



Mirrormont Community Wildfire Risk Assessment

Mirrormont Firewise Committee
with support from Michael Lasecki,
King Conservation District

June 2023

Firewise USA™

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FIREWISE USA®
Residents reducing wildfire risks

Introduction

About Firewise

During the past hundred years, America’s population has nearly tripled. Much of this growth has occurred in traditionally natural areas such as forests and grasslands. These areas are all subject to the natural process of wildfire. Wildland fires can be difficult to control. As a result, in places where development has encroached into natural areas (dubbed the *wildland/urban interface or WUI*) property, lives and natural resources are all at risk from wildfire.

Following the catastrophic fire season of 1985, government representatives met to discuss the increasing trend of wind-driven fires in populated areas. They formed the National Wildland/Urban Interface Fire Program. In 1992, the program's advisory group began to use the term *Firewise* to describe being knowledgeable and prepared for wildfire in residential or urban settings.

In 1996 a Firewise Web site (www.firewise.org) was launched. It was followed by national and regional workshops, public education efforts, and a community recognition project. Today the Firewise program is viewed as a successful example of partnering among communities, homeowners, private industry, tribes, and public agencies and officials to develop and implement local solutions for wildfire preparedness – before a fire starts.

NFPA’s Firewise USA® program teaches people how to live with wildfire and increase their home’s chance of survival through proactive actions, while encouraging neighbors to work together to reduce losses and damage. The community wildfire risk assessment is an important step in the Firewise USA® recognition process. It’s a tool to help residents and their community members understand their wildfire risk and engage them in risk reduction efforts.

The Mirrormont resident is encouraged to also refer to the 2015 “Mirrormont Community Wildfire Protection Plan”, dated November 2015, for more detailed information. This document contains detailed information regarding the Firewise program, how you as a Mirrormont resident can reduce your risks of wildfires, and information about how to mitigate the risks of wildfires, among other information.

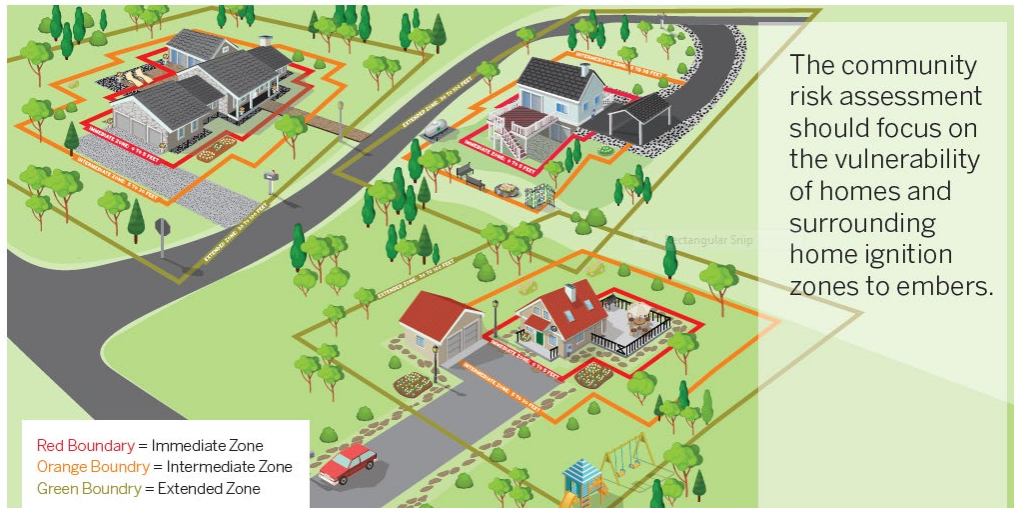
Research has shown embers (burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind) and small surface fires to be the primary source of home ignitions during wildfires.

Residents must prepare their home to withstand embers and minimize the likelihood of flames or surface fire touching the home or any attachments. This can be accomplished by limiting the amount of flammable vegetation, choosing ignition-resistant building materials and construction techniques, along with periodic exterior maintenance within the three home ignition zones (HIZ).

These HIZ zones (refer to Chapter 3, Getting in the Zone from the 2015 plan) include:

- **The Immediate Zone:** the house/structure and any attachments plus 5 feet. The focus here is to prevent embers being able to enter home or ignite material in this zone.

- **The Intermediate Zone:** the area 5 feet to 30 feet from house/structure. This typically is your yard or landscaped area. The focus here is to protect the structure from radiant heat.
- **The Extended Zone:** the area 30 feet to 100 or more feet from house/structure. The focus here is to maintain any access roads leading to home/structure and to reduce the flame length of wildfire if it burns through this zone.



It is not uncommon for home ignition zones to overlap onto adjacent properties. This makes the conditions of neighboring homes and properties factors of an individual home's wildfire risk. To maximize benefits, it's extremely important that neighbors work collaboratively with each other, and talk with each other, to reduce their shared risk.

The community wildfire risk assessment speaks to the general conditions of the overall Firewise USA® site and does not provide details on each individual dwelling.

The assessment focuses on:

- Vulnerability of homes to embers, surface fire, and crown fire,
- Condition of the structures themselves,
- Immediate hazards within the HIZ on individual properties, and
- Concerns presented by common/open space areas or adjacent land.

Other factors considered that impact risk and influence fire behavior or structure ignitability:

- Structural characteristics (such as roofing, siding, and decks),
- Vegetation types,
- Slope and aspect (direction a community faces - north, south, east, or west), and
- Housing density.

The recommendations provided by the completed assessment will be the Firewise Committee's primary tool in determining action priorities within the site's boundaries, documented in their action plan. The Firewise USA® program requires assessments to be **updated at a minimum of every five years.**

Overview

The assessment:

- Can be completed in a variety of ways, including a walkthrough or a drive-by and does not require each individual dwelling unit to have a home risk assessment completed prior to the community assessment;
- Should focus on the condition of vegetation within the participating site's boundary; general landscaping characteristics; and home construction (materials used for roofs, siding, decks, etc.); and
- Needs a logical recognized site boundary (HOA, defined neighborhood, street, etc.).

Assessment Participants

List the principal participants who assisted in data gathering and development of this document (include name, role/organization, phone and email). This can be your district forester, fire department, Firewise Board members, etc.

Name	Role/Organization	Phone	Email
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DEFINING YOUR FIREWISE USA[®] SITE

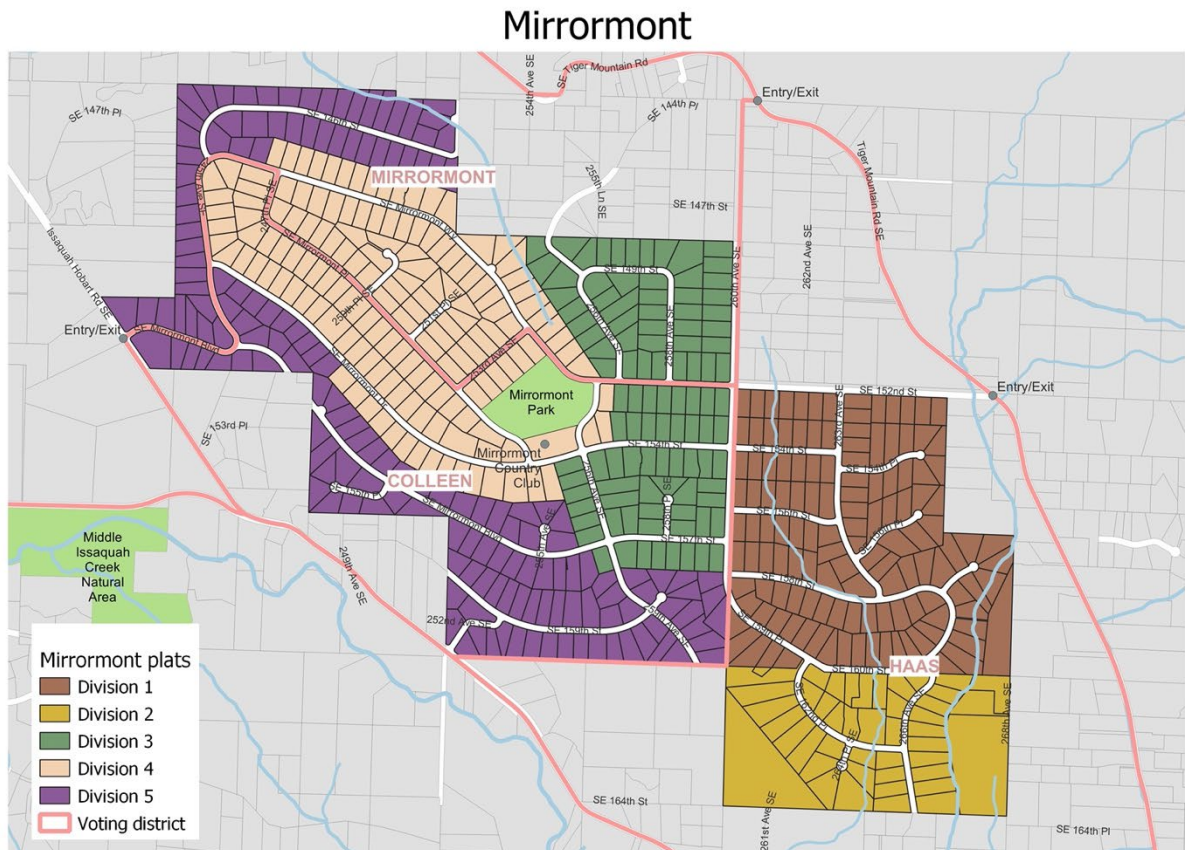
General Site Description

Site Name:	Mirrormont
City:	Unincorporated King County
County:	King County
State:	WA
Latitude:	47.4641399°N
Longitude:	121.9989734°W

The boundary of this site is defined by the lots that are part of the Mirrormont development that was originally established in 1962 and covered by the Mirrormont Restrictive Covenants. The map at <https://www.mirrormont.org/map-with-divisions> that shows those properties in divisions 1–5. Although the MCA Bylaws state that people residing in Mirrormont, Haas, and Colleen voting precincts are eligible to join the MCA, those voting precincts have expanded over time and now cover quite a large area that we have no way to communicate with or control.

Area (provide number of acres or square miles):

- 680 acres (as defined in developers’ brochure)



General Site Information

- Firewise USA® participation requires a minimum of 8 individual dwelling units and not to exceed 2,500 (for new sites in 2018 or later), within the site's identified boundary.
- For definition purposes, a dwelling unit is a:
 - Household/residence built for occupancy by one person, a family, or roommates, including mobile homes and cabins; and for multi-family residential occupancies (i.e., duplexes, and other types of attached housing),
 - An apartment building with 10 units would be considered ten dwelling units, and
 - Multiple sites can be located within a single large master-planned community/HOA.

The Firewise USA® program is designed for residential occupancies where residents actively participate in reducing the wildfire risk where they live; it is not a program for every occupancy type, or an entire town, city or county.

- Number of dwelling units: 551 houses
- Number of residents: 1,394 residents (estimating 2.53 people/household from the 2023 average household size for Washington State: <https://worldpopulationreview.com/state-rankings/average-household-size-by-state>)

Community Wildfire Risk Assessment Description of Properties within the boundary

Residential types in your site (check all that apply):

- Single Family
- Duplex
- Townhomes
- Apartment
- Mobile/Manufactured or Other

Types of ownership (check all that apply):

- Private
- Common
- Public (county, state, federal, etc.)

Lot sizes (check all that apply):

- Less than .10 acre or 4,356 square feet
- 0.10 to .50 acre or 4,356 to 21,780 square feet
- 0.51 to 1 acre or 22,215 to 43,560 square feet
- Greater than 1 acre or 43,560 square feet

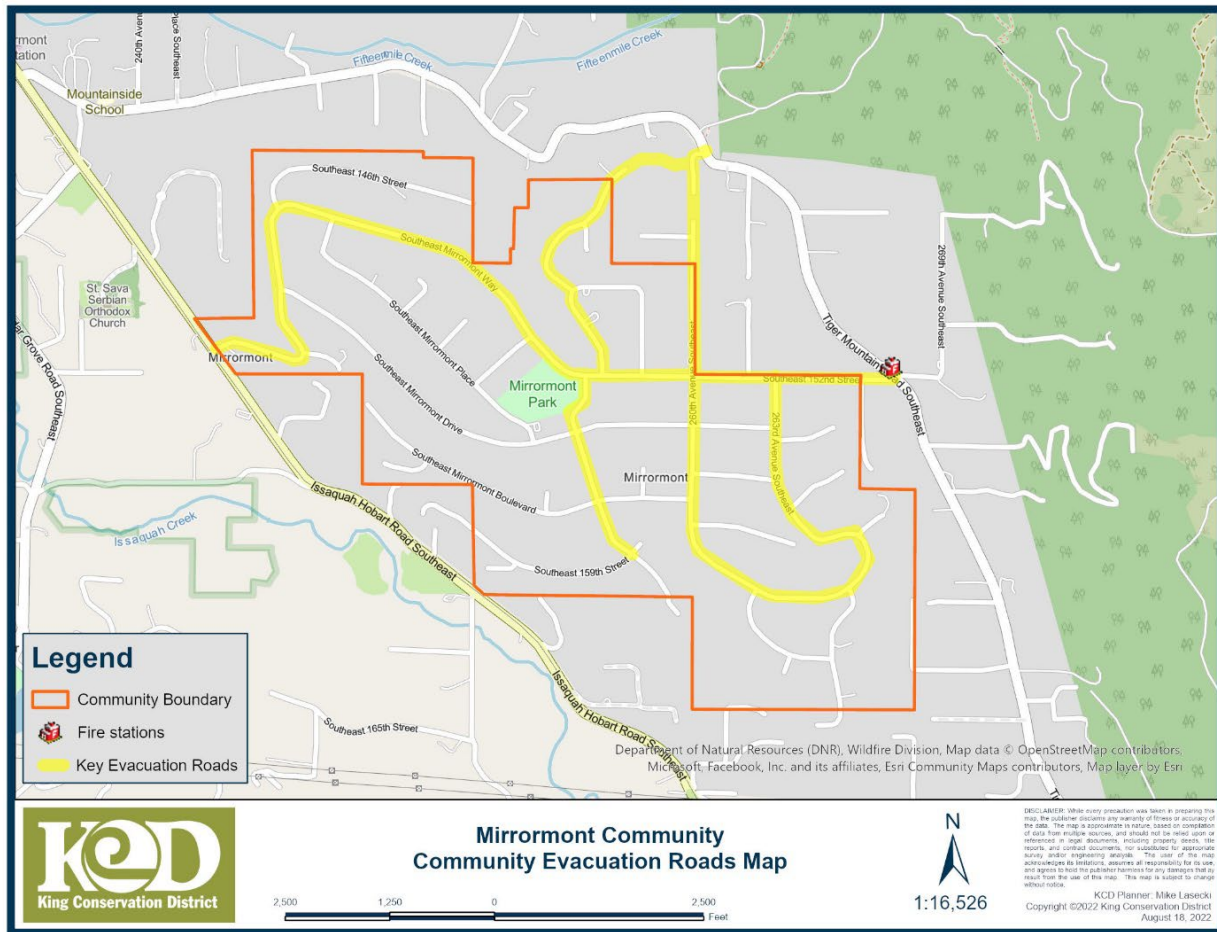
Within the Mirrormont community is King County's Mirrormont Park. [The Mirrormont Community Association \(MCA\)](#) takes great pride in maintaining this 11-acre park in cooperation with King County Parks. Adjacent to the park is the Mirrormont Country Club, a private organization (separate from the MCA) that includes an outdoor swimming pool, tennis courts, and clubhouse.

The homes of Mirrormont are usually set back from the road. Many homes are located on steep slopes that require steep drives to access the house. There are a few cul-de-sacs and a number of roads that are dead-end and discontinuous, such as 266th Avenue SE and SE 158th Street that can make it difficult to navigate through the community.

Mirrormont is served by a water system owned by the Washington Water Service (WWS), a subsidiary of California Water Service Group. WWS is a public utility that owned and operated over 145 water systems within five counties when it acquired Mirrormont Services in 2000. As of 2023, it serves about 40,000 customers within eight counties in Washington State. Mirrormont homeowners report that the pressure and volume to their homes is too low in some areas and is too high in others. There are 55 fire hydrants throughout Mirrormont. Until recently, Washington Water Service has been unresponsive regarding their flow capability for fighting fires; a recent contact has been more forthcoming (see 4.a. for update).

Most of the land immediately abutting Mirrormont is privately owned rural residential parcels. Within a quarter to half a mile North and East of the community is Tiger Mountain State Forest. This is a highly used recreational and active working forest. Timber and biomass production, communication tower leases and other commercial activities occur in this State of Washington Department of Natural Resources (WA DNR) managed forest. WA DNR has sold the timber harvesting rights to some of Tiger Mountain State Forest. Since approximately 2020, there has been logging on the West slopes, and near South Tiger Mountain. There will be logging on Middle Tiger Mountain starting in 2023.

Community Map



Path: X:\GIS_Data\KCD_GIS_Data\Forestry\APR\6\Mirromont.aprx

Description of Local Wildland Fire Characteristics

Fire intensity and rate of spread depend on the vegetation type and condition (live/dead), topography, and typical weather patterns.

Describe the common vegetation type(s) in your site (i.e., grasses, shrubs, and trees):

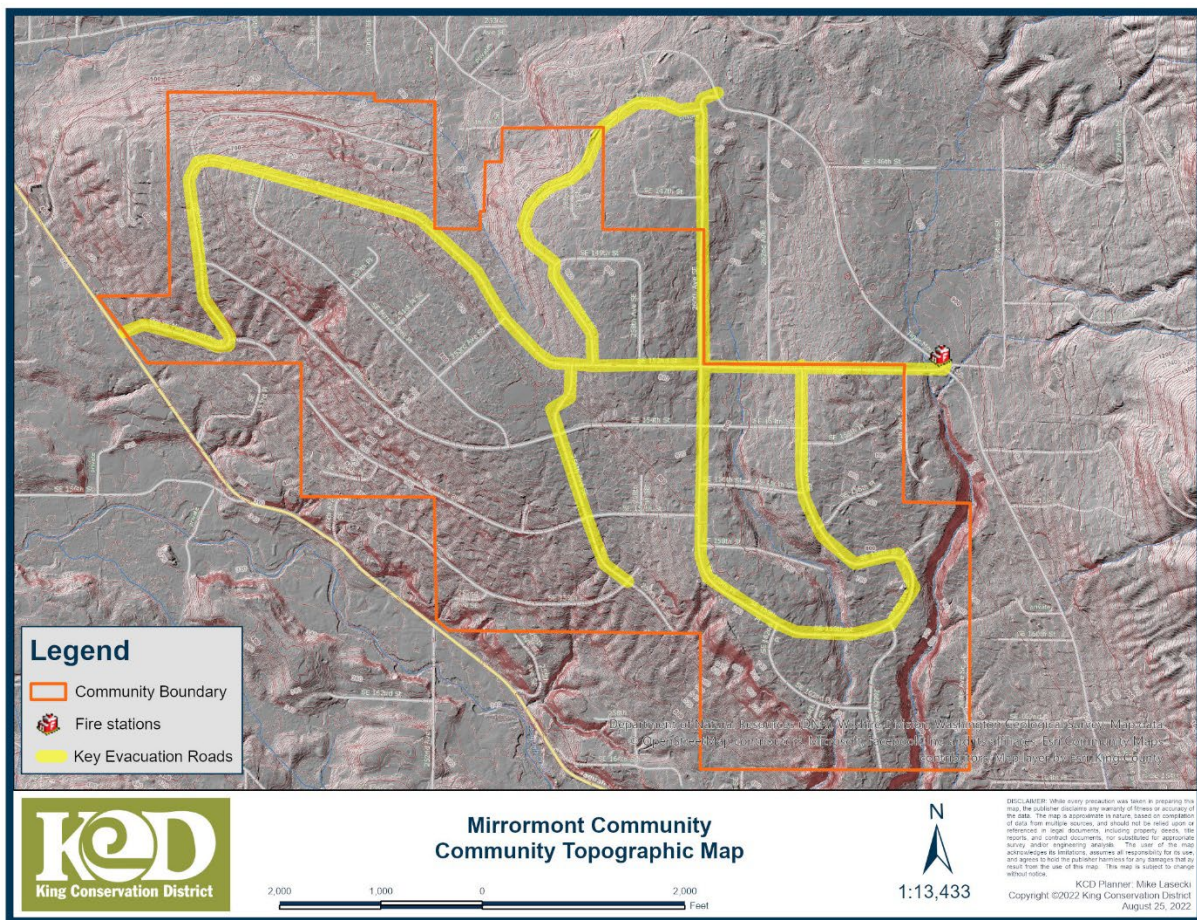
Much of the community is covered in remnant native forest vegetation, which includes large mature conifer trees such as Douglas fir, Western hemlock, and Western red cedar. Also included are large mature deciduous trees such as black cottonwood, bigleaf maple, and red alder. Understory vegetation that's common throughout the community includes salmonberry, sword fern, lady fern, osoberry, thimbleberry, beaked hazelnut, Oregon grape, salal, and vine maple. Non-native ornamental plants and invasive noxious weeds are also common throughout the community. Invasive Himalayan and evergreen blackberries, reed canary grass, English holly, English ivy, English laurel, yellow archangel, and bindweed are a few of the common non-native invasive plants that are present in the community. Coarse and large woody debris on the ground in forested areas is also common throughout the community.

According to Marianne Elliot (WSU Extension), the community has experienced two seasons of extremely dry and warm weather, resulting in the forest appearing stressed. As examples, the crowns of some Western red cedars are dying, and sword ferns in the community are also dying. This potentially provides for additional wildfire fuel.

Red alders are now reaching, or exceeding, their life expectancy of 40 to 60 years. While they are an important tree to overall forest health, they also present a hazard to the community since they are now dying and potentially contributing fuel to a wildfire.

Describe the topography within your site (geographical features such as canyons, chimneys, steep slopes, or is the area primarily flat, and what direction slopes face):

The topography of Mirrormont is generally southwest facing slopes of between 10-30%. Some areas are flatter, and a few areas have slopes facing in a more northerly direction.



Areas in the community with steeper topography are concentrated in the community’s southern half. Along SE Mirrormont Dr, SE Mirrormont Blvd, and SE 158th St in the western half of community, and in the eastern half of community near stream valleys and along SE 162nd Place.

Describe common summertime wind directions:

The common prevailing summertime wind direction for the area is wind out of the west-northwest based on data gathered at Renton Municipal Airport (windfinder.com). Anecdotally, Tiger Mountain provides some protection from summer easterly winds that come through Snoqualmie Pass, though the saddle and valley north of South Tiger Mountain has the potential to adversely affect fire behaviour in or near the community during a wildfire event.

History of Wildfire:

- Area with history of fire occurrence
 Area with no history of fire occurrence
 Unknown

No records of significant wildfire incidents in the area around Mirrormont could be found aside from the 2021 Cedar Hills Fire that burned 30 acres. This nearby wildfire, which started on June 28, 2021 — 2.3 miles from Mirrormont “as the spark flies” — made the news:

<https://patch.com/washington/sammamish/brush-fire-reported-south-issaquah>
<https://www.youtube.com/watch?v=b396LBzorvA>

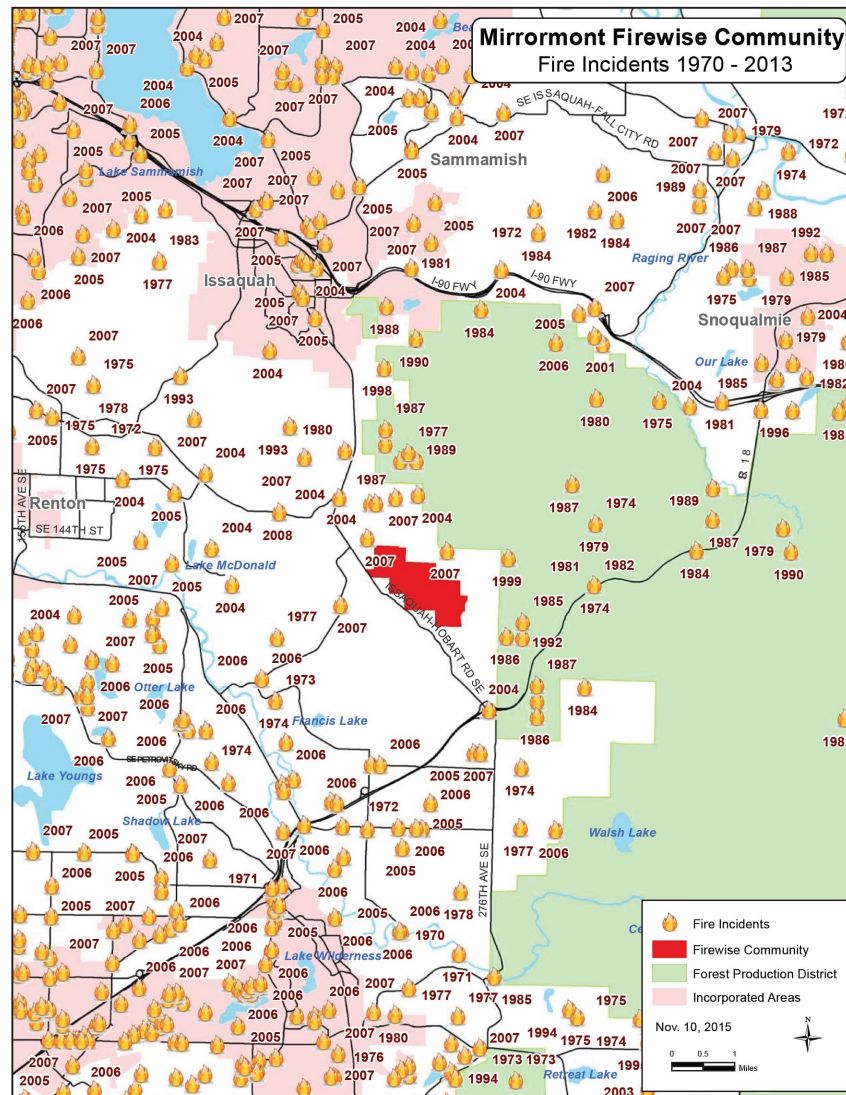
Also, on July 11, 2021 <https://www.seattletimes.com/seattle-news/apartment-buildings-evacuated-as-brush-fire-burns-in-renton/>

WA DNR has 4 Type-5 Wildfire Engines ready to respond to any wildfire starts in King County

- WA DNR has a 10-person hand crew ready to respond to any wildfire starts in King County
- WA DNR has heavy equipment (Dozers etc.) and air support ready to respond to any wildfire starts in King County
- WA DNR enforces and ensures all operations on state forestland are following Washington State’s forest fire protection requirements, https://www.dnr.wa.gov/publications/rp_burn_forest_fire_protection_book.pdf
- See WA DNR’s Industrial Fire Precaution Levels website for additional information on current Fire Precaution Levels and requirements for local areas, <https://www.dnr.wa.gov/ifpl>

The area where this community is located is fairly densely populated for being rural unincorporated and public lands in the area experience lots of recreational use by visitors. A map

showing location and year of fire incidents around Mirrormont between 1970-2013 was included in the 2015 community wildfire protection plan and is displayed below.



The data source for the fire incident records displayed on the map could not be found and their accuracy verified. However, it's likely that fire starts are frequent in the area, as indicated by the map, due to the relative high population density. It's also likely that no records of significant wildfires in the area is accurate as most historical fire incidents were probably quickly contained and extinguished by local fire departments.

The greatest and most frequent threat of wildfire ignition and spread into the Mirrormont community will be ignitions caused by human activities within and directly adjacent to the community during high-risk weather conditions such as drought, high heat and high wind events, especially during late summer and fall. High risk human activities that could cause a wildfire ignition include backyard recreational fires, lighting off fireworks, operating power equipment that could produce sparks or hot exhaust pipes around dry vegetation, parking vehicles with hot exhaust pipes over dry vegetation and dumping or abandoning still hot coals/ash from a heating, cooking, or recreational fire outside in or near dry vegetation.

FIREWISE USA® SITE OBSERVATIONS AND RECOMMENDATIONS

Use this section to record observations from within your site and recommendations for action that can be included in the site's Action Plan. Consider taking photos to keep in your site's files that illustrate successful risk reduction efforts and areas that need improvement.

Remember, this is a community-wide view and should report on the overall conditions of the entire site. Individual home risk assessments are not required to fill out this section, however they may end up being a recommendation for the action plan.

Home Ignition Zone

Observations

The observation section is broken down by the characteristics of homes and the vegetation management within the home ignition zones and common areas. Mark the appropriate box for each category that best represents the conditions within your site.

Immediate Zone

Roofing Materials: composite shingles, metal, cement tile and clay

- Greater than 75% of homes have metal, tile or Class A asphalt or fiberglass shingles
 50 to 75% of homes have metal, tile or Class A asphalt or fiberglass shingles
 25 to 50% of homes have metal, tile or Class A asphalt or fiberglass shingles
 Less than 25% of homes have metal, tile or Class A asphalt or fiberglass shingles

Observations: Most homes observed during community and home risk assessments appeared to have asphalt shingles, or metal, for roofing material. A few cedar shake roofs were observed in the community and some roofs also appeared to be damaged or in not good repair.

Recommendations: Where and when feasible, residents with cedar shake roofs should replace their roofs with class A fire-rated roofing material such as metal or asphalt shingles.

Debris on Roof or in Gutters during August:

- Greater than 75% of homes have cleaned and maintain their roof and gutters
 50 to 74% of homes have cleaned and maintain their roof and gutters
 25 to 50% of homes have cleaned and maintain their roof and gutters
 Less than 25% of homes have cleaned and maintain their roof and gutters

Observations: Roofs and gutters on most homes in community had debris build up.

Recommendation: Clean roof and gutters every year before July 4th and when [high wildfire risk weather](#) is predicted for local area, such as when red flag warnings or fire weather watches are issued.

Gutter Type:

- Greater than 75% of homes have metal gutters
 50 to 74% of homes have metal gutters
 25 to 50% of homes have metal gutters
 Less than 25% of homes have metal gutters
 Unknown type of gutters

Observations: All the individual homes assessed in community appeared to have metal gutters but not all gutter types are known across the 100+ homes in community.

Recommendation: Clean roof and gutters every year before July 4th and when [high wildfire risk weather](#) is predicted for local area, such as when red flag warnings or fire weather watches are issued. For residents that have non-metal gutters, where and when feasible replace gutters with metal gutters.

Soffit Vents: a screened vent in a house soffit that allows air to flow to the attic or the space below roof sheathing.

- Greater than 75% of homes have non-combustible soffit vents with mesh or screening.
 50 to 74% of homes have non-combustible soffit vents with mesh or screening.
 25 to 50% of homes have non-combustible soffit vents with mesh or screening.
 Less than 25% of homes have non-combustible soffit vents with mesh or screening.
 Unknown

Observations: Soffits on individual homes assessed all appeared to have non-combustible soffit vent metal mesh screening. However, not all soffit vent conditions are known across the 100+ homes in community.

Recommendations: Homes with unscreened soffit vents should be screened using a metal mesh screening material that has spaces at least 1/8th inch small.

Siding: protective material attached to the exterior side of house or building walls.

- Greater than 75% of homes have non-combustible siding.
 50 to 74% of homes have non-combustible siding.
 25 to 50% of homes have non-combustible siding.
 Less than 25% of homes have non-combustible siding
 Unknown

Observations: The vast majority of homes in the community have combustible wood siding on their exterior walls.

Recommendations: When and where feasible homeowners could consider using more fire-resistant house siding materials, such as fiber cement siding. Replacing the first few feet of

home siding located closest to the ground could also be a more affordable retrofit option instead of replacing all wood siding on a house.

Windows: Multi-paned windows can withstand radiant heat better than single-paned windows.

- Greater than 75% of homes have multi-paned windows.
- 50 to 74% of homes have multi-paned windows.
- 25 to 50% of homes have multi-paned windows.
- Less than 25% of homes have multi-paned windows.
- Unknown what type of windows exist (single-paned vs. multi-pane)

Observations: Type of windows on homes was not closely observed during individual home assessments but it's expected that a variety of window types are present on individual homes and across the community.

Recommendations: When and where feasible, homeowners could choose to replace single pane windows located on ground level and/or near vegetation with more wildfire resilient multi-paned windows.

House Skirting: material used around the bottom of homes (for those without an enclosed foundation).

- Greater than 75% of homes have skirting underneath
- 50 to 74% of homes have skirting underneath
- 25 to 50% of homes have skirting underneath
- Less than 25% of homes have skirting underneath

Observations: The vast majority of homes in the community have enclosed foundations and no need or presence of skirting. Some homes assessed in the community had open areas under small home additions which lacked any skirting material to enclose these open areas.

Recommendations: Where open areas are present under home additions install noncombustible skirting material that will prevent flammable debris or embers from being able to penetrate under home addition.

Home Attachments: decks, porches, stairs, fences, etc.

- Greater than 75% of homes have NO wooden attachments
- 50 to 74% of homes have NO wooden attachments
- 25 to 50% of homes have NO wooden attachments
- Less than 25% of homes have NO wooden attachments

Observations: Based on individual home assessments and community risk assessment observations, more than 50% of homes in this community have a wooden home attachment. Many homes have wood porches or decks, and wood fences are common throughout the community.

Recommendations: Where and when feasible, retrofit wooden home attachments so where they connect to home, attachment construction material is replaced with non-flammable construction material or metal flashing material is installed between home and wood attachment. See the [Wildfire Home Retrofit Guide](#) for additional details.

Deck Skirting: material used around decks to enclose space underneath

- Greater than 75% of homes have skirting underneath raised floors/decks
- 50 to 74% of homes have skirting underneath raised floors/decks
- 25 to 50% of homes have skirting underneath raised floors/decks
- Less than 25% of homes have skirting underneath raised floors/decks

Observations: Skirting that could prevent the penetration of embers or collection of fine flammable debris was not observed on any homes assessed except one.

Recommendations: Install skirting around raised decks to prevent embers and fine flammable material from building up underneath. Fully enclosing open spaces or installing 1/8" metal mesh screening is recommended. Don't store flammable material during the summer, or in fall, before rains arrive, under high decks. This will help reduce the chance of embers starting a material on fire under the decks.

Fences: Wooden fences can act as a "wick" carrying fire to structures. Wooden fences should not be in the Immediate Zone (5-feet from home).

- Greater than 75% of homes have NO wooden fences
- 50 to 74% of homes have NO wooden fences
- 25 to 50% of homes have NO wooden fences
- Less than 25% of homes have NO wooden fences
- Unknown

Observations: Based on individual home and community assessment observations less than 25% of homes in this community have wooden fences that attach to a home.

Recommendations: Where and when feasible, retrofit wooden fences that connect to homes so fencing material in the immediate zone is made of non-flammable material, like metal. See the [Wildfire Home Retrofit Guide](#) for additional details on retrofitting fences.

Vegetation and Ground Cover: The five-foot area around home and any home attachments.

Greater than 75% of homes have non-flammable mulch and fire-resistant plants in Immediate Zone.

50 to 74% of homes have non-flammable mulch and fire-resistant plants in Immediate Zone.

25 to 50% of homes have non-flammable mulch and fire-resistant plants in Immediate Zone.

Less than 25% of homes have non-flammable mulch and fire-resistant plants in the Immediate Zone.

Observations: The majority of homes have flammable mulch, plant debris, or vegetation growing in the immediate zone around their home.

Recommendation:

- Replace flammable mulch (such as woodchips) with a nonflammable mulch (such as rocks, crushed stone or gravel).
- Remove all dead plant material and debris from immediate zone every year before July 4th and when high-risk wildfire weather conditions are forecasted.
- Remove flammable vegetation from within the immediate zone.

Intermediate Zone

The 5 to 30 feet area from the furthest exterior point of the home and it's attachments. This area's landscaping can often function as fuel or fire breaks (areas of non-combustible materials such as dirt, cement, or rock) to help decrease fire intensity. The goal for this zone is to protect structures from the radiant heat produced by fuel burning in this zone burning during a wildfire. This area typically contains a home's yard, garden and driveway.

Greater than 75% of homes have a low chance of burning in intermediate zone.

50 to 74% of homes have a low chance of burning in intermediate zone.

25 to 50% of homes have a low chance of burning in intermediate zone.

Less than 25% of homes have a low chance of burning in intermediate zone.

Observations: Being a community that's located within a native remnant forest in Western Washington, many homes have native forest vegetation that's growing in their immediate zone. This native vegetation includes mature trees, shrubs and various groundcovers. Ornamental non-native vegetation is also common in the intermediate zones of homes in this community. Some homes have well maintained landscaping and hardscaping covering most of their intermediate zone, but the majority of homes have some amount of vegetation or man-made fuels located in their intermediate zone, which puts the chance of burning in the intermediate zone above low.

Recommendation:

- Maintain lawns, other vegetation, growing in intermediate zone and remove invasive and highly flammable vegetation.
- Create hardscaping or trails in the zone to function as fuel or fire breaks and break up continuous lines of vegetation that lead towards home or other structures.
- Complete tree and shrub pruning to eliminate ladder fuels in this zone.

Outbuildings: Outbuildings (detached garages, sheds, workshops, etc.) if ignited could be long, very hot burning large fuels that ignite vegetation and structures within 30 feet of them. Outbuildings need to be treated just like the home, their immediate and intermediate zones should be maintained.

- Greater than 75% of homes have outbuildings
 50 to 74% of homes have outbuildings
 25 to 50% of homes have outbuildings
 Less than 25% of homes have outbuildings

Observations: Based on individual home and community risk assessment observations less than 50% of homes in this community have outbuildings. For the homes that do have outbuildings, many have their outbuildings within or close to 30 feet from the home. Most outbuildings appear to need work done in their immediate and intermediate zone to improve the hardening of these structures to wildfire and wildfire embers.

Recommendation:

- Implement the same immediate and intermediate zone recommendations described for homes around outbuildings if they are present on property.

Extended Zone

The area 30 to 100 feet, out to 200 feet (where applicable) from a home. This area is considered to be the area that is not regularly maintained, typically it is the area outside a home's yard and garden. Generally, this area's focus is managing the vegetation to influence fire behavior and spread. The goal here is not to eliminate fire, but to interrupt fire's path and keep flames smaller and on the ground. At these distances property lines may overlap, presenting the opportunity and need to work collaboratively with neighbors.

- Greater than 75% of homes have thinned vegetation to reduce fire intensity.
 50 to 74% of homes have thinned vegetation to reduce fire intensity.
 25 to 50% of homes have thinned vegetation to reduce fire intensity.
 Less than 25% of homes have thinned vegetation to reduce fire intensity.

Observations: Much of the community is covered with remnant native forest, which includes mature conifer and deciduous trees and native understory shrubs and groundcovers.

The most important fuels to address and that pose the greatest risk of causing damage or threatening human safety during a wildfire incident are the light and medium fuels present on, touching, or within 5 feet of homes in the community.

Throughout the eastern half of the community many tree branches are growing over, through and are touching above-ground powerlines located in the extended zones of homes. These conditions can increase the chance of a fire igniting from energized electrical power lines. Downed power lines caused by falling trees or tree branches can cause a fire to ignite and can also severely impede access on roads.

Recommendation:

- Extended zone work that is recommended for homeowners to complete at this time would be improving home driveway access by pruning back trees and shrubs bordering driveways to maintain 14 feet of vertical clearance over driveways and 12 feet of horizontal clearance across the width of driveways.
- Community should also seek to improve powerline and public road right of way clearances to reduce the risk of evacuation routes being blocked or ignitions occurring from down trees or powerlines near roads.

Common/open space areas or adjacent public lands:

Not adjacent to wildlands with accumulated fuels

Adjacent to wildlands with accumulated fuels

Observations: The common open space or public lands adjacent to community residents are Tiger Mountain State Forest and 11-acre Mirrormont Park, which is in the middle of the community and is owned by King County. This park is mostly covered in native forest vegetation and while it has accumulations of fuel in its understory these are typical and normal conditions for a healthy native Western Washington forest ecosystem. Management or removal of accumulated fuels is not an effective or recommended strategy for this public land as it will not be effective at reducing wildfire risk and is likely to cause unintended negative ecological outcomes. Mirrormont also includes undeveloped properties that are not maintained by their absent owners; of the 593 parcels, only 554 have addresses and 551 are residential; two have WWS utilities that aren't managed to be Firewise.

Recommendations: Management of Mirrormont Park should be focused on maintaining the health of the forested areas in this park primarily through the removal of invasive plant species. Other recommended management activities for the park include the assessment for and removal of hazard trees in the park, especially those that pose a risk of falling on powerlines or across community roads that would be used during evacuations.

Additional comments or observations regarding site conditions:

Many homes in this community are located close enough to one another that they share the same defensible space. Residents in this community are the best positioned people to create and

maintain defensible space around their homes in the immediate, intermediate, and extended zones. Eliminating barriers and empowering residents with the necessary information and resources to improve defensible space on their property should be the focus of community association leaders, the community Firewise committee and community service providers.

Community Infrastructure

This section focuses on the community infrastructure and how it effects fire suppression and escape routes for homeowners.

We recommend reaching out to your local fire department for assistance in determining what other safety issues should be addressed.

1. **Means of Access:** This section focuses on the roads too and within the community. Not individual driveways which are under Fire Service Access.

- a. **Ingress and Egress** – What routes are available for residents to use if they need to evacuate the community.

Observations: The neighborhood has two main access roads which would be used to evacuate the community which are all weather paved roads and are 20' or wider, SE 152nd St and SE Mirrmont Blvd.

Two additional access roads, marked as private, also connect the community to Tiger Mountain Rd SE to the north of community, but these roads are less than 20' wide, unpaved for stretches and can only accommodate one vehicle at a time.

Recommendations: Improve the resiliency of SE 152nd and SE Mirrmont Blvd by improving powerline and road right of way clearances along these roads and by assessing for hazard trees along these roads and removing any that pose a significant risk of falling over roads.

Making improvements to private access roads leading north to Tiger Mountain Rd SE would also provide the community with additional reliable evacuation routes out of the community.

- b. **Road Width** – Roads should be wide enough for two-way traffic including fire trucks.

Observation: Primary and secondary public roads throughout the community are at least 20 feet wide. Several private roads in the community are less than 20 feet wide.

Recommendations: Several roads in the community have vegetation that's starting to encroach over the road and this vegetation should be removed or

pruned back to ensure that there is at least 14 feet of vertical clearance over road surface.

- c. **All Season Road Condition:** Roads should have a surface that allows rapid movement of vehicles.

Observations: Primary and secondary public roads throughout the community are paved. Several private roads in the community are not paved and conditions of some sections of these roads makes it difficult to rapidly drive a vehicle over them.

Recommendations: Notify King County Department of Transportation of any new public road conditions that require fixing or repair. For private roads in the community that are in poor condition, consider helping residents responsible for maintaining roads acquire resources or assistance to repair and improve road conditions.

2. **Fire Service Access:** Fire service access evaluates driveway length and turnaround ability for fire engines which may be as large as a motor home.

Observations: Many individual driveways to homes in neighborhood are steep and/or have vegetation growing along and over them that may impede the ability of fire service vehicles from quickly accessing private properties.

Recommendation: Prune trees and/or shrubs along driveways so there is clearance free of vegetation along the entire length of the driveway 12 feet wide and 14 feet high for fire truck access.

3. **Street Signs and home addresses:** Emergency response crews need to find homes quickly in an emergency. In a large incident non-local crews will be assisting local fire crews. These out of area crews may not be familiar with the area. Street signs and individual homes should have 4" reflective lettering.

Observations: The community is not difficult to find for emergency vehicles but finding some individual homes could be a challenge because of poor home address signage. Home address signage of individual homes was not apparent on all homes, though many did have good reflective signs with white numbers on blue background near their driveway ends.

Recommendations: Increase the number of homes that have installed address signs with 4" reflective lettering that can be easily seen from the road at night. In consultation with local fire district staff, the community may want to consider installing evacuation route signs to help community residents know what roads should be used during an evacuation.

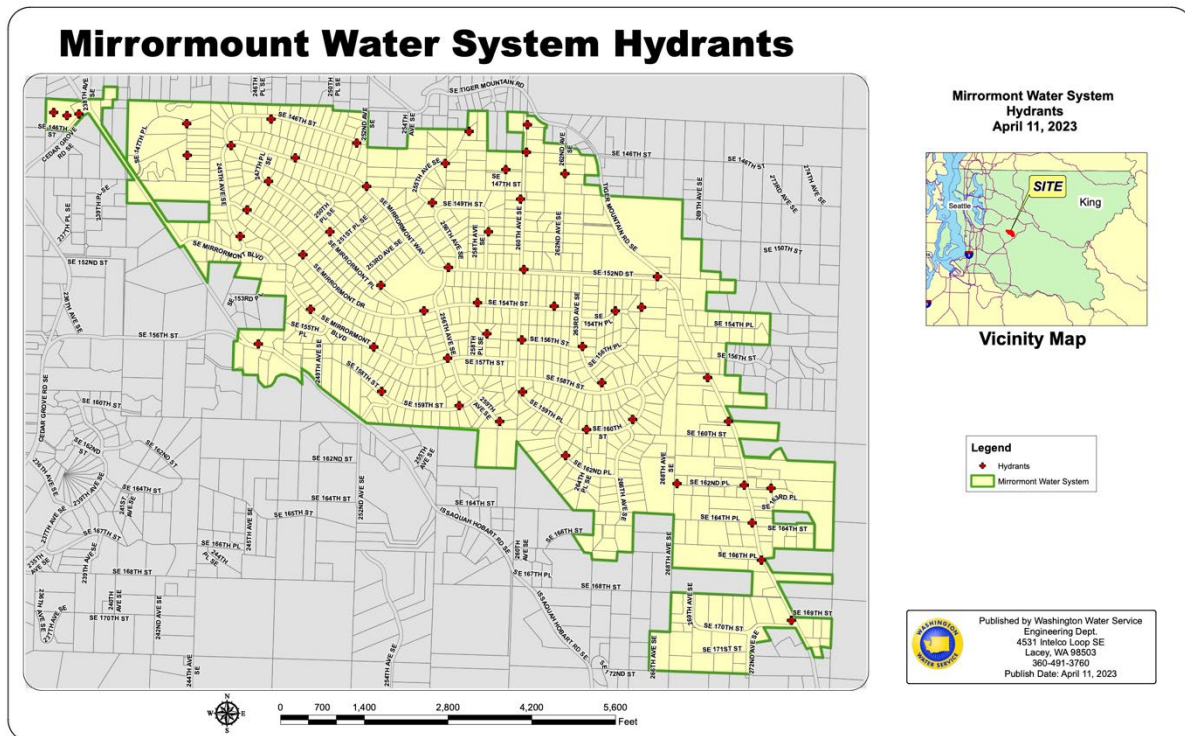
4. Available Fire Protection

a. Water Source Availability (On Site)

Observations: Fire hydrants are dispersed throughout the community, but their GPM rating is unknown, and most hydrants appear to be more than 1,000 feet from one another. Mirrormont is served by Washington Water Service (WWS), a public utility. Some community residents are concerned about the amount of water that would be available readily through the current system of hydrants during a wildfire event.

Recommendation: Additional information from WWS should be sought out and local fire district staff should be consulted on if they have any concerns with availability of water for fire response.

Update: Brian Houghton, East Pierce Operations Superintendent with WWS [office 253-851-4060 ext 71159, cell 360-301-6111; bhoughton@wawater.com] provided a 2023 map of Mirrormont Water System Hydrants.



He said, “We have 55 active hydrants, and we are moving in the direction of having them inspected this year. With undersized water main design for fire flow, none of these hydrants are rated greater than 750 GPM, they are mostly rated for 0-500 GPM and are going to be color coded Black for low flow this Summer. Still 500 GPM can fill up a tender and many brush fire vehicles. We are just bringing to life our Hydrant Maintenance program this year. Most all prior maintenance done on our hydrants has been reactive. We are looking forward to changing this to a proactive program.”

Next: Contact Washington Water Service Company and find out what their disaster resumption plan is. The 2015 plan said that the water flow is low (refer to page 13 in the 2015 plan).

b. Organized Response Resources

Observations: Mirrormont is part of Eastside Fire and Rescue, King County Fire District 10. Station 78 is staffed with career professionals, and it is located 4 miles away at 20720 SE May Valley Rd. Station 76 on Tiger Mountain Road, which was staffed by volunteers, has closed. DNR uses the building to store equipment for fighting brush fires in Tiger Mountain State Forest.

Recommendation: Firewise committee members should on a regular basis consult with or meet with local fire district staff to review and discuss fire response and evacuation plans for community so this information can help inform what's included in community's Firewise Action Plan.

5. Utilities (Natural Gas and Electric). Are they above or below ground within and surrounding the community?

Observations: Powerline right of ways in the east half of community are not being well maintained in many areas. Along many public roads in the eastern half of Mirrormont tree branches and foliage are touching and growing through above-ground powerlines. These conditions increase the risk of an ignition caused by a powerline and that powerlines could impede evacuation by residents or access by wildfire suppression resources if powerlines and poles are knocked down during a wildfire/wind event.

The west half of the community has all their electrical power lines underground.

No above-ground gas lines were observed and marking of below ground gas line locations was not obvious.

Recommendations: Contact electric utility to find out how they are maintaining power line clearances in community, and, if they are able to proactively improve powerline clearances in eastern half of community especially along main evacuation route roads.

Recommendations

Summary of Recommendations:

1. The two highest rated risk categories in the community, Building/Property Construction and Vegetation/Fuels, are associated with the conditions on individual properties. Resident activities to reduce wildfire hazard risk in this community should be focused on their home's immediate, intermediate zones, and driveway areas in their extended zones. The priority for residents should be to harden their home and other structures from wildfire embers by making improvements in their immediate zones, including:
 - Remove fine flammable debris from roofs and gutters each summer before 4th of July, when red flag warnings or fire weather watches are forecasted, and regularly between mid-August through September, or until fall rains start.
 - Remove fine flammable debris from under and around home attachments, and decks each summer before the 4th of July, when red flag warnings or fire weather watches are forecasted, and regularly between mid-August through September, or until fall rains start.
 - When replacing decks or structures attached to the home, consider using fire-resistance materials. Add or replace flammable surfacing with non-flammable materials, such as gravel or crushed stone, under the structure or deck or by enclosing the space under attachments with material that will prevent windblown embers and fine debris accumulation.
 - Establish at least a 1-foot firebreak free of any flammable material directly adjacent to exterior walls of homes and other structures and ideally establish a 5-foot firebreak in these areas free of any flammable material.

2. The primary non-individual property characteristics of the community that should be addressed is improving the maintenance of powerline right of ways, and road right of ways, to reduce the risk of resident evacuation out and emergency services access into community being impeded. The eastern half of the community has a greater need to address evacuation road right of way conditions due to the presence of above-ground electrical utility lines and more dead-end roads. Recommended activities to address these conditions include:
 - Consult with local fire district staff and confirm evacuation routes for community residents and where in community fire district staff have greatest concerns for access and evacuation conditions. Produce a one-page document/map to show residents the preferred exit routes for the community, which may be situational.
 - Consult with local electrical utility and identify utility's maintenance plan and practices for above-ground powerlines in community. Request more proactive

maintenance, hazard tree assessments, and clearance work be completed on powerlines located near fire district identified evacuation/access routes for community.

- Consult with King County Department of Transportation on public road maintenance plans and practices for Mirrormont community roads. Request more proactive maintenance, hazard tree assessments, and clearance work be completed on road right of ways identified as evacuation/access routes for community by fire district.
- If lack of resources prevents electrical utility and/or King County department of transportation from implementing requested work on evacuation and access routes, pursue assistance from King County Department of Emergency Management to seek grant assistance to implement work.
- KCD offered financial support to help cover cost of printing and/or postage.

NEXT STEPS

The information collected during the assessment process will help you develop your site's action plan. Action plans are a prioritized list of risk reduction projects and the related investments needed to achieve them for the site. Action plans also highlight suggested homeowner actions and education activities that participants will strive to complete annually, or over a period of multiple years. **Action plans should be updated at a minimum of at least every three years.**

Visit <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA/Become-a-Firewise-USA-site> to view the full list of required criteria needed to complete the Firewise USA® recognition program's application process. Visit <https://portal.firewise.org> to start your application or complete your Firewise USA® renewal application.

Mirrormont Firewise Action Plan

The first three years provide more detail than years 4 and 5.

Year 1 - 2023:

- Hold a community Firewise educational meeting with the theme of "be ember aware." Mike Lasecki offered to give a Zoom presentation on wildfire in Western Washington and how to understand/mitigate wildfire risk; include Ember video; invite EF&R to participate.
- Have 5% of homes with a completed risk assessment, assuming KCD does 30 assessment per year as per email from Mike Lasecki on April 4th, 2023. So that the Mirrormont Firewise Committee can track our progress, KCD will report quarterly to the Firewise Committee the number of Mirrormont assessment performed.
- Encourage residents to reduce mulch around homes with nonflammable material such as stone, crushed rock and/or gravel.

- Encourage residents to clean flammable materials from areas adjacent to the home, gutters and roofs by July 4th.
- Hold at least one Chipper Days event, with at least 10% participation.
- With input from EF&R, provide residents with a document/map showing residents the preferred evacuation routes from the community. KCD could provide financial support to the community to help cover cost of printing and/or postage.
- As funding and resources allow, apply for grants to pay a professional arborist to do a hazard tree risk assessment along Mirrormont roads.
- As funding and resources allow, apply for grants to pay for a professional service to remove hazardous trees and prune other trees/shrubs back from emergency evacuation routes.

Year 2 - 2024:

- Participate in Wildfire preparedness month with a theme of “addressing” with visible street address signage.
- Have an additional 5% of homes with a completed risk assessment, assuming KCD does 30 assessment per year as per email from Mike on April 4th, 2023. So that the Mirrormont Firewise Committee can track our progress, KCD will report quarterly to the Firewise Committee the number of Mirrormont assessment performed.
- Encourage residents to reduce mulch around homes with nonflammable material such as stone, crushed rock and/or gravel. Encourage residents to clean flammable materials from areas adjacent to the home, gutters, and roofs by July 4th.
- Encourage residents to get a reflective address installed.
- Hold at least one Chipper Days event, with at least 10% participation.
- As funding and resources allow, apply for grants to pay a professional arborist to do a hazard tree risk assessment along Mirrormont roads.
- As funding and resources allow, apply for grants to pay for a professional service to remove hazardous trees and prune other trees/shrubs back from emergency evacuation routes.

Year 3 - 2025:

- Participate in Wildfire preparedness month with a theme of “Lean and clean yard.”
- Encourage residents to reduce mulch around homes with nonflammable material such as stone, crushed rock and/or gravel. Encourage residents to clean flammable materials from areas adjacent to the home, gutters, and roofs by July 4th.
- Hold at least one Chipper Days event, with at least 10% participation.
- As funding and resources allow, apply for grants to pay a professional arborist to do a hazard tree risk assessment along Mirrormont roads.
- As funding and resources allow, apply for grants to pay for a professional service to remove hazardous trees and prune other trees/shrubs back from evacuation routes.

Year 4 - 2026:

- Participate in Wildfire preparedness month.
- Encourage residents to reduce mulch around homes with nonflammable material such as rock.

- Encourage residents to clean flammable materials from areas adjacent to the home, gutters, and roofs by July 4th.
- Hold at least one Chipper Days event, with at least 10% participation.
- As funding and resources allow, apply for grants to pay a professional arborist to do a hazard tree risk assessment along Mirrormont roads.
- As funding and resources allow, apply for grants to pay for a professional service to remove hazardous trees and prune other trees/shrubs back from evacuation routes.

Year 5 – 2027:

- Participate in Wildfire preparedness month.
- Encourage residents to clean flammable materials from areas adjacent to the home, gutters, and roofs by July 4th.
- Hold at least one Chipper Days event, with at least 10% participation.
- As funding and resources allow, apply for grants to pay a professional arborist to do a hazard tree risk assessment along Mirrormont roads.
- As funding and resources allow, apply for grants to pay for a professional service to remove hazardous trees and prune other trees/shrubs back from evacuation routes.

Firewise Action Plan Signature Page

Plan Preparation Assistance Provided By:

Michael Lasecki, Senior Resource Specialist, King Conservation District

Michael Lasecki
Signature

6/12/23
Date

Contact Information:

Mike Lasecki, Senior Resource Specialist
King Conservation District
800 SW 39th St, Suite 150
Renton, WA 98057

Email – michael.lasecki@kingcd.org
Phone – 425-529-4812 or 425-282-1928
Web – <https://kingcd.org/programs/better-forests/wildfire-resiliency/>

Firewise Board or Mirrormont Community Association Members Signature:
The contents of this plan are acceptable to me/us. I/we intend to manage this site in a manner consistent with the objectives of the NFPA’s Firewise USA® and to implement this plan to the best of my/our ability.

Wayne Elson Chair, Firewise Committee 6-9-23
Member Signature Wayne Elson Title Date

Lorna Hughes Firewise Committee Member 6/9/2023
Member Signature Lorna Hughes Title Date

Linda Shepherd Firewise Committee Member 6/9/23
Member Signature Linda Shepherd Title Date

Galen Trail Firewise Committee Member 6/9/2023
Member Signature Galen Trail Title Date