old and young stands of piñon/juniper (FM 6) with generally light to moderate litter loads in the understory. Fuels are continuous and loading is moderate to heavy. Most of this neighborhood is built on a flat to low angle mesa that transitions to steep slopes in the north end. Although topography is generally low, there are arroyos and chimneys in this neighborhood.

16. Camino Encantado Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Clear flammable vegetation away from low power lines and lines near homes.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

17. Peralta/Acoma

Figure 20

Hazard Rating:	High
Does the neighborhood have dual access roads?	No
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	1, 6,
Water supply:	Hydrants
Hazards:	Some steep slopes, ravines

Description: This is a relatively small neighborhood built on two loops that do not connect completely. Most homes are moderate to large on moderate size lots. There is a mix of construction styles, including several homes with peaked metal roofs (unusual for Santa Fe). Most homes have ignition-resistant construction, but some have flammable decks and projections. Most homes need defensible space treatments. Addressing is poor, with mailboxes as the only address marker for most homes, and some homes entirely without address markers. Most access roads are dirt, but of adequate width. There are, however, some long, steep driveways. There is a hydrant network in this neighborhood, and most homes are 1 to 2 miles from the nearest fire station. The dominant fuels are mixed-aged stands of piñon/juniper (FM 6) with chamisa and litter in the understory. Fuel loads are moderate to heavy and continuous. Overall topography is low, but there are arroyos cutting through this neighborhood, and most homes are built along the resulting small ridges.

17. Peralta/Acoma Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

18. Cerro Gordo West

Figure 21

Hazard Rating:	High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	6, 8
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, power lines, inadequate roads

Description: This neighborhood has primarily older homes on small lots. Ignition-resistant construction is dominant, but many structures have flammable projections and some properties have flammable outbuildings. There are overhead power lines in this neighborhood and some are close to the ground. Some homes have reflective addressing, but address markers are inconsistent, especially where homes are in clusters off common driveways. Roads are poor and narrow, and there are overhead power lines in this neighborhood. In spite of the narrow roads, traffic volume is high in this neighborhood, probably due in part to open space access. Hydrant locations in this neighborhood are better than in Cerro Gordo East. Homes in the neighborhood are less than 3 miles from the nearest fire station. This neighborhood runs along a major drainage and the fuel load is mixed between piñon/juniper (FM 6) on hillsides and riparian hardwoods (primarily cottonwoods and Russian olives, FM 8) in the drainages. Slopes are lower here than in the upper part of the canyon, but topography is still moderately steep and complex.

18. Cerro Gordo West Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Clear flammable vegetation away from low power lines and lines near homes.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Thin vegetation along access roads and driveways (please see **Access Route Fuels Modification Recommendations** in the main report).
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.
- Improve access road surfaces where possible. Filling ruts and grading the washboard road sections is especially recommended.

19. Sierra del Norte

Figure 22

Hazard Rating:	High
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	Yes
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6, 8
Water supply:	Hydrants
Hazards:	Steep slopes, ravines

Description: Large to moderate size homes on moderate size lots. Primarily ignition-resistant construction, but most homes are located mid-slope and at the top of ridges. Fewer flammable decks and projections were noted than in other neighborhoods. However, there is frequently coyote fencing running right up to the structure. Addressing is poor and defensible spaces are rare. Most access roads are good, except for a few steep spots crossing arroyos. Hydrant coverage is good except in the extreme northern end of this neighborhood along Old Bishops Lodge Road and Brownell-Howland Rd. This is a large neighborhood and homes vary in distance to the nearest fire station from less than 1 mile to over 3 miles. Fuels are a mix of old and young stands of piñon/ juniper with generally light litter loads in the understory (FM 6). Fuel loading is light to moderate with good spacing between stems. Some of the major arroyos have significant riparian vegetation loads (FM 8) growing in stringers and patches. Most slopes are of moderate steepness. However, topography is complex and there are several long, deep arroyos in this neighborhood.

19. Sierra del Norte Recommendations

- A parcel level analysis is recommended.
- Adequate defensible space is recommended for all homes (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

20. Arroyo Chamiso

Figure 23

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	1, 2, 6, 8
Water supply:	Hydrants
Hazards:	Steep slopes, ravines, inadequate roads

Description: Primarily moderate size homes on moderate sized lots, although parts of this neighborhood have smaller lots and higher density. Most homes do not have defensible space and there are several with cluttered yards. Most homes are of ignition-resistant construction, but some have coyote fences and woodpiles against the structure. There are some homes with flammable decks and projections. There are several dirt access roads; most are of adequate width and have good surfaces. Hydrant coverage appears to be adequate. Homes are less than 2½ miles from the nearest fire station. Fuels include short grasses (FM 1), piñon/juniper (FM 6), chamisa, and piñon/ juniper with grass understory (FM 2). There is a bosque that runs through this neighborhood, which has moderate to heavy loads of riparian hardwoods (FM 8). Fuel loads in this neighborhood are generally moderate, but the Sun Mountain area, immediately to the east, has heavy loads of old growth piñon/juniper (FM 6). Topography in this neighborhood is low to flat, although there are some steep slopes near the bosque and other arroyos. The National Park Service has an office and a small amount of land in this neighborhood.

20. Arroyo Chamiso Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under of adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage the use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see the **Home Mitigation FMU** section in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

21. Rosario

Figure 24

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Ravines, inadequate access roads

Description: Older homes on small lots. Most homes have ignition-resistant construction, but there are some with flammable projections and decks. Most homes do not have defensible space. Addressing is generally poor. Most of the access roads are dirt, some with washboarding. Most access roads are of adequate width, but there are a few narrow road sections and driveways. There is a hydrant system in this neighborhood. However, there are some densely populated streets that do not have a hydrant. Most homes in this neighborhood are less than 1½ miles from the nearest fire station. Fuels are light to moderate loads of piñon/juniper (FM 6), broken by significant areas of development. Topography is generally low, but there are some significant arroyos in this neighborhood. There are overhead power lines, but none that are located in heavy fuels.

21. Rosario Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see the **Home Mitigation FMU** section in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.
- Filling ruts and grading the washboard road sections is recommended.

22. Santa Fe Estates

Figure 25

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	1-5 Acres
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Ravines

Description: Newer homes of small to moderate size on moderate size lots. There are some clusters of homes on smaller lots. However, the only fuel within these clusters consists of ornamental plantings. Currently these clusters are surrounded by large tracts of native vegetation. Large portions of this neighborhood are not built out yet, but we should expect this to become a high density neighborhood in the future. Planning will be critical to mitigate fire hazards. Homes are primarily of ignition-resistant construction and most have at least some defensible space. There is a hydrant system in the portion of this neighborhood where homes have been built. This is a large neighborhood and the distance to the nearest fire station varies from less than 2 miles to almost 4½ miles. Most access roads to homes are paved and of adequate width. Nonetheless, reflective address markers are lacking at most homes. Fuels are moderate loads of piñon/juniper with good spacing and light litter loads in the understory (FM 6). Other than ornamental plantings, fuels have been almost completely removed within the developed areas, unlike most neighborhoods in Santa Fe. (It is important to note, however, that without planned maintenance, these fuels can easily return.) Topography is flat to rolling. There are some arroyos in this neighborhood, but most are not deep.

22. Santa Fe Estates Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see the **Home Mitigation FMU** section in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

23. Estancia Primera/Las Barrancas

Figure 26

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Ravines

Description: Moderate size homes on small lots. Most homes are newer and have ignition-resistant construction. A large arroyo runs through the middle of this neighborhood, and homes are built along both sides. In some cases, there is flammable vegetation growing too close to the structure. Addressing is inconsistent and could use improvement through this neighborhood. Most roads are good, but some spur roads in Estancia Primera are dirt. There is a good hydrant network in this neighborhood. The distance to the nearest fire station varies from ½ mile to approximately 2½ miles. Fuels consist of non-native ornamentals and light to moderate loads of piñon/juniper with light litter in the understory (FM 6). In the northeastern section of this neighborhood, fuel beds are broken due to the high density of residential construction. Nonetheless, there are a number of homes adjacent to wildland fuels that need defensible space. Fuel beds are more consistent in the southwestern half of this neighborhood, and there are steeper slopes and heavier fuels immediately to the east of Estancia Primera/Las Barrancas in the LeJano neighborhood. Topography is low to moderate within Estancia Primera/Las Barrancas, but there are steeper slopes below some homes.

23. Estancia Primera/Las Barrancas Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Extended defensible space is recommended for homes located in dangerous topography (ridge tops, above natural chimneys, mid-slope on steep slopes or summits) with heavy fuel loads near or below the home.
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially where homes are upslope from heavy fuels.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

24. Agua Fria

Figure 27

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	1, 2, 6
Water supply:	Hydrants
Hazards:	Ravines, overhead power lines, flammable construction types

Description: Most of the homes in Agua Fria are small on small lots. There is a mix of construction types in this neighborhood. Approximately half of the residences are ignition-resistant, and half are mobile homes or other flammable construction types. The far north end of this neighborhood has one neighborhood where newer ignition-resistant construction is dominant. There are also many commercial and light industrial properties mixed in with residences. There is an adequate hydrant network in this neighborhood. There are two fire stations (a volunteer County fire station and the City's training station #5) located in Agua Fria, but this is such a large neighborhood that some homes are as far as 3 miles from the nearest fire station. Fuels are primarily short grasses (FM 1), but transition to open stands of piñon/juniper (FM 2 and FM 6) in the northern portion of this neighborhood. Fuels are broken and some parts of this neighborhood are more urban than interface in character. Topography is generally low to flat, but there are some arroyos in this neighborhood. Although the overall hazards seem low, mobile homes and other flammable construction types would be threatened by grass fires, especially in the northwestern part of this neighborhood where these fuels are more continuous.

24. Agua Fria Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Clear flammable vegetation away from low power lines and lines near homes.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under and adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Wherever possible on driveways and private roads longer than 300 feet, add pullouts for emergency apparatus. Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.
- Keep grasses mowed to a low height.

25. Valle del Sol

Figure 28

Hazard Rating:	Moderate
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	6
Water supply:	Hydrants
Hazards:	Ravines

Description: Moderate to small homes on small lots. Most of the homes are newer, ignition-resistant construction. Many homes need defensible space, especially in the northern end of this neighborhood, and some have flammable ornamental vegetation growing right up to the structure. There are several dirt access roads in this neighborhood; most are of adequate width and surfaces are generally good. There is a good hydrant network in this neighborhood. The south end of Valle del Sol is directly adjacent to Santa Fe Fire Station 1 and the homes in this neighborhood are all 1 mile or less from the fire station. Fuels are light to moderate loads of piñon/juniper (FM 6) with light litter loads in the understory and good stem spacing. Chamisa is also common in this neighborhood. Fuels are broken by clusters of construction, irrigated lawns, and fields, in the south end of this neighborhood, but are more continuous in the northern portion. Topography is low to flat. There are some arroyos in this neighborhood, but none of them are deep or present a significant variation in fuels.

25. Valle del Sol Recommendations

- Adequate defensible space is recommended for all homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Clear jackpots of fuels such as woodpiles, combustible construction materials, etc. to at least 30 feet away from structures. Locations uphill from the structure are preferable. Jackpots of fuel should also be cleared away from access roads.
- Remove flammable fencing (such as coyote fencing) within four feet of homes, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see the **Home Mitigation FMU** section in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations.
- Open areas below decks, outdoor stairways, and homes should be enclosed or screened to prevent the ingress of embers, especially where such openings are located on slopes above stands of heavy fuels.
- Turnarounds should be constructed at the end of all driveways and dead-end roads.
- Reflective addressing should be added to all driveways and homes.

26. South Santa Fe

Figure 29

Hazard Rating:	Low
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	No
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	2, 6, 8
Water supply:	Hydrants
Hazards:	Ravines

Description: This is a largely urban area with some major arroyos that contain wildland fuels. There are homes built directly adjacent to, or even in the arroyos. Although these homes may be at risk from fires in the arroyos, most have ignition-resistant construction. Some homes have flammable ornamental vegetation too close to the structure that could be ignited by embers and/or firebrands from fires in the arroyos. Address markers are primarily on mailboxes, but most homes have some sort of address marker. Roads are wide, paved and suitable for all types of apparatus. There is a good hydrant network and a fire station located in this neighborhood. However, this is a large neighborhood, and some homes are as far as 3 miles from the nearest fire station. Dominant fuels are piñon/juniper of various ages and heights with grass and chamisa in the understory (FM 6 and FM 2). In the arroyos, riparian hardwoods, such as Siberian elm and Russian olive (FM 8) are also present in stringers and patches. Other than the arroyos, topography is primarily flat.

26. South Santa Fe Recommendations

- Adequate defensible space is recommended for homes built in or adjacent to arroyos containing flammable wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Remove flammable fencing (such as coyote fencing) within four feet of homes built in or adjacent to arroyos containing flammable wildland fuels, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings, especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially for homes built in or adjacent to arroyos containing flammable wildland fuels.
- Reflective addressing should be added to all driveways and homes.

27. Tierra Contenta

Figure 30

Hazard Rating:	Low
Does the neighborhood have dual access roads?	Yes
Are there road grades ≥ 10%?	No
Are all access roads of adequate width?	Yes
Average lot size:	<1 Acre
Fuel models found in the neighborhood:	1, 2
Water supply:	Hydrants
Hazards:	Ravines

Description: This is a largely urban area with scattered patches of piñon/juniper, grasslands, and some arroyos that contain wildland fuels. This is a high density area of small homes on small lots. There are homes built directly adjacent to undeveloped tracts of wildland fuels and arroyos. Most homes are newer, ignition-resistant construction. Some homes have flammable ornamental vegetation too close to the structure that could be ignited by embers and/or firebrands from fires in wildland fuels. Most homes have some sort of address marker. Roads are wide, paved, and suitable for all types of apparatus. There is a good hydrant network and the new Santa Fe Fire Station 8 has just been completed in this neighborhood. Dominant fuels are short grasses (FM 1), and widely scattered piñon/juniper, with grass and chamisa in the understory (FM 2). In the arroyos, riparian hardwoods, such as Siberian elm and Russian olive are also present in stringers and patches. Other than the arroyos, topography is primarily flat. When this area is completely built out, the existing areas of continuous wildland fuels will probably disappear entirely.

27. Tierra Contenta Recommendations

- Adequate defensible space is recommended for homes adjacent to wildland fuels (please see **Home Mitigation FMU** in the main report for details).
- Clean needle litter, grasses, and other flammable debris from roofs, gutters, and foundations.
- Remove flammable fencing (such as coyote fencing) within four feet of homes built in or adjacent to arroyos containing flammable wildland fuels, especially where such fencing runs under or adjacent to eaves or any other flammable projections such as decks and stairs.
- Discourage the planting of flammable vegetation such as piñon, chamisa, and juniper within 30 feet of homes.
- Encourage use of xeriscaping, and use fire and drought tolerant plants for ornamental plantings especially within 30 feet of homes (please see **Home Mitigation FMU** in the main report).
- Encourage the use of less combustible material for decks and siding on new construction and renovations, especially for homes built in or adjacent to arroyos containing flammable wildland fuels.
- Reflective addressing should be added to all driveways and homes.