

Wildfire Risk Assessment Mt. Dallas

The Fire Problem

Each year, more than 20 wildfires occur in San Juan County. While most are contained before threatening homes, the risk of wildfires damaging or destroying homes is ever present. Since 1993, four buildings have been destroyed by wildfires and several others damaged. Close calls have brought fires within a few feet of houses on dozens of occasions during the past few years.

While we have dodged the bullet on catastrophic fires in the recent past, we cannot continue to do so forever. Despite the best efforts of firefighters, some fires escape containment and grow large. Unfortunately, when houses are in the path of these escaped wildfires, many can be destroyed in a few short hours.

The history of San Juan Islands tells us that fires have been a natural phenomenon for centuries. Records of early explorers tell of fires lit by Indians to improve the habitat for deer. Throughout the past century, accounts tell of fires ranging up to several thousand acres. Even into the 1980's, fires of 25 to 100 acres were common.



As the population grew, the fire department worked harder to contain the fires. Early detection, faster response, better equipment and training have all helped keep the fires small. While this improved level of fire protection is essential given the number of homes at risk now, it has inadvertently led to a buildup of downed timber, shrubs and small trees that are, literally, fuel for the fire. Without small fires, the risk of major fires increases.

Scarring on trees in people's yards tells us that many of the island's homes are built right on top of previous wildfires. Looking back at the fires of the 1960s and 1970s we find that the same fires today would threaten or destroy homes. In the 1980s, three fires each scorched 20 acres on Mt. Dallas. Today, homes sit on those sites. And all around it, the shrubs, trees and downed woody debris have increased.

It is inevitable. Fires will occur. We cannot stop smoking, mowers, hot exhaust, composting sawdust, hot brakes, car fires or lightning. As hard as we try to reduce the start of wildfires, we cannot eliminate them altogether.

Risk Assessment

All of the Island's neighborhoods have been rated for risk from wildfires. The assessment was based on the National Fire Protection Association (NFPA) 1144 Standard for the Protection of Life and Property from Wildfire. The risk ratings for the island's 75 neighborhoods ranged from moderate to extreme:

| | <u>Neighborhoods</u> | <u>Percentage</u> |
|----------|----------------------|-------------------|
| Moderate | 4 | 5% |
| High | 54 | 72% |
| Extreme | 17 | 23% |

Mt. Dallas received a rating of **Extreme Hazard**. It was ranked in the top three neighborhoods for highest risk on San Juan Island. The factors that contributed to its high risk are:

1. Single road in/out. Evacuation may be extremely difficult if fires block the access road.
2. Time delays for responding fire resources, due to distance from fire station; steep grades; and limited mutual aid resources.
3. Heavy timber and brush that can contribute to high fire intensity.
4. Steep slopes that can contribute to rapid rates of spread.
5. Area subject to moderate to high winds during fire season.
6. Lack of fire hydrants. Area has one dry hydrant that can provide limited supply for firefighting.
7. High percentage of homes with combustible siding or decks.
8. High percentage of homes with combustible wood shake roofs.
9. Lack of defensible space around homes.

Overall, the neighborhood was rated at 132 points. Any score over 112 is considered extreme hazard.

Fire Protection

Often, the assumption by residents is that the fire department will respond on call and quickly extinguish the fire. That is, after all what fire tax pays for. And most of the time that is what will happen. Consider this, though:

- A 10-acre wildfire requires commitment of ALL of San Juan Island Fire Department's resources.
- One structure fire requires commitment of at least half of the fire departments resources.
- The first mutual aid will arrive in one to six hours.
- A fire starting at Deadman's Bay on a dry August day could reach the top of Mt. Dallas in 15 minutes.
- Of the four structures lost to wildfires in the past six years, all were engulfed by the time the fire department arrived.
- In some cases, extreme fire behavior will prevent firefighters from even entering the neighborhood.



The problem should be obvious. If a fast moving 20-acre fire threatens six homes in the first hour, which homes will the fire department choose to save? **If** any can be saved.

The Solution

Residents of the Mount Dallas area must take steps to mitigate the risk of homes igniting, and create survivable space in order to ensure that their lives and homes are not at risk.

The San Juan Island Fire Department cannot take those steps for the residents. However, the department can assist with identifying and assessing the risk and providing recommendations for reducing that risk.