

NORTH FORK, FLATHEAD COUNTY
2026 North Fork Community Wildfire Protection Plan (CWPP)
Appendix to the Flathead County CWPP (2021)



Wedge Canyon Fire 2003¹

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1. Geography and Resources.

The North Fork of the Flathead River flows south into Montana from its headwaters in British Columbia, bisecting a long, glacially carved valley. The river is fed by numerous creeks that arise in its flanking mountain ranges. It is classified as a Scenic River under the National Wild and Scenic Rivers Act.

East of the river lies the Main Range of the Rockies and Glacier National Park, established in 1910. The National Park Service is charged with protecting the Park's scenic values and conserving its native plant and animal life. Some homesteads that existed when the Park was created continue as private inholdings within Park boundaries.

West of the river lies the Whitefish Range, private and state landholdings, and the Glacier View District of the Flathead National Forest. The Forest Service manages the Flathead Forest under a multiple-use mandate, seeking to balance diverse interests. Among those interests are fish and wildlife habitat, clean water, timber production and recreation.

The topography of the North Fork rises from the relatively level river bottom through tributary drainages and uplands to rugged mountains. Approximately twenty-five percent of the North Fork is bottomland, thirty percent is glaciated valleys and uplands, and forty-five percent is mountainous. These tributary drainages flow from west to east and align well with prevailing winds from the west and southwest.

The North Fork Flathead River Valley is one of the most intact ecosystems in North America. All the wildlife species that inhabited the valley before the arrival of European explorers still live in its reaches. Minimal development and infrastructure afford connected habitat for grizzly bears, wolves, mountain lions, lynx, elk, moose and deer. Still-pristine streams and lakes are home to cutthroat trout, whitefish and grayling. Dense forests composed primarily of lodgepole pine, western larch, subalpine fir, Engelmann spruce and Douglas-fir cover the valley's bottom and uplands.

The North Fork's scenery, natural amenities and recreational opportunities have long attracted human visitors. Some of the visitors have chosen to buy property and build homes in the remote valley. Today about twenty percent of landowners live full-time in the North Fork. The remainder are seasonal residents.

2. Demography and Infrastructure.

a. Private Lands in the North Fork Zoning Districtⁱⁱ

As of 2023, private landowners held 645 parcels of taxable property in the North Fork Zoning District. The parcels ranged in size from less than one acre to more than 300 acres; many landowners held multiple parcels. Based on assessment data, the average parcel had an approximate taxable value of \$237,709. The taxable value is often less than the actual market value.

The North Fork Zoning District covers more than 75,000 acres from Big Creek north to the Canadian Border, and from the middle of the North Fork of the Flathead River to the Whitefish Divide. About 15,000 acres in the district are privately owned, while 16,400 are owned by the state and 44,000 are owned by the federal government. State and federal lands are intermixed with private property.

Based on 2023 assessment data, private property in the zoning district has an aggregate taxable value of approximately \$153,322,200, more than three times its value in 2005. About \$93,776,600 of the aggregate value is attributable to structures and \$59,545,600 to land. Private property is concentrated in the bottomlands and in lower creek drainages in a corridor approximately three miles wide.

The Flathead County Commissioners established the North Fork Zoning District in 1998. After years of effort by the North Fork Land Use Advisory Committee and other members of the North Fork community, in 2003 the commissioners adopted amended zoning regulations for the district. In order to manage development and encourage the preservation of open space, the regulations specify setbacks from waterways and roads and require minimum twenty-acre lots for new subdivisions.

Another community effort culminated in 2008 when the commissioners adopted the revised North Fork Neighborhood Plan proposed by the North Fork Land Use Advisory Committee. The plan serves as the foundation for the zoning district's regulations. Among the goals set forth in the plan are preserving the North Fork's low densities and open spaces; maintaining its remote, undeveloped qualities; and preserving and enhancing its scenic values.

b. Federal Lands

The federal government is by far the largest landowner in the North Fork Valley from the confluence with the Middle Fork north to the Canadian Border, from the Whitefish Divide on the west to the Continental Divide on the East. The Flathead National Forest manages about 246,600 acres, approximately eighty-eight percent of the total acreage

west of the river. Forest lands intermix with or adjoin private property in the populated corridor along the river and in lower creek drainages.

East of the river, about 240,200 acres of Glacier National Park's 1,013,600 acres lie within the North Fork Valley. Private inholdings within Park boundaries are not included in the North Fork Zoning District. The North Fork Planning District covers the eastern side of the valley and includes inholder property, however.

c. State Lands

The State of Montana owns about 18,600 acres in the North Fork Valley, almost seven percent of the total acreage west of the river. Most of the acreage is located in the Coal Creek State Forest south of Polebridge. The remainder lies in scattered parcels north of Polebridge along the North Fork County Road. Like federal lands, state lands intermix with or adjoin private property. The Montana Department of Natural Resources and Conservation (DNRC) has primary responsibility for their management to generate revenue for the school trusts.

d. Infrastructure

The North Fork Road is about fifty-five miles long, running from Columbia Falls to the Canadian Border. The predominantly dirt/gravel road, which lies west of the river and runs roughly parallel to it, affords the only year-round motor vehicle access to the North Fork Valley. The road from the end of the pavement at Canyon Creek to the Canadian Border is maintained by Flathead County.

For decades, landowners have debated what, if anything, should be done to improve the condition of the North Fork Road. Visitors to the Park and recreationists have contributed to increased use of the road in recent years, exacerbating road dust during the summer. The 2008 North Fork Neighborhood Plan calls for work within the North Fork community, and with local, state, and federal agencies, to find solutions for dust generated by road use.

Significant roadwork has been done by both Flathead County and the Federal Agencies. The last five miles of the North Fork Road have been reconstructed under a Federal Lands Access Program (FLAP) Project that will greatly improve all-season access, important for forest recreationists and the U.S Border Patrol. The County has applied for and received grant funds for dust abatement in the form of magnesium chloride applications – and added crushed rock surfacing to many sections of the North Fork Road. In addition, private landowners may choose to participate in a cost-share program with Flathead County for applying magnesium chloride to stretches of the North Fork Road that pass through or near their properties. Emergency dust abatement has been used during wildfire response as a critical need to provide for firefighter and public safety

on access routes to the incident.

Trail Creek and Red Meadow Roads climb from the bottomlands to the crest of the Whitefish Range, where they continue west under other names. The dirt/gravel roads are maintained by the Forest Service. These roads are critical potential escape routes if fire activity cuts off access down the North Fork Road.

On the east side of the river, Camas Creek Road travels through the southwest corner of Glacier National Park, connecting West Glacier with the North Fork Road at the Camas Creek Bridge. The paved road is closed during winter. The primitive "Inside" North Fork Road runs along the east side of the river from Apgar to Kintla Lake; it too is closed in the winter. The portion of the Inside North Fork Road from Polebridge south to Fish Creek is currently closed year-round to public traffic but could be opened in an emergency.

No public utilities serve the North Fork Valley. Landowners supply their own water, septic, energy, heating, and lighting needs and haul their own trash. Hard-wire telephone access is available in Polebridge and in some Glacier National Park locations. Otherwise, North Fork landowners rely on satellite internet (especially Starlink in recent years) for email, TV, and Voice Over Internet Phone service; WiFi enabled cell phone service; and twice-weekly mail service to communicate with one another and with the outside world.

e. Law Enforcement and Emergency Services

The Flathead County Sheriff's Department is officially responsible for law enforcement west of the river. The department is on call; no deputies are stationed in the North Fork Valley. Response time can be lengthy, depending on the distance that must be travelled and on the condition of the road.

With the landowner's consent, the North Fork Patrol monitors private property for damage or suspicious activity. Patrol members, all of whom are full-time residents, maintain contact with one another and with law enforcement by radio. The Patrol is funded by landowner donations.

The U.S. Border Patrol, a federal law enforcement agency within the Department of Homeland Security, maintains an active presence at the Canadian Border and at other strategic locations within the North Fork Valley. Border Patrol agents are charged with protecting our borders, preventing illegal entry and illicit contraband from entering the country.

The Flathead County Fire Service Area (FSA) provides emergency response and disaster management in the North Fork Valley. ALERT helicopter landing sites are located at regular intervals along the road corridor. North Valley Search and Rescue

holds annual exercises on the North Fork, helping to familiarize responders with the area.

f. Firefighting Capacity

The North Fork Valley does not have a designated fire district. Instead, the Private Lands west of the river are part of the county-wide Fire Service Area (FSA). The FSA contracts with fire districts to provide emergency services to the area. Flathead County EMS provides all EMS services to the area.

The private lands are classified as timber lands and assessed a fee by DNRC for direct wildland fire protection. In trade offset where DNRC protects USFS lands in other areas of the county, the USFS provides direct wildfire protection to the private lands in the North Fork. The FSA handles the structures and 100 feet around them, and the USFS handles the remainder for wildland fire suppression. The FSA and the USFS have a good working relationship and work together on all wildland fire events.

In the event of a major wildland fire the FSA will provide resources for structure protection along with building a structure protection plan. The FSA will coordinate with the USFS, GNP, DNRC and or the assigned Incident Management Team to provide structure protection to the residents of the North Fork.

Flathead County uses the National Incident Management System (NIMS) for all incidents. When a call to 911 comes in for a respond to fire, 911 dispatch will page the closest resource to respond, which normally is Blankenship Rural Fire District. Although initial attack is the primary focus of the response, they may also carry out sustained attack under a Unified Command System with other resources from fire departments county wide.

The Forest Service has both local firefighting resources that are based on the Flathead National Forest as well as other resources that can respond from across the country. The Montana Department of Natural Resources and Conservation has exchanged wildfire protection responsibilities for state lands on the North Fork to the Forest Service. Glacier National Park and the Forest Service have a joint fire plan. Despite separate mandates, both agencies recognize the need for a collaborative approach to fire management in the area which includes the FSA resources.

The 2021 Flathead County Community Wildfire Protection Plan (CWPP) is a county wide plan. This document is a 2026 Appendix to that Plan. The CWPP is a county-wide plan to assist landowners with history of wildfire county-wide, recommendations of mitigation projects, and information to landowners on how to prepare for wildland fire.

In addition, many landowners have their own pumps, tanks, hose and other firefighting equipment to protect their properties and to assist their neighbors, if needed.

The area has an Insurance Services Organization (ISO) rating of 10. Some insurance companies will not insure areas with a ISO-10. North Fork landowners must shop around for insurance and may have difficulty obtaining property insurance.

3. Fire Historyⁱⁱ

The North Fork has been visited frequently by wildfire. Fire has been second only to glaciation in shaping the valley's landscape.

Before permanent settlement of the North Fork Valley, the Kootenai Indians employed several trails to travel from the Tobacco Valley to the eastern slope of the Rockies. They used fire to clear the trails and to improve hunting and gathering along the way. In some documented cases, they also used fire as a battle tactic.

Although anthropogenic ignitions have played a role in the North Fork's fire history, lightning has been the primary source of large fires in the valley. An average of one to two lightning strikes occur per square mile during the fire season, with a higher number of strikes occurring on ridges and slopes and a lesser number on the valley bottoms. The vast majority of the strikes do not ignite fires. In non-drought conditions, those fires that are ignited rarely become larger than one acre before self extinction or suppression by firefighters.

About once every thirty years, however, climatic oscillations have created multi- year drought conditions. Then lightning strikes in suitable locations aligned with favorable fuel conditions, weather and topography can produce large fires. Because of the dynamic nature of climatic and fuel conditions and the random placement of ignitions on the landscape, it is difficult to derive a single average for how often a particular portion of the North Fork will burn. Thus, the so-called "return interval" is best described in a range of years.

In his *Fire History of Glacier National Park: North Fork Flathead River* (1983), Steven W. Barrett observed that before 1900, fires usually recurred at intervals of fifteen to eighty years. Some stands had fire intervals as short as five years. A few stands had lengthy intervals, the longest being 169 years. In most centuries, large fires burned across the North Fork for a period of several decades.

Barrett's study of fires in the Park also noted an increase in the frequency of large fires in the mid-nineteenth and early-twentieth centuries. Significant fires occurred in 1844, 1852, 1866, 1889, 1910, 1926 and on the west side of the valley, in 1929. Nearly ninety per cent of Barrett's 60,000-acre study area burned in the period from 1887 to 1926.

For approximately sixty years, from the late 1920's to the late 1980's, there were no large fires on the west side of the North Fork Valley. Then in 1988, major fire activity

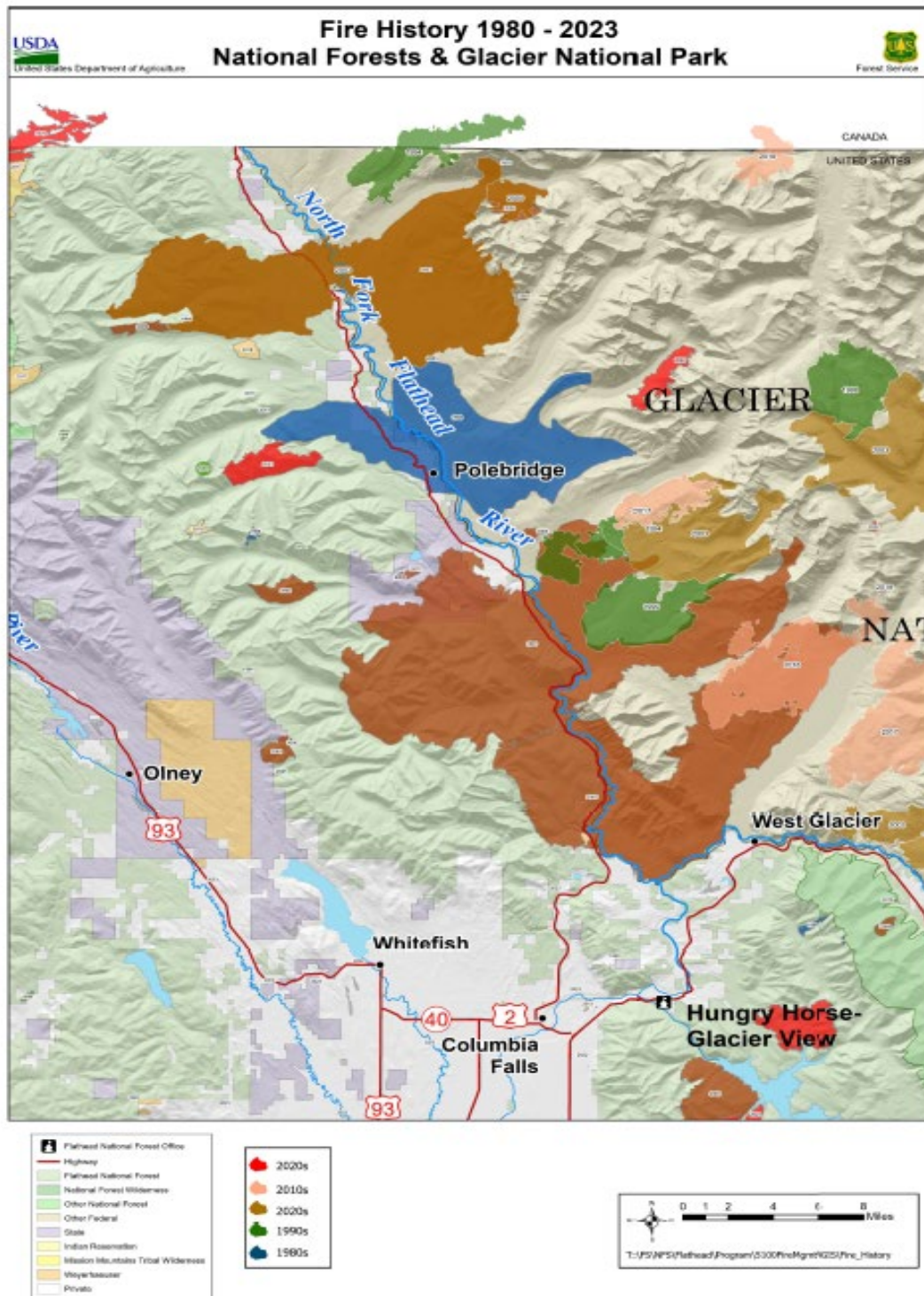
resumed with the Red Bench Fire, which burned approximately 37,000 acres on both sides of the river. The Moose Fire followed in 2001, burning approximately 71,000 acres. 2003 brought the Wedge Canyon and Robert Fires, respectively burning about 54,400 and 52,900 acres. The Wedge Canyon fire destroyed seven homes and twenty- nine outbuildings in the area between Whale Creek and Trail Creek; one additional home was damaged.

Notably, four of the largest recent large fires - Red Bench, Moose, Wedge Canyon and Robert - were ignited in the Whitefish Range. Pushed by prevailing winds aligned with tributary drainages, they traveled in an easterly direction downcanyon across the populated corridor along the North Fork River before spreading into Glacier National Park. The predominant wind direction during the fire season is from the southwest. Winds from the south and the west also are common but less frequent. Listed below are the large fires located on Glacier View Ranger District from 1988 – 2025:

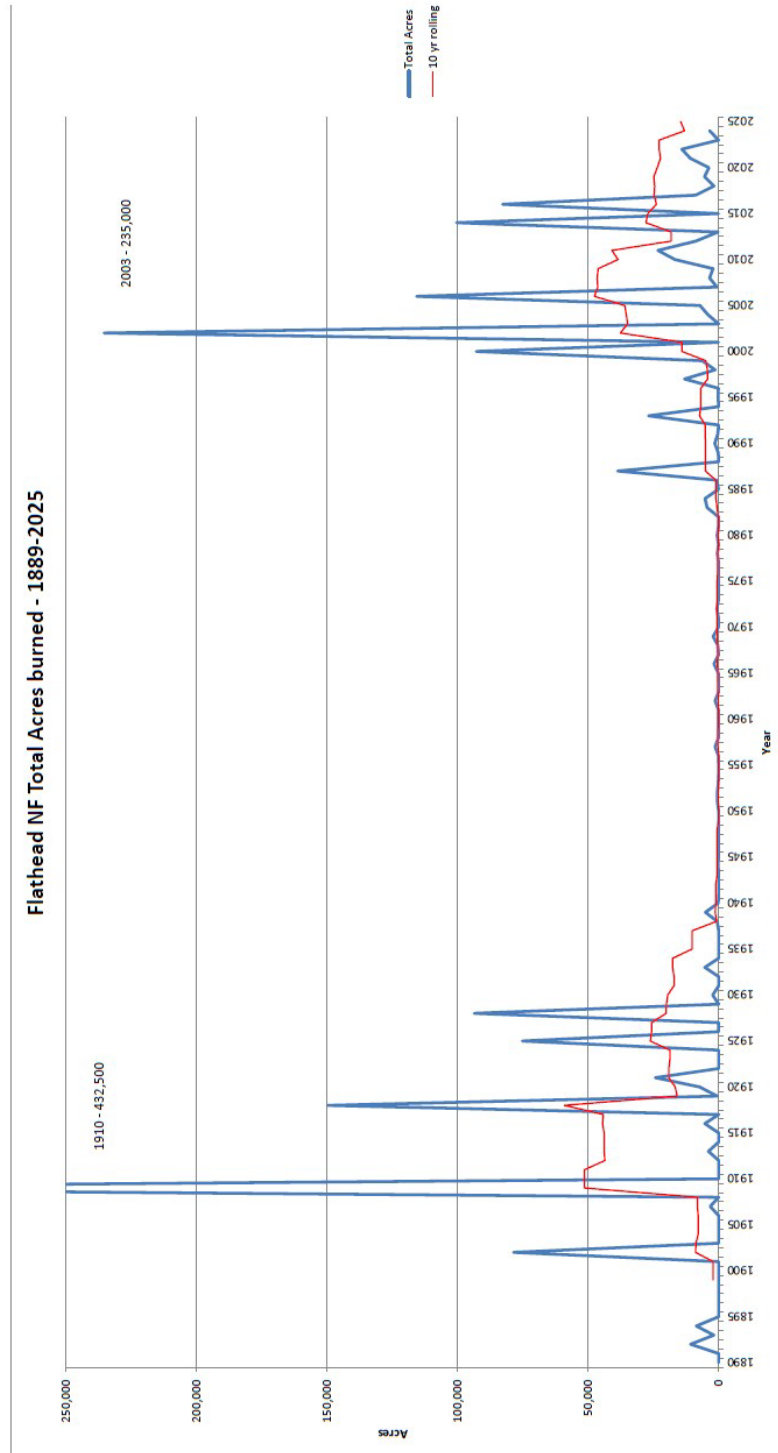
Flathead National Forest - Glacier View Ranger District - Large Fire History Greater Than 100 Acres (1980 - 2025)			
Fire Name	Year	Acres	Comments
Red Bench	1988	37,500	
Moose	2001	71,000	
Wedge Canyon	2003	53,315	
Roberts	2003	57,570	
Sun Dog	2006	1560	
Ninko	2009	670	
Gibraltar Ridge	2017	12,938	Started on the Kootenai
Weasel	2017	3,925	Started on the Kootenai
Whale Butte	2018	515	
Coal Ridge	2018	280	
Hay Creek	2021	2,894	
Weasel	2022	5,044	Started on the Kootenai
Hallowat	2025	240	

The North Fork Valley is a fire-adapted ecosystem. Periodic wildfire influences the

valley's vegetation patterns, its habitats and ultimately, the composition of the species living there. The natural frequency of fire and the propensity toward occasional large, stand-replacing fires present a significant challenge to North Fork landowners. A significant percentage of the land currently held in private ownership in the North Fork falls within a fire perimeter from 1980 to 2023, as depicted in the following fire history mapⁱⁱⁱ:



The fire occurrence and acres burned have changed radically over the past century. Records from the Kalispell Dispatch Zone show those changes in the following graph^{iv}:



Fire Source: 1889-1935 = R1 Fire History Polygon data - accuracy "relative"
 1936-1970 = Flathead NF fire atlas report (acres are summary of Class B and larger)
 1970- present Firestat reports

The graph clearly shows a large amount of fire activity prior to 1930 with a peak in 1910; significantly reduced fire activity between 1930 and 1980 as the middle of the 20th Century was cooler and moister; and significantly increased fire activity after 1980 with a peak in 2003.

The Risk Management Dashboard is an excellent source of information managed by the U.S. Forest Service. Here is the link to find maps of fire history and much more: <https://experience.arcgis.com/experience/f9d7f7f920494c3db43a23a8dffe4664/page/Map-Viewer?views=NR>

4. Community Response to the Fires of 2003

The destructive force and expense of the fires of 2003, combined with recognition that the current fire cycle probably had not run its course, prompted the North Fork Improvement Association to appoint a Fire Mitigation Committee. The Improvement Association is now known as the North Fork Landowners Association (NFLA). The NFLA provides a forum for addressing issues that confront the community. Approximately 290 landowners belong to the organization.

The NFLA's Fire Mitigation Committee reflects the diverse interests and concerns of the North Fork community. Since late 2003, committee members have met regularly in an effort to determine what can and should be done to mitigate the risks of wildfire on and adjacent to private lands, particularly the risks to structures. Forest Service, Park Service and DNRC officials have participated in a number of the committee's meetings, bringing their expertise, resources and perspectives to bear.

a. Home Ignition Zone (HIZ)

The Fire Mitigation Committee recommends that the most important thing that landowners can do in the North Fork is to plan for a wildland fire. Starting with the Home Ignition Zone (HIZ) this will provide the structure with the highest probability of survivability and provide the wildland firefighters with room to operate safely.

Over the past few decades, Jack Cohen, physical fire scientist at the Missoula Fire Sciences Lab, conducted wildfire research using post-fire investigations, lab studies, and crown fire experiments. His research resulted in the **Home Ignition Zone (HIZ)** concept. The Home Ignition Zone is the area from 0 to 100 or 200 feet around your home, divided into 3 zones (see figure 18).

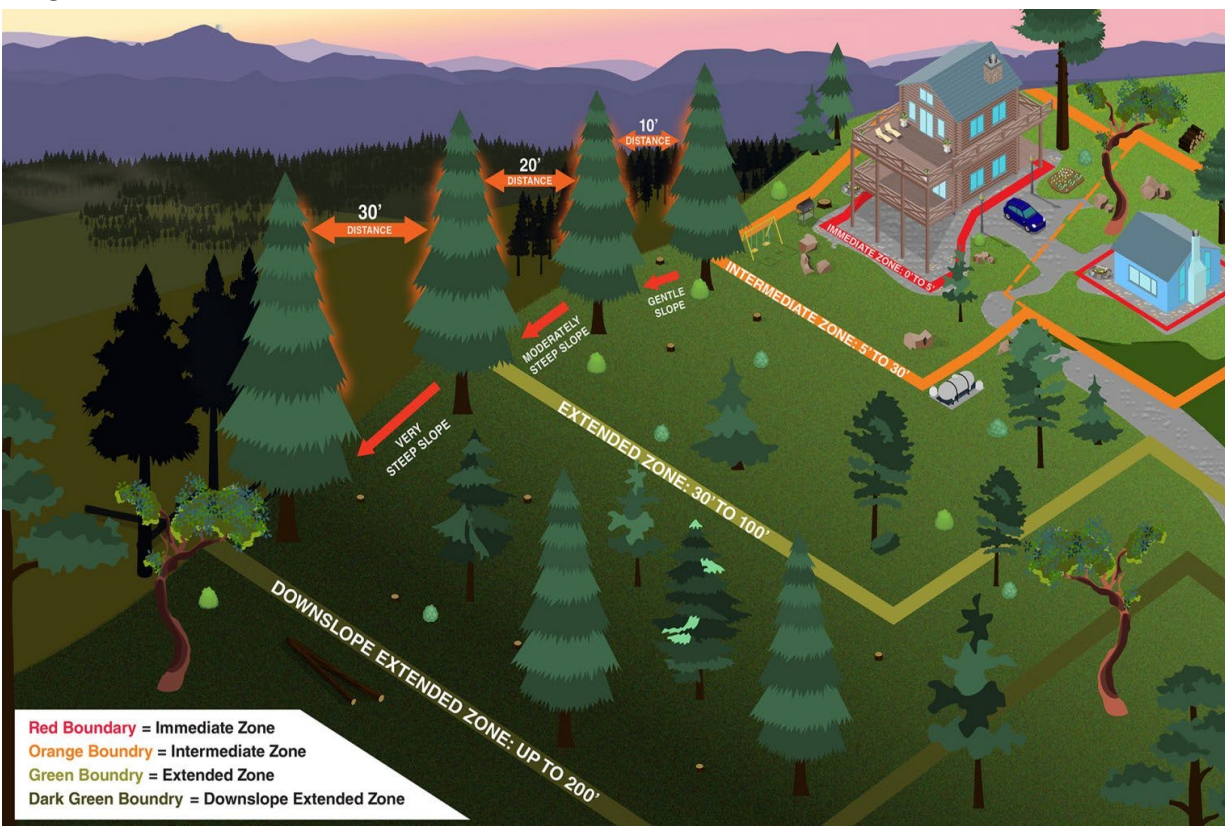
In a wildfire, most homes are lost to low-intensity ground fires or the blizzard of embers associated with a wildfire. Maintenance of the HIZ can reduce the intensity of fire and allow for safer, more effective firefighting efforts.

Creation and maintenance of the Home Ignition Zone is the most important action to take when preparing for wildfire. Slope and fuel conditions will affect the size of the Home Ignition Zone, as homes near steep slopes and in heavy fuels should clear additional vegetation to mitigate the effects of wildfire.

ZONE 1 - Immediate Zone

0-5 feet: Maintain a noncombustible perimeter around all structures

1. Maintain a noncombustible perimeter of 3 to 5 feet next to the building and move any flammable materials away from the exterior walls. Remove anything stored under decks or porches. The ground under decks should be non-flammable.
2. Repair or replace loose siding and caulk any cracks to prevent embers from accumulating.
3. Replace rotten deck boards, clear spaces between decking of debris, and keep decks clear of combustibles during peak fire season. Embers landing and accumulating on decks are frequently the cause of home ignition.
4. Install $\frac{1}{8}$ -inch metal screening on gable, eave, and foundation vents. This is recommended to prevent large embers from passing through into the home. Standard screening is $\frac{1}{4}$ -inch and should be replaced.
5. Gutters and roofs should be cleaned annually before fire season. Leaves and needles land, accumulate, and bake in the summer sun. This makes them receptive to ember ignition



ZONE 2 - Intermediate Zone

5-30 feet: Incorporate ignition-resistant landscaping/hardscaping concepts

1. Keep grass mowed to 4 inches or less and irrigated so grass is green.
2. Remove all tree branches or “ladder fuels” 6 to 8 feet from the ground and rake duff away from the base of the tree.
3. Trim shrubs and remove any dead material.
4. Space trees to a minimum clearance of 10 feet between crowns (the longest branches).
5. Maintain adequate driveway clearance 20 feet wide. Thin fuels 50 feet from each side of the driveway by removing vegetation to decrease the fire intensity.

ZONE 3 - Extended Zone

30-100 or 200 feet around the home (depending on topography)

The goal is to manage this area and decrease fire intensity to a surface fire that will stay on the ground, produce fewer embers, and allow most of the trees to survive.

1. Remove heavy accumulations of forest fuels to include downed trees, brush, and grass.
2. Remove small conifers (ladder fuels) growing between mature trees.
3. Maintain 10 feet between tree crowns.

Zone 3 is the property perimeter buffer which is 100 feet to the property line for lots 2.5 acres or less or 60 feet to 200 feet around the perimeter of lots larger than 2.5 acres. This serves as a transition zone to reduce the wildfire rate of spread and intensity. It moves the fire from a crown fire into a ground fire so that fire department resources can safely respond.

Landowner Accomplishments:

One of the Fire Mitigation Committee's principal objectives has been to suggest sensible, cost-effective techniques that North Fork landowners may use to create Home Ignition Zone (HIZ) around their homes. In early 2004, under the auspices of the Northwest Regional Resource Conservation and Development Council (RC&D), the North Fork obtained a \$150,000 Western States/Stevens Act grant to assist landowners with hazardous fuels reduction. The committee moved quickly to implement the grant program, serving as a model for other geographic areas in Northwest Montana.

During the first phase of the grant program, RC&D foresters provided free home/wildfire inspections to North Fork landowners who requested them. The foresters performed 107 inspections, significantly more than had been expected. Each inspection

generated a treatment prescription based on Firewise principles, creating a zone of protection around a home. The inspection phase of the program was a remarkable success, evidence of North Fork landowners' willingness to assume substantial responsibility for protecting their properties.

Hazard reduction, the second phase of the grant program, began in the fall of 2004. With input from the Fire Mitigation Committee, RC&D foresters prioritized private lands on the North Fork for treatment. Generally, properties that had not burned since the fires of the early twentieth century were assigned to the highest priority. Properties that burned in the 1988 Red Bench fire were given second priority and those that burned in the 2003 fire season, third priority. Additional criteria for selection included values at risk, fire risk, access, previous fuel treatment, potential joint projects, interest in the program and willingness to meet contract specifications.

The Fire Mitigation Committee recognized that additional funds would be needed to accommodate the large number of landowners who were interested in treating their properties, including those within the Red Bench Fire perimeter. Although the latter properties had been given second priority, significant downfall and dense lodgepole pine regeneration presented a growing risk to structures in the area. So, in 2005, the committee applied for and received a \$104,000 supplementary Community Protection Fuels Mitigation Program grant.

Both the initial grant and the supplementary grant were administered by the RC&D, which has entered into cost-share agreements with participating landowners. Pursuant to the agreements, grant money has paid seventy-five percent of the cost of the prescribed treatment, and the landowner has paid twenty-five percent. The landowner's share may take the form of in-kind labor. The per-acre cost of treatment ranged from a low of \$100 to a high of \$1500, depending upon the work that needed to be done to create a zone of protection. Many landowners have contracted for the use of mulching equipment or other forms of biomass utilization.

By the summer of 2009, six years after the Wedge Canyon Fire, RC&D foresters had met with 150 landowners and had entered into ninety-nine cost-share agreements to reduce fuels around homes. All grant funds have been expended. More than 500 acres of private property had been treated, more than one-third of the total acreage treated with grant money in Flathead, Lincoln and Sanders Counties combined. In recognition of their service to the community, the NFLA conferred awards on Bill Swope, Mason Richwine and Mike Justus, the RC&D foresters who launched and implemented the cost-share program.

From 2012 through 2022 when operations ceased, Northwest Montana Hazardous Fuels Program administered treatment on an additional 450 acres in the North Fork. The foresters (Bill Swope and Deb Starling) that were with NWMT Hazard Fuels continue to

be a resource for landowners and organizations in the North Fork as asked.

In addition to the approximate 1000 acres that North Fork landowners have treated with cost-share assistance, local foresters estimate that landowners have also treated a significant number of acres without financial assistance.

The Natural Resources Conservation Service (NRCS) initiated fuels treatment grants in the North Fork in 2022 with their Wedge Canyon Targeted Implementation Plan (TIP) which encompassed the Wedge Canyon (2003) fire footprint, and private forested lands north to the Canadian Border. The Wedge Canyon TIP is in its final year of initiating projects in 2026, and existing projects should be completed by 2030. During this time, some 818 acres on 25 ownerships will have been treated for fuels mitigation and forest stand improvement. Costs ranged up to \$2,000 per acre based on treatment complexity.

b. Strategic Planning

In Northwest Montana there have always been wildland fires and there will always be wildland fires. With that understanding now we move into how and what to mitigate to lessen the damage that wildfire could cause. The most valuable action for structures is to implement the Home Ignition Zone (HIZ) Treatments. With this, the structure has a higher probability of sustaining minimal or no damage.

The goal is to understand that by reducing the fuel loading and spacing the larger trees the fire behavior would be greatly reduced to a lower intensity fire by dropping the fire out of the crowns and transitioning it to a less intensive surface fire. With an increasing amount of hazardous fuels modifications completed around private structures, access roads, and on federal land adjacent to private lands, one current focus is looking at tying together fuel treatments to create shaded fuel breaks. While shaded fuel breaks by themselves do not stop wildland fires, in the North Fork, shaded fuel breaks west of private land and structures can provide potential anchor points for suppression actions in the event of major fires which commonly spread from west to east. Wildland fire resources have many more options when working in an area that has had fuels work completed.

In keeping with the National Fire Plan, the NFLA's Fire Mitigation Committee adopted a definition of **"Wildland/Urban Interface"** in 2004 that was tailored to the North Fork ecosystem's geography, demography, and fire history.

The definition provides: "The North Fork community occupies a corridor at risk from severe wildfire. The corridor is approximately three miles wide and thirty-five miles long, extending from Big Creek to the Canadian Border along the North Fork of the Flathead River. The community's wildland/urban interface extends up to 1.5 miles from the

boundaries of the corridor, where private property with structures adjoins or intermixes with public land.”

According to the 2021 Flathead County Community Wildfire Protection Plan:

The Wildland Urban Interface is any location where a fire can readily spread from vegetation (wildland fuels) to manmade structures (urban fuels). This is generally measured geographically as a 1.5-mile zone around areas with structures (e.g. homes, businesses, and outbuildings); public works facilities (e.g. drinking water and sewer); and critical infrastructure (e.g. power lines, gas lines, pipelines, bridges, railways, emergency communication sites, and watersheds).

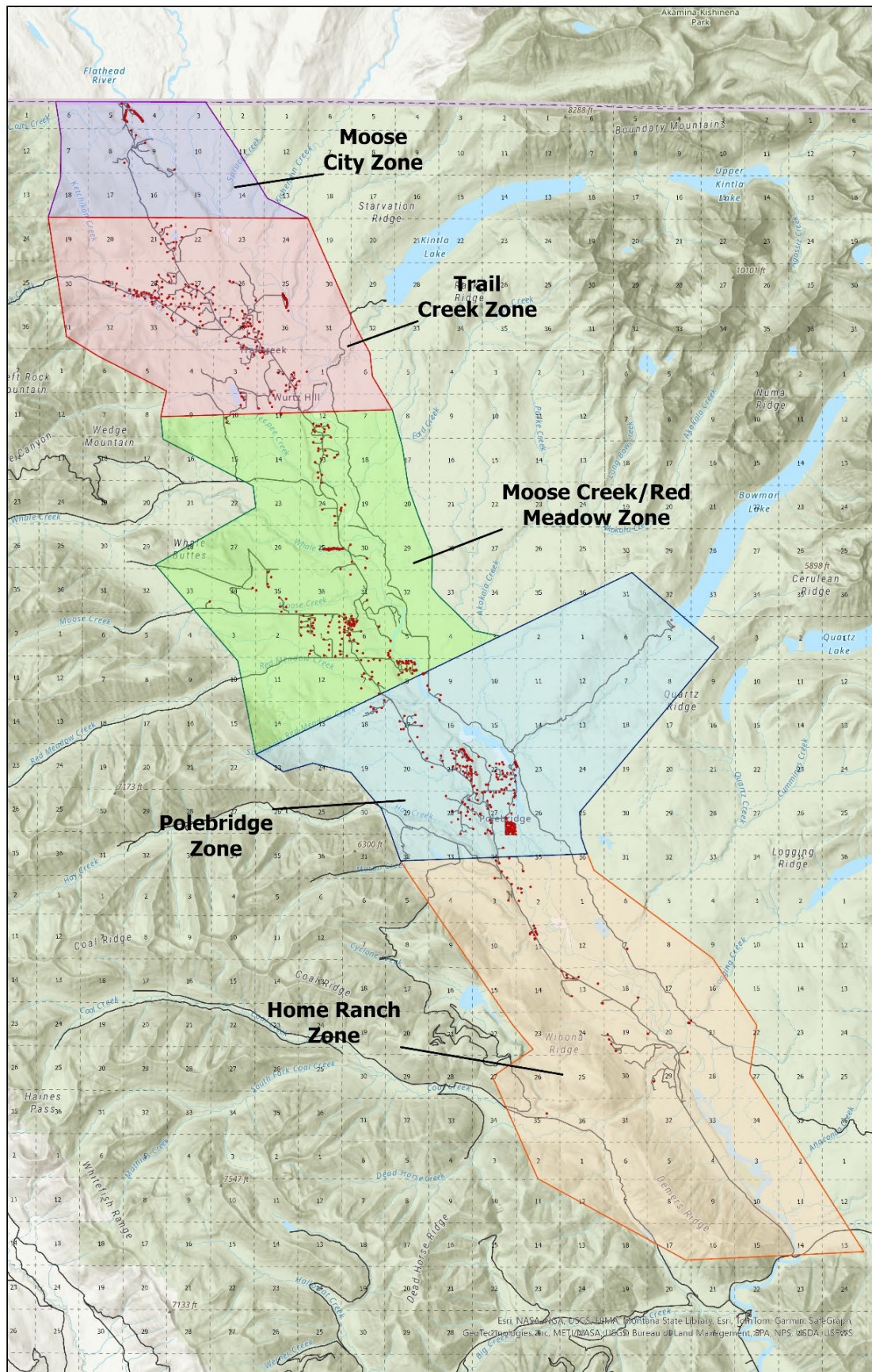
The Fire Mitigation Committee participated in the development of the initial Flathead County Wildfire Protection Plan (CWPP), approved by the county commissioners in 2005 and revised in 2011 and 2021. Committee members prepared a “North Fork Flathead Wildfire Mitigation and Planning Report,” which was appended to both the 2005 and 2011 Flathead County CWPPs. The North Fork Fire Mitigation and Planning Report is scheduled to be updated in 2026 (this document) and attached to the current 2021 Flathead County CWPP.

With a significant amount of hazardous fuels modifications completed around private structures, access roads, and on federal land adjacent to private lands, a current focus is looking at tying together fuel treatments to create shaded fuel breaks west of private land and structures to provide potential anchor points for suppression actions in the event of major fires.

The continuation of implementation of hazardous fuels projects by the US Forest Service and Montana DNRC adjacent to private lands is critical. These Federal and State lands often lie west of the private lands, in line with fires spreading from the west to the east. Hazardous fuel reduction projects and fuel breaks will give firefighters a chance to check or stop fire spread before reaching private lands.

The most recent Forest Service project – Frozen Moose – is being implemented currently. In addition, the implementation of planned prescribed fire treatments to reduce fuel loadings in those portions of the North Fork where mechanized treatments are not permitted is important to reducing the threat to private lands downslope/downwind.

When building a Strategic Plan for the North Fork, the Fuels Committee identified zones to describe the locations and work needed. These are shown on the following map and described starting from the north along the Canadian Border working south to Coal Creek, which is south of Home Ranch Bottoms.



Moose City Zone: from the Canadian Border south to Garnet Lake.

Starting at the Border there are a group of structures referred to as Moose City. This Zone includes Moose City and runs south 2.5 miles to a location just north of Garnet Lake, 2.5 miles north of Trail Creek Road.

- **Conditions:**
 - This area has heavy timber on the west side of the road with an east aspect up to the Whitefish Divide. There are some small meadows on the east side of the road between the road and the North Fork River. There is a large meadow south of the border boat launch.
 - There are limited locations to draft water, the main draft location would be at the border boat launch.
- **Objectives for the landowners:**
 - Structures should have the Home Ignition Zone (HIZ) treatments completed.
 - On smaller lots have forest management completed on all the property to lower fire intensity.
 - On larger lots have 5 to 10 acres around the structures with forest management completed to reduce fire intensity. There is a need to break up the tree canopy so a crown fire will drop to a surface fire (Shaded Fuel Break).
 - Keep in mind that there is a need to maintain the fuels work to prevent ingrowth from becoming ladder fuels.
- **Structure Protection Considerations:**
 - The most probable fire behavior would be high intensity fire from the west moving to the east. There would be a high probability of crown fire and long-range spotting.
 - The tactic would be to prep the structures, layout some sprinklers if there is time and water supply, move out to a safe area until fire front passes and come back in to suppress ember ignitions.

Trail Creek Zone

Starting 2.5 miles north of Trail Creek Road just north of Garnet Lake, all private property on both sides of Trail Creek Road and running south on North Fork Road to Whale Creek Road/Ford River Access. This Zone includes the Trail Creek Road Evacuation Route.

- **Conditions:**
 - North of Trail Creek Road has heavy timber on both sides of the North Fork Road. South of Trail Creek Road where the Wedge Canyon Fire crossed the road in 2003, is now a younger stand of timber.

- There are draft sites at Trail Creek, Whale Creek and Ford River Access.
 - South of Trail Creek Road along the North Fork Road there has been a substantial amount of fuel work completed.
 - Ingress/Egress minimal clearing (25' either side of the roadway) was initiated in 2003 during the Wedge Canyon Fire along portions of the Trail Creek Road. This Ingress/Egress treatment was maintained and improved in 2017.
 - Considerable work has been done on private and federal lands along the North Fork Road through the Area.
- **Objectives for the landowners:**
 - Structures should have the Home Ignition Zone (HIZ) Treatments completed.
 - On smaller lots have forest management completed on all the property to reduce fire intensity.
 - On larger lots have 5 to 10 acres around structures with forest management completed to reduce fire intensity.
 - With the younger stand of trees multiple thinnings would be needed over time and as trees grow.
 - Keep in mind that there is a need to maintain the fuels work to prevent ingrowth from becoming ladder fuels.
- **Structure Protection Considerations:**
 - North of Trail Creek Road, the most probable fire behavior would be high intensity fire from the west moving to the east in the heavy timber. There would be a high probability of a running crown fire and long-range spotting.
 - South of Trail Creek Road in the Wedge Canyon Fire footprint, the younger trees would resist crown fire where thinned with adequate crown spacing. The regenerated stands are around 20 years old, and where the residual stand was salvaged and removed, they have not yet built up surface fuels.
 - In stands that have not been thinned, the stand densities are extraordinary, and the solid canopies would initiate and sustain a running crown fire under light wind conditions, resulting in a high intensity fast moving flame front. If the residual stand was not salvage logged after the Wedge Canyon Fire, the heavy fuel loading on the surface would contribute significantly to fire intensity and resistance to control.
 - The defensive tactic would be to prep the structures, layout sprinklers if there is time and water supply, then move out to a safe area until the fire front passes and come back in to suppress ember ignitions.
 - There are some areas around Trail Creek that have had significant fuels modifications and fire resources could safely stay and defend.

Moose Creek & Red Meadow Zone: from Ford River Access south to Red Meadow Creek at the North Fork Road

This Zone runs from Ford River Access on the north end of the zone, south to include all of Moose Creek Road & Red Meadow Road, and continues south to Red Meadow Creek where the North Fork Road crosses it. This Zone includes the Red Meadow Road Evacuation Route.

- **Conditions:**
 - South of Ford River Access there has been a substantial amount of fuel work completed on the west side of the North Fork Road.
 - Spruce Creek Road from Hay Creek to Moose Creek Road at the toe of the slope has a shaded fuel break on both sides of the roadway.
 - At the end of Moose Creek Road there has been a substantial amount of fuel work completed on National Forest System Lands.
- **Objectives for the landowners:**
 - Structures should have the Home Ignition Zone (HIZ) work completed.
 - On smaller lots have forest management completed on the entire property to reduce fire intensity.
 - On larger lots have 5 to 10 acres around structures with forest management completed to lower fire intensity. There is a need to break up the tree canopy so a crown fire will drop to a surface fire.
 - Keep in mind that there is a need to maintain the fuels work to prevent ingrowth from becoming ladder fuels.
- **Structure Protection Considerations:**
 - High probability of crown fire and long-range spotting in heavy timber. South of Moose Creek Road in the Red Bench Fire perimeter (1988) are mainly younger trees that would resist crown fire. The trees are around 35 years old and are building surface fuels, particularly where fire killed lodgepole are adding to the surface fuels.
 - Under moderate conditions with wind, they could experience high intensity fire behavior both in stands with high surface fuel loading and/or in stands that are overstocked and have not been thinned.
 - The tactic would be to prep the structures, lay out some sprinklers if there is time and water supply, move out to a safe area until fire front passes and come back in to suppress ember ignitions.

Polebridge Zone: from Red Meadow Creek south to the Hay Creek/North Fork Road Intersection

This Zone runs from where the North Fork Road crosses Red Meadow Creek on the north end south to the Hay Creek Road / North Fork Road intersection.

- **Conditions:**

- South of Red Meadow Creek there has been a substantial amount of fuel work completed on the west side of the North Fork Road. Spruce Creek Road from Hay Creek Road to Moose Creek Road at the toe of the slope has a shaded fuel break on both sides of the roadway.
- Much of this zone is within the Red Bench Fire (1988) perimeter. The lodgepole pine has regenerated the area and where it has not been thinned it is extremely dense and hard to walk through.
- North of Hay Creek there is some heavy timber that was not burned in the Red Bench Fire.
- The river bottom areas have a mix of Lodgepole, Spruce, and Cottonwood with a Grass/ Brush component.

- **Objectives for the landowners:**

- Structures should have the Home Ignition Zone (HIZ) work completed.
- On smaller lots have forest management completed on all the property to reduce fire intensity.
- On larger lots have 5 to 10 acres around structures with forest management completed to reduce fire intensity. There is a need to break up the tree canopy so a crown fire will drop to a surface fire.
- Keep in mind that there is a need to maintain the fuels work to prevent ingrowth from becoming ladder fuels.
- There is a critical need to keep working on thinning the Lodgepole Pine, spacing out the crowns to resist transitioning to or supporting a running crown fire.

- **Structure Protection Considerations:**

- There is a high probability of crown fire and long-range spotting in heavy timber. South of Red Meadow Creek within the Red Bench Fire perimeter (1988) are mainly younger trees that could resist crown fire under moderate conditions.
- The trees are around 35 years old and are building surface fuels, particularly where fire killed lodgepole are adding to the surface fuels.
- Under moderate conditions with wind they could experience high intensity fire behavior both in stands with high surface fuel loading and/or in stands that are overstocked and have not been thinned.
- The tactic would be to prep the structures, install some sprinklers if there is

- time and water supply, move out to a safe area until the fire front passes and come back in to suppress ember ignitions.
- There are areas where firefighters could stand and defend because of light fuels and adequate fuels reduction projects and crown thinning.

Home Ranch Bottoms Zone: from Hay Creek Road/North Fork Road south to where the North Fork Road crosses Coal Creek

North end of the Zone is Hay Creek Road/North Fork Road intersection. The south end is where the North Fork Road crosses Coal Creek.

- **Conditions:**

- There is a high probability of crown fire and long-range spotting in heavy timber south of Hay Creek Road.
- Portions of Home Ranch Bottoms experienced the Moose Fire (2001) that ran down to Big Creek. The area is a mix of grass/brush in open meadows and timber mostly spaced with some heavy pockets. Under severe conditions they could experience high intensity fire behavior.

- **Objectives for the landowners:**

- Structures should have Home Ignition Zone (HIZ) Treatments Completed.
- On smaller lots have forest management completed on the entire property to lower fire intensity.
- On larger lots have 5 to 10 acres around structures with forest management/hazardous fuels reduction completed to lower fire intensity. There is a need to break up the tree canopy so a crown fire will drop to a surface fire.
- Keep in mind that there is a need to maintain the fuels work to prevent ingrowth from becoming ladder fuels.
- Keep working on thinning the Lodgepole Pine to provide adequate crown spacing.

- **Structure Protection Considerations:**

- There is a high probability of crown fire and long-range spotting in heavy timber along Hay Creek.
- In Home Ranch Bottoms the fuels change to a mixture of grass/brush meadows with spaced timber that is starting to fill in with younger trees in the absence of recent cattle grazing. Under severe conditions they could experience high intensity fire behavior.
- The tactic would be to prep the structures, lay out some sprinklers if there is time and water supply, move out to a safe area until fire front passes and come back in to suppress ember ignitions.
- There are areas where firefighters could stand and defend because of light fuels and adequate fuels reduction projects and crown thinning.

c. Collaboration with Government Agencies

In connection with its strategic planning process, the Fire Mitigation Committee has welcomed partnerships with Flathead County and the Fire Service Area Manager, the Forest Service, the DNRC and Glacier National Park. Recent federal legislation encourages collaboration to reduce the likelihood of high intensity fire in interface areas adjoining private property. Consistent with legislative initiatives, the committee and its partners have tried to be proactive rather than simply reacting to fires once they have begun.

A workshop held in July 2009 assessed the status of federal, state and private wildfire mitigation efforts in the North Fork Valley six years after the Wedge Canyon and Robert Fires. Officials from the Forest Service, the DNRC, RC&D and members of the Fire Mitigation Committee addressed how the landscape has changed since 2003. They also considered what remains to be done to mitigate the risk of wildfire to homes.

Forest Service officials especially have engaged with North Fork landowners to mitigate the risks that high-intensity fire poses to homes. After the fires of 2003, officials projected a sequence whereby landowners would proceed with fuels reduction around their homes followed by Forest Service hazardous fuels reduction on interfacing public lands. The underlying premise was, and is, that public and private efforts must complement one another, with homes being the focal point. Thus, mitigation efforts have radiated from those places where fire is least wanted.

The Trail Fuel Project (2006) mechanically thinned approximately 335 acres to reduce the risk of crown fire in the interface from Trail Creek north to the Canadian Border. All work has been completed.

The Red Whale (2008) decision calls for mechanical thinning of approximately 2807 acres and prescribed burning of 1114 acres in the area between Red Meadow Creek and Whale Creek. All mechanical thinning and commercial harvest has been completed. Approximately 400 acres of prescribed burning has been completed.

Frozen Moose (2021) is planned to have a total of 7,250 treated acres between Hand, Mechanical and Prescribed Fire treatments. This decision is currently being implemented, and activities were under contracts starting in 2022.

In addition to the NEPA decisions located on the Flathead National Forest listed below, there have been additional vegetation management activities completed during fire suppression incidents. Due to several wildfires proximity to values at risk in the North Fork, shaded fuels breaks were constructed in strategic areas that were anchored and/or tied to previous vegetation treatments. These efforts have helped to create effective fuel breaks.

Forest Service Vegetation Management Projects in the North Fork

Trail Creek Fuels 2006	Acres
Mechanical Thinning	335
Total Treatment	335
Red Whale Decision 2008	Acres
Mechanical Fuels Reduction	
Thinning/Patch Seed tree with a Commercial Product	1,781
Sapling Tree Thinning	1,026
Total Mechanical Treatment	2,807
Prescribed Burning	
Prescribed Burns	1,114
Total Treatment	<u>3,921</u>
Frozen Moose 2021	Acres
Commercial Thin	2,693
Seed Tree	487
Total Commercial Treatment	3,180
Precommercial Thin	3,490
Understory Removal	302
Special Cut	11
Prescribed Burning	
Under burning	89
Sagebrush Restoration	178
Total Treatment	<u>7,250</u>

The DNRC's Coal Creek State forest has management plans in place. This chart shows the forest management since 2003:

MT DNRC, STILLWATER UNIT FUEL TREATMENTS SINCE 2003	
Timber Sales	Acres
Coal Ridge (2011)	132
Cyclone Lake 2017 Salvage (2017)	40
Garnet Creek (2020)	148
Hornet Salvage (2004)	209
Moran Cyclone - South (2014)	137
Moran Cyclone - North (2014)	613
North Fork by Two (2009)	566
West Coal (2021)	486
Total	2,331 acres
Precommercial Thinning	Acres
909PCT #1 (2017, 2018)	53
909 PCT #2 (2017)	85
909 PCT #4 (2018)	97
909 PCT #5 (2019)	67
909 PCT #6 (2020, 2021)	97
Total	399 acres
Prescribed Burning/ Slash Pile treatment	Acres
Garnet Creek Slash Piles (2021)	143
Moran Cyclone Slash Piles (2019-2024)	633
West Coal Slash Piles (2023)	410
Total	1,186 acres
Total Treatment 3,916 acres	

d. Landowner Consultation and Education

Landowner education and consultation have been critical items on the Fire Mitigation Committee's agenda. The Committee has reported to and solicited input from members at NFLA meetings since the fall of 2003. The Committee also has reported to community members and agency officials at semi-annual North Fork Interlocal meetings. It has provided written information to landowners through direct mailings and the North Fork

Newsletter. Furthermore, the NFLA Website, www.nflandowners.com, has a page on North Fork fire-related programs and activities as well as links to external sources.

Beginning in 2004, the Fire Mitigation Committee has sponsored at least one fire-related ***Firewise*** educational workshop each year. The workshops have covered a range of topics, among them wildfire preparedness, landowner "do's and don'ts," insects and disease, weeds, and 2009's retrospective assessment of fuels mitigation efforts on the North Fork. In July the ***Firewise Day*** and the Summer ***North Fork Interlocal Meeting*** are scheduled the same day involving all Agencies with responsibilities in the North Fork. The ***Firewise Day*** portion is held in the morning, and the Summer ***North Fork Interlocal Meeting*** is held in the afternoon. This gives landowners not only a fire refresher and update, but also the updates on other activities going on in the North Fork.

Beginning in 2020, the Committee added a ***Basic Fire Training Day*** in June to assist landowners with understanding how they could safely and effectively engage new starts or low intensity fires on their own property. This has been combined with field trips and presentations on structure assessments and examples of hazardous fuels treatments both in the Home Ignition Zone as well as beyond that to ensure that the approaching wildfire remains on the surface instead of spreading through the crowns. The ***Basic Fire Training Day*** was renamed ***Wildfire Awareness Training Day*** in 2025 to better reflect its purpose.

The committee has sponsored field trips so participants can observe conditions for themselves. Agency officials have contributed their time and expertise in both workshops and field trips. In addition, the Forest Service held an open house in 2008 explaining the concept of wildland fire for resource benefit and the parameters under which it might be used on the North Fork.

The purpose of education and consultation has been to enable landowners to make well-informed decisions about mitigating wildfire risk on their properties. Although fuels reduction is voluntary, it has become increasingly apparent that owning property in the fire-prone North Fork Valley confers both privilege and responsibility.

Whatever individual landowners may have decided to do on their properties, community understanding of the role of fire in the North Fork ecosystem has been enhanced since the 2003 fire season. So has community understanding of what can be done to reduce the hazards of severe wildfire that threatens lives, homes and access to the valley. With the collaboration of public agencies, the North Fork community continues to implement those understandings on the ground.

e. Firewise Community Status

In 2006, the North Fork applied for and was granted Firewise Community status. The award is given by Firewise Communities/USA for taking action to protect lives and properties from the risk of wildfire. Among other benefits, the Federal Emergency Management Administration gives Firewise communities priority in consideration for pre-disaster mitigation planning and project grants.

Criteria for Firewise status, which include an annual Firewise Day and community investment in Firewise projects, must be met each year. The North Fork has maintained its status since its initial designation.

5. Conclusion

The Flathead County Community Wildfire Protection Plan 2021 established county-wide priorities for funding hazardous fuels mitigation projects. In areas where large fires occur, the criteria for determining priorities appropriately included life safety issues associated with population density; the presence of fuel hazards; fire history; threats to infrastructure; and environmental considerations.

The North Fork has a relatively low population density and limited infrastructure. Nonetheless, a compelling case can be made for assigning a high priority to North Fork fuels mitigation efforts. Despite relatively quiet fire seasons in the North Fork since 2003, the current fire cycle has not ended. Given the North Fork's fire history, it is reasonable to project that at least some of the areas that have not burned since 1988 will burn before the cycle ends. High fuel loads in many unburned sites increase the probability of severe fires.

In addition, the fire areas from 1988, 2001 and 2003 where dense regeneration has not been thinned, have great potential for running crown fires under the right burning conditions. As with nearly everywhere in the West, the question is not whether any particular area will burn, but rather when it will be visited by fire next.

The need for proactive fuels mitigation to help protect firefighter and public safety is commensurate with the probability of large fires in the future. So is the need for proactive mitigation to help protect structures. The North Fork's relative remoteness and limited escape routes make it dangerous, difficult, and expensive to wait until fires are burning to attempt to abate known hazards. Public policy is better served by encouraging responsible mitigation measures, particularly considering the human and financial costs of suppressing the Wedge Canyon fire.

In December of 2025 Flathead County was hit by a major windstorm that caused widespread damage. The North Fork was also affected, with a large amount of wind

damage affecting private, State and Federal lands. From single trees to groups of blown down trees, most gated roadways are still impassable. If there is a wildland fire start, this will greatly affect a timely response by fire agencies having to cut their way into the fire. Also, with the added fuel on the forest floor a small fire will have the ability to grow rapidly. This will be an ongoing problem for years; Landowners should work to clean up as much blowdown as possible on their lands.

Finally, the North Fork community has recognized its vulnerability and has taken action to reduce the risks that wildfire poses to safety, structures, ingress, and egress. The community's willingness to address wildfire risk is an appropriate consideration in determining priorities for funding future risk mitigation projects.

***North Fork Landowners Association
Fire Mitigation Committee^{vi}
July 2026***

The 2026 North Fork Community Wildfire Protection Plan was Adopted by the North Fork Landowners Association^{vii} at their Regular Business Meeting Sunday July 12, 2026

ⁱ Wedge Canyon Fire Photo courtesy of Larry and Ruth Kinsolving

ⁱⁱ Flathead County Treasurer – Property Tax provided the calculated North Fork Market Values by the Montana Department of Revenue based on current assessment data.

ⁱⁱⁱ Mitchell R. Burgard, Prescribed Fire Specialist and Assistant Fire Management Officer for Glacier National Park, collaborated in preparing the fire history section of the report.

^{iv} Flathead National Forest Dispatch Records

^v Flathead National Forest Fire Records

^{vi} Fire Mitigation Committee: Co-Chairs: Allen Chrisman, Richard Hildner. Past Chair: Molly Shepherd. Members: Kevin Ulrichsen, Larry Wilson, Lynn Ogle, Jerry Wernick, Dick Leigh, Todd Lando, Suzanne Hildner. Ex Officio Member: Lincoln Chute, Flathead County OES

^{vii} North Fork Landowners Association Board of Directors: President Jim Rittenburg, Vice President Betsy Holycross, Past President Jack McFarland, Treasurer John Zardis, Secretary Beth Ulrichsen, North Directors: Ruth Kinsolving, Cheryl Crane; South Directors: John Stone, Kevin Ulrichsen.