BRITISH COLUMBIA MINISTRY OF FORESTS: POST-WILDFIRE NATURAL HAZARD RISK ANALYSIS LEVEL 2 RECONNAISSANCE REPORT – V10755 AINSLIE CREEK

NOTE: The results given on this form are reconnaissance in nature and are intended to be a warning of potential hazards and risks. It is not a detailed risk analysis, and further work may alter the conclusions. Please read the appendix of this report for important limitations. Contact the author for more information.

FIRE NUMBER/STATUS: V10755 Ainslie Creek classified as held as of September 8, 2026	**FIRE YEAR:** 2026	**DATE OF FIELD REVIEWS:** July 27, August 8, 13, and 16, 2026 **DATE OF REPORT:** September 14, 2026
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REPORT PREPARED FOR: Coastal Fire Center (CFC)		

Fire Size:	**Location:**	**Land Ownership:**
67,722 ha (September 8, 2026)	The fire is located on the east side of the Fraser River and extends southeast into the upper Anderson Creek watershed, east into the upper Spius Creek watershed, and northeast into the Prospect and Nuaitch Creek watersheds	The fire is located on Austin's Flat No. 3, Boothroyd No. 5A, 5B, 5C, 6A and 13, Boston Bar No. 1A, 8, 9, 10 and 11, Bucktum No 4, Inkahtsaph No. 6, Kahmoose No. 4, Papsilqua No. 2B, Sam Adams No. 12, Sho-ook No. 5, Tsawawmuck No. 1, Tsintahklt No. 2, Tuckkwiowhum No. 1, Yelakin No. 4 and 4A and provincial public lands

POTENTIAL ELEMENTS AT RISK:

1. Private properties
2. First Nations Reserve lands at Austin's Flat No. 3, Boothroyd No. 5A, 5B, 5C, 6A and 13, Boston Bar No. 1A, 8, 9, 10 and 11, Bucktum No 4, Inkahtsaph No. 6, Kahmoose No. 4, Papsilqua No. 2B, Sam Adams No. 12, Sho-ook No. 5, Skuet No. 6, Tsawawmuck No. 1, Tsintahklt No. 2, Tuckkwiowhum No. 1, Yelakin No. 4 and 4A, and Nooaitch No. 10.
3. Trans Canada Highway #1
4. Anderson River Mainline Road, Manning Creek FSR, Utzlius Creek FSR, Mowhokam FSR, South Ainslie FSR, Ainslie Road North
5. CN Railway
6. Water resources and infrastructure in the Coutlie, Jamieson, One & One Quarter, Stoyoma and Two-Mile Community Watersheds
7. Other water licenses and points of diversion within or downslope of the fire perimeter

WATERSHEDS AFFECTED:	TOTAL AREA (ha)	WATERSHED AREA BURNED	AGGREGATE BURNED AT MODERATE AND HIGH SEVERITY
Ainslie Creek	15,834	76% (12,070 ha)	70% (11,069 ha)
Anderson River	50,209	50% (25,163 ha)	40% (20,190 ha)
Bucktum Creek	225	89% (201 ha)	76% (172 ha)
East Anderson River	12,522	60% (7,574 ha)	52% (6,543 ha)
Gilt Creek	663	36% (173 ha)	22% (104 ha)
Maka Creek	21,607	8% (1,668 ha)	6% (1,307 ha)
Mowhokam Creek	12,225	14% (1,666 ha)	10% (1,215 ha)
Nuaitch Creek	8,338	19% (1,565 ha)	12% (1,020 ha)

Petch Creek	315	94% (330 ha)	75% (263 ha)
Prospect Creek	22,151	11% (2,546 ha)	8% (1,836 ha)
Stoyoma Creek	4,250	72% (3,664 ha)	65% (2,757 ha)
Uztlius Creek	16,152	59% (9,590 ha)	47% (7,639 ha)

OVERVIEW:

The Ainslie Creek Fire burned 67,722 ha on the east side of the Fraser River, between Mowhokam Creek to the northwest, Alexandra Bridge to the southwest and Nuaitch Creek to the northeast. The fire is classified as being held and not expected to grow beyond its current perimeter. The wildfire covers a vast area over 50 km in length from north to south and upwards of 25 km wide. The western fire perimeter follows the Fraser River and Trans Canada Highway (TCH) #1. The eastern perimeter extends into and across mountainous terrain with a series of fingers that reach tens of kilometres east from the Fraser River. The southern fire perimeter extends well into the upper Anderson River watershed. Aerial reconnaissance of the Brunswick Creek Fire was conducted on July 27, 2026, and field assessments were conducted on August 13 and 16, 2026.

The wildfire burned a series of substantial watersheds that drain west into the Fraser River, including Anderson River, Stoyoma Creek, Ainslie Creek, and Mowhokam Creek. Eastern portions of the fire have burned into the Maka Creek and Spius Creek watersheds, along with Nuaitch Creek, which drain east or northeast into the Nicola River. The northern edge of the Ainslie Creek Fire overlaps with the southeastern edge of the Kookipi Creek Fire (2023; V11337) and Mowhokam Creek Fire (2021; V11669). The Kookipi Creek Fire (2023) burned over 17,000 ha (170 km^2) in the Nahatlatch River watershed and other named watersheds on the east and west side of the Fraser River Canyon. The Mowhokam Creek Fire (2021) burned over 5,000 ha (50 km^2) in the Mowhokam Creek watershed as well as Little Creek and Falls Creek on the east side of the Fraser River. The northeastern finger of the Ainslie Creek Fire borders the southwestern edge of the Lytton Creek Fire (2021; K71086), which burned 83,671 ha (837 km^2) between Lytton, Spences Bridge, and towards Merritt.

Within the Ainslie Creek Fire perimeter, the CN railway and Highway #1 extend from north to south through portions of the Ainslie Creek Fire perimeter crossing a mix of fluvial terraces and steeper escarpment slopes, generally within 100–200 m upslope of the Fraser River. Resource road networks extend up into the Anderson River, Utzlius Creek, Mowhokam Creek and Ainslie Creek watersheds and there are many smaller resource roads.

SUMMARY OF TERRAIN CONDITIONS, THE EFFECTS OF THE FIRE, AND PREVIOUS FIRE ACTIVITY IN THE SURROUNDING AREA:

The terrain along eastern sidewall of the Fraser Canyon, around Boston Bar, Canyon Alpine and Boothroyd is generally rather steep and bedrock controlled with an irregularly benched profile. The Cascade Mountains rise on the east side of the Fraser River and merge with the Thompson Plateau to the northeast towards Merritt. Terrain in the Cascade Mountains is characterized by rounded ridges and dome shaped peaks of moderate elevation that were overridden by ice, though a series of higher peaks and ridges composed of erosion resistant rock projected beyond the ice sheet and retain a sharper profile. Several deeply incised watersheds drain west through the Cascade Mountains to the Fraser River, including Anderson River, Stoyoma Creek, Mowhokam Creek and Ainslie Creek.

Valley fills composed of till, colluvium, and fluvial sediments occupy the valley bottoms of the major watersheds that drain west into the Fraser River. Glacial sediments composed of glaciofluvial material, or in some places glaciofluvial interbedded with glaciolacustrine material, are present in terraces along the Fraser River in the area surrounding Boston Bar and Boothroyd. Since deglaciation, smaller streams along the eastern Fraser River sidewall between Mowhokam Creek and Boston Bar deposited alluvial and colluvial sediments forming mid-slope fans where they reach gentler gradient terraced terrain approaching the

Fraser River. Terraces around Boston Bar and Hicks are separated from the Fraser River by moderately steep to steep escarpment slopes that are typically no more than 100 m in length. Downstream of Boston Bar the Fraser River flows in an increasingly narrow, bedrock-controlled canyon where the valley sidewalls are steep and rugged, with extensive colluvial deposits.

The vegetation burn severity mapping attached to this report reflects current conditions as of August 31st, 2026, and does not incorporate fire growth since then. Across the fire perimeter, vegetation burn severity generally includes a mix of low and moderate severity with substantial areas of high severity in the Stoyoma Creek watershed, lower and upper Anderson River watershed and Ainslie Creek watershed (see attached V10755 Vegetation Burn Severity Map). The burn severity mapping used for this analysis was corroborated with visual observations made during a helicopter overflight and during the field assessment. Vegetation and soil burn severity were examined at many locations throughout the fire perimeter. Overall, the mapped vegetation burn severity was found to be broadly consistent with the vegetation burn severity observed in the field. A soil burn severity assessment was conducted by the BCWS Rapid Ecological Assessment Procedure (REAP) program, which found that soil burn severity ratings were typically within one class of the vegetation burn severity. Generally, areas with high vegetation burn severity only experienced moderate soil burn severity; however, some areas with low vegetation burn severity exhibited moderate soil burn severity. Localized areas exhibiting both high soil burn severity and high vegetation burn severity were documented in the field during fieldwork.

During the Mowhokam Creek Fire in 2021 lower portions of the Mowhokam Creek watershed on the south and east side of Jackass Mountain were burned at moderate or high severity. Several months after the wildfire the area was impacted by the highly destructive November 2021 atmospheric river causing extensive erosion, landsliding, and debris flows within the fire perimeter, and a debris flood along the mainstem of Mowhokam Creek. Areas with elevated burn severity experienced hillslope erosion and tributaries experienced in-channel initiating debris flows. The debris flood along the mainstem of Mowhokam Creek was likely enhanced by sediment contributions associated with post-fire erosion and debris flows, along with bank failures directly into the creek. Much of the creek's floodplain in its middle reaches was severely eroded during the atmospheric river event. No damage was reported at the Highway #1 crossing, where Mowhokam Creek is directed through a tunnel in bedrock beneath the highway and CN railway.

During the 2021 Lytton Creek Fire many watersheds and face units above the Fraser River, Thompson River and Nicola River were burned at moderate or high severity. For several years following the Lytton Creek Fire, burned areas produced hundreds of post-fire debris flows, debris floods, and sediment laden floods impacting private property, major transportation corridors, and other infrastructure. Many of these events were triggered by short duration, high intensity rainfall during summer convective storms. Others were triggered by longer duration lower intensity rainstorms during the fall.

During the Kookipi Creek Fire in 2023 portions of the Nahatlatch River watershed and face-unit slopes on the east and west side of the Fraser River were burned extensively at moderate or high severity. Approximately a year after the Kookipi Creek Fire, a rainfall event on August 10, 2024, triggered numerous post-fire geohazards, including debris flows on an unnamed creek that crosses Chaumox Road to the south of the confluence between the Nahatlatch and Fraser Rivers. At least six debris flow or mud flow events were recorded in areas impacted by the Kookipi Creek Fire during the August 2024 rainstorm, which brought intense, short duration rainfall to the region. This indicates the wider area's susceptibility to post-fire debris flows triggered by convective summer storms. Many named creeks within or immediately adjacent to the Brunswick Creek Fire perimeter were subject to extensive landsliding, debris flows and debris floods during the highly destructive November 2021 atmospheric river event. This includes the Nahatlatch River, Scuzzy Creek, Hallecks Creek, Hallisey Creek, Gowen Creek, Brunswick Creek, Speyum Creek and a series of unnamed streams that drain face-unit slopes between Chaumox and North Bend.

In summary, the area in and around the Ainslie Creek Fire has an extensive history of wildfire and natural hazards, including recent post-fire debris flows and debris floods, and recent non-fire related landslides, debris flows or debris floods. Many of the areas impacted by wildfire along the Fraser Canyon, and particularly those in the past decade, have experienced rainfall triggered post-wildfire debris flows and debris floods damaging infrastructure in the years thereafter. Evidence drawn specifically from the Kookipi Creek Fire indicates that short duration high intensity rainfall during the summer months can trigger post-fire geohazards; however, in the wider region between Scuzzy Creek and Lytton, the dominant triggering mechanism for both fire related natural hazards and non-fire related natural hazards and appears to be long-duration rainfall events in the late fall (i.e., November).

IMPACTED WATERSHED SUMMARY:

Watershed	Area (km^2)	Min elevation (m)	Max elevation (m)	Stream length (km)	Melton ratio	Anticipated hydrogeomorphic events
Ainslie Creek	158.3	108	2,247	19.40	0.17	Debris flood
Anderson River	502.1	97	2,116	38.30	0.09	Debris flood
Bucktum Creek	2.2	114	897	2.58	0.52	Debris flow
East Anderson River	125.2	306	2,122	23.00	0.16	Debris flood
Gilt Creek	6.6	80	1,119	4.72	0.47	Debris flood
Juliet Creek	90.3	1,011	2,122	14.60	0.13	Debris flood
Maka Creek	216.1	802	1,990	30.00	0.08	Debris flood
Mowhokam Creek	122.3	118	2,077	24.40	0.18	Debris flood
Nuaitch Creek	83.4	501	1,910	14.80	0.15	Debris flood
Petch Creek	3.2	102	1,413	2.0	0.74	Debris flow
Prospect Creek	221.5	726	2,260	24.10	0.10	Debris flood
Stoyoma Creek	42.5	107	1,939	12.85	0.28	Debris flood
Utzlius Creek	161.5	288	1,988	25.80	0.13	Debris flood

Ainslie Creek

Ainslie Creek is a ~158 km^2 watershed situated between Boothroyd and Canyon Alpine on the east side of the Fraser River. The watershed has two main branches; a northern branch that extends up towards Cowhead Pass and a southern branch that extends south of Mount Hewitt Bostock. Both branches have extensive forestry related development, particularly at upper elevations within the catchment. Ainslie Creek is deeply incised as it flows down to the Fraser River. The CN railway and Highway #1 both cross Ainslie Creek with clear span bridges within several hundred metres upstream of the creek's confluence with the Fraser River.

Ainslie Creek was significantly impacted during the November 2021 atmospheric river event. Debris floods occurred along the northern and southern branches and along the mainstem causing significant erosion of the floodplain and multiple debris flows occurred in the upper catchment. The Ainslie Creek watershed was substantially impacted during the Ainslie Creek Fire. Around 76% of the watershed was burned during the fire and 70% of the watershed was burned at moderate or high severity. Many steep valley sidewalls that flank the main creek channel include large swaths of moderate and high vegetation burn severity.

Anderson River

Anderson River is a substantial catchment at over 500 km^2 with several named branches including Utzlius Creek and East Anderson River that extend into mountainous terrain east of the Fraser Canyon. East Anderson River and Utzlius Creek join the mainstem of Anderson River between 9 km and 10 km upstream

of the river's confluence with the Fraser River, which is located just downstream of Boston Bar and upstream of Hicks. Relief across the watershed reaches upwards of 2,000 m from broad glaciated valleys, alpine ridges, and subdued upland terrain in the upper catchments to rugged, steep sided canyon walls in the Fraser Canyon.

The mainstem of Anderson River, Utzlius Creek, and East Anderson River were substantially impacted during the November 2021 atmospheric river event. During the event, debris floods occurred along all three main branches (Anderson, Utzlius, and East Anderson) causing significant erosion along their floodplains. Many landslides and debris flows initiated throughout the watershed contributing sediment to mainstem channels.

The Anderson Creek watershed was substantially impacted during the Ainslie Creek Fire. Around 50% of the watershed was burned during the fire and 40% of the watershed was burned at moderate or high severity. Like Ainslie Creek, many steep valley sidewalls flanking the mainstem of the creek and its substantial tributaries were burned at moderate or high severity. Fifty-nine percent of the Utzlius Creek sub-catchment was burned during the fire and 47% was burned at moderate or high severity. Similarly, 60% of East Anderson Creek was burned during the fire with 52% burned at moderate or high severity.

Bucktum Creek

Bucktum Creek is a small catchment (2.3 km^2) on the east side of the Fraser River in the Fraser River Canyon located immediately south of Canyon Alpine. The creek is relatively short and steep initiating only 1.4 km upslope of Highway 1 on rugged, rocky terrain with sparse timber and extensive colluvial deposits. Bucktum No. 4 is situated on the several hundred metre wide and several hundred metre long Bucktum Creek alluvial fan, located between Highway 1 and the toe of the steeper hillside. The stream channel appears to flow almost due west across the fan surface towards Highway #1, where it flows beneath the road in a 600 mm corrugated metal pipe and continues along the edge of Bucktum No. 4 and an aggregate pit towards the CN railway, before reaching the Fraser River. The Bucktum Creek catchment was substantially impacted during the Ainslie Creek Fire when 89% of the watershed's surface area was burned, and 76% of the watershed was burned at moderate or high severity.

Gilt Creek

Gilt Creek is another small catchment (~7 km^2) on the east side of the Fraser River Canyon, south of the Alexandra Bridge and opposite Spuzzum. The Gilt Creek watershed occupies a low saddle on the west side of a drainage divide separating the Fraser River Canyon from East Anderson River to the east. Gilt Creek drains west into the Fraser River and intersects the CN railway roughly 50 m upslope of the Fraser River. Anderson River FSR accesses the upper East Anderson River watershed via the Gilt Creek saddle, extending east into the watershed from Highway 1 and then up over the saddle via a series of switchbacks and crossings over Gilt Creek.

Wildfire impacts in Gilt Creek were limited to the northern portion of the catchment on south-aspect hillslopes generally upslope of the FSR and the Gilt Creek channel. Thirty-six percent of the watershed was burned and 22% of the watershed was burned at moderate or high severity.

Maka Creek

Maka Creek is a substantial (216 km^2) tributary that flows northwest into Spius Creek, which continues to the Nicola River. The Maka Creek catchment was severely impacted during the 2021 July Mountain Fire. In November of 2021 Maka Creek experienced numerous post-wildfire debris flows and a debris flood along lower reaches of the mainstem. The debris flood caused severe erosion along the floodplain and extensive damage along Spius Creek downstream.

Only eight percent of the Maka Creek watershed surface area burned during the 2026 Ainslie Creek Fire and only 6% was burned at moderate or high severity. Resource road crossings and networks do not

appear to have been repaired in the Maka Creek watershed following the 2021 fire and flood. The watershed is not evaluated further in this reconnaissance report.

Mowhokam Creek

Mowhokam Creek is located at the northern edge of the Ainslie Creek Fire on the east side of the Fraser River, roughly 8 km northwest of Boothroyd. The Mowhokam Creek drainage covers 122.5 km^2. Much of the watershed has been impacted by wildfire over the past five years, with substantial fire impacts during the 2021 Mowhokam Creek Fire, and a modest proportion of the watershed burning again in 2026 during the Ainslie Creek Fire.

During the 2021 fire lower portions of the watershed on the south and east side of Jackass Mountain were burned at moderate or high severity. Several months after the wildfire the area was impacted by the highly destructive November 2021 atmospheric river causing extensive erosion, landsliding, and debris flows within the fire perimeter, and a debris flood along the mainstem of Mowhokam Creek. Much of the creek's floodplain in its middle reaches was severely eroded during the atmospheric river event. No damage was reported at the Highway #1 crossing, where Mowhokam Creek is directed through a tunnel in bedrock beneath the highway and CN railway.

Around 14% of the watershed was burned during the 2026 fire and 10% of the watershed was burned at moderate or high severity. Approximately 37% of the Mowhokam Creek watershed was impacted by the 2021 fire with roughly 20% being burned at moderate or high vegetation burn severity.

Nuaitch Creek

Nuaitch Creek is an 83.4 km^2 watershed that drains east into the Nicola River, roughly 12 km west of Merritt and 3 km downstream from the Spius River confluence with the Nicola River. From the Nicola River the Nuaitch Creek watershed extends roughly 13 km west up to Mimenuh Mountain. The northwestern half of the watershed experienced severe wildfire impacts during the 2021 Lytton Creek Fire. In 2026, an additional 19% of the watershed was burned with 10% of the watershed surface area burned at moderate or high severity.

Petch Creek

Petch Creek is a small, 3.2 km^2 watershed on the east side of the Fraser River Canyon, roughly 1.7 km south of Hicks. The watershed is relatively short and steep, with over 1000 m of relief over roughly 2.5 km. The terrain in the catchment is rugged topography with exposed bedrock, colluvial talus slopes, and signs of previous terrain instability. The watershed has experienced debris flows in the past, most recently during the 2021 November atmospheric river event when a debris flow impacted Highway 1. The crossing structure at Highway 1 is a 1,800 mm culvert. Downstream of the highway Petch Creek intersects the CN railway. Ninety-four percent of the Petch Creek watershed was burned during the Ainslie Creek Fire and 75% of the watershed was burned at moderate or high severity.

Prospect Creek

Prospect Creek is a 222 km^2 watershed located on the north side of Stoyoma Mountain and Mount Hewitt Bostock in the Spius Creek watershed. It includes substantial areas of high elevation, forested terrain and an expansive road network accessed primarily by the Prospect Creek FSR. Eleven percent of the watershed was burned during the 2026 Ainslie Creek Fire and 8% of the watershed was burned at moderate or high severity. The watershed is not evaluated further in this reconnaissance report.

Stoyoma Creek

Stoyoma Creek is a 43 km^2 watershed on the east side of the Fraser River Canyon, immediately northeast of Boston Bar. The watershed is steep and mountainous extending east approximately 10 km from the Fraser River with over 1,800 m of relief. Highway #1 and two lines of CN Railway cross Stoyoma Creek at its outlet to the Fraser River. The highway crossing consists of two 900 mm box culvert beneath a deep fill. The upper

CN rail line consists of an unknown structure with a deep fill and the lower rail line closest to the Fraser River includes a trestle bridge. The Stoyoma Creek watershed is subject to a variety of natural hazards including rockfall, rock slope deformation, earthflows, landslides, and debris flows. During the November 2021 atmospheric river event Stoyoma Creek experienced a debris flood. No damage was reported along Highway #1 or the CN railway. Stoyoma Creek provides water to the town of Boston Bar for domestic consumption and other purposes. Seventy-two percent of the Stoyoma Creek watershed was burned during the wildfire and 65% of the watershed was burned at moderate or high severity.

SUMMARY OF POST-FIRE HAZARD AND RISK

1. Hazard = P(H), the probability of occurrence of a hazardous event
2. Probability of spatial impact, P(S:H), the probability of a hazard reaching or affecting an element at risk
3. Partial Risk, the probability of a hazard occurring and affecting an element at risk = P(H) x P(S:H)
4: Location with the highest risk rating given; at other locations the risk may be lower

Debris floods along Mowhokam Creek impacting Highway #1 and CN railway tunnel

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Moderate**
Partial Risk[3,4] = **Moderate**

Two areas of the Mowhokam Creek watershed were impacted during the 2026 Ainslie Creek Fire. The first includes a series of north-aspect slopes in the lower watershed that drain directly down to the mainstem of the creek. The second area is in the southeast corner of the upper catchment. Both areas were burned at mixed severities with large areas of low vegetation burn severity interspersed with smaller pockets of moderate and high severity. Following substantial fire impacts during the 2021 Mowhokam Creek Fire, the Mowhokam Creek watershed experienced widespread post-fire terrain instability during the 2021 November atmospheric river event. Natural instability, including landslides and debris flows were also reported in non-fire affected areas.

Fourteen percent of the Mowhokam Creek watershed burned in 2026 and 10% of the watershed surface area burned at moderate or high severity. The likelihood of post-fire debris floods along the Mowhokam Creek mainstem is rated as moderate. The likelihood that these events will reach the tunnel crossing at Highway 1 and the CN Railway is also rated as moderate, resulting in a moderate partial risk.

Debris floods or sediment laden flooding in the Gilt Creek catchment impacting the Anderson River FSR, road crossings along the FSR, or the CN railway infrastructure

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Moderate to High**
Partial Risk[3,4] = **Variable**

The Gilt Creek watershed was impacted during the Ainslie Creek Fire. Steeper south-aspect slopes above the Anderson River FSR and Gilt Creek were burned consistently at moderate or high severity. The likelihood of post-fire sediment laden flooding on the south-aspect slopes impacted by the fire is rated as moderate, as is the likelihood of post-fire debris floods along the creek itself. The spatial impact likelihood to the forest service road and its crossings are rated as high and the spatial likelihood to the CN railway is rated as moderate. The crossing structure over Gilt Creek at the railway is unknown.

Debris floods or nuisance flooding along Nuaitch Creek impacting the Manning Creek FSR crossing and Nooaitch No. 10

Hazard P(H)[1] = **High** Probability of Spatial Impact P(S:H)[2] = **Moderate**
Partial Risk[3,4] = **High**

The Nuaitch Creek watershed has been substantially impacted by wildfire over the past five years. The northwestern half of the watershed was burned during the Lytton Creek Fire in 2021. In 2026 the Ainslie Creek Fire burned roughly 20% of the watershed surface area, specifically in the southeastern portion of the catchment on the south side of the creek. Some signs of post-fire runoff and erosion are evident on

satellite imagery in the upper catchment in sub-watershed units impacted by the 2021 wildfire. The likelihood of post-fire debris floods or nuisance flooding along Nuaitch Creek is rated as high and the spatial likelihood of impact for Nooaitch No. 10 and the Manning Creek FSR is also rated as moderate, resulting in a high partial risk.

Debris flows along Petch Creek impacting Highway 1 and the CN railway

Hazard P(H)[1] = **High** Probability of Spatial Impact P(S:H)[2] = **High**
Partial Risk[3,4] = **Very High**

The Petch Creek watershed is relatively steep and straight with several converging gullies. Gully sidewalls appear to produce landslides into the creek, which transition to debris flows transporting down towards Highway 1. The most recent debris flow along Petch Creek occurred in November 2021 during the atmospheric river event. Ninety-four percent of the Petch Creek watershed was burned during the Ainslie Creek Fire and 75% of the watershed was burned at moderate or high severity.

The likelihood of post-fire debris flows along Petch Creek is rated as high. The spatial impact likelihood for Highway 1 and the CN Railway crossing is also rated as high, resulting in a very high partial risk.

Landslides, rockfall or nuisance flooding affecting Boothroyd No. 6A and private property (PID 026-998-483) in the Fishblue Lake area

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Moderate**
Partial Risk[3,4] = **Moderate**

There are a series of short, steep slopes above Boothroyd No. 6A and a parcel of private property at the north end of Fishblue Lake, which were impacted during the Ainslie Creek Fire. Short steep slopes on the west side of the lake were burned primarily at moderate or high severity. These slopes are steep and rocky and subject to rockfall. On the east and northeast side of the lake, vegetation burn severity generally increases with elevation with mostly low and moderate severity for the first few hundred meters upslope (east) of the valley bottom where Boothroyd No. 6 and private property is located at the north end of Fishblue Lake and transitioning to high interspersed with pockets of low and moderate towards the height of land. Local slopes in and around Fishblue Lake are anticipated to be subject to elevated rates of post-fire rockfall and landsliding. Due to the substantial proportion of moderate and high vegetation burn severity on the hillslopes above Boothroyd No. 6A and the parcel of private property at the north end of the lake, the likelihood of post-fire nuisance flooding or sediment laden flooding is also elevated. The likelihood of post-fire rockfall, landsliding, or nuisance or sediment laden flooding is rated as moderate. The likelihood that these post-fire hazards will impact Boothroyd No.6 or private property (PID 026-998-483) is also rated as moderate, resulting in a moderate partial risk.

Debris flows, sediment laden floods, or nuisance flooding on the face-unit slopes east and northeast of Boothroyd impacting the Mowhokam FSR

Hazard P(H)[1] = **High** Probability of Spatial Impact P(S:H)[2] = **Moderate to High**
Partial Risk[3,4] = **High to Very High**

The face unit slopes east and northeast of Boothroyd are severely burned. The Mowhokam FSR climbs east from Highway 1 and traverses across the hillside, through the wildfire perimeter towards Mowhokam Creek. Due to the severe fire impacts on the hillside that the road traverses, the likelihood of post-fire debris flows, sediment laden floods, or nuisance flooding is rated as high. The spatial likelihood that these events intersect the FSR is variable, ranging from moderate to high, resulting in a high to very high partial risk.

Debris flows, sediment laden floods or nuisance flooding affecting two parcels of private property (PID 014-635-771 & 002-834-880) on the north side of Ainslie Creek

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Moderate to High**
Partial Risk[3,4] = **Moderate to High**

Two parcels of private property (PID 014-635-771 & 002-834-880) are located on the north side of Ainslie Creek, between 500–900 m east of Highway 1. The western parcel is located on the east-aspect of a low rounded hill that separates the Fraser River to the west, from the steep sided Ainslie Creek draw to the east. The eastern property includes steeper terrain with a southeasterly-aspect descending towards Ainslie Creek. The vegetation burn severity across the parcels of private property and areas upslope is generally moderate to high. A small watershed extends north for almost a kilometre, upslope of the eastern property to a low saddle. The middle catchment of this small watershed was burned at moderate to high severity though fire severity decreases towards the top of the catchment. The likelihood of post-fire debris flows, sediment laden floods, or nuisance flooding across the slopes immediately adjacent and upslope of these two parcels of private property is rated as moderate. The probability of spatial impact is rated as moderate for the western property (PID 014-635-771) and high for the eastern property (PID 002-834-880) resulting in a moderate to high partial risk.

Sediment laden flooding or nuisance flooding impacting private property (PID 014-634-538) south of Ainslie Creek

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **High**
Partial Risk[3,4] = **High**

Approximately 1 km south of the Ainslie Creek Highway 1 bridge there is a parcel of private property (PID 014-634-538) located upslope (east) of Highway 1. The parcel is accessed via a private driveway that branches off Ainslie Road South. The lower (western) slopes of the property were not burned; however, the upper slopes of the property were burned with a mix of low, moderate, and high vegetation burn severity. Due to the steep terrain across the upper portion of the property, in combination with pockets of moderate and high vegetation burn severity (and likely elevated soil burn severity) the likelihood of overland flow generation resulting in sediment laden flooding or nuisance flooding is rated as moderate. The spatial likelihood that these types of hazards will impact the parcel of private property is rated as high, resulting in a high partial risk.

Sediment laden floods or nuisance flooding impacting South Ainslie Creek FSR

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Moderate**
Partial Risk[3,4] = **Moderate**

South Ainslie Creek FSR climbs east from Highway 1 accessing a vast network of resource roads and cutblocks between Ainslie Creek and Stoyoma Creek. The FSR climbs a 1,700 m long hillside above the Highway 1 via a series of switchbacks before the road network branches off across the hillside. The hillside the FSR climbs was burned generally at moderate severity with pockets of low and high vegetation burn severity interspersed throughout. The likelihood of sediment laden floods or nuisance flooding on this hillside is rated as moderate. The spatial likelihood that these types of events impact the FSR is also moderate, resulting in a moderate partial risk.

Sediment laden floods or nuisance flooding on face-unit slopes above Canyon Alpine impacting private properties or Highway 1

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Low to High**
Partial Risk[3,4] = **Variable**

Canyon Alpine is located on a wide glaciofluvial terrace on the east side of the Fraser River. Highway 1 bisects Canyon Alpine from north to south and numerous small access roads provide access to homes and businesses in the community. The properties along the east side of the highway are located at the toe of a rugged and rocky ~1 km long hillside, that rolls over upslope to gentler terrain above. The vegetation burn severity across this lower hillside, above Canyon Alpine, is generally low at the toe of the hillside and increases to moderate and high upslope. Several draws are visible on the hillside above the southern portion of Canyon Alpine intersecting parcels of private property (PID 004-760-956, 001-550-519, and 003-063-551). Post-fire overland flow generated on the hillside above Canyon Alpine has the potential to accumulate in these draws and be directed downslope to these parcels of private property and the highway. The likelihood of sediment laden flooding or nuisance flooding on the hillslope above Canyon Alpine is rated as moderate. The spatial likelihood that these events impact private property is Canyon Alpine is rated as low to high. Properties further to the north and west, particularly those on the far (western) side of the highway have a lower spatial probability, whereas those on the southeast side of Canyon Alpine at the toe of the steeper hillside have a higher probability of spatial impact.

Debris flows, sediment laden floods, or nuisance flooding along Bucktum Creek impacting Bucktum No. 4, private property, or Trans Canada Highway #1

Hazard P(H)[1] = **High** Probability of Spatial Impact P(S:H)[2] = **Moderate to High**
Partial Risk[3,4] = **High to Very High**

The upper Bucktum Creek catchment was extensively burned during the Ainslie Creek Fire. The creek has a steep, confined channel that extends roughly a kilometre to a moderately-sized fan, located upslope of Highway 1. From the fan apex, the fan surface extends down gently towards the highway before transitioning onto a gently sloping glaciofluvial terrace.

Bucktum No. 4 extends from terraced terrain to the west of Highway 1 up across the fan surface to the fan apex. The aerial overview assessment indicates that vegetation on the fan apex appears was burned during the fire but the rest of the fan was not. At least one permanent residence is located on Bucktum No. 4 immediately adjacent Highway 1 and about 270 m downslope from the fan apex. Two additional residential structures are visible on private property (PID 002-099-128) along the southern fan margin, immediately east of Highway 1.

LiDAR data indicates that the Bucktum Creek channel extends west across the upper fan surface towards a culvert beneath the highway. The channel appears to be partially confined; however, no detailed field investigation was conducted to verify this. Due to the steep, confined nature of the upper watershed and the high proportion of moderate and high vegetation burn severity, the potential for post-fire debris flows, sediment laden floods, or nuisance flooding along Bucktum Creek is rated as high. The likelihood that these events reach Bucktum No. 4 is rated as high. The likelihood that these events reach Highway #1, permanent structures on Bucktum No. 4, or permanent structures on the parcel of private property along the southern fan margin is rated as moderate. This results in a high to very high partial risk.

Flooding or debris floods along Stoyoma Creek impacting Highway #1 or the CN railway crossings

Hazard P(H)[1] = **High** Probability of Spatial Impact P(S:H)[2] = **High**
Partial Risk[3,4] = **Very High**

The two raillines of the CN railway and Highway #1 cross Stoyoma Creek about 90 m, 170 m, and 300 m upslope of the Fraser River, respectively. Upstream of Highway #1 the Stoyoma Creek draw is approximately 75 m wide and 20 m deep. Seventy-two percent of the Stoyoma Creek watershed was burned during the 2026 fire and 65% of the watershed burned at moderate or high vegetation burn

severity. The likelihood of post-fire debris floods or flooding is rated as high. The likelihood that wildfire-related debris floods will reach Highway #1 and the CN railway crossings is also rated as high, resulting in a very high partial risk.

Sediment laden floods or nuisance flooding on face-unit slopes above Boston Bar impacting private properties or Highway 1

Hazard P(H)[1] = **Moderate** Probability of Spatial Impact P(S:H)[2] = **Variable**
Partial Risk[3,4] = **Variable**

Boston Bar is located on a glaciofluvial terrace along the eastern bank of the Fraser River. Highway 1 extends across the terrace from north to south and there is a CN rail yard several hundred metres from the Fraser River. There are many tens of parcels of private property and homes in the community of Boston Bar, some of which are located between the rail yard and highway, and others which are located east of the highway at the edge of the terrace where it intersects with a steeper hillside.

The ~2 km long face-unit hillside above Boston Bar is rugged and irregular to irregularly benched in profile with moderate to moderately steep slope gradients. Several small streams descend the face unit hillslope to Boston Bar and there are numerous dry gullies or swales across the hillside. Middle and upper slopes of the face unit include scattered colluvial talus slopes located beneath bedrock outcrops. The face-unit slope above Boston Bar is subject to rockfalls, rockslides, earthflows. There is an extensive road and trail network across the lower third of the hillside above Boston Bar.

The vegetation burn severity across the face-unit varies with large swaths of low or moderate vegetation burn severity interspersed with small pockets of high severity. Burn severity generally increases with elevation and to the northeast and southeast of Boston Bar (see the attached vegetation burn severity mapping).

Due to the patchy nature of the wildfire on the hillside the likelihood of post fire sediment laden floods or nuisance flooding is rated as moderate. The spatial impact likelihood for private properties in Boston Bar varies with proximity to the toe of the steeper hillside, along with proximity to the outlet of stream courses, dry swales, or draws that descend the hillside. The resulting partial risk is variable and will be refined in subsequent assessments.

Sediment laden floods or nuisance flooding on face-unit slopes above Hicks impacting Highway 1 or Tuckkwiowhum No. 1

Hazard P(H)[1] = **Moderate to High** Probability of Spatial Impact P(S:H)[2] = **Variable**
Partial Risk[3,4] = **Variable**

Hicks is located on a glaciofluvial terrace along the eastern bank of the Fraser River, immediately south of the Anderson River confluence. Tuckkwiowhum No. 1 occupies the majority of the terrace and there are numerous buildings across the reserve including Tuckkwiowhum Village, a campground at the north end of the terrace, and a series of homes in the southern half of the community. Highway 1 and the CN railway extend across the terrace from north to south. Most of the building on Tuckkwiowhum No. 1 are in the middle of the terrace between the railway and the highway. No residences are located east of Highway 1 at the toe of the steeper hillside.

The face-unit hillslope above Tuckkwiowhum is generally burned at moderate to high severity, particularly the slope above Tuckkwiowhum Village. Burn severity decreases slightly to a mix of low and moderate across the middle, lower portion of the face-unit above the middle of Tuckkwiowhum No. 1.

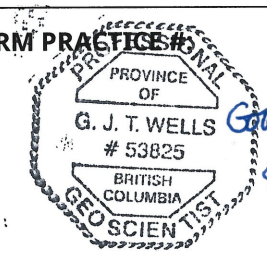
The likelihood of post-fire runoff generated hazards, including sediment laden flooding or nuisance flooding is rated as moderate to high due to the steep terrain and substantial proportion of moderate and high vegetation burn severity across the face-unit slope. There are no major draws or swales descending

the hillside that would substantially concentrate runoff, thus any post-fire overland flow generated on the steeply burned hillside is anticipated to be distributed or dispersed. The spatial likelihood of impact to Highway 1 is rated as high due to its position at the toe of the steeper hillside. The spatial likelihood of impact generally decreases to moderate or low for elements on the far side of the highway (e.g., homes along Hicks Road, or the Tuckkwiowhum Village), and for the campground.

FURTHER ACTIONS:

- A (Level 4) site-specific partial risk assessment for the Ainslie Creek Fire is recommended. The results of that assessment will be made public and are anticipated to supersede the results of this assessment.
- MOTT should consider adding or updating existing signage along the various roads within or downslope of the Ainslie Creek notifying the public of potential post-wildfire hazards related to the fire, particularly in relation to the locations described above (i.e., along Highway #1, access roads in Boston Bar and Canyon Alpine).
- MOTT may wish to undertake additional assessments examining the debris flow or debris flood hazards along the named creeks or other unnamed creeks (e.g., Petch Creek or Stoyoma Creek) impacted by the fire, and if necessary, implement any mitigative measures they feel are required to meet with their risk tolerance.
- The owners/operators of the Boston Bar Community water system and other water systems in community watersheds should be advised that potential increases in streamflow and associated sedimentation may impact their infrastructure and develop strategies accordingly.
- The agencies responsible for local access and resource roads in the fire-affected area should carry out an assessment of the roads and drainage infrastructure and implement any works necessary to improve the resilience of the road network to post-wildfire natural hazards.
- Water licensees should be advised of the potential impact of wildfire on water quality, including potential impacts to water intake structures from sediment and debris, and other water quality parameters associated with the wildfire.
- If any salvage logging is proposed within, or downslope of areas impacted by the Ainslie Creek Fire, site specific post-wildfire natural hazard assessments that consider the cumulative impacts of harvesting and wildfire are recommended. Salvage operations within the fire perimeter (or downslope of fire affected areas) should include rainfall shutdown criteria commensurate with the post-wildfire natural hazard present to protect worker safety.

SIGNATURE, SEAL, FIRM PRACTICE #:



Geoth Wells
September 14, 2026

Reviewed by: Sarah Crookshanks, M.Sc., P.Geo.
Permit to Practice: 1003022

ATTACHMENTS:

1. V10755 Post Wildfire Natural Hazard Risk Assessment Overview Map, along with Maps 1, 2, 3 and 4.
2. V10755 Ainslie Creek Fire Vegetation Burn Severity Map
3. Appendix A

V10755 Ainslie Creek Fire Post Wildfire Natural Hazard Risk Assessment Overview Map

0 3,000 6,000 Meters

September 09, 2026 BC Environment Albers

World Terrain Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

Legend

V10755 Ainslie Creek Fire perimeter

1:280,000

Drawn by GW, September 09, 2026

BRITISH COLUMBIA

Skuppah 1
Pooeyelth 3
Siska Flat 5A
Conrad
Pegleg 3
Kanaka Bar 1A
Dufferin 10
Stlakament 9
Keefers
Chukcheetsa 7
Sho-Ook 5
Boothroyd 5C
Chaumox
Canyon Alpine
North Bend
Boston Bar 9
Boston Bar 8
Hicks
Shrypttahooks 7
China Bar Tunnel
Hells Gate
Tsileuh Creek
Yelakin 4
Long Tunnel 5
Chapmans
Treequatoose 3
Papsilqua 2A
Spuzzum Creek
Spuzzum 1A
Scuzzy Creek
Nicola Mameet 1
Coyle
Speous 8
Coutlee
Prospect Creek
Spius Creek
Coquihalla River
Maka Creek
Kingsvale
Uztlius Creek
East Anderson River
Juliet Creek
Coquihalla Hwy
Brookmere
Lawless Creek
2183 m
2042 m
2262 m
2245 m
2289 m
1914 m
2125 m
2019 m
1986 m
V10755 Ainslie Creek Fire

V10755 Ainslie Creek Fire
Post Wildfire Natural Hazard Risk Assessment Map 1 North

0 1,000 2,000 Meters

September 09, 2026 BC Environment Albers

World Terrain Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

Legend

Named Watersheds

V10755 Ainslie Creek Fire perimeter

Streams

1:80,000

Drawn by GW, September 9, 2026

BRITISH COLUMBIA

ufferin 10

Mowhokam Creek

Stlakament 9

Boothroyd 8A

Keefers

Boothroyd 6B

Inkitsaph

Chukcheetso

Inkahtsaph 6

Nahatlatch River

Ainslie Creek

Sho-Ook 5

Boothroyd 5B

Boothroyd 5C

Fraser River

Tsintahkil 2

Chaumox

1565 m

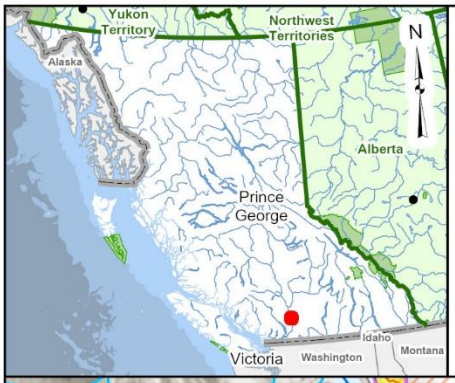
Speyum 3

Sam Adams 12

Canyon Alpine

Bucktum 4

Stoyoma Creek



V10755 Ainslie Creek Fire
Post Wildfire Natural Hazard Risk Assessment Map 2 Central

0 1,000 2,000 Meters

September 09, 2026 BC Environment Albers

World Terrain Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

Legend

Named Watersheds

V10755 Ainslie Creek Fire perimeter

Streams

1:80,000

Drawn by GW, September 9, 2026

BRITISH COLUMBIA

Sam Adams 12

Canyon Alpine

Bucktum 4

Bucktum Creek

Stoyoma Creek

North Bend

Kopchitchin 2

Boston Bar 9

Boston Bar

Boston Bar 8

Anderson River

Hicks

Komo

Shrypttahooks 7

Boston Bar 11

Scaucy 5

China Bar Tunnel

Petch Creek

Paul's 6

1432 m

Utzlius Creek

Hells Gate

Austin's Flat 3

East Anderson River

V10755 Ainslie Creek Fire Post Wildfire Natural Hazard Risk Assessment Map 3 South

0 500 1,000 1,500 2,000 Meters

September 09, 2026 BC Environment Albers

World Terrain Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

Legend

Named Watersheds

V10755 Ainslie Creek Fire perimeter

Streams

1:80,000

Drawn by GW, September 9, 2026

BRITISH COLUMBIA

Komo

Anderson River

Shrypttahooks 7

Boston Bar 11

Scaucy 5

China Bar Tunnel

Petch Creek

Paul's 6

1432 m

Utzlius Creek

Hells Gate

Austin's Flat 3

Ferrabee Tunnel

East Anderson River

Yelakin 4

Long Tunnel 5

Chapman's Bar 10

1922 m

Chapmans

Teequaloose 3A

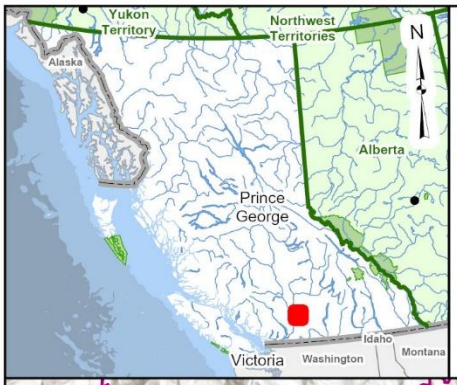
Skuat 6

Teequaloose 3

Papsilqua 2B

Papsilqua 2A

Gilt Creek



V10755 Ainslie Creek Fire Post Wildfire Natural Hazard Risk Assessment Map 4 East

0 5 Kilometers

September 09, 2026 BC Environment Albers

World Terrain Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User

Legend

Named Watersheds

V10755 Ainslie Creek Fire perimeter

1:200,000

Drawn by GW, September 9, 2026

BRITISH COLUMBIA

Nuaitch Creek

Nicola Mameet 1

Coyle

Speous 8

Coutlee

Merrit

Spius Creek

Prospect Creek

Prospect Creek

2183 m

2042 m

2262 m

2245 m

Spius Creek

Maka Creek

Colquhoun River

Kingsvale

1914 m

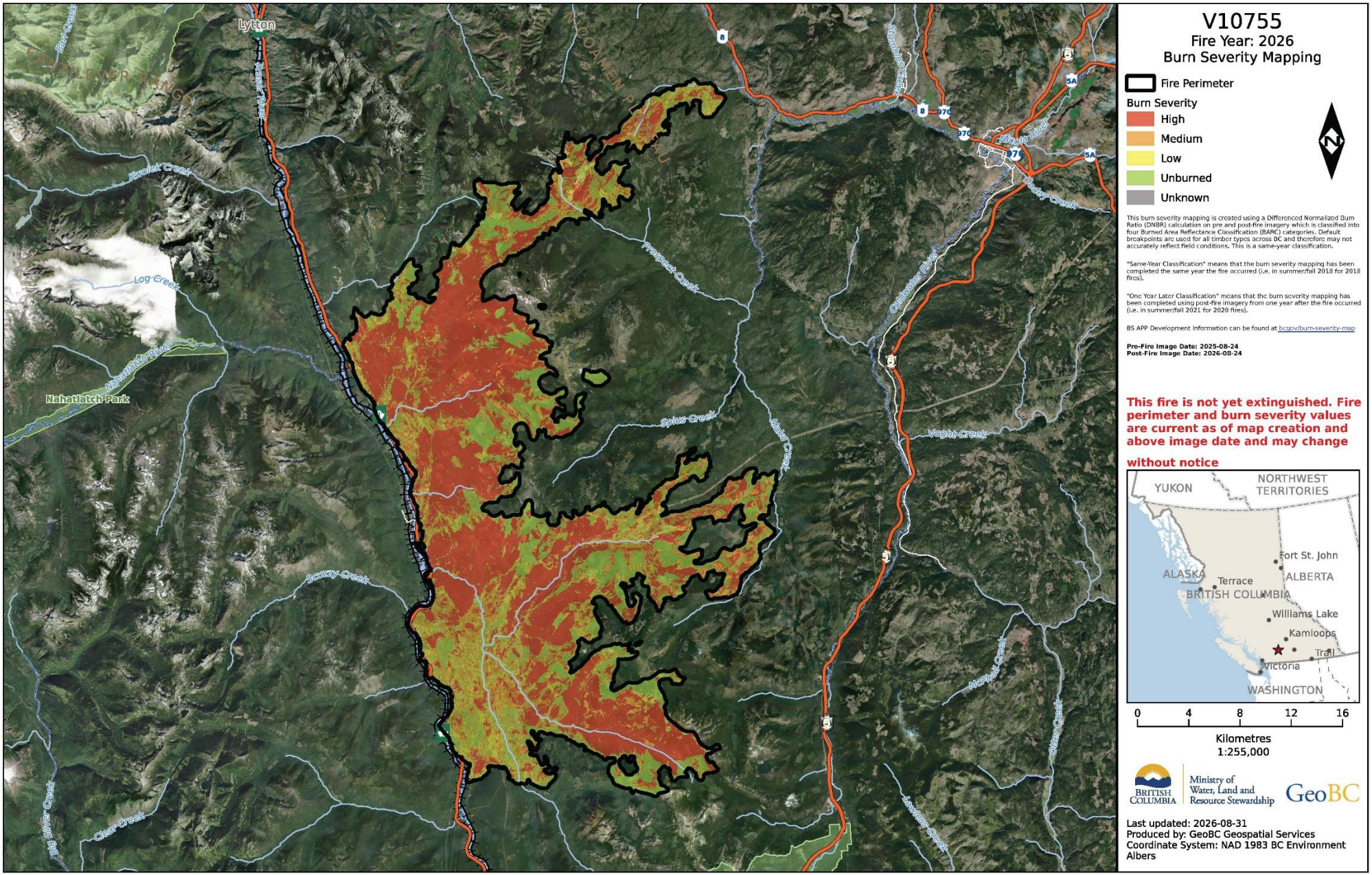
Uztlius Creek

Brookmere

Maka Cre

Hwy

Spearing


V10755
Fire Year: 2026
Burn Severity Mapping
Fire Perimeter
Burn Severity
High
Medium
Low
Unburned
Unknown
This burn severity mapping is created using a Differenced Normalized Burn Ratio (DNBR) calculation on pre and post-fire imagery which is classified into four Burned Area Reflectance Classification (BARC) categories. Default breakpoints are used for all timber types across BC and therefore may not accurately reflect field conditions. This is a same-year classification.
"Same-Year Classification" means that the burn severity mapping has been completed the same year the fire occurred (i.e. in summer/fall 2018 for 2018 fires).
"One Year Later Classification" means that the burn severity mapping has been completed using post-fire imagery from one year after the fire occurred (i.e. in summer/fall 2021 for 2020 fires).
BS APP Development Information can be found at bcgov/burn-severity-map
Pre-Fire Image Date: 2025-08-24
Post-Fire Image Date: 2026-08-24
This fire is not yet extinguished. Fire perimeter and burn severity values are current as of map creation and above image date and may change without notice
YUKON
NORTHWEST TERRITORIES
ALASKA
ALBERTA
BRITISH COLUMBIA
Fort St. John
Terrace
Williams Lake
Kamloops
Trail
Victoria
WASHINGTON
0 4 8 12 16
Kilometres
1:255,000
Ministry of Water, Land and Resource Stewardship
GeoBC
Last updated: 2026-08-31
Produced by: GeoBC Geospatial Services
Coordinate System: NAD 1983 BC Environment Albers
Lytton
Nahatlatch River
Nahatlatch Park
Log Creek
Kwoiek Creek
Prospect Creek
Spius Creek
Scuzzy Creek
Clear Creek
Big Silver Creek
Voght Creek
Nicola River
Coldwater River
Godey Creek
Sunshine Creek
Lawless Creek
Otter Creek

Appendix A to PWNHRA Reconnaissance Level 2 Reports

Scope of Level 2 Reports

Reconnaissance (Level 2) reports are primarily intended to identify whether post-wildfire hazards are likely to occur and need detailed investigation to protect identified elements at risk. Identified elements at risk are generally limited to public safety and infrastructure. Reconnaissance reports may also be used to assess safety conditions for wildfire fighters. In some cases, the MOF District Manager or other MOF personnel may request assessments for non-standard elements at risk or for other reasons.

Definitions of Hazard and Risk

Wildfire may produce conditions conducive to a suite of hazards. Debris flows, debris floods, and floods are often the most important hazards, but other types of landslide hazards including rockfall, debris slides and earthflows can also occur in response to wildfire. Wildfire can also cause snow avalanches and may affect water quality, cause erosion and result in sedimentation. Terrain, watershed, and channel conditions that produce post-wildfire hazards may also produce similar hazards in unburned conditions; these hazards may be mentioned but are not evaluated in this report.

P(H), P(S:H) and partial risk are presented for each identified elements at risk. Multiple types of channel hazards (debris flows, debris floods, floods) may affect an element at risk. These hazards are ranked by severity, with debris flow as the most damaging and destructive and flood as the least damaging and dangerous, and ratings are given for the highest rating hazard that may affect an element at risk. For example, where a channel has the potential for a debris flow and an element at risk may be affected, the lower ranking debris flood and flood hazards are not rated, since discharge and velocity are likely to be less than for a debris flow. These processes may cause erosion or sedimentation that affects the element at risk. Hazards that are unlikely to affect an identified element at risk are not discussed.

Table A1 shows the annual probability ranges for qualitative definitions of P(H). The probability of the hazard occurrence is for the post-wildfire period of elevated hazard, which in many cases may be less than five years, but in some cases may extend for several more years.

Table A1. Qualitative descriptions of post-wildfire hazard likelihood, hazard criteria, and related quantitative probabilities.

Hazard Likelihood Rating [P(H)]	Description	Annual Probability Range (Return Frequency)
Very High	An event is expected to occur. Most of the catchment or face unit has burned with a significant proportion burned at moderate and/or high severity	>20% (> 1:5)
High	An event is probable under adverse conditions. Most of the catchment or face unit has burned with a significant proportion (i.e., >50 %) of terrain conducive to post-wildfire natural hazard initiation burned at moderate or high severity. Existing indicators of pre-fire terrain instability within stream channels, on fans or face units.	1% to 20% (1:100 to 1:5)
Moderate	An event could occur under adverse conditions. It is not probable but possible over a several year period. More than 20% of the terrain conducive to post-wildfire natural hazards in the catchment or on the face-unit has burned with moderate and/or high severity. Historic geomorphic indicators of instability are present.	0.2% to 1% (1:500 to 1:100)
Low	An event could occur under very adverse conditions. It is considered unlikely over a several year period. Only a limited proportion of the catchment or face unit has burned. Few or no signs of pre-fire instability present along stream channels, fans or face units.	0.04% to 0.2% (1:2,500 to 1:500)
Very Low	An event will not occur or is conceivable though considered exceptionally unlikely. A limited proportion/none of the catchment was burned. No terrain instability indicators are present	<0.04% (< 1:2,500)

Table A2 defines spatial impact to an element of risk. Post-wildfire event magnitude is considered when rating spatial impact.

Table A2. Post-wildfire spatial impact.

Likelihood of spatial impact	Description	Probability range
H	It is probable that the event will impact the element at risk.	> 50%
M	It is possible that the event will impact the element at risk.	50% to 10%
L	It is unlikely that the event will impact the element at risk.	< 10%

Table A3 is a matrix which combines the hazard likelihood (Table A1) with the spatial impact likelihood (Table A2) to determine partial risk.

Table A3. Post-wildfire risk matrix partial risk matrix.

Hazard Likelihood P(HA) (Table 1)	Spatial Impact Likelihood (P(S:H)) (Table 2)		
	High	**Moderate**	**Low**
Very High	Very High	Very High	High
High	Very High	High	Moderate
Moderate	High	Moderate	Low
Low	Moderate	Low	Very Low
Very Low	Low	Very Low	Very Low

Report Standards

FLNRORD Land Management Handbook 69 is the primary standard followed in this report. LMH 69 describes the process to complete a detailed report. This reconnaissance report uses the framework of LMH 69 but does not follow it where detailed assessment procedures are described.

Land Management Handbook 69 Post Wildfire Natural Hazards Risk Analysis in British Columbia 2015
https://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh69.htm

Additional guidance is provided in the MOF SOG for PWNHRA and the 2014 FLNRO Landslide Risk Management Procedure.

Other professional guidance standards that may be used for the preparation of reconnaissance reports are listed below. These guidelines have similar report content to this reconnaissance assessment, but are for different purposes, have different levels of appropriate effort, and do not recognize the potential emergency nature of this reconnaissance assessment. These guidelines include:

EGBC Guidelines for TSA in the Forest Sector 2010
https://www.egbc.ca/getmedia/684901d7-779e-41dc-8225-05b024beae4f/APEGBC-Guidelines-for-Terrain-Stability-Assessments.pdf.aspx

EGBC Guidelines for Legislated Landslide Assessments 2010

https://www.egbc.ca/getmedia/5d8f3362-7ba7-4cf4-a5b6-e8252b2ed76c/APEGBC-Guidelines-for-Legislated-Landslide-Assessments.pdf.aspx

Legislated Flood Assessments in a Changing Climate in BC 2018
https://www.egbc.ca/getmedia/f5c2d7e9-26ad-4cb3-b528-940b3aaa9069/Legislated-Flood-Assessments-in-BC.pdf

Watershed Assessment and management of hydrologic and geomorphic risk in the Forest Sector
https://www.egbc.ca/app/Practice-Resources/Individual-Practice/Guidelines-Advisories/Document/01525AMW2ATQA5BSODHJAKBAGZDYTRL6FJ/Watershed%20Assessment%20and%20Management%20of%20Hydrologic%20and%20Geomorphic%20Risk%20in%20the%20Forest%20Sect

Other standards may also apply, depending on the professional qualifications of the writer.

Statement of Limitations

Reconnaissance PWNH Level 2 assessments are typically done in constrained timelines where personnel, resources, data collection, and analysis methods are limited. Post-wildfire hydrogeomorphic hazards in BC are not well understood and therefore hazard and risk assessments are estimates only. While probabilities ranges are given in Tables A1 and A2, the state of the science in BC does not allow for precise assessments, particularly near the borders of classes. Numeric probabilities ranges do not imply precision.

Identification of elements at risk relies on BC government data layers, satellite imagery, and perhaps an overview flight. BCWS and the MOF district office may provide additional information. No further confirmation of elements at risk was conducted.

Comments, conclusions, and suggestions contained in this reconnaissance assessment reflect my experience and judgement considering the information available to me at the time that this report was prepared and are considered appropriate for the reconnaissance nature of the review. The review has been carried out in accordance with generally accepted professional practices. This assessment and its contents are intended for the sole use of post-wildfire hazard management by provincial agencies, First Nation governments and local governments. I do not accept any responsibility for the accuracy of any of the data, the interpretation, or the conclusions contained or referenced in the report when the report is used or relied on for any other purpose than specified. Any such unauthorized use of this report is at the sole risk of the user