



REGIONAL DISTRICT NORTH OKANAGAN

Area F Fire Protection Area

Mabel Lake / Kingfisher

50°36'32"N 118°43'52"W / 50.60889°N 118.73111°W

Community Structure Protection Plan



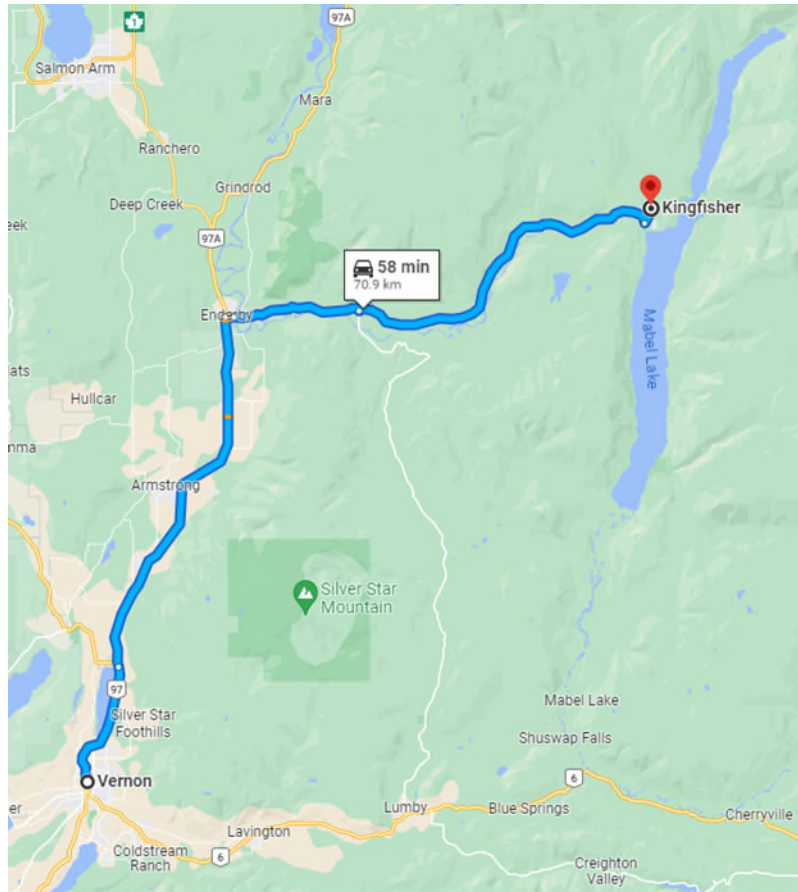


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Document Control

Distribution

The following provides the locations where copies of document will be stored.

1. Regional District of North Okanagan: A digital copy saved at F:\5200-5799 ENGINEERING and PUBLIC WORKS\5214 Emergency Planning\25_Wildfire_Plan\06_Mabel Lake-Kingfisher.
 - a. BCWS: A digital copy retained by BCWS SPCO Office. spco@gov.bc.ca

Version Control

RDNO will maintain control of the current version, updates, distribution and past version of both this document and the associated mapping.

To ensure that the document is current, the distribution points 1a are to track and verify all issued copies of the plan are most current when distributing updates.

Any updated plans are to be distributed by 01 March, in preparation for the annual wildfire season. Footer and headers must be verified to have the current year and month of update throughout the entire document.

Mabel Lake / Kingfisher

Mabel Lake / Kingfisher Community Structure Protection Plan

Purpose

To create a Pre-plan management template for use by British Columbia Wildfire Service (BCWS) Structure Protection Specialist (SPS) that enhances response assessment to Wildland Urban Environment (WUE) events affecting communities by:

- (1) Soliciting local information through a timely and simple process in a widely accessible medium.
- (2) Explicitly including the priorities of local communities.
- (3) Providing a means to Pre-plan and share situational awareness in response planning with convergent first responders who arrive at WUE events with limited understanding of local geographic, economic, environmental, and social/cultural issues.
- (4) Leveraging available technologies to achieve objectives 1-3 above.

The intention of developing this plan is twofold. **Part I** is general information intended for review and implementation during non-emergency periods by local communities and partners. **Part II** is a more detailed section intended to provide an incoming Incident Management Team or Structure Protection Specialist with accurate predetermined structural and cultural priorities requiring protection as well as to identify tactical and operational information as necessary.

Disclaimer

The recommendations made in this plan are based on fire probabilities for the conditions observed at the time of the survey in 2023. **It must be understood that all fire scenarios cannot be addressed and that this plan is not an absolute.** This plan should be used as a guide and implemented in part or in whole as circumstances dictate. The key to continued credibility of this plan is the time and accuracy employed to maintain the information provided here. This document should be reviewed by community officials or their designate and updated on an annual basis prior to wildfire season.

Introduction

The goal of this plan is to provide response agencies with a strategic framework to use for the protection of improved properties or other values at risk in the event of a significant



wildfire. This plan recognizes the capability of the local fire department and the contributions that can be made by local, regional, and provincial fire service resources.

The information contained in this plan was developed for use with wildfire operations however, an incident management team may find this a valuable tool in any disaster situation. Experience has proven that many homeowners will be reluctant to leave their home and belongings when an evacuation is ordered. Fire officials do not have the authority to force anyone to leave, nor do they have the time to educate evacuees after an order is issued. Preplanning and education of the community prior to an incident is imperative for a successful operation. Local authorities and community leaders are encouraged to inform their residents on evacuation processes and procedures.

Response Priority

This Response Structure Protection Defense Pre-Plan is subject to ongoing review and may be improved based on feedback following exercising and/or use at actual Wildland Urban Environment events in the upcoming wildfire season. Input from community officials is imperative for local knowledge and to help prioritize integral infrastructure, properties, and areas for protection. The loss of commercial and industrial properties is associated with unemployment and economic impacts that can seriously affect the viability of communities, particularly those with smaller populations. Community members are forced to relocate to urban areas for school and employment. British Columbia Wildfire Service (BCWS) is committed to understanding the values and priorities of Communities.

Through a consultation process facilitated by BCWS staff, the authority having jurisdiction (Municipality, Regional District, or First Nations Bands), have identified community priorities in their developed and natural environments. These priorities are included in the Structure Protection Defense Plan.

BCWS will determine strategies and allocate resources based on availability and the identified community priorities whenever possible. There will be a consultation process between BCWS and the Provincial Regional Operations Center and/or the Provincial Emergency Coordination Center.

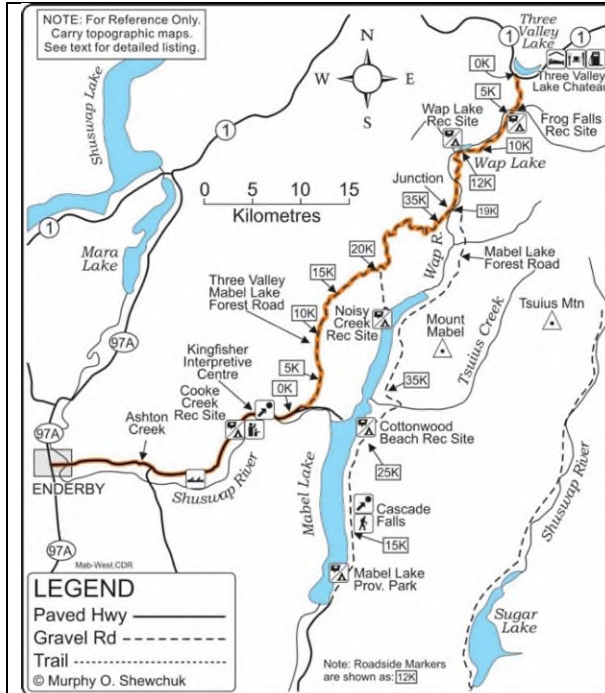
Electoral Area “F”

Electoral Area “F” includes the communities of Mabel Lake/Kingfisher, Grindrod, Grandview Bench, Ashton Creek and Mara Lake. Mabel Lake/Kingfisher is a low density unincorporated rural community located 37 kilometres east of Enderby. There is limited community infrastructure available other than in the immediate area of the Mabel Lake Resort. BC Hydro provides electricity and Telus provides telephone service by way of land lines. There is no reliable cellular phone service east of Ashton Creek. The community is a collection of fulltime and seasonal recreational residences that increases dramatically during the summer. Mabel Lake/Kingfisher has commercial and public properties surrounded by rural and agricultural land uses.

The Mabel Lake/Kingfisher area has been defined as either side of the Shuswap River between “Halfway Hill”, or the Shuswap River Islands Park, to the shores adjacent to the outlet of Mabel Lake into the Shuswap River.

There are limited private land holdings, mostly close to the north side of the Shuswap River, with crown lands occupying most of land above the valley bottom. The western portion of the area is predominantly rural and agricultural. A significant portion of these lands are within the Agricultural Land Reserve. Forage crops such as hay and alfalfa and pastureland for livestock dominate the agricultural uses while the remaining rural lands remain mostly in forest. Most of the area consists of larger land holdings with some rural residential parcels existing closer to the river. The eastern border of the plan area is Mabel Lake. The lakeshore has been developed as two distinct areas separated by the Shuswap River. The north side is accessed by the Enderby Mabel Lake Road and consists of Mabel Ridge Estates, Mabel Lake Resort and its ancillary developments, the airstrip, river mouth marina, and a handful of private lakeshore cabin lots. Slightly further away from the lake is the closed Kingfisher school and the Kingfisher Hall that is still actively used in the community. North of Mabel Ridge Estates, there is very little private land on the lakeshore within the plan area. The west side consists of cabin/seasonal residential lots and the church camp (Camp McKenzie). There is no public road access to the west side although there is a rough road route, that would be passable in an emergency, back through the Hidden Lake area. This road crosses through private lands and is not available for public use. Regular access is provided by private boats to individual or shared docks. Although there are dedicated roads on the west side, there are very few regular vehicles there. There are a few ATV's and some construction equipment that likely never leaves the west side. The west side does have hydro and telephone service across the Shuswap River. This limited access makes the pontoon boat watercraft of choice amongst the west side property owners. There is at least one pontoon boat that serves as a water taxi and garbage collection service.

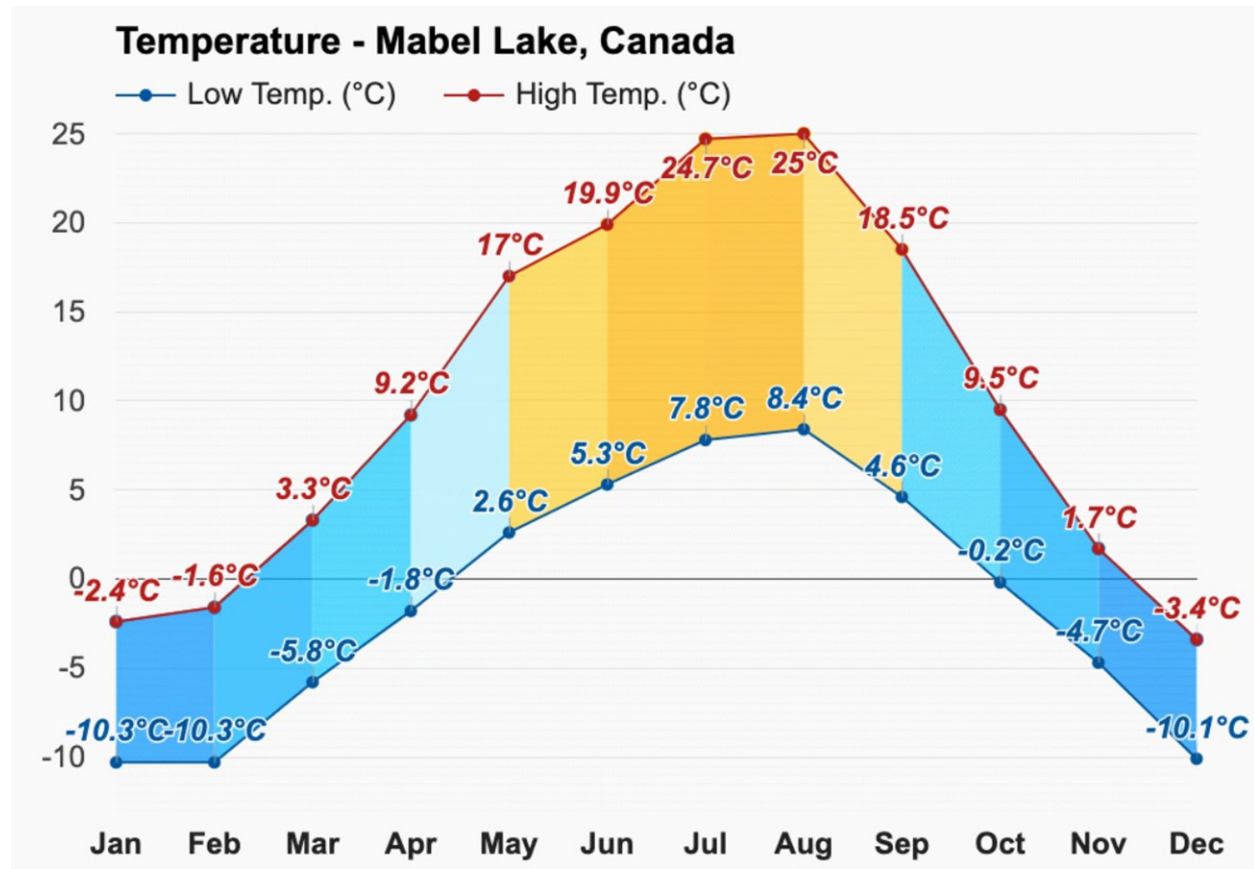
The Mabel Lake/Kingfisher plan area also has two Class A Provincial Parks; Skookumchuk Rapids and Shuswap River Islands provincial parks are the resourced based parks within the plan area. There is also access to significant crown land and forestry campsites through the Mabel Lake/Kingfisher plan area that are used in both summer and the winter (i.e. Hunter's Range, Noisy Creek, Mount Griffen).



The community is accessible via an alternate forest service road from 3 Valley Gap and Lumby via the Mabel Lake Forest Service Road.

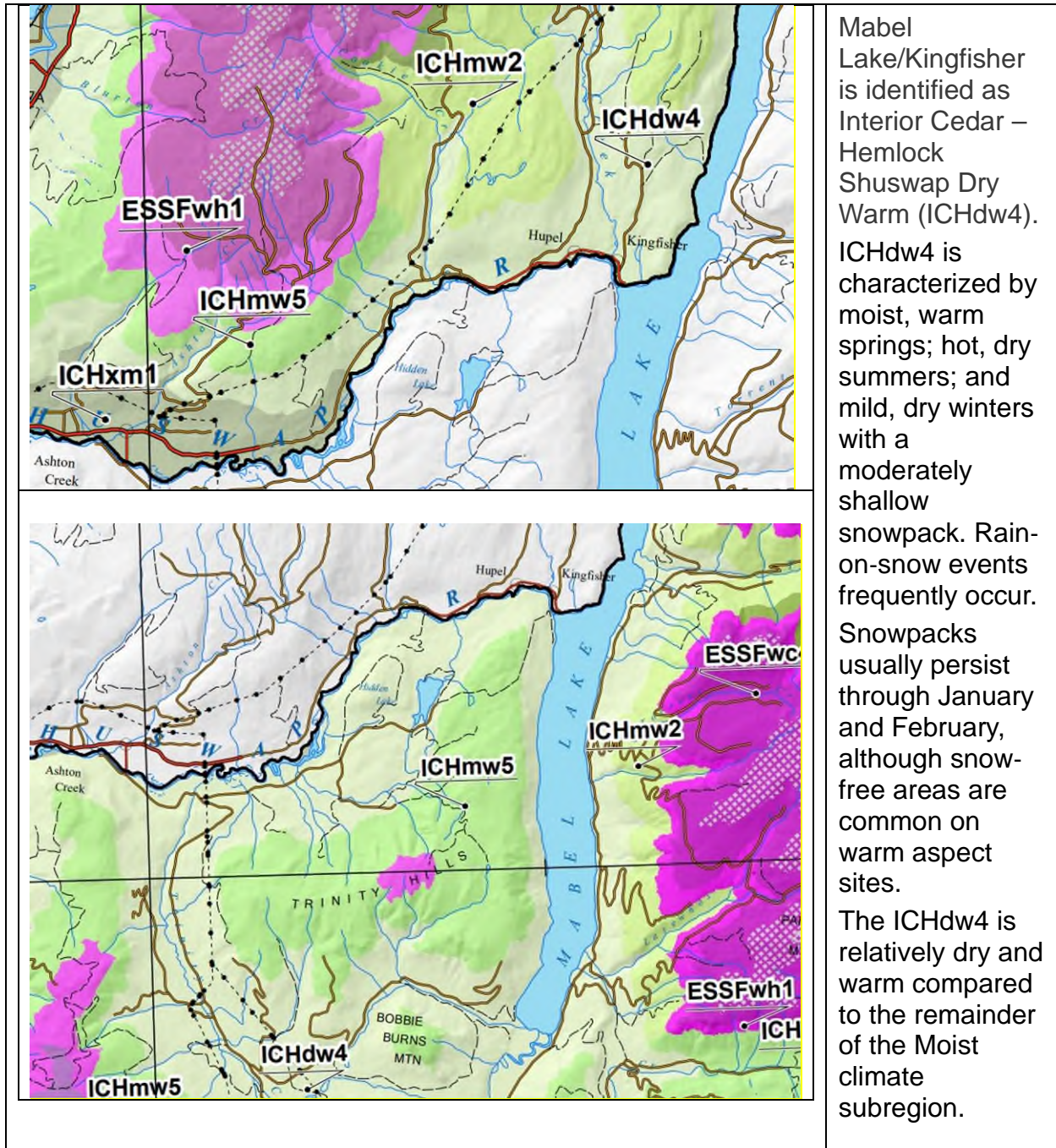
Mabel Lake / Kingfisher Temperature and Precipitation

From June – August coincides with the busy summer tourism months and the greatest risk from wildfires to the community. July and August are the warmest and driest months. During 2021 highs in August were recorded at 88°F (31.1°C) with temperatures rarely dropping below 55.5°F (13.1°C) at night.



Biogeoclimatic Zone

Biogeoclimatic Zone is a geographical area with a relatively uniform macroclimate, characterized by a mosaic of vegetation, soils and, to a lesser extent, animal life reflecting that climate. Zones are usually named for the potential climatic climax or self-perpetuating vegetation. The biogeoclimatic zone vegetation effect the wildfire behaviour.



Mabel Lake/Kingfisher is identified as Interior Cedar – Hemlock Shuswap Dry Warm (ICHdw4). ICHdw4 is characterized by moist, warm springs; hot, dry summers; and mild, dry winters with a moderately shallow snowpack. Rain-on-snow events frequently occur. Snowpacks usually persist through January and February, although snow-free areas are common on warm aspect sites. The ICHdw4 is relatively dry and warm compared to the remainder of the Moist climate subregion.



The ICHdw4 Mabel Lake/Kingfisher is located within an area characterized by a broad range of fire regimes. The community is surrounded by dense forest that acts as a large fuel hazard and increases the potential of a wildfire to spread into the community. Forest health impacted by insects and disease is creating increased wildfire risk. Mountain pine beetle and Douglas-fir beetle especially on warm aspect sites with high Douglas-fir. Armillaria root rot creates small gaps in mature stands and can be a major impediment to tree regeneration. Birch decline due to a combination of insect, disease, and drought has had large impacts. White pine blister rust along with historic targeted harvesting has had a major impact. Other insects and pathogens affect the growth of regenerating stands, including gall rusts on Lodgepole Pine. Timber harvesting has been extensive in more recent times. Fortunately, the forest is predominantly a mix of conifer and deciduous that can help reduce the rate of spread, fuel consumption, crown fraction burned, and headfire intensity compared to pure conifer stands.

The 2018 Wildfire season illustrated how fires in this fuel type can grow aggressively when the ideal conditions are presented. The Mabel Creek fire, discovered on July 31, 2018, ignited approximately 9km east of the Mabel Lake resort community from lightning. The fire's final size was 1,370.4ha. Several other smaller fires ignited from thunderstorms. The Monashee Complex was established by BCWS to manage the high volume of fires burnings within the eastern portion of the RDNO. These fires resulted in prolonged smoke exposure, area closures and evacuations alerts throughout the Regional District of North Okanagan.

The possibility of firebrands (embers) being transported from a nearby wildfire and igniting spot fires within the community is high and highlights the importance of homeowners taking proactive FireSmart measures to reduce potential fuel sources around their property.

Wildfire trends in B.C. and Canada, show increased impacts to values from wildfires and associated suppression costs, increased threats to communities and infrastructure and increased losses of natural resources including mid-term timber supply. This is being driven by the effects of climate change, the mountain pine beetle fuel type and increasing community, critical infrastructure, and natural resource development on the forested land base.

Wildland Urban Interface Risk Classification

Wildland Urban Interface Risk Classification (WUI RC) is determined utilizing the updated 2021 Provincial Strategic Threat Analysis (PSTA) and the 2020 WUI structure density data and mapping. WUI RC ratings take into consideration the underlying fuel types related to land-based activities (e.g., wildfires, harvesting, fuel treatments, development), updated vegetation resources inventory or changes to fire weather inputs (e.g., increases in threat levels due to shifts in the weather data). Risk Classification is determined utilizing the spatial WUI attributes combined with the PSTA wildfire threat layer (for Crown land) to identify at-risk areas at a strategic scale. The level of risk (“Risk Class”) reflects the analysis of weighted PSTA threat components within the individual WUI RC polygons. Five Risk Class ratings were applied to the WUI polygons, with “1” being a higher relative risk and “5” being the lower relative risk. The application of relative risk does not imply “no risk” since the goal is to identify areas where there is higher risk.

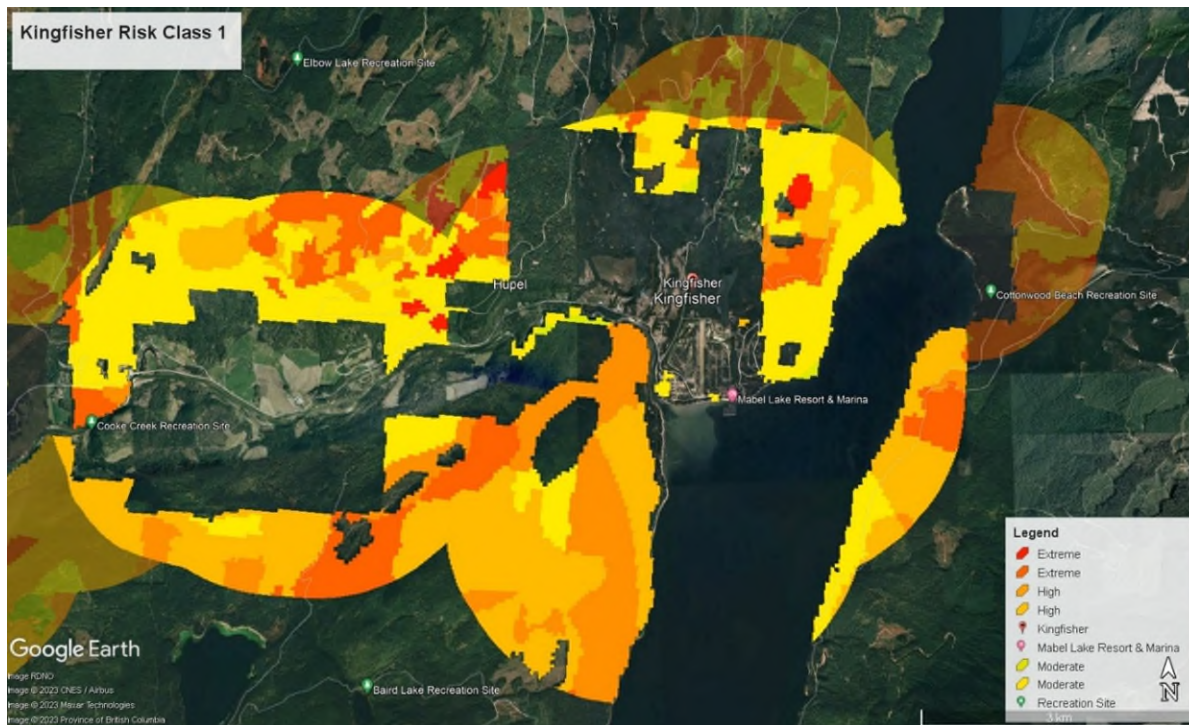
Mabel Lake / Kingfisher is Risk Class 1

Wildfire Risk Assessment

Wildfire Risk Assessment is available in B.C. for provincial Crown land utilizing a two-kilometer-wide buffer zone to the edge of structures located in the WUI to indicate the distance that embers from a wildfire could reasonably expected to be carried by the wind and possibly ignite a structure. The wildland fuel Fire Threat is shaded with colours that are numbered from 1 (low) to 10 (extreme) to identify the level of wildfire risk if the fuel catches on fire.

Most of Mabel Lake / Kingfisher area borders on Fire Threat 6 (Moderate) to Fire Threat 10 (Extreme).

Mabel Lake / Kingfisher Wildfire Risk Assessment Map



Community Wildfire Hazard Rating

Community Wildfire Hazard Rating looks at homes and critical infrastructure as a fuel type and using a provincial assessment with multiple choice answers provides a score from Low to Extreme for consequences if a wildfire gets into the community. The assessment looks at specific information related to “Community Design” and “Community Challenges”. The Mabel Lake / Kingfisher Fire Protection Area assessment is based on input from the RDNO and community members. **The assessment resulted in a Community Wildfire Hazard Rating of 90.** This indicates a need for improvement to better protect critical infrastructure and mitigate site hazards.

The letters in the rating section correspond to the recommendation section. The recommendations will need to be prioritize and modified to address interagency cooperation and funding to deliver on the actions in a timely and cost-effective way that reduces community wildfire risk.



COMMUNITY DESIGN	Rating	
ACCESS		
Two or more primary roads in and out. One primary and one secondary access. One road in and out (entrance and exit are the same).	0 3 5	3
BRIDGES <i>(Please note construction type and GVW)</i>		
No bridges or bridges with no weight and/or width restrictions. Low weight bridges restricting emergency vehicle access.	0 5	0 A
PRIMARY ROAD WIDTH <i>(main access/egress routes)</i>		
At least 7m wide. Less than 7m wide.	0 4	0
SECONDARY ROAD CHARACTERISTICS		
Majority of structures on primary access road. Majority of structures on secondary access roads with some primary road access. Majority of structures on secondary roads. Majority of structures located on secondary roads with some dead-end roads. Dead end road systems that limit emergency crews to remain in the area under certain fire conditions due to lack of egress.	0 1 2 4 5	5 B
EVACUATION PLAN		
Updated plan in place, community is aware. Plan in place not implemented community unaware. No plan.	0 3 5	3 C
FIRE DEPARTMENT		
Volunteer FD more than 25 members. Volunteer FD more than 20 less than 25. Volunteer FD less than 20. No Fire Dept.	1 3 5 10	10
FIRE SMART		
Community has FireSmart certified representative and strategies are in place. Community has started a FireSmart program, strategies not in place. Community presently has no FireSmart initiatives.	0 3 5	3 D
MUTUAL AID/AUTOMATIC AID		
Fire department has a mutual aid/auto aid agreement in place. Fire Department has no aid agreements.	0 5	5 E
TOTAL COMMUNITY DESIGN RATING is based on the community's ability to withstand fire front contact to critical infrastructure	Rating 29	

COMMUNITY CHALLENGES	Rating	
UTILITIES		
All utilities are underground. Some utilities are underground. No utilities are underground.	0 3 5	5
ACCESS TO CRITICAL INFRASTRUCTURE (example: Pump house and reservoir)		
Access more than 4m wide with hammerhead turnaround and access for fire apparatus. Driveway less than 4m wide no turnaround has access for fire apparatus. No access for fire apparatus.	0 3 5	3
No obstructions or overhead branches below 5m. Obstructions or overhead branches below 5m.	0 5	0
No bridges or bridges with no weight and/or width restrictions. Low weight bridges restricting emergency vehicle access.	0 5	0
Driveway slope less than 10%. Driveway slope greater than 10% present.	0 5	0
No gate/non-locking gate. Locked gate/restricted access.	0 5	5 F
Most Addresses clearly visible from road. Most Addresses not visible from road.	0 5	0 G
DOMINANT TREES (take an average of what's around the community)		
Deciduous (Hardwoods). Mixed (Hardwoods and Conifers) 50/50. Conifers (Pine and/or Red cedar).	1 5 10	5
HOME IGNITION ZONES (take an average of what's around the community)		
10% of structures are in the interface with very light conifer fuel loads. 10% of structures are in the interface with moderate conifer fuel loads. -----	0 3	3
70% of structures are in the intermix with moderate conifer fuel loads. 10% of structures are in the intermix with heavy conifer fuel loads and heavy brush.	3 5	3
LADDER FUELS (take an average of what's around the community)		
No conifers or conifer branches pruned up at least 2.5m. Conifer branches close to ground.	0 5	5
TYPE OF GROUND COVER (Majority or Type surrounding the community)		
Grass up to 15cm tall, pine needles, hardwood leaves. Tall grass, 15-30 cm. Grass more than 30cm tall. Shrubs with leaves. Shrubs with needles. Moderate to heavy slash.	3 5 8 8 10 15	10



SLOPE OF COMMUNITY		
Much of the community is flat (0-5%) Most of the community is on a moderate slope (6-20%). Community is located on a steep slope not accessible to fire apparatus. (more than 20%).	0 2 4	2
FUEL STORAGE (includes propane tanks, firewood, elevated tidy tanks)		
None. Located more than 10m from structure and has a proper fuel break established. Located 1.5-10m from structure and has a partial fuel break established. Located less than 1.5 m from structure no fuel break established.	0 1 3 5	5 H
CRITICAL INFRASTRUCTURE RESPONSE PLAN (wildfire mitigative tactics)		
Community has a critical infrastructure response plan in place. Community has no critical infrastructure response plan in place.	0 3	0
FIRE DEPARTMENT TRAINING		
FD members trained to Playbook Exterior + S-100-S185 or WSPP-115 & WFF 1. FD members trained to Playbook Exterior with some wildfire knowledge. FD members trained to Playbook Exterior. FD members not trained to Playbook no wildfire knowledge.	0 1 3 5	5 I
FIRE DEPARTMENT ENGINE/TENDER		
Fire Department has minimum 1 engine and 1 tender with wildland equipment. Fire Department has minimum 1 engine and 1 tender. Fire Department has no tender and no wildland equipment.	0 3 5	5 J
FIRE CONTROL WATER SUPPLY		
Pressurized hydrants with minimum 1800 lpm (135 L/s) spaced less than 300m apart. Pressurized hydrants with less than 1800 lpm (135 L/s) or more than 300m apart. Hydrants fed by a generating system (requires power). Dry hydrant/standpipe available. River/Creeks/Cisterns that are accessible for drafting. No water sources.	0 2 3 5 7 15	5 K
HELICOPTER DIP SITES (min 1.5 m water depth year-round 45' obstruction clear)		
Under 2-minute turnaround (< 1 kilometer). Within 4-minute turnaround (1-3 Kilometers). Within 6-minute turnaround (3-6 Kilometers). Beyond 6-minute turnaround (greater then 6 k) or unavailable.	0 2 3 5	0
COMMUNITY MAPS		
There are updated maps available. There are no maps available.	0 5	0 L
TOTAL COMMUNITY CHALLENGES		Rating 61

CALCULATING YOUR WILDFIRE HAZARD RATING

COMMUNITY DESIGN RATING	COMMUNITY CHALLENGES RATING	TOTAL
29	61	90

Low Fire Risk:

Overall Wildfire Hazard Rating = 0 – 25 points

Exposure is minimal and well mitigated, and wildfire losses are unlikely except under the most severe conditions. If impacts occur, damage is expected to be limited and localized. Recovery would likely be rapid, with most needs managed locally and minimal outside assistance required.

Moderate Fire Risk:

Overall Wildfire Hazard Rating = 26-59 points

Some mitigation measures are in place, but meaningful exposure to wildfire remains. Losses are possible under commonly experienced severe wildfire conditions. Recovery is expected to be manageable but may require coordination, short-term displacement, or targeted external support.

High Fire Risk:

Overall Wildfire Hazard Rating = 60-119 points

Loss is likely under expected wildfire conditions due to significant exposure, high hazard, or gaps in mitigation. Impacts may include substantial property damage, service disruptions, or prolonged displacement. Recovery is expected to be challenging and resource-intensive, with coordinated external assistance likely required.

Extreme Fire Risk:

Overall Wildfire Hazard Rating = 120 or more points

Loss is very likely, as conditions exceed reasonable protection and response capacity even with preparedness measures in place. Impacts may be widespread and severe, including major property or infrastructure loss and long-term displacement. Recovery is expected to be prolonged and highly disruptive, requiring sustained external assistance and significant recovery planning.

Notes & Recommendations from Community Wildfire Hazard Assessment Scores:

A – Bridge

Lusk Lake bridge between west and east side is 6ft wide with 15,000-pound rating. Possibility small equipment could cross. Low weight bridges pose a risk to large apparatus such as a Type 1 Tactical Tender weighing 40,000 lbs.

B – Roads

Roads servicing neighbourhoods need to be assessed for design opportunities to enable emergency responders a secondary escape route so crews can remain on site as long as safely possible before retreating to a safety zone.

Recommendation – Improve access between Original Airpark at 3525 Enderby Mabel Lk Rd and 30 Lusk Lake Rd. Currently access is limited between the two communities to golf carts. Suggest a gate that can be opened to make the access wide and tall enough for a Type 1 Tactical Tender



Recommendation – Connect Lusk Rd E. with Lusk Lk Rd suitable for a Type 1 Tactical Tender.

C – Evacuation Plan

Primary evacuation via Enderby – Mable Lake Rd. to Vernon. The RDNO has created an evacuation plan for the area. Water evacuation could create a conflict with boat traffic at a critical time that BCWS airtankers would be scooping water. Road evacuation to Enderby will require a coordinated emergency response to minimize conflict between incoming emergency resources and a high volume of evacuees driving

from Mabel Lake to Enderby. A secondary evacuation route via Mabel Lake Forest Service Rd to 3 Valley Gap and Lumby could be an option if Enderby Mabel Lake Rd was cut off by a wildfire.

Recommendation – RDNO should continue to prioritize and expand Evacuation Education for residents in wildfire-prone areas.

During a wildfire event, evacuation routes can quickly become compromised as fire behaviour escalates, weather conditions shift, or ember transport increases along key corridors. Because of this, evacuation must occur as soon as established trigger points are met, and residents should be strongly encouraged to self-evacuate early, well before wildfire activity reaches their neighbourhood or threatens evacuation routes.

Early evacuation improves safety for residents, reduces congestion on limited road networks, and ensures emergency responders can operate without obstruction. Clear, ongoing public education helps residents understand that waiting for visible flames or formal evacuation orders increases risk, whereas early self-evacuation supports safer, faster, and more efficient emergency operations.

D – FireSmart Initiatives

Most homes destroyed in forest fires are not lost to direct flame contact but to firebrands (embers) carried by the wind. These embers can travel significant distances and ignite spot fires in easily combustible materials such as standing dead grass, stacked firewood, patio cushions, and welcome mats. Once these spot fires start, they can quickly spread to structures and escalate into a multiple-structure conflagration event, overwhelming suppression efforts and increasing the risk of widespread property loss.

Recommendation - Communities should follow FireSmart recommendations, particularly maintaining a fuel-free zone within the first 1.5 meters around structures. It is important to review the RDNO Area F Community Wildfire Resiliency Plan for specific recommendations and priorities. Class A roof coverings non-combustible siding should be promoted to reduce ignition risk. Non-combustible hardscapes such as concrete pavers, flagstone paths, decorative gravel (rock mulch), and natural stones should surround structures for a minimum of 1.5 meters. Additionally, spaces under decks should be enclosed to prevent the accumulation of leaf litter and other combustible materials that could ignite from wildfire embers.

Recommendation - Some property owners have pre-installed water cisterns for pre-installed rooftop wildfire sprinklers that responding agencies can connect to using fire department hoses and pumps when structures are threatened by wildfire. The pre-installation of sprinklers can significantly aid responding agencies in setting up community structure protection plans quickly when time is critical. However, unmanaged use of wildfire sprinklers can result in depletion of reservoir water long before the fire



front impacts the structure and should therefore be controlled by the responding agency. Wildfire sprinklers must not be connected to the municipal water source, and unauthorized use can result in fines. Incorrectly installed sprinklers can lead to water damage and should be installed or verified by professionals. Homeowners are advised to consult their insurance provider when installing sprinklers. It is important to note that sprinklers are most effective when FireSmart initiatives have been completed. In many cases, FireSmart initiatives can make a structure extremely resilient, reducing or eliminating the need for sprinklers to protect the structure from wildfire.

Recommendation – Develop a map that identifies FireSmart properties will help BCWS prioritize the installation and operation of sprinklers for Structure Protection.

Recommendation – Develop a map that identifies properties with approved pre-installed sprinklers for effective timely activation and tactical resource allocation.

Important communication to property owners – During fire season, when not at home, ensure a 1.5m non-combustible zone is maintained around the home by storing flammable material like patio furniture, welcome mats or building materials indoors or 10m away from the house.

Utilize resources from preparedbc.ca or firesmartbc.ca such as the Emergency Wildfire Preparedness Checklist (<https://firesmartbc.ca/resource/emergency-wildfire-preparedness-checklist/>) to help empower residents to take action prior to an evacuation order.

Homeowners who have installed Wildfire Sprinklers should have the connections/hoses clearly visible for the responding agency. Wildfire sprinklers must not be connected to the municipal water supply. Doing so can significantly reduce the water available for firefighting operations, which rely on municipal reservoirs as a critical resource. Depleting these reserves compromises the ability to extinguish structure fires and limits firefighters' ability to work longer, harder, and safer during emergency response.

Sprinklers are most effective when run from an auxiliary water source, mounted and controlled by structure protection crews and utilized 30 min prior to fire arrival and the duration of the fire front. Privately installed Wildfire Sprinklers can cause water damage to a structure if not properly set up and monitored. Consult your insurance provider prior to installation and use.

Contact the Mable Lake Water Utility (RDNO) for more information about Wildfire Sprinkler use.

E – Mutual Aid

Mutual Aid is not available as Mabel Lake is not in a Fire Protection Area. Enderby Fire Dept has responded in the past when BCWS provided a request/Authorization for wildfire that threatened structures. A response time for crews and equipment could be more than 45 min from time of page out.

F – Locked Gates

Locked gates for strata areas at Golf & Country Club, Mabel Lake Estates, Mabel Lake Holiday Centre, and strata property off Lusk Lake Rd.

Recommendation – Provide access to Responding Agencies during a wildfire for all the locked gates.



Lake Side Estates



Lusk Rd



Mabel Lake Resort & Airpark

G – Addresses

While most properties in the area do have visible address signage, the address numbering within several subdivisions is inconsistent, non-sequential, or counter-intuitive, creating significant challenges for first responders during time-critical wildfire operations. Examples include:

- Expected numbering:
 - 3525 Enderby Mabel Lk Rd has address unit #'s 1-47 and 3453 Cessna Rd has unit #'s 1–32 which would be viewed as typical.
- Non-Sequential or Missing Number Ranges:
 - 3445 Cessna Rd has unit #'s 78–106 and missing 1– 7, and 30 Lusk Lk Rd has unit #'s 33–77 but is missing 1–33.
- Reverse or Irregular Ordering
 - Mabel Lk Marina to Simard Rd Address could be confusing for crews looking for a specific address as the map #'ing is 11, 13, 15, 17, 19, 21, 23, followed by 10, 12 on Simard Rd.
- Cross-road Numbering Conflicts

- #31 is on Dolly Varden 11 lots away from lot #30 on Simard Rd.

Recommendation - Develop detailed address map books for all subdivisions with irregular numbering. These maps will support faster, more accurate navigation during emergency response

H – Fuel Storage

Propane cylinders can be a fire hazard during a wildfire event. Accumulating embers and ground fires heat up the cylinder causing them to vent propane from the pressure relief valve. Venting gas could ignite the structure.



Recommendation – Relocate propane tanks 10–30 metres away from the home with a 1.5m non-combustible surface around the tanks. Rotate the cylinder to point the high-pressure relief valve away from the building. If it ignites the flame will not be against the structure and when the cylinder pressure is relieved the vent will close.

I – Fire Department Training

The community does not have “trained fire dept. members” but it has an engaged, informally trained, volunteer group that has acquired wildland fire equipment for initial fire containment until BCWS resources arrive.

Recommendation –The community group should investigate requirements to qualify as a Fire Brigade for the purpose of qualifying for BCWS Wildland training FF1 (Tools, Communication, Strategies & Tactics for wildland firefighting) and WSP115 (Structure Protection including Triage, and Sprinkler Deployment). Trained local resources will play a critical role in protecting structures prior to the arrival of BCWS and could provide assistance to BCWS during the initial operational period.

J – Fire Department Engine/Tender

The community has acquired some wildland equipment. Hose Huts with 1 ½” forestry hose at several standpipe locations for initial fire suppression along with portable water tanks and pumps.

K – Fire Control Water Supply

Mabel Lake Water (MLW) system standpipes are limited and NOT sized for fire protection. However, there may be interest or a need to provide fire flows in the future. As such, RDNO should consider both including and excluding fire protection for the water system in any future system analysis.



The Fire Underwriters Survey (FUS) has established the Dwelling Protection Grade (DPG) program, a fire insurance classification based on the ability of a community to provide effective fire protection in small buildings. The DPG is based on a number from 1 to 5, where a DPG of 1 represents exemplary fire protection and a DPG of 5 indicates the area's fire suppression program does not meet the minimum criteria to be recognized for fire insurance grading purposes. The DPG met by a community may have implications on insurance rates and premiums.

MLW can currently be considered as having a DPG of 5, where the water supply system does not meet FUS fire protection requirements, there is no apparatus available to provide response, and there are no fire fighters available.

Recommendation – In a wildfire scenario, BCWS may use large volume pumps for surface hose lays to sprinkler systems to establish a secure water source. Relay tanks could initially be filled from standpipes, and then supported from tenders when the very limited reservoirs reach a critical level.

L – Community Maps

Community Maps are available.

Recommendation – update mapping to include the 5 wildfire management zones and include: Escape Routes, Safety Zone, Critical Infrastructure, Tender Filling sites, Standpipes, and property address on the digital layer for printing on 60 x 100cm pages for use by emergency responders. Include an KML layer of the area that can be downloaded onto responder iPads and a paper overview to provide Structure Defense teams for operational planning.

The implementation of the recommendations above is beyond the scope of this document.

Summary

Mabel Lake / Kingfisher area is surrounded by forest that is Risk Class 1 (highest relative risk) with Wildfire Threat Moderate (6) to Extreme (10) bordering on a community assessed as High Fire Risk (90). If properties have not undertaken FireSmart recommendations and hot embers blow into residential neighbourhoods, they could ignite spot fires that will result in significant structure loss. This information should be used to promote FireSmart strategies on and around homes where they back onto both private and crown forests, and to prioritize the investment in forest fuel treatment plan.

Part II

Responder Safety Check List

All responders will receive a pre-deployment safety briefing that includes:

- Current wildfire location, rank, and direction of travel and any changes expected during the operational period;
- Current weather and any changes expected during the operational period;
- Current and planned air operations;
- Current and planned fuel mitigation activities (backburns, land clearing)
- Check-in procedures and intervals;
- Other hazards in operational areas;
- Safety zone locations;
- Medical unit location(s);
- Reporting structure, assignment, and radio call-sign;
- Assigned radio frequency(ies);
- Contingency communications (cell phone, satellite phone numbers); and
- Expectations for personal protective equipment.



“Drought conditions, the build-up of hazardous fuels, and more homes in fire-prone landscapes are changing how we experience Wildfires in British Columbia.”



Mutual Aid

Mutual Aid is not available as Mabel Lake is not in a Fire Protection Area. Enderby Fire Dept has responded in the past when BCWS provided a request/Authorization for structure protection/suppression. A response time for crews and equipment could be more than 45 min from time of page out.

Enderby Fire Dept. can provide the following apparatus at request of BC Wildfire.:

- 1x 1E
- 1x 3E (750gal)
- 1x 2T (tactical)

Mabel Lake / Kingfisher Area Zones

Latitude: 50°36'32"N **Longitude:** 118°43'52"W

Toporama Map: 82L10

The community is accessible via Enderby Mabel Lake Rd. from the City of Enderby. An alternate route, via active logging road, can be taken from Lumby through Trinity Valley to Ashton Creek (25km west on Enderby Mabel Lake Rd). All roads within the plan area are the responsibility of the Ministry of Transportation and Infrastructure (MoTI)

East of Ashton Creek to Kingfisher (25km), there is no cell phone service. This will require additional planning on communication procedures during emergency response and evacuation.

Another notable challenge is the absence of an organized Fire Department within the Mabel Lake/Kingfisher community.

NO LOCAL FIRE DEPARTMENT PRESENT

Residents have informally organized and have acquired some wildland firefighting equipment. Unique to the area is they have some equipment strategically located for residents to use for fire suppression. A list of the equipment and its location by specific wildfire zones is noted below.

Zone 1 Kingfisher

3303 Enderby Mabel Lk Rd.

Club Kingfisher Pool House has signage with location of standpipes and 2 fire hose houses containing 1½” fire hose with Hansen nozzles. Hose hut 1 also has a pump.

Need to verify hose length @ 150 ft.



Zone 2 Lusk Lake Rd.

30 Lusk Lake Rd.

34 Strata lots with 4 Hose Huts located next to the 4 standpipes.



Zone 3 Mabel Ridge Estates

Hose huts and 1 200gal water tank



**Zone 4 Mabel Lake Resort
and SE Airpark**

West Airpark
Cessna Rd.
Lakeview Pl.
Mabel Lk Pl.

1 hose hut at standpipe with threaded hose

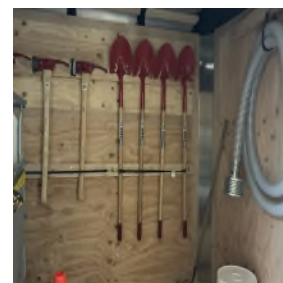
2 hose huts at 2 standpipes with threaded hose

1 hose hut 3" coupler with conversion coupler, hoses quick coupler

Need to standardize hose connection fitting. Make all of them 1½" quick coupler.



Country Club has "Hose Huts" at some of the standpipes



Country Club Hanger with wildland fire equipment.

1 trailer with 1000gal water tank and Honda pump.

4 trailers with 500gal water tank and Honda pumps. (3 for strata, 1 for Airpark)

2x 50gal water tanks that can be towed with a golf cart.




3525 Enderby Mabel Lk
Rd.
Fire Hall beside lot 12.

1x 100gal water tank at
Airpark



Trailer with 2x 200 gal water tanks

	 <p>3525 Enderby Mabel Lk Rd. Mabel Lake Holiday Park Campground 1x 1000gal water truck</p>
<p>Zone 5 West Shoreline</p>	<p>Limited Access and community supported fire protection resources in place.</p>

Estimated Number of Private Dwellings:

The Mabel Lake/Kingfisher community is made up of fulltime, seasonal, and recreational residences, surrounded by agricultural land. According to Canada Statistics Census (2021), the community has a permanent population of 205, with 41.46% of those residents being over the age of 65.

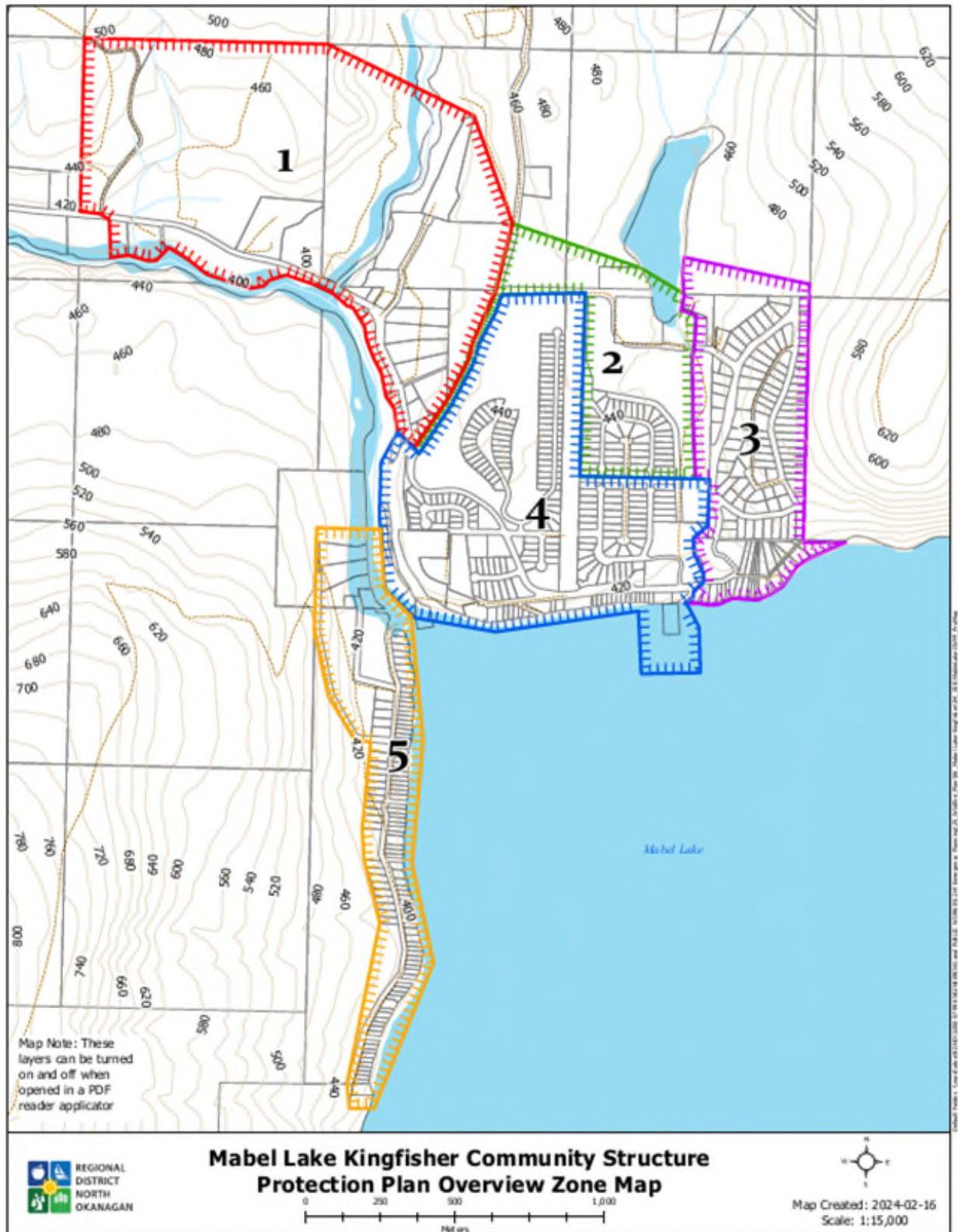
Summer is high season in the Mabel Lake/Kingfisher area with a dramatic influx of residents and visitors. Part of the influx is due to the Mabel Lake Resort, open May to October, and Mackenzie Camp, which hosts multiple youth and family camps throughout July and August. The area also hosts several commercialized ventures including the Mabel Lake Resort, Marina, RV Park and campground. Notably, the community's population can increase by 2000-5000 on any given day during the summer months.

Mackenzie Camp hosts anywhere from 45-70 youth, depending on the camp session, and has approximately 14 staff members. Residents of the Mabel Lake/Kingfisher community rely heavily on private vehicles for transportation as there are no public transit options and no local taxi service. Approximately 50 residents commute outside of the community daily.

The community has a private 2,900ft grass runway airstrip for local air traffic as shown below.



For purposes of allocating resources to protect structures from a wildfire, Mabel Lake / Kingfisher Area has been divided into 5 Wildfire Protection Areas (Zones).



Area	Total # Properties
<p>Zone 1 – Club Kingfisher</p> <p><i>Wildfire Protection Area 1 of 5</i></p> <p>Area includes Enderby-Mabel Lake Road between Rhonan Peters Rd. and Beattie Rd. with 20 plus primary + Club Kingfisher 70 RV sites, community hall and school. 12 of the properties are currently connected to the municipal water system and all the campsites are occupied. This area is currently commercially zoned.</p> <p>Pop 176</p>	<p>Zone 1 consists of 20 lots with approximately 25 primary structures. RV's risk of water damage from sprinklers Remove Rv's or FireSmart.</p>

Zone 2 - Lusk Lake Rd.

Wildfire Protection Area 2 of 5

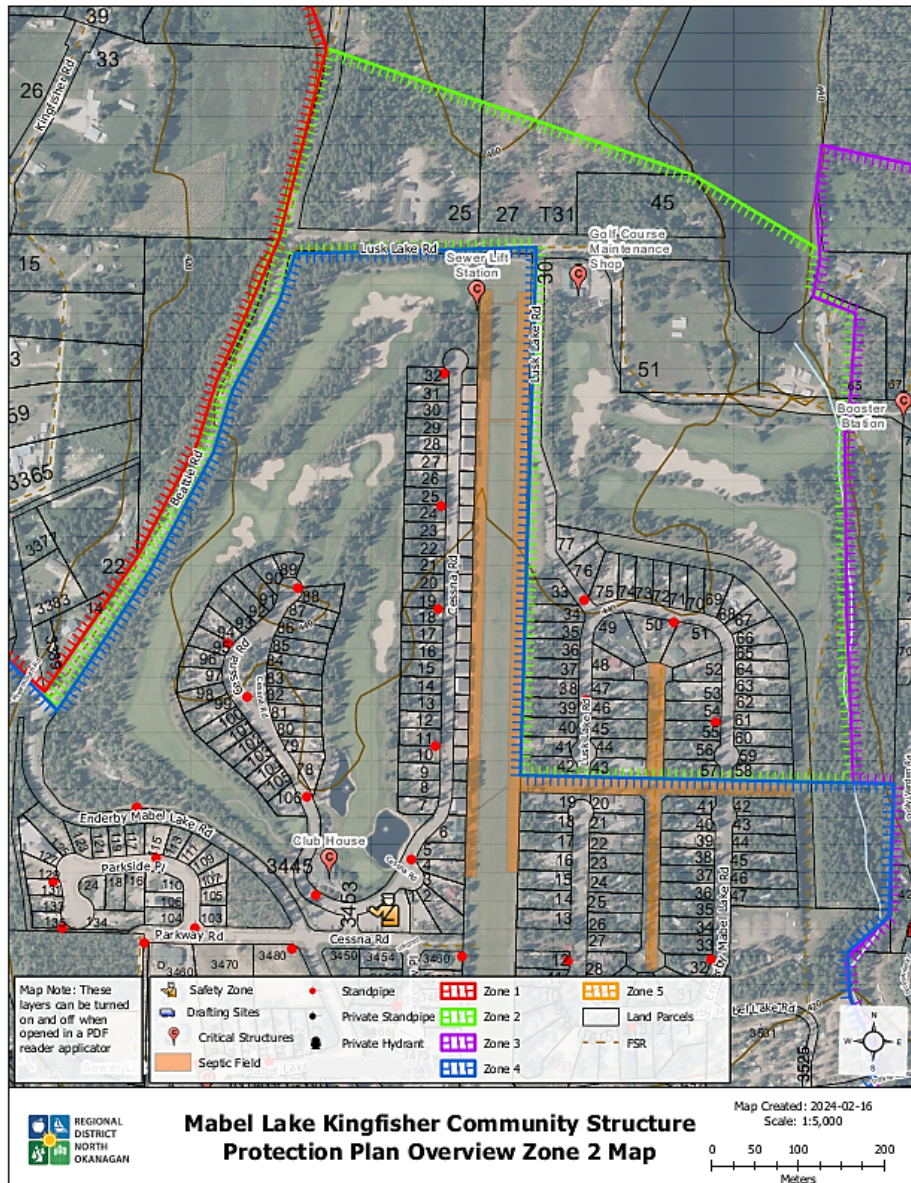
Area includes properties along Beattie Road to Lusk Lake Road and the 44 strata lots at 30 Lusk Lake Road (northeast side of the airstrip). Lot 33 through 77 (There is no 30 - 1 through 32).

Pop 200

Zone 2 consists of 50 lots with approximately 50 primary structures.

RV's risk of water damage from sprinklers.
Remove Rv's or FireSmart.

Area potential to expand to include RDNO landfill, and acreages north of Lusk Lake Rd along Beattie Rd.



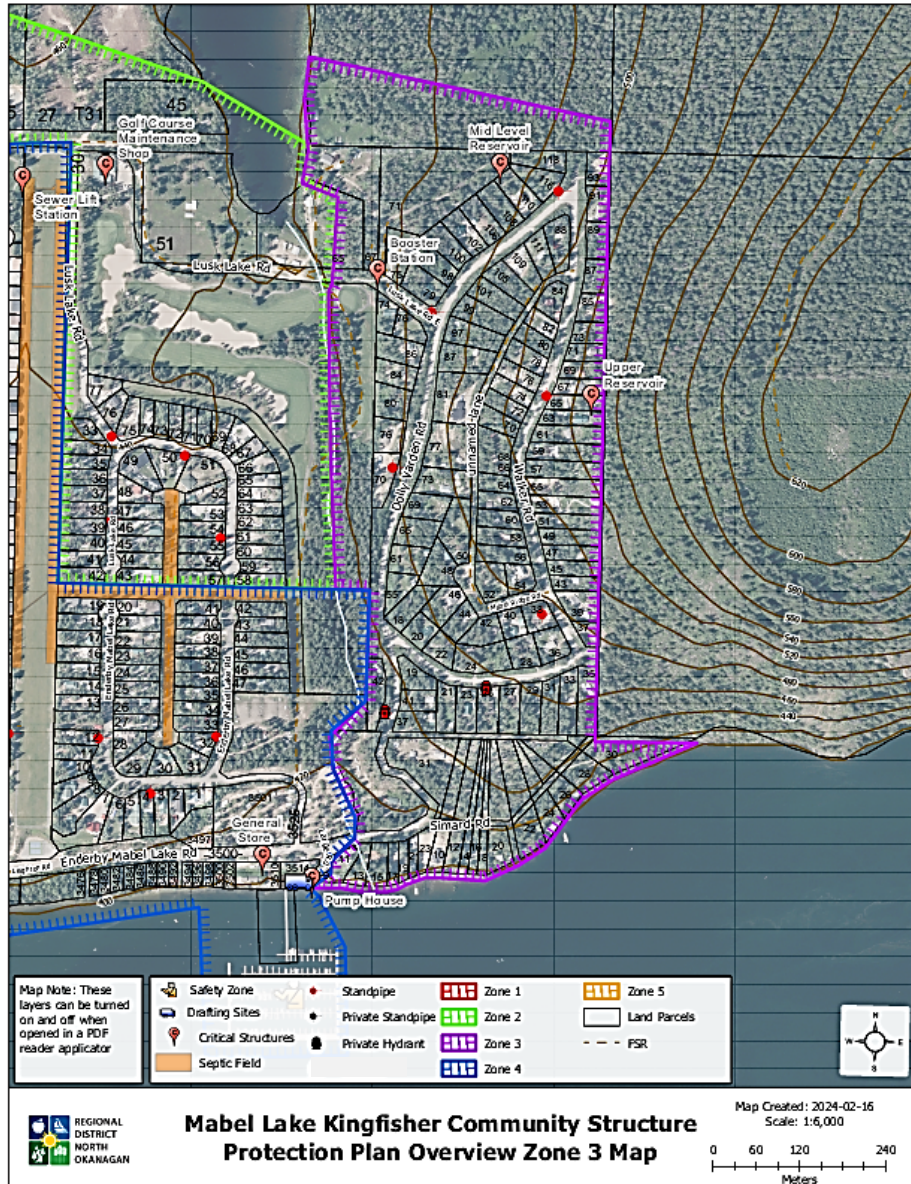
Zone 3 - Mabel Ridge Estates

Wildfire Protection Area 3 of 5

Area includes properties on Dolly Varden Rd, Lusk Lk Rd E, Walker Rd, and Mabel Ridge Rd. Mabel Ridge Estates is the farthest east development in Kingfisher and makes up the upper pressure zone. The areas north and east of the Mabel Ridge Estates is crown land.

Pop 276

Zone 3 consists of 108 lots, 92 of which are currently developed having approximately 92 primary structures. RV's risk of water damage from sprinklers. Remove Rv's or FireSmart.



Zone 4 - Mabel Lake Golf & Country Club, Airpark, and Lakeshore.

Wildfire Protection Area 4 of 5

Area includes Rivermouth Rd., Golf & Country Club, Airpark, Lakeshore, to Mabel Lake Marina.

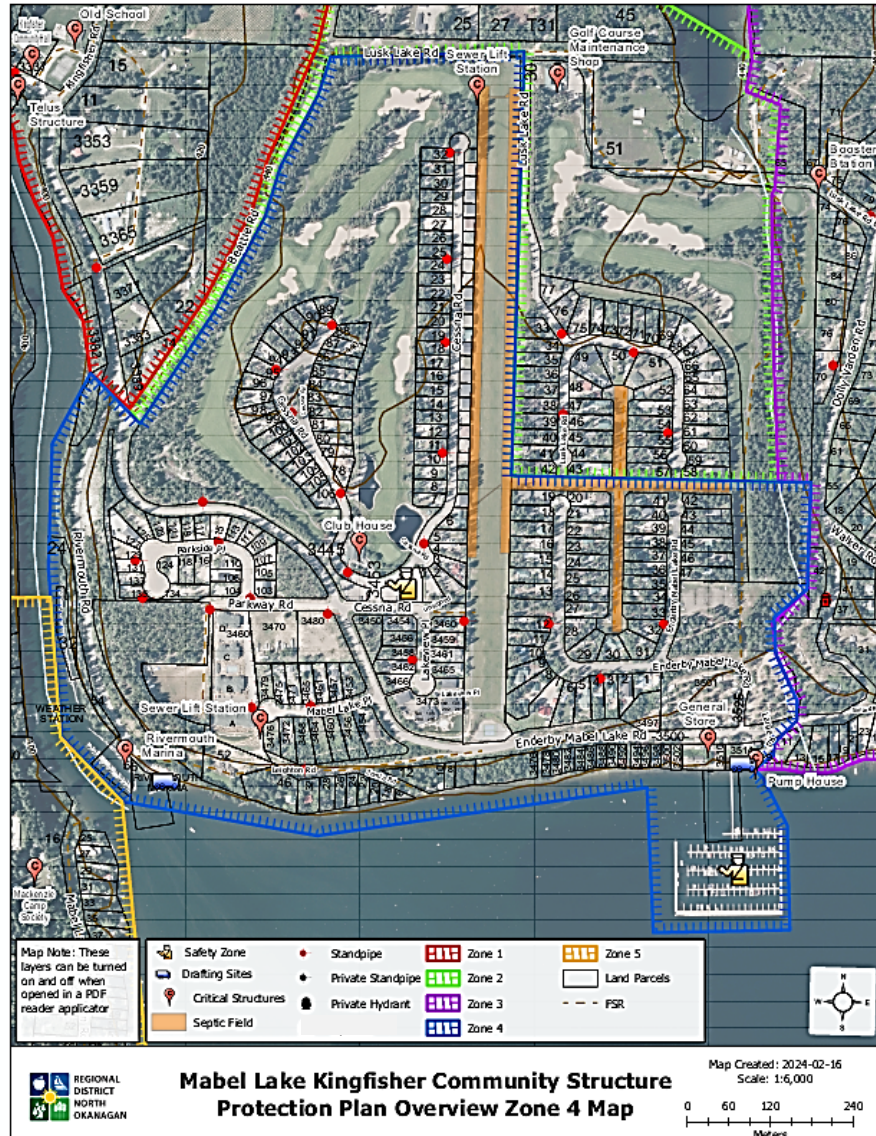
Golf Course with Clubhouse (west of airstrip) located at 3453 Cessna Rd. 61 strata lots (lot 1 through 32 + 14 hangers, and lot 78 through 106). Golf course irrigation is served by a separate non potable water system. The water intake pipe is shared with MLW, but a dedicated pump is installed in a separate room of the Lakeshore Pumphouse.

Pop: 312 /2 = 156 (2019)

The Original Air Park (southeast side of airstrip) located at 3525 Enderby Mabel Lake Rd. 47 lease lots of which one is undeveloped.

Pop: 138 (2019)

Zone 4 consists of 250 lots, 152 of which are currently developed. Approximately 180 primary structures.



West Airpark

(Cessna Rd, Mabel Lake PI, Lakeview PI)

The West Airpark area includes 60 apartment units, 26 SF lots, and 8 multi-family units and is located above the west end of the North Lakeshore properties. 13 lots, apartments and the multi-family units are currently occupied. Future development could include an increase in population in this area.

Mabel Lake Holiday Centre

Located at 3525 Enderby Mabel Lk Rd., that includes 90 campsites, six cabins, a store, a marina, and three houses. This area could ultimately provide housing to over 643 residents, based on current land use and typical population densities.

Pop: 215 (2019)

Mabel Lake Estates Subdivision (southwest sides of airstrip) located at Parkway and Parkside Road. Currently 25 lots with only two occupied houses and the remaining lots seasonally occupied trailers. Option to upgrade seasonal lots to housing in the future.

Pop: 50 (2019)

North Lakeshore from River Mouth Marina to Mabel Lake Marina. This area consists of 43 lots, 11 of which are connected to the water system. The remaining lots are either undeveloped or are not yet connected to the water system and not within the current service area boundaries.

Pop: 33 (2019)

Zone 4 - Total Pop 700

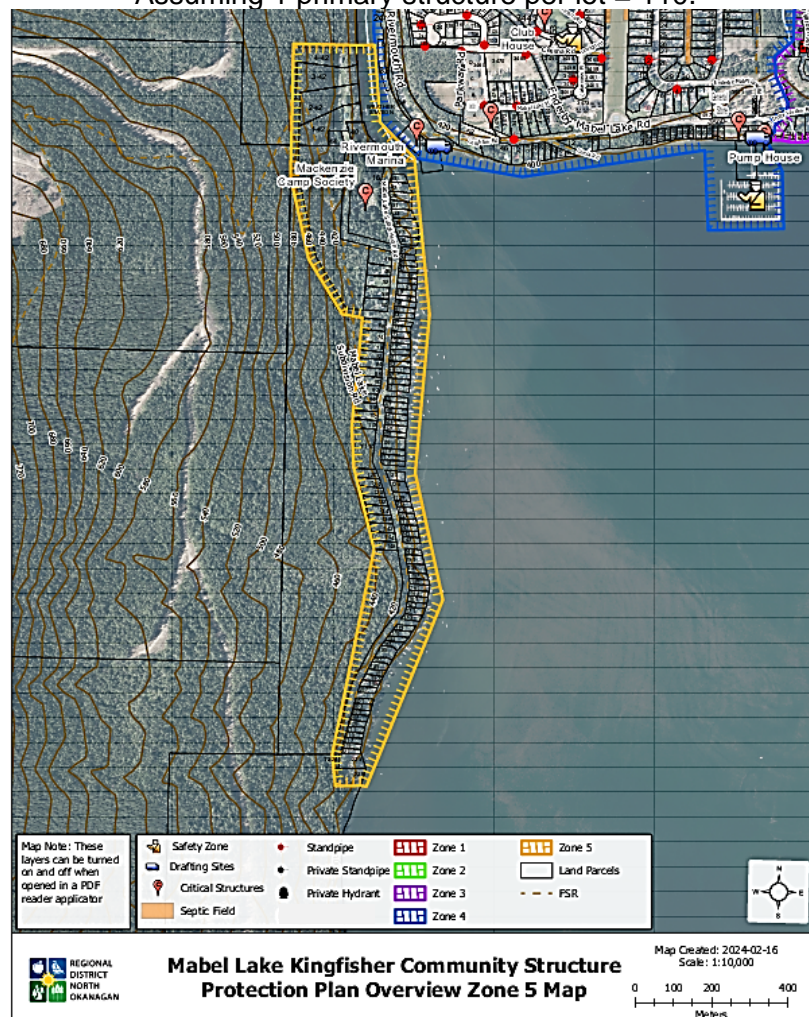
Zone 5 - West Lakeshore Mabel Lake

Wildfire Protection Area 5 of 5

The area is comprised of 110 seasonal residential lots as well as Camp Mackenzie. Primary access is via boat from the Rivermouth Marina. There is no public road access to the area, although there is a 4x4 road through private land, which is not available to the public. This area is fully developed. This area is currently not serviced by the MLW.

Est seasonal pop 440

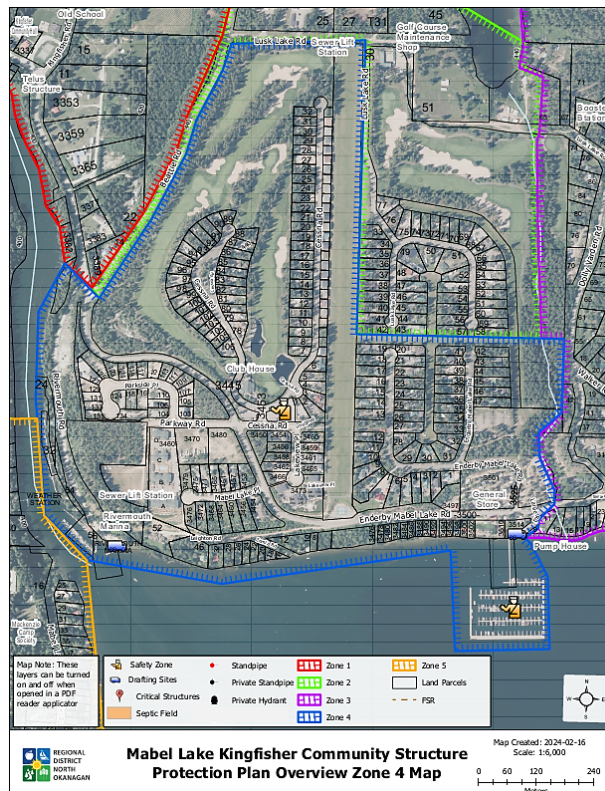
Zone 5 consists of 110 lots, all of which are currently developed. Assuming 1 primary structure per lot = 110.



Zone 5 Con't	Experience from similar areas elsewhere in the province; family members build additional homes on the same property. Will need input from local area planning group for an accurate count of primary structures in zone 5.
Consideration	Beyond the Mabel Lake wildfire protection zones are properties that if threatened by wildfire a BC Wildfire Structure Protection Specialist will have them prioritized and triaged for structure protection. Actions taken by property owners to FireSmart structures will be prioritized higher for structure protection than structures those that have not been FireSmarted.
TOTALS	457 properties with Primary structures (home/cabin). This does not include Secondary structures (detached garage, woodsheds, and other outbuildings).

Safety Zone

This section considers safety zones large enough to hold responders' equipment and to shelter during fire passage for speedy return to mop up after fire front passes. Safety zones provide a quick response to extinguish spot fires that could ignite structures after the fire front has passed. Safety Zone options depending on the number of crews and vehicles.



Safety Zones meeting the criteria for open area and adequate water supply are limited to Zone 4.

Safety Zone Area

Zone 4

**Mabel Lake Golf & Country Club
3453 Enderby Mabel Lk Rd.**

Possible EOC location

Mabel Lake Golf Country Club clubhouse and parking lot could support 2 task forces. Crews need gas powered pumps to operate sprinkler protection and defensive hose lines from the pond. If safe to remain on site during fire front the crews have a better chance at extinguishing spot fires before structures are lost.



Club House

Pond at Club House that is filled from a dedicated pump at the Mabel Lake Pump House.



Zone 4

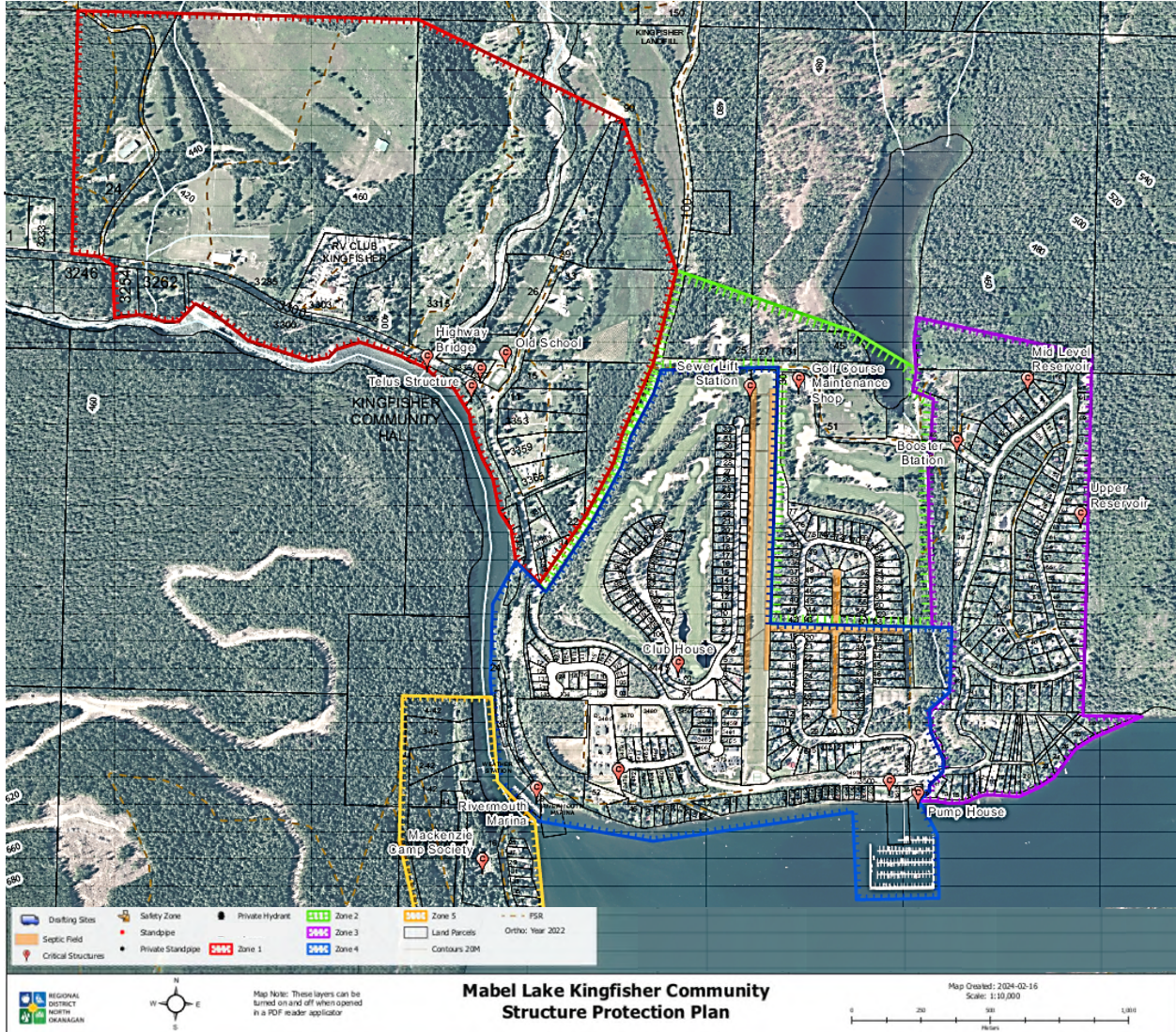
**Mabel Lake Marina
3514 Enderby Mabel Lk Rd.**

The dock is a muster location and could provide a temporary Safety Zone if the decision is made for public and or emergency responders to evacuate by boat.

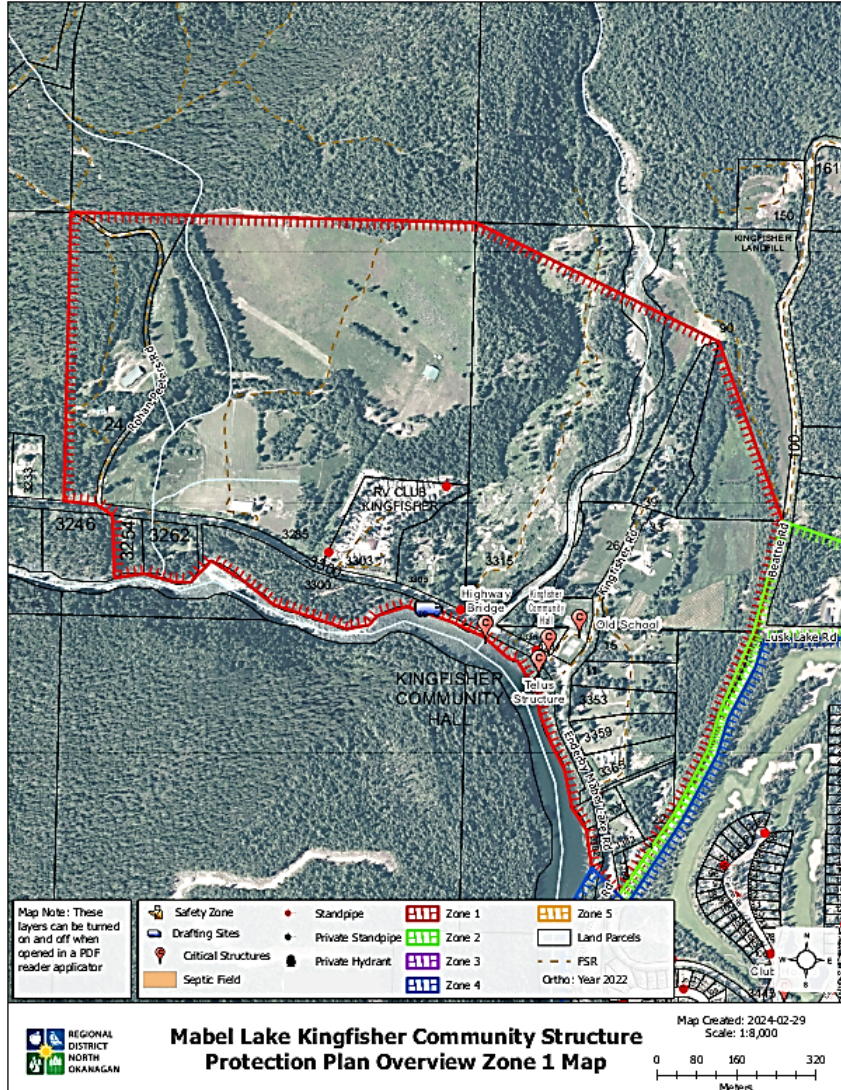


Critical Infrastructure

Critical infrastructure are structures that if damaged or destroyed would have a significant impact on the quick recovery of a community following a forest fire. For this reason, critical infrastructure is identified as the highest priority for structure protection.



**Zone 1
Kingfisher**



**Kingfisher
Community Hall**

3337 Enderby Mabel
Lk Rd.

Promote FireSmart
tactics and consider
removal of vegetation
next to the structure.
Confirm fine mesh
screens covering vent
opening to prevent fire
brands from entering
attic.



Old School

Behind the Kingfisher Community Hall at 3337 Enderby Mabel Lk Rd.

Used to support the Community Hall for several local functions. Promote FireSmart tactics and consider removal of vegetation next to the structure.



Telus Structure

Across the road from 3337 Enderby Mabel Lk Rd. Kingfisher Community Hall.

Looks like the main phone and internet structure for Kingfisher Mabel Lake area. With minimal vegetation removal the structure could be Standalone.



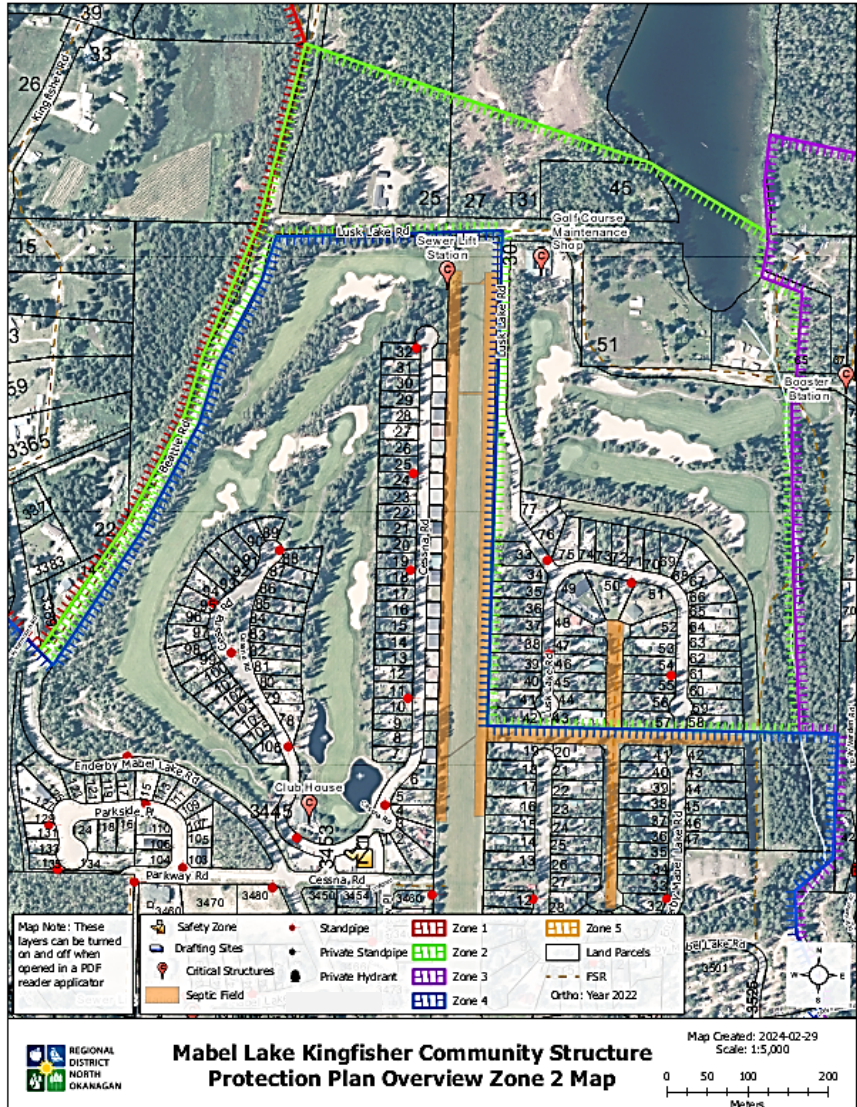
Highway Bridge

West of the Kingfisher Community Hall at 3337 Enderby Mabel Lk Rd.

Pressure treated wood abutments are susceptible to ignition fire from fire brands.



**Zone 2
Lusk Lake Rd.**



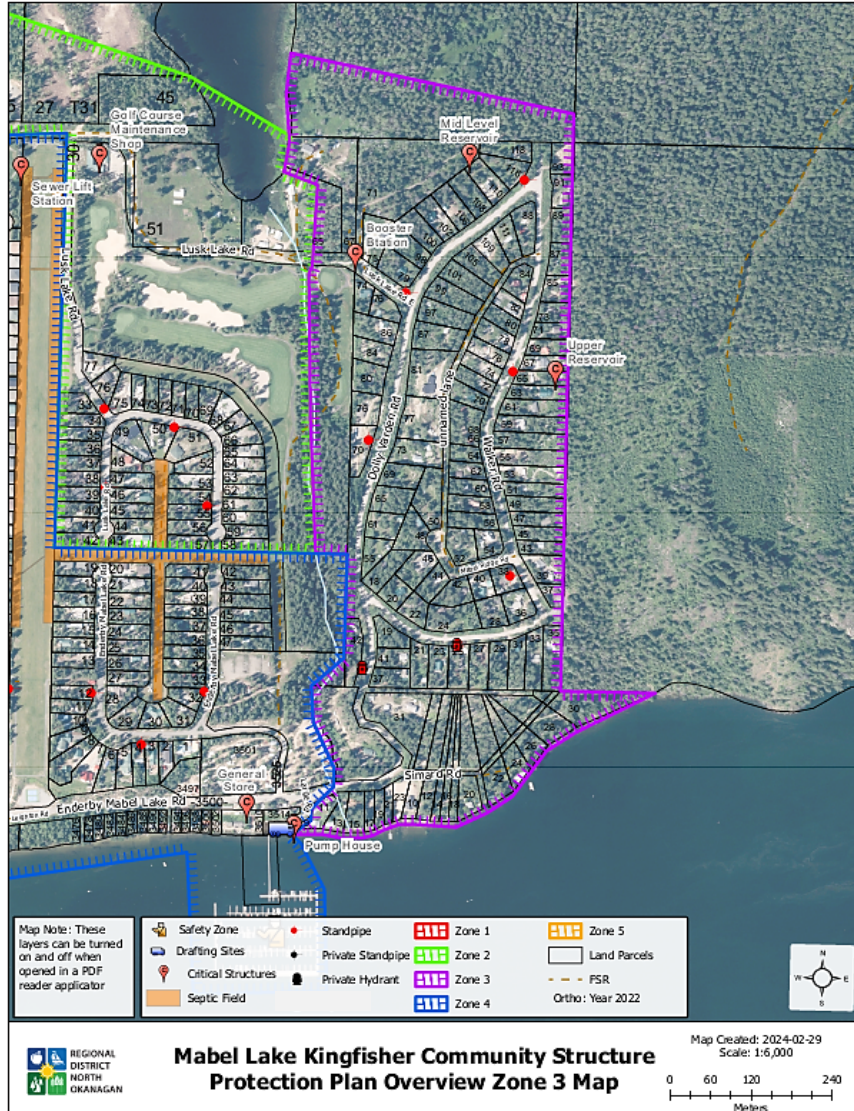
**Golf Course
Maintenance Shop**

30 Lusk Lake Rd.

Promote FireSmart tactics including removal of ladder fuels within 10m of the structure and removal of all vegetation and materials for at least 1.5m out from the building.



**Zone 3
Mabel Ridge
Estates**



Mabel Lake Mid-Level Reservoir

92 Lusk Lake Road

314 m³ = 69,290 imp gal concrete reservoir.

Access is a narrow dirt road, and the site is overgrown. Confirm if structure is Standalone or will benefit from an operational sprinkler during a wildfire event.



Mabel Lake Upper Reservoir

65 Walker Road

364m³ = 80,000 imp gal concrete reservoir with a control building on top.

Access is up a steep dirt road and the site is overgrown. Confirm if structure is Standalone or will benefit from an operational sprinkler during a wildfire event. Recommend 1.5m clean crush rock around the outside perimeter of the control building.



Mabel Lake Booster Station

94 Lusk Lake Road

Concrete structure below ground. Confirm if structure is Standalone or will benefit from an operational sprinkler during a wildfire event.



**Zone 4
Golf Course,
Airpark**

Mabel Lake Community Septic Field is located either side of runway and the aircraft taxi way. Extreme caution to not damage the septic field from vehicles driving over it.

Mabel Lake Sewer Lift Stations

2 sites

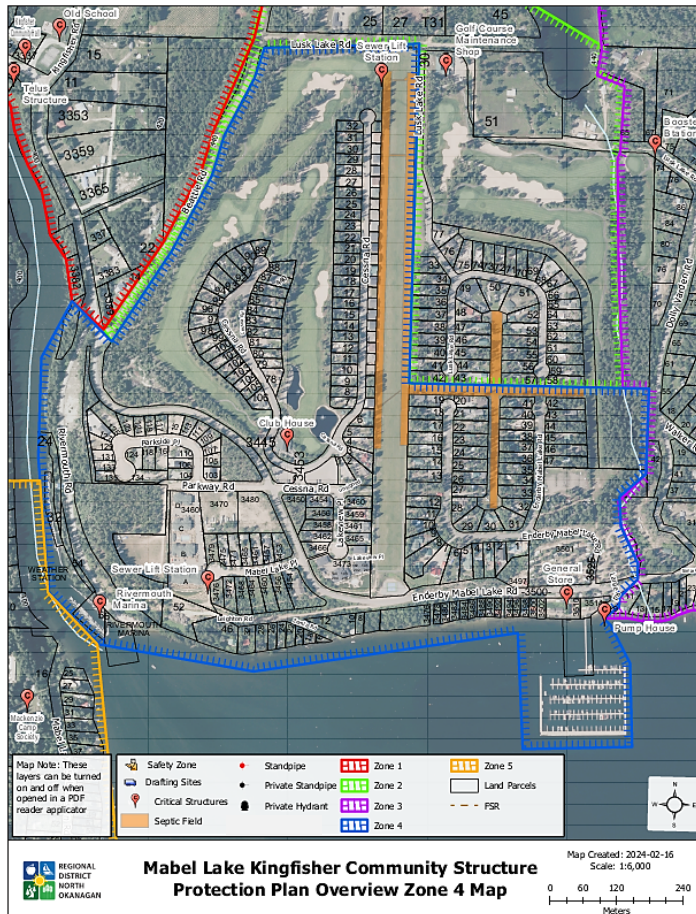
3476 Mabel Lake Place and NW end of air strip

3476 Mabel Lake Place Mabel Lake Sewer Lift Station.

The entire sewer system is gravity fed to this lift station. Sewer effluent is pumped to the NW airstrip Station. 3476 Mabel Lake Place has a transfer switch to connect to a backup generator.

3476 Mabel Lake Place

Northwest side of runway near Lusk Lake Rd. three chambered community sewer tank that flows via gravity to the septic fields located on the outer edges of the airstrip and within the taxi ways.



Rivermouth Marina wharf and fuel tank

56-Rivermouth Road

Wharf is made of wood and will require some level of sprinkler protection.

The above ground fuel tank should have exposed mineral soil or crush rock under and extending out for 1.5m on all sides. Doing so would make the fuel tank Standalone.



Mabel Lake Pump House

11 Large Road

Metal siding.

Contains pumps to move chlorinated domestic water and pump for non-potable water to pond at Golf course Club House. Antenna for SCADA communication to remotely operate water utility.

Confirm fine mesh screens covering vent opening to prevent fire brands from entering. Structure requires minimal FireSmart to be Standalone.



Mabel Lake Marina General Store and Fuel Tank

3510 Enderby Mabel Lk Road

Site over all looks like it would take very little time to make both the store and fuel tank standalone.



**Zone 5
West Lakeshore**

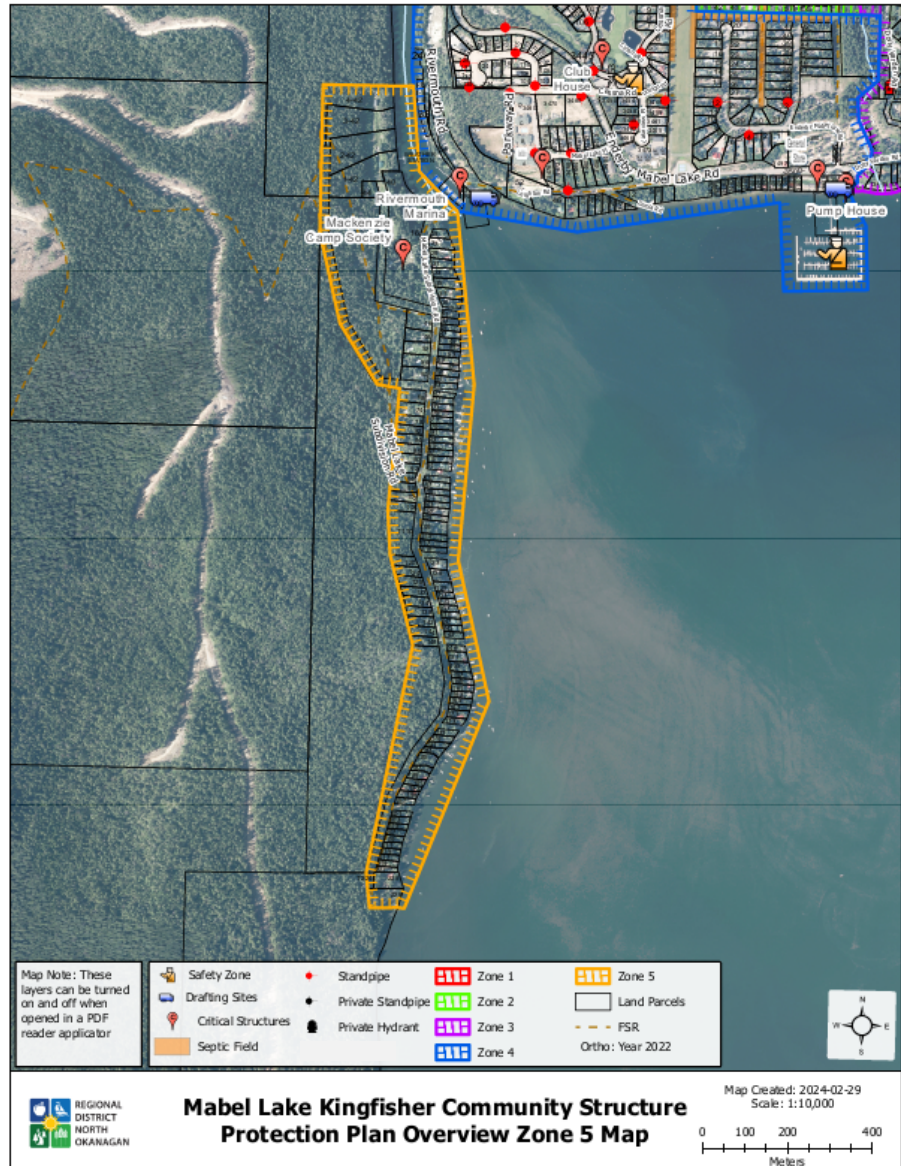
21 Mabel Lk Subdiv Rd. Camp MacKenzie.

**MacKenzie Camp Society
250-838-6293**

Mackenzie Camp hosts multiple youth and family camps throughout July and August from 40 to 70 persons at a time.

Est 12 buildings: Director's Cabin, Dining hall, Craft Hall, Dorm rooms, Wash House with staff room, and 7 cabins.

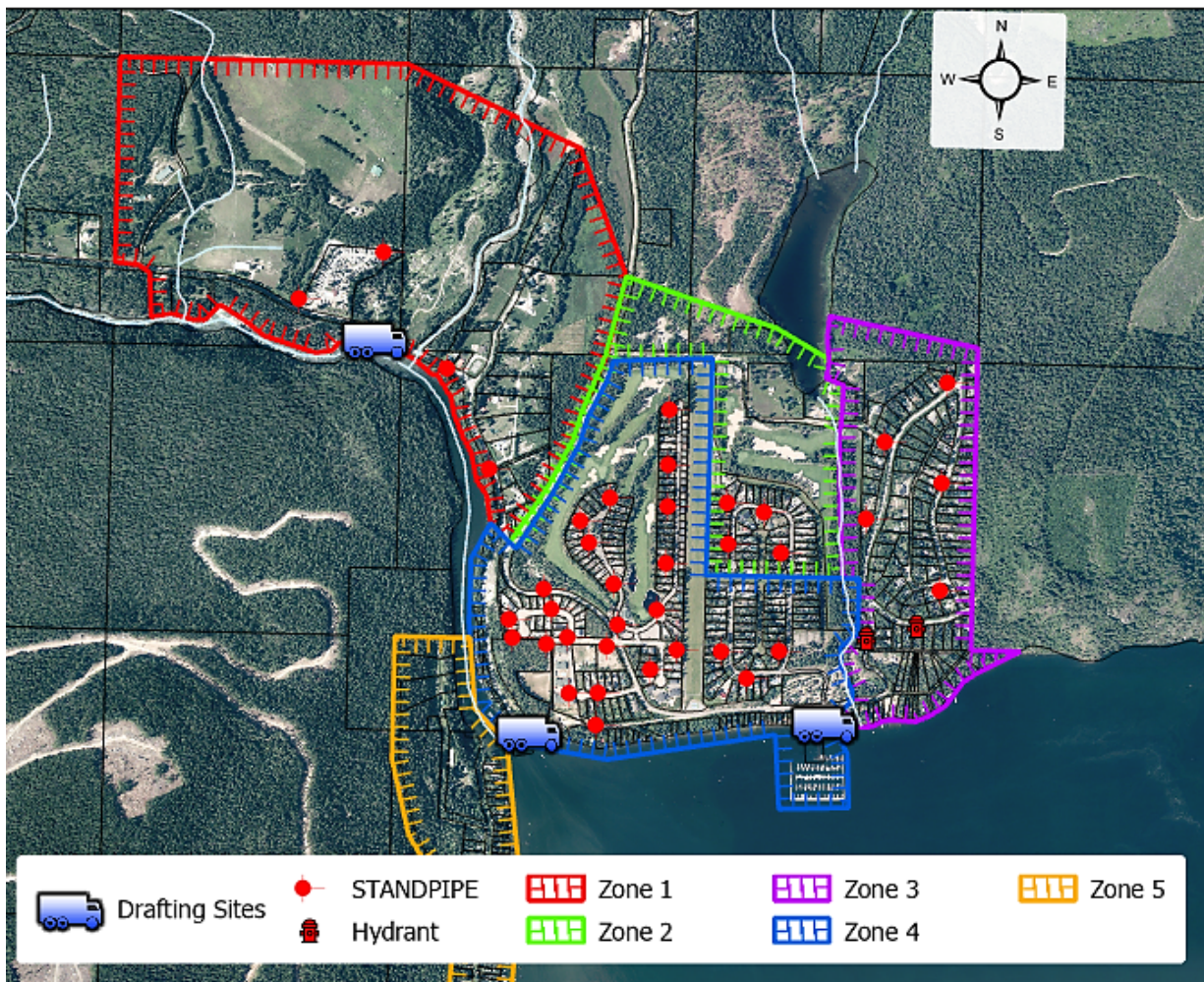
Boat access from Rivermouth Marina



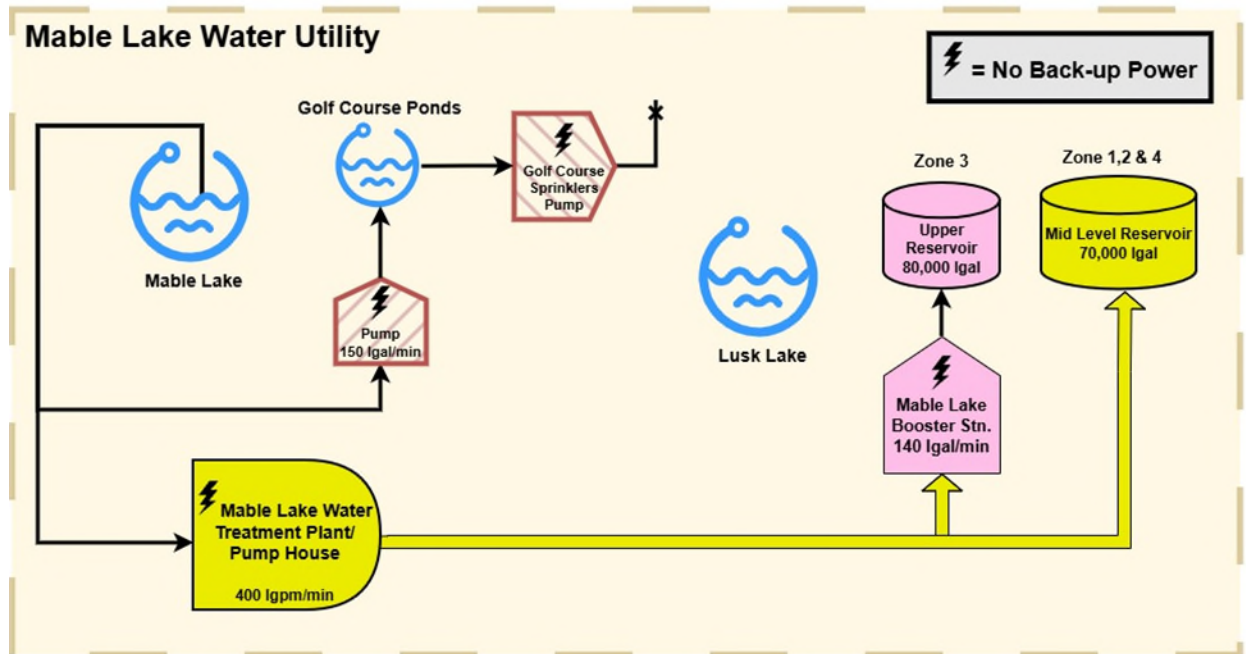
FireSmarting around the critical public infrastructure increase its resilience to wildfire and stand as an example to the public of proper FireSmarting methods.

Water Fill Sites

The Mabel Lake Water (MLW) utility provides potable water to 3 commercial and 369 residential connections (301 single family units and 68 multi-family units). Most connections are seasonal and are only occupied during the summer season with an estimated 20 connections considered to be occupied year-round. The water source for the MLW utility comes from one lake intake at a depth of 26 meters. **No backup power is provided to any pumps in the water distribution system.** Two reservoirs (Mid Level and Upper Level) are used to store chlorinated water. **The water system is not sized for fire protection, nor is MLW currently equipped to provide fire protection services.** MLW utility has 35 standpipes. **Standpipes may provide support for a relay tank.** Before utilizing MLW standpipes or hydrants contact the system operator contractor or the Manager, Small Utilities (RDNO) in the contact list. MLW is owned and managed with oversight provided by the General Manager, Utilities and the RDNO Board of Directors.



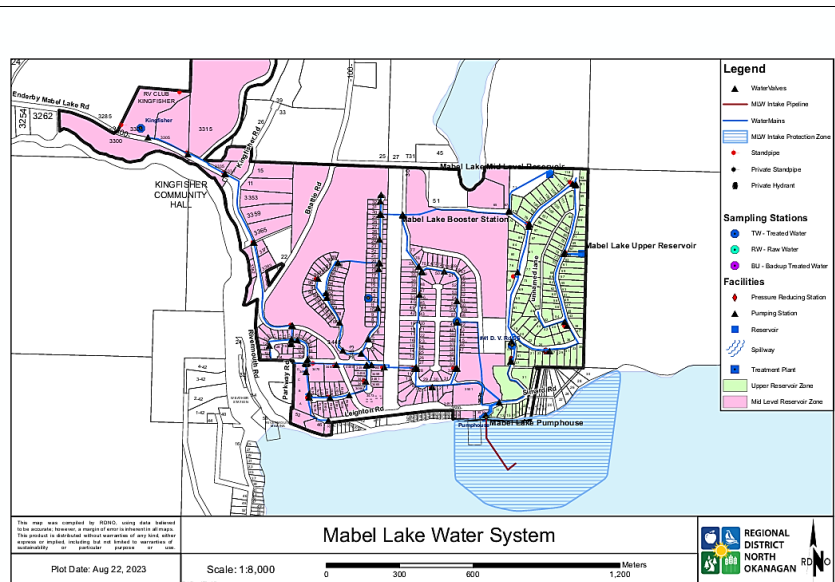
Simplified Water System Diagram



Zone 1, 2, & 4

Mabel Lake Water Service Area Lower (Pink)

Zone 1 – 5 standpipes
 Zone 2 – 4 standpipes
 Zone 4 – 25 standpipes
 34 Standpipes
 Gravity from Mabel Lake
 Mid-Level Reservoir provides water to standpipes and customers in the pink service area.



Mabel Lake Mid-Level Reservoir

92 Lusk Lake Road
 TWL 469.2 m-asl.
 314 m³ = 82,949 gal (69,290 imp gal) with 260 imp gpm refresh rate
 4.5hrs to refill, with max 400 imp gpm. 3hrs to refill from Mabel Lake Pump House.
Pumps have no backup power.



Mabel Lake Pump house

#11 Large Road
 TWL 396 m-asl.
 Contains 4 distribution pumps.
 Pump 1 - 7.6 L/s (120 gpm)
 Pump 2 - 7.6 L/s (120 gpm)
 Pump 3 - 13.3 L/s (160 gpm)
 1 non-potable Golf Course pump - 9.5 L/s (150 gpm) operated by Mabel Lake Golf Course.
Pumps have no backup power.



Mabel Lake Pump House can provide 400 imp gpm to fill the Mid-Level Reservoir. The booster station supplies the Upper Reservoir at 140 imp gpm, max 260 imp gpm to the Mid-Level Reservoir.

Mabel Lake Golf Course Reservoir (Pond)

3445 Enderby Mabel Lake Rd
 Irrigation Reservoir with unknown capacity.
 Suitable drafting site



Pond at golf course club house has potential refresh rate of 150 imp gpm from non-potable Golf Course pump at Mabel Lake Pump House. Pump has no backup power. Pump operated by Mabel Lake Golf Course.

Zone 3

Mabel Lake Water Service Area Upper **(Green)**

5 Standpipes & 2 Hydrants* Gravity from Mabel Lake Upper Reservoir provides water to standpipes and customers in the green service area. **All standpipes/hydrants in this area do not have backup power.**

Mabel Lake Upper Reservoir

65 Walker Road

TWL 515 m-asl.

364m³ = 96,158 gal (80,000 imp gal) with max 140 imp gpm

10 hrs to refill from Mabel Lake Booster Station.

Pumps have no backup power.

Mabel Lake Booster Station

94 Lusk Lake Road

TWL 451 m-asl.

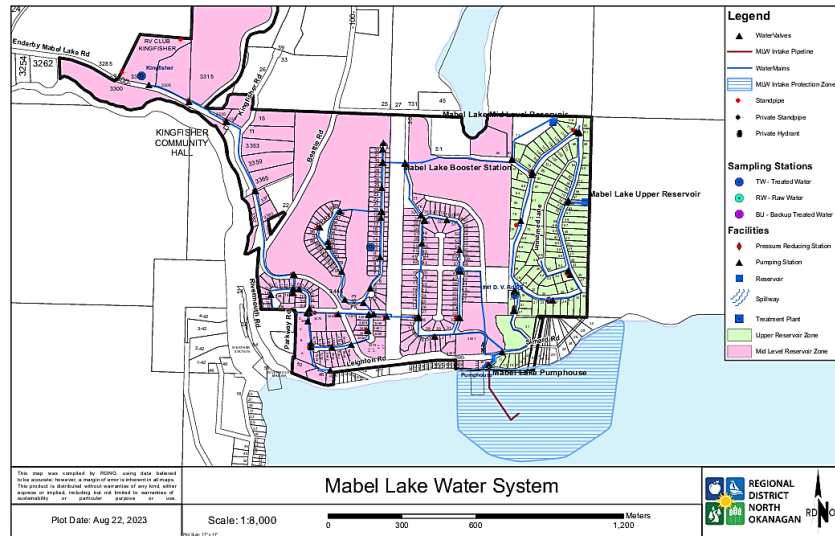
Contains 2 booster pumps.

Pump 1 - 4.4 L/s (70 imp gpm)

Pump 2 - 4.4 L/s (70 imp gpm)

Water source Lakeshore Pump House.

Pumps have no backup power.



Mabel Ridge Estates Water pressure at standpipes decreases the closer to the Upper Reservoir.

* Although there are a few hydrants left connected to the water system, these are being swapped for standpipes in the near future as they cannot provide hydrant flows. Attempting to obtain high flows is not recommended and may create issues to the water system.

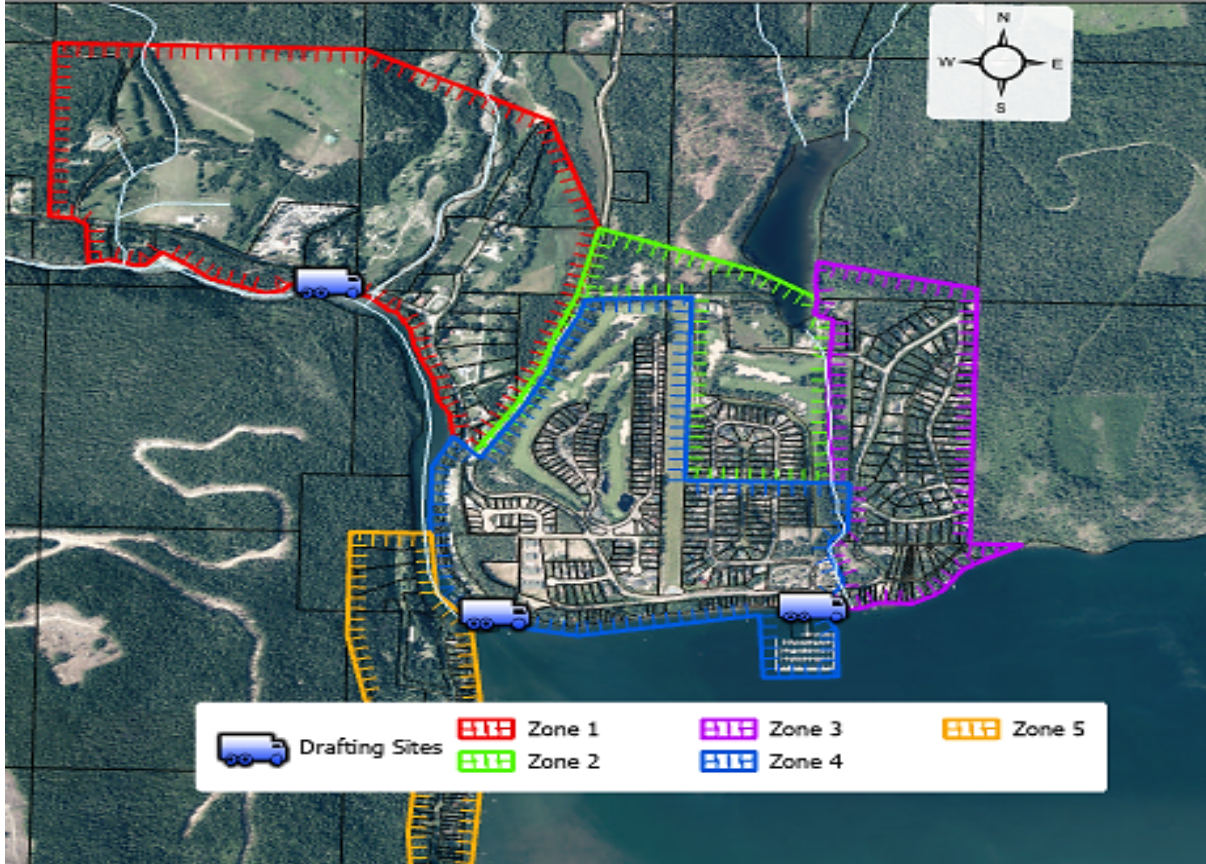


The Lakeshore Pump House and the Lusk Lake Road Booster Station do not have onsite standby power. The reservoirs provide water by gravity during short power outages to prevent interruptions in water service. Portable generators are used for long term power outages to maintain system operation.

The water system is not sized for fire protection, nor is MLW currently equipped to provide fire protection services.	HORIZON	PROJECTED POPULATION	AVERAGE DAILY DEMAND	MAXIMUM DAILY DEMAND	PEAK HOUR DEMAND ⁴
	Current	1381	3.3 L/s	13.6 L/s	20.4 L/s

Working with MLW Operators, selective limited use of standpipes may be able to support Structure Protection (potable relay tank fills for sprinklers deployed to increase humidity around the perimeter of each structure) provided the water supply can maintain the reservoirs capacity, and only while power is available to the pumps. Positioning 2,500-gal Relay Tanks next to standpipes could use water supplied from the reservoir and be augmented by tenders to help support water capacity for Structure Protection Sprinklers. When the standpipe water supply is not sufficient, the Relay Tanks would be filled from Tenders. Tender fill sites identified at Rivermouth Marina, Mabel Lake Marina, and Shuswap River near the Kingfisher Community Hall as well as potential from Lusk Lake through private property. Due to some access restrictions and water levels, the sites may need volume pumps set up to relay water to a tank farm that the tenders would draft from.

The proximity of Mabel Lake provides a sufficient water source for pumps (MK3, BB4, B2X, Triton etc.) to surface hose lays (1.5", 2.5", and 4") that can provide structure protection to properties. Limitations to surface hose lays are hoses crossing over roads that need to be accessed by vehicles and total head loss.



3 tender fill sites identified above with a “Blue Truck” marker. A fourth potential at Lusk Lake will need to be assessed at the time of event to determine if seasonal water level is suitable to fill tenders.



Rivermouth Marina



Mabel Lake Marina

Definitions

Anchor Point: A safe location, such as a river or road, that is a barrier to fire spread and from where crews should start building a fire break or line. Anchor points should prohibit fire from establishing itself on the other side of an unsuspecting crew.

Community: An area or place considered together with its inhabitants, whether the community represents an official jurisdiction.

Drafting: The use of suction to move water from a vessel or body of water below the intake of a suction pump

Drafting Site: An area with water source that is suitable for the access and positioning of firefighting equipment (portable pump, tankers, brush trucks, and/or engines) to engage in drafting.

Escape Routes: Predetermined routes out of the hazard zone that leads back to the safety zone. Crews should always have two escape routes that are marked, walkable, clear of debris, and allow for expedient emergency egress.

Fill Site: A pressurized water source where fire apparatus can fill their tanks without drafting. Examples include hydrants, raised reservoirs, or pumps.

Fire Smart: A national program designed to reduce interface fire risk to communities. In BC, the program is administered by the Ministry of Forests, Lands and Natural Resource Operations Wildfire Management Branch.

Fuel Management: Generally associated with the reduction of surface and ladder fuels through mechanical removal, biological methods, or prescribed burns.

Lookout: Person who has the responsibility of watching fire behaviour and relating the situation to their supervisor. Should be located in an advantageous position for wildfire observation.

Risk Management: The continuous process of identifying, analyzing, and evaluating risks and resources; and weighing these factors against operational objectives. Risk management at WUI events must prioritize the life safety of first responders.

Safety Zone: An area devoid of combustibles and fuels, that provides a separation distance for firefighters and their apparatus that is four times the anticipated flame lengths.

Situational Awareness: The perception of environmental elements with respect to time and/or space, the comprehension of their meaning, and the projection of their status as variables (time, weather, resources, tactics, etc.) change.

Structure Triage: The process of inspecting and classifying structures according to the defensibility or non-defensibility based on numerous factors including the establishment of a safety zone, fire behavior, location, construction, and adjacent fuels.

Threatened Defensible: Structure Triage Category where Safety Zone and TRA are present with adequate water supply with structure defense tactics and conditions supporting firefighters remaining during fire front contact.

Threatened Non-Defensible: Structure Triage Category where Safety Zone or TRA or water supply is inadequate, and structure has challenges that do not allow firefighters to safely commit to stay.

Value: A generalized term used by responding emergency officials to identify structures (private and public) whether commercial, industrial, public infrastructure or residential.

Structure Defense Tactical Actions

Check & Go – Threatened Non-Defensible

Determining factor: Lack of time and inadequate defensible space.

Size up: Structure has significant tactical challenges. (Owners not invested in Fire Smarting the structure).

Tactics: Firefighters not able to commit to stay and protect structure. If time allows, ensure people are not present in the threatened structure (especially children, elderly, and invalid). Set trigger point for safe retreat. Patrol following the passage of the fire front will be needed to protect the structure.

Prep & Go – Threatened Non-Defensible

Determining factor: Time and resources to prepare structure for defense but Safety Zone and TRA are not present for firefighters to remain when fire front arrives.

Size up: Structure has some tactical challenges.

Tactics: Firefighters not able to commit to stay and protect structure. If time allows, rapid mitigation measures may be performed. Set trigger points for safe retreat.

Remember, pre-incident preparation is the responsibility of the homeowner. Patrol following the passage of the fire front will be needed to protect the structure.

Prep & Defend - Threatened Defensible

Determining factor: Adequate time exists to safely prepare structure for defense with Safety Zone and adequate water supply.

Size up: Structure has some tactical challenges.

Tactics: Firefighters needed onsite to implement structure protection tactics during fire front contact.

Standalone – could be Threatened Defensible or Threatened Non-Defensible

Determining factor: Structure and landscaping follow FireSmart guidelines

Size up: Structure has very few tactical challenges. Landscaping has very few tactical challenges.

Tactics: Firefighters may not need to be directly assigned to protect structure as it is not likely to ignite during initial fire front contact. However, no structure in the path of a wildfire is completely without need of protection. Patrol following the passage of the fire front will be needed to protect the structure.

Fire Front Following – used to come in behind the fire front.

Determining factor: A follow-up tactic employed when Check & Go, Prep & Go, or Bump and Run are initially used.

Size up: Come in behind the fire to search for victims, extinguish spot fires around structures, and reduce ember production.

Tactics: Used when insufficient time to safely set up ahead of the fire, or the intensity of the fire could cause injury to personnel located in front of the fire.

Bump & Run – used ahead of the fire to extinguish spot fires and hot spots to defend as many structures as possible.

Determining factor: Early stages of fire when resource commitment is light and structure defense is the priority. With adequate resources it can be used to control or steer the fire to a desired end point.

Size up: Identify and prepare control lines with dozers and fire crews to direct the fire to end point.

Tactics: Resources must remain mobile and must constantly identify Escape Routes to Safety Zones as they move with the fire front.

Anchor & Hold – an attempt to stop fire spread.

Determining factor: Urban neighbourhoods where the proximity of neighbouring homes presents a risk of house-to-house ignition.

Size up: Requires considerable resources, such as engine crews and hand crews.

Tactics: Fixed engines spotted in safe areas where they can safely withstand any fire situation. Mobile engines prepared to re-deploy to other areas if the fire escapes the Anchor & Hold line.

Tactical Patrol - initiated:

During the fire event in neighbourhoods away from the interface where there is predicted ember cast.

After fire front has passed to patrol and extinguish for hot spots and ground fires in proximity to structures.

Determining factor: Quick fire suppression to “Save what you can, and loose what you must”.

Size up: Patrol downwind of potential ember showers. Address safety issues such as power lines, burnt weakened trees, and other hazards.

Tactics: Mobility and continuous monitoring of an assigned area. Extinguish hot spots or secondary structure ignitions.

Structure Defense Planning

When a community or fire protection area is overwhelmed in its ability to defend itself from wildfire, a request for additional firefighting resources may be submitted to the Province via the Office of the Fire Commissioner under an EMBC incident task number or through BCWS under a wildfire incident number. The management of the Provincial resources are detailed in the Inter-Agency Agreement between the Office of the Fire Commissioner, Fire Chiefs Association of BC and BCWS.

The Structure Defense Plan (SDP) that follows was created by a Structure Protection Specialist for this community. The SDP is a foundation of planning for what Fire Defense resources may be required during a wildfire event. During an actual event, the plan will be reviewed with the BCWS Incident Command Team and local authorities to determine what will be requested through the OFC. A general guideline for the number and types of fire apparatus required for an SDP is as follows:

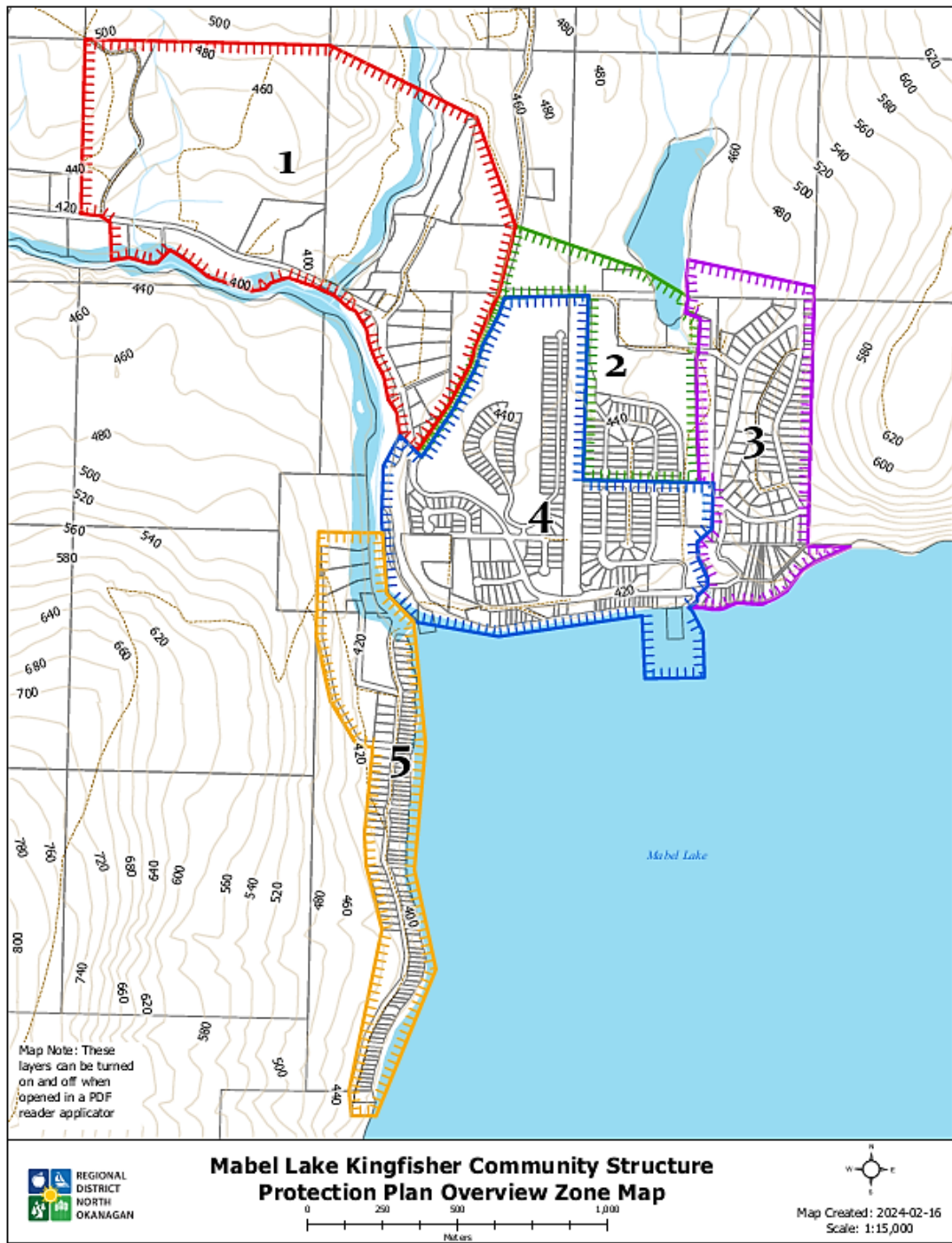
- Type 3 Engine per home within the intermix
- Type 1 Engine per 2-3 homes within the interface when hydrants are present and working
- Type 1 Tender to support 3 water bladders or 2 Engines
- Type 2 Tender to support 2 Engines in areas without hydrants
- Type 4-6 Engines (Bush Truck) as required to support tactical patrols in the Incident Action Plan

With due respect to the general guidelines above, there are several other factors that must be considered when drafting an SDP for an area under threat of wildfire. These factors will vary as much as the communities that require defending. These factors may include but not limited to the following:

- Expected fire behavior and weather forecast.
- Type, volume, distribution, and proximity of natural fuels surrounding the improved areas and local infrastructure.
- Availability of outside resources.
- Access and egress in and around properties in the interface and intermix areas.
- Volume and distribution of properties and improved values in the area.
- Water Sources.
- Availability of Safe Zones.
- Time required to deploy provincial resources.

The Mabel Lake / Kingfisher Structural Defense Plan is divided into 5 Wildfire Protection Areas for purposes of allocating resources to protect structures from wildfire.

Area Overview



Zone 1

Wildfire Protection Area 1 of 5 Kingfisher

The western portion of the plan area is predominantly rural and agricultural consisting of forage crops such as hay and alfalfa as well as pastureland for livestock dominate the agricultural uses. Accessed by the Enderby Mabel Lake Road. Includes RV Club Kingfisher and the Kingfisher Community Hall. Located between Rhonan Peters Rd. and Beattie Rd.

Zone 2

Wildfire Protection Area 2 of 5 Lusk Lake Rd.

Northeast side of airstrip accessed from Beattie Rd to Lusk Lake Rd. 5 homes along Lusk Lake Road with potential to use Lusk Lake as a water source for structure protection. The golf course maintenance shop is in this zone along with 44 strata lots that have golf cart access across the airport taxiway to the Original Airpark.

Zone 3

Wildfire Protection Area 3 of 5 Mabel Ridge Estates

The eastern portion of the plan area is predominantly residential built within a conifer forest on a height of land above the rest of the community. North of Mabel Ridge Estates, there is very little private land on the lakeshore within the plan area. Includes homes off Simard Rd, Dolly Varden Rd, Walker Rd, Mabel Ridge Rd, and Lusk Lk Rd E.

Zone 4

Wildfire Protection Area 4 of 5 Mabel Lake Golf & Country Club, Airpark, and Lakeshore

Most properties surrounded by forest with varying degrees of FireSmart implementation. Includes Rivermouth Rd, Parkway Rd, Mabel Lk Estates, Cessna Rd, Mabel Lake Golf & Country Club, Mabel Lake Pl, Leighton Rd, property along the lake between the 2 marinas, Mabel Lake Marina, Mabel Lk Holiday Centre, and Original Airpark. Golf course has man made water features that are filled from Mabel Lake pump house and utilized to irrigate the golf course.

Zone 5

Wildfire Protection Area 5 of 5 West Lakeshore

The southwest side consists of cabins and seasonal residential lots and a youth camp (Camp McKenzie), which are primarily accessible by boat. There is at least one pontoon boat that serves as a water taxi and garbage collection service. There is no public access road to the homes on the southwest side although there is access via an active logging road that would be passable in an emergency back through the Hidden Lake area.

If possible, prior to homeowners being evacuated, the structure protection crew should notify residents in person and explain the actions that residents can take prior to evacuating that will help save the home. Distribute Fire Smart material for occupants to focus on Zone 1a. Fuel free the min 1.5m zone around buildings.

Forestry cat guard with retardant lines will support the fire dept. actions to protect the homes and businesses. With so much forest around homes it is important for residents to clean up dead wood and trim up branches to control ground fires.



Please be advised that the structure defense plan below is based on observations and are recommendations only. It is critical for the Structure Protection Specialist to develop his/her own structure protection plan as the fire dynamics might allow for different tactics.

Strategies must reflect a realistic approach taking into consideration the available resources. A strategy will fail if it requires many resources that can not arrive in a timely fashion. Strategy is subject to change due to changes in weather, fire behavior, resources availability, and objectives. Never get locked into a single plan of action.

STRUCTURE DEFENSE PLAN

Date	November 2023
Incident name / Number	Mabel Lake / Kingfisher Protection Area
EMBC Task #	
Fire Centre	Kamloops
GrpS Name, Ph#, email	Kevin Dalgarno 250-558-8549
Area / Community	RDNO Area F, Vernon

Communications Plan		
Function	Channel No.	Assigned to
Ground to Ground	OFC 01	Structure Protection

1-ML

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix/ Interface	Triage Category: Not Threatened Threatened Defensible Threatened Non-Defensible	Tactical Actions Check & Go Prep & Go Prep & Defend Fire Front Following Bump & Run Anchor & Hold Tactical Patrol	Resources SPC's/ENG Ie: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Commercial/Residential. Pop 176. Zone 1 consists of 20 lots with approximately 25 primary structures. Includes Community Hall, School, plus Club Kingfisher with 70 RV sites.	Zone 1 – Club Kingfisher Wildfire Protection Area 1 of 5 Area includes Enderby-Mabel Lake Road between Rhonan Peters Rd. and Beattie Rd.	Intermix	Wildfire risk greatest from embers igniting spot fires. Primary structures are considered Threatened Non-Defensible as they lack a safety zone with adequate water supply for fire crews to remain during the fire front arrival.	SPC's – Prep & Go followed by Tactical patrol after fire passes. ENG – Tactical Patrol prior to fire front arrival. Leave before escape routes compromised. ENG and SPC – Tactical Patrol as soon as possible after the fire passes.	SPC 5 Pack x 1 SPU Type 2 x 2 6E x 2 1T(Tactical) x 1 And 1Tx1	5 standpipes gravity from Mabel Lake Mid-Level Reservoir, has back up power and requires refueling. Drafting site: River across 3305 Mabel Lake-Enderby Road. 12 of the properties are currently connected to the municipal water system and may provide potential to use WASP sprinklers from house bibs. Structural Protection sprinklers run from MK3 pumps at 4 - 2,500-gal Relay Tanks. (2 next to standpipes and 2 next to structures supplied by tenders).	A wildfire event should consider deployment of Tenders that can draft from the Shuswap River or at Rivermouth Marina to fill Relay Tanks that would be strategically located for water storage where gas powered pressure pumps can supply hose lines and sprinkler sets. Type 6 Engines Tactical Patrol dead-end streets with limited turning radius. Type 1 Tactical Eng/Tender pump and roll. Prior to event help fill Relay tanks. Type 1 tenders support Relay tanks and Engines. RV's risk of water damage from sprinklers. Ideally remove or FireSmart to Standalone Retreat to Safety Zone when the fire activity outpaces the crew and equipment ability. Use of Golf Club parking lot as Safety Zone could provide ability for quickest re-entry after fire passes to extinguish spot fires.

2-ML

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix/ Interface	Triage Category: Not Threatened Threatened Defensible Threatened Non-Defensible	Tactical Actions Check & Go Prep & Go Prep & Defend Fire Front Following Bump & Run Anchor & Hold Tactical Patrol	Resources SPC's/ENG le: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Residential/ seasonal recreation Zone 2 Includes the Golf Course Maintenance building/yard. 50 lots with approximatel y 50 primary structures plus seasonal RV's. Pop 200.	Zone 2 - Lusk Lake Rd. Wildfire Protection Area 2 of 5 Area includes properties along Beattie Road to Lusk Lake Road and the 44 strata lots at 30 Lusk Lake Road (northeast side of the airstrip) Lot 30-33 to lot 30-77. (There are no Lot 30-1 thru lot 30-32.)	Intermix	Wildfire risk greatest from embers igniting spot fires. Primary structures are considered Threatened Non- Defensible as they lack a safety zone with adequate water supply for fire crews to remain during the fire front arrival.	SPC's – Prep & Go followed by Tactical patrol after fire passes. ENG – Tactical Patrol prior to fire front arrival. Leave before escape routes compromised. ENG and SPC – Tactical Patrol as soon as possible after the fire passes.	SPC 5 Pack x 1 SPU Type 2 x 2 Plus 4-2,500gal Relay Tanks Request B2X and or BCWS Triton for sprinkler water support using green runway to run the 4" water line from the Mabel Lake to Lusk Lake Rd. 6E x 2 1T(Tactical) x 1 1T x 1	4 standpipes gravity from Mabel Lake Mid-Level Reservoir, has back up power and requires refueling. No Drafting sites. Most of the properties are currently connected to the municipal water system and may provide potential to use WASP sprinklers from house bibs. The max water available without affecting reservoir levels is 260 gpm. Flowing 850 gpm from the municipal system will provide a max of ~5 hour run time with pumps powered or 600 gpm without powered pumps. Ultimately 2,500 gal relay tanks at standpipes along with tenders to supply Mk3 pumps to sprinklers may be the most reliable structure protection. (Limit of 1 sprinkler per primary to get max run time.)	Coordinate Structure Protection utilizing resources such as cat guard, aerial retardant, and sprinkler wet line between structures and advancing wildfire. Current access limited one way in/out via Beattie Rd. A golf cart path links strata lot south across taxi way and might be able to be widened to provide an alternate escape route. Municipal water pressure at hose bibs might support WASP sprinklers for rapid deployment. If limited time and resource, protect with sprinklers the homes along the leading edge and use Engines supported with Tenders to Tactical Patrol for spot fires. When hot fire embers begin to land the Structure Suppression crews turn on the WASP's to maximize the run time of the sprinklers during the fire event followed by Tactical Patrol/Fire Front Following. Type 6 Engines Tactical Patrol dead-end streets with limited turning radius. Type 1 Tactical Eng/Tender pump and roll. Prior to event help fill Relay tanks. Type 1 tenders support Relay tanks and Engines. When fire out-paces ability, move into Safety Zone at parking lot next to Golf Club House. Tactical Patrol after main fire front has passed. RV's risk of water damage from sprinklers. Ideally remove RV's or FireSmart to Standalone

3-ML

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix/ Interface	Triage Category: Not Threatened Threatened Defensible Threatened Non-Defensible	Tactical Actions Check & Go Prep & Go Prep & Defend Fire Front Following Bump & Run Anchor & Hold Tactical Patrol	Resources SPC's/ENG le: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Residential /seasonal recreation Zone 3 consists of 108 lots, 92 of which are currently developed having approximat ely 92 primary structures. Pop 276	Zone 3 - Mabel Ridge Estates Wildfire Protection Area 3 of 5 Area includes properties on Dolly Varden Rd, Lusk Lk Rd E, Walker Rd, and Mabel Ridge Rd. Mabel Ridge Estates is the farthest east development in Kingfisher. The areas north and east of the Mabel Ridge Estates is crown land.	Intermix	Wildfire risk greatest from embers igniting spot fires. Primary structures are considered Threatened Non- Defensible as they lack a safety zone with adequate water supply for fire crews to remain during the fire front arrival.	SPC's – Prep & Go followed by Tactical patrol after fire passes. ENG – Tactical Patrol prior to fire front arrival. Leave before escape routes compromised. ENG – Fire Front Following after the fire passes. ENG and SPC – Tactical Patrol as soon as possible after the fire passes.	SPC 5 Pack x 3 SPU Type 1 x 1 SPU Type 2 x 1 Request B2X and or Triton for surface hose water supply from Mabel Lk. to run as many sprinklers as possible to conserve Upper Reservoir for water supply to relay tanks along Walker Rd. 2E(Tactical) x 2 or 1T(Tactical) x 2 or combination. And 6E x 2 1T x 2	5 standpipes and 2 hydrants gravity from Mabel Lake Upper- Level Reservoir, with no back up power. Drafting Site: Marina Reservoir and standpipes and 2 hydrants have limited capacity and refill rate from booster station (150 gpm). Therefore, use of 2,500 gal relay tanks with standpipes and tenders, Mk3 pumps, with limit of 1 sprinkler per primary to get max run time.	Coordinate Structure Protection utilizing resources such as cat guard, aerial retardant, and sprinkler wet line between structures and advancing wildfire. Access limited to one way in/out via Dolly Varden Rd. Reservoir and standpipes have limited capacity and refill rate. Therefore, use of 2,500 gal relay tanks with standpipes and tenders, Mk3 pumps, with limit of 1 sprinkler per primary to get max run time. No WASP's as municipal water supply pressure not adequate. With Triton and or B2X pumps from lake source, would reduce the need for the number of tenders. Type 6 Engines Tactical Patrol dead-end streets with limited turning radius. Type 1 Tactical Eng/Tender pump and roll. Prior to event help fill Relay tanks. Type 1 tenders support Relay tanks and Engines. RV's risk of water damage from sprinklers. Ideally remove RV's or FireSmart to Standalone

4-ML

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix/ Interface	Triage Category: Not Threatened Threatened Defensible Threatened Non-Defensible	Tactical Actions Check & Go Prep & Go Prep & Defend Fire Front Following Bump & Run Anchor & Hold Tactical Patrol	Resources SPC's/ENG 1e: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Residential/ Commercial/ Seasonal recreational. Zone 4 consists of 250 lots, 152 of which are currently developed. Approximate ly 180 primary structures plus 90 RV sites. Total Pop 700.	Zone 4 - Mabel Lake Golf & Country Club, Airpark, Lakeshore, and Mabel Lake Resort. Wildfire Protection Area 4 of 5 Area includes properties from the Rivermouth Marina to Mabel Lake Marina golf course, and airpark on the west side of airstrip and southeast side of airstrip.	Intermix	Wildfire risk greatest from embers igniting spot fires. Most of Zone 4 is considered Threatened Non- Defensible as the primary structures lack a safety zone and adequate water to remain during a fire front arrival. Golf Club House and Mabel Lake Marina are both Defensible having an adequate safety zone with a large enough water supply.	SPC's – Prep & Go followed by Tactical patrol after fire passes. Original Airpark ENG – Tactical Patrol prior to fire front arrival. Leave before escape routes compromised. West Airpark and Country Club ENG – Task Force Bump & Run, leave before escape routes compromised. After fire passes ENG and SPC – Tactical Patrol	SPC 5 Pack x 4 SPU Type 1 x 2 Request B2X and or BCWS Triton for sprinkler water support 2E(Tactical) x 4 or 1T(Tactical) x 4 or combination. And 6E x 3 1T x 3	25 standpipes gravity from Mabel Lake Mid-Level Reservoir, has back up power and requires refueling. Drafting site: Rivermouth Most of the properties are currently connected to the municipal water system and may provide potential to use WASP sprinklers from house bibs. The max water available without affecting reservoir levels is 260 gpm. Flowing 850 gpm from the municipal system will provide a max of ~5 hour run time with pumps powered or 600 gpm without powered pumps. Ultimately 2,500 gal relay tanks at standpipes along with tenders to supply Mk3 pumps to sprinklers may be the most reliable structure protection. (Limit of 1 sprinkler per primary to get max run time.)	Municipal water pressure at hose bibs might support WASP sprinklers for rapid deployment. If limited time and resource protect with sprinklers the homes along the leading edge and use Engines supported with Tenders to Tactical Patrol for spot fires. When hot fire embers begin to land the Structure Suppression crews turn on the WASP's to maximize the run time of the sprinklers during the fire event followed by Tactical Patrol/Fire Front Following. Type 6 Engines Tactical Patrol dead-end streets with limited turning radius. Type 1 Tactical Eng/Tender pump and roll. Prior to event help fill Relay tanks. Type 1 tenders support Relay tanks and Engines. When fire out-paces ability, move into Safety Zone at parking lot next to Golf Club House. Tactical Patrol after main fire front has passed. Golf course irrigation is served by a separate non- potable water system. The water intake pipe is shared with MLW, but a dedicated pump is installed in a separate room of the Lakeshore Pump house with no backup power. RV's risk of water damage from sprinklers. Ideally remove or FireSmart so Standalone.

5-ML

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix/ Interface	Triage Category: Not Threatened Threatened Defensible Threatened Non-Defensible	Tactical Actions Check & Go Prep & Go Prep & Defend Fire Front Following Bump & Run Anchor & Hold Tactical Patrol	Resources SPC's/ENG le: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Residential, 1 commercial, and seasonal recreational. The area is comprised of 110 seasonal residential lots and Camp MacKenzie. Total Pop 440.	Zone 5 West Lakeshore Mabel Lake Wildfire Protection Area 5 of 5 Primary access is via boat from the Rivermouth Marina. South of Mabel Lake on the west shoreline. There is a 4x4 road through private land, which is not available to the public. This area is fully developed.	Intermix	Threatened Non-Defensible with homes built within the forest. Primary structures are considered Threatened Non-Defensible as they lack a safety zone for fire crews to remain during the fire front arrival.	SPC's – Prep & Go followed by Tactical patrol after fire passes.	SPC 5 Pack x 2 SPU Type 1 x 1 SPU Type 2 x 1 More Structure Protection Crews will be required if fire front could arrive in less than 4 days or crews have limited experience.	This area is currently not serviced by the MLW water utility. 0 standpipes Mabel Lake via MK3 and B2X pumps.	Coordinate Structure Protection utilizing resources such as cat guard, and aerial retardant. Coordinate boat access for crews. Require contracts for boat and driver. Explore opportunity to get ATV's by boat from Rivermouth Marina to West Shoreline to assist movement of crews and equipment to protect structures on the high side of the access road. Water access via shoreline for homes along the lake and the access road (behind the lake front homes) for hose lays to protect structures above the road.

Date: December, 2023

Evaluators: Betz, Dalgarno, Wacey

February 2026

Mabel Lake / Kingfisher Community Structure Protection
Plan