

From: Jollymore, Ashlee FLNR:EX
Sent: November 15, 2021 2:06 PM
To: Jollymore, Ashlee FLNR:EX
Subject: Flood Warning - Chemainus River (NEW), Englishman River, Cowichan River, Koksilah River | Flood Watch (MAINTAINED) Southern VI | High Streamflow Advisory (MAINTAINED) - West/East/Central VI | 14:00 PM 15 Nov 2021

Importance: High

The River Forecast Centre is **upgrading and maintaining a Flood Warning** for:

- **Chemainus River (NEW)**
- **Englishman River**
- **Cowichan River**
- **Koksilah River**

The River Forecast Centre is **maintaining a Flood Watch** for:

- **South Vancouver Island (other tributaries)**

The River Forecast Centre is **maintaining a High Streamflow Advisory** for:

- **Central Vancouver Island including tributaries around Port Alberni**
- **South Vancouver Island**
- **West Vancouver Island**
- **East Vancouver Island**

A significant atmospheric river has made landfall across southern coastal regions of British Columbia. Observed rainfall amounts since Saturday have been in the 120-270mm range across Southern Vancouver Island and 60-175mm across Western, Central and Eastern Vancouver Island.

Environment and Climate Change Canada have continued rainfall warnings in effect across the region. Additional heavy rainfall is expected throughout the region overnight and is expected to taper off around Monday afternoon.

Temperatures have been rising, with temperatures in the 5-7°C range being observed at automated snow weather stations across the region. Snowmelt is being observed at mid-elevations and is expected to add additional runoff to rivers.

Rivers have risen rapidly from rainfall since yesterday. Current conditions (as of 15:00 PDT Nov 15, 2021) include:

- Englishman River near Parksville (Water Survey of Canada gauge 08HB002) is flowing at 673 m³/s (near a 50 year flow), however, the rate of river rise has slowed. Additional rises are possible, but any additional rises will be less than experienced this morning.
- Chemainus River near Westholme (08HA001) is flowing at 648 m³/s (20- 50 year return period), and has begun to level off.
- Cowichan River near Duncan (08HA011) is flowing at 650 m³/s (approaching a 20-year return period flow) and has begun to level off.

Stream areas close to the ocean will also see contributions from rising tides, where the afternoon high tide will unfortunately coincide with peaking river flows. CLEVER and COFFEE forecasts only include river flows, and does not include any tidal influences; thus, please compensate accordingly for flows on any areas near their ocean outlet (throughout all of south Vancouver Island).

Details of the COFFEE and CLEVER Model forecasts can be found at:

http://bcrfc.env.gov.bc.ca/fallfloods/map_coffee.html, and

http://bcrfc.env.gov.bc.ca/freshet/map_clever.html

The public is advised to stay clear of the fast-flowing rivers and potentially unstable riverbanks during the high-streamflow period.

The [River Forecast Centre](#) continues to monitor the conditions and will provide updates as conditions warrant.

BC River Forecast Centre

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

A **High Streamflow Advisory** means that river levels are rising or expected to rise rapidly, but that no major flooding is expected. Minor flooding in low-lying areas is possible.

A **Flood Watch** means that river levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.

A **Flood Warning** means that river levels have exceeded bankfull or will exceed bankfull imminently, and that flooding of areas adjacent to the rivers affected will result.

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 11:18 AM
To: Krishna, Kaye TRAN:EX; Crebo, David GCPE:EX
Cc: Hayre, Courtney TRAN:EX; Cousins, Paula TRAN:EX; Sirett, Steve TRAN:EX; Bhatti, Ashok A TRAN:EX; Staite, Janelle A TRAN:EX; Maley, Madeline L EMBC:EX
Subject: FW: INFO: EMBC UPDATE - November 15, 2021 @ 07:00 hrs

From: Maley, Madeline L EMBC:EX <Madeline.Maley@gov.bc.ca>
Sent: November 15, 2021 9:19 AM
To: Richter, Kevin J TRAN:EX <Kevin.Richter@gov.bc.ca>
Subject: INFO: EMBC UPDATE - November 15, 2021 @ 07:00 hrs

On Merrit - Evac Order still being planned but not 100% certain they will initiate. Issue is primarily sewer as they have alternate drinking water source.

PECC Level 2	CTL	NEA	NWE	SEA	SWE	VIC	Total
PREOC Activations	-	-	-	-	1	-	1
Band Council Resolutions	12	1	1	-	-	-	14
States of Local Emergency	4(+2)	5	1	2	3(+2)	-	15(+4)
Evacuation Orders	8(+6)	7	1	-	3(+2)	-	19(+8)
Evacuation Alerts	3(+2)	7	1	-	6(+6)	-	17(+8)

Atmospheric River Events– Multiple Regions

This weekend's atmospheric river caused heavy rain and localized flooding. Multiple rain-induced incidents occurred in the SWE and CTL regions last night. Princeton, District of Kent, City of Merritt and Fraser Valley Regional District each declared a SOLE due to flooding or mudslide. As well, several Evacuation Alerts/Orders were issued in Merritt, Regional District of Okanagan-Similkameen and City of Abbotsford.

- **Activations**
 - SWE PREOC is activated.
 - Chilliwack, Hope, Pitt Meadows, City of Langley, Fraser Valley Regional District, District of Kent, Fernie and Abbotsford activated their EOCs in the SWE region.
 - Abbotsford activated a Reception Centre.
 - Regional District of Okanagan-Similkameen, Tulameen and Princeton activated their EOCs in the CTL region.
- **Evacuations**
 - 200 residents tactically evacuated by Popkum Fire Department in Bridal Falls area due to flooding.
 - 24 properties evacuated in Tulameen due to flooding.
 - One family evacuated in Langley due to a mudslide.
 - 12 homes in Abbotsford evacuated due to flooding.
 - City of Merritt evacuated 800 to 900 residences.
- **Highway Closures**
 - Highway 1 (Agassiz – Spences Bridge).

- Highway 3 (Sunshine Valley).
- Highway 5 (Hope – Merritt).
- Highway 7 (Maple Ridge – Hope).
- Highway 11 (US border – Vye Road, Abbotsford).
- **Motor Vehicle Incident – Highway 7 near Agassiz - SWE**
 - Two vehicles and a semi-truck went over an embankment due to mudslide.
 - Approximately 80 vehicles were stuck overnight on the roadway.
 - Agassiz Fire Department, Hope SAR and HUSAR TF#1 responded to obstructions and persons trapped in their vehicles. 5 patients were transferred to hospital.
 - Further operations will continue early morning.
- Reports of mud and landslides in District of Kent, Highway 1 and Abbotsford. EPCs will investigate today.

Town of Princeton - CTL

- Dike has breached. Estimated water level is 18 inches above dike.
- Downtown core is flooded, as well, as areas north and west of the community.
- Group lodging/comfort centres are being set up at Riverside Community Hall. Schools may be used, if out of room.
- SAR has been requested to assist with evacuations.
- Boil water notice in effect.

City of Merritt - CTL

- Dike has breached while rain is still falling and water levels rising.
- Evacuating 800 to 900 residences.
- Group lodging/warming centres are being set up. Churches may be used, if out of room.
- The sewage treatment plant has been deemed unsafe for human occupancy.
 - The plant will be locked up and the City is looking at a potential evacuation of 7800 people due to a lack of clean water and sewage treatment.
- Swift water team was required to assist in evacuating one homeowner due to high, rushing water.
- This event will require ESS supports. The City is intending to send some evacuees to Kamloops.

Fraser Valley Regional District

- SOLE declared due to flooding and mudslides.
- An Evacuation Order issued for 53730 Bridal Falls Road (Camperland RV Resort & Cabins).
- An Evacuation Order issued for 4 properties on Auchenway Road in EA "E".

City of Abbotsford

- An Evacuation Alert issued for Clayburn Area: Clayburn Village and surrounding area.
- An Evacuation Alert issued for Eagle Mountain Areas: Cranberry Court, Briarwood Place, Doneagle Place.
- An Evacuation Alert issued for Ten Oaks: Mount Blanchard Court, Mount Blanchard Drive and Old Clayburn Road.
- An Evacuation Alert issued for Sumas Prairie: Westside of Whatcom Road, East of Huntington Village, Southside of Vye Road.
- An Evacuation Alert issued for Straiton Areas: Dawson Road East of Sumas Mountain Road.

District of Kent

- SOLE declared due to flooding.
- An Evacuation Alert for residents south of 6500 block of Rockwell Drive.

Madeline L. Maley (she/her)
 Assistant Deputy Minister Regional Operations
 Emergency Management BC

Phone: 250 704-3046 | s.17

24 Hour Emergency Reporting: 1-800-663-3456

Follow EMBC at [@EmergencyInfoBC](#) and [@PreparedBC](#)

Follow the OFC at [@BC_FireSafety](#) and [@BCFireSafety](#)

With gratitude, acknowledging I am working on the traditional territory of Tk'emlups Te Secwepemc people

Follow PreparedBC



Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 1:02 PM
To: Krishna, Kaye TRAN:EX
Subject: Fw: Update # 11 - Flooding - Atmospheric River Event - Multiple Regions

From: EMBC PDM EMBC:EX

Sent: Monday, November 15, 2021 12:19 PM

To: Austin, Matt FLNR:EX; Bain, Nancy TIC:EX; Baskerville, Shannon AEST:EX; 'BCCourts'; BCP Ministry Advisors; Bond, Allison MCF:EX; Bouchard, Louise PSSG:EX; Brandt, Alissa GCPE:EX; Brouwer, Shauna CITZ:EX; Brown, Stephen R HLTH:EX; Brown, Tom G EMBC:EX; Brownlee, Jay EMBC:EX; Butler, Jason AEST:EX; 'Can Forces'; Carrelli, John I CITZ:EX; Caul, Doug D IRR:EX; Chandler, Alex EMBC:EX; Chiddell, Dan J AG:EX; CITZ Corporate Planning CITZ:EX; Clark, Curtis C AG:EX; Dobmeier, Teresa MCF:EX; Douglas, Andrew PSSG:EX; ES Moc Director MUNI:EX; Farnworth, Mike PSSG:EX; Fernandes, Ruth EMBC:EX; 'Field, Travis'; Filmer, Cam A IRR:EX; Finn, Heather GCPE:EX; FLNR BCWS Wildfire Leadership Team; Franklin, Janice IRR:EX; Fraser, Agnes EMBC:EX; Fraser, Sarah W FLNR:EX; Fyfe, Richard J AG:EX; Galbraith, David J SDPR:EX; Galt, Jamie HLTH:EX; Godfrey, Samuel PSSG:EX; Grant, Nick TACS:EX; Halls, Lori D FLNR:EX; Hewitt, Jeremy ENV:EX; Howlett, Tim GCPE:EX; Hughes, Trevor LBR:EX; Hykaway, Mike R FLNR:EX; Jardine, Kevin ENV:EX; Kennah, Morgan FLNR:EX; Kot, Jill PREM:EX; Kristianson, Eric PREM:EX; XT:Van Leeuwen, Lauren JAG:IN; Liesch, Nancy FLNR:EX; Luchkow, Ray FLNR:EX; MacDonald, Scott D EDUC:EX; Maher, Melissa PSSG:EX; Maley, Madeline L EMBC:EX; Manwaring, Richard G FLNR:EX; McAndrews, Caroline GCPE:EX; Mclean, Keegan CITZ:EX; LDB Safety Advisor LDB:EX; Mihlar, Fazil EMLI:EX; Miska, Ed TRAN:EX; Mounteney, Renee FIN:EX; Nash, Laurel ENV:EX; O'Donoghue, Eamon G FLNR:EX; Olsson, Liz V FLNR:EX; Patterson, Sarah MCF:EX; Peterson, Dave EMBC:EX; Plecas, Bobbi JERI:EX; Poss, Angie FLNR:EX; Prendergast, Peter L TRAN:EX; HLTH MOC Duty Officer HLTH:EX; Ralfs, Brendan R EMBC:EX; Rasmussen, Paul FLNR:EX; Richards, Tara R EMBC:EX; Richter, Kevin J TRAN:EX; Robb, Katie TRAN:EX; Rothe, Karen J EMBC:EX; Russell, Jonathan CITZ:EX; XT:Mahar, Ryan AG:IN; Sanderson, Melanie EDUC:EX; Sedun, Jeanne AEST:EX; Sieben, Mark PSSG:EX; Stonnell, Jennifer EMBC:EX; Strain, Melissa AG:EX; Sutherland, Craig FLNR:EX; Tanaka, Sandra AEST:EX; Turner, Jordan GCPE:EX; Walker, Jennifer IRR:EX; Wanamaker, Lori PREM:EX; Williams, Susan GCPE:EX; Yuma Morisho, Okenge MUNI:EX

Subject: Update # 11 - Flooding - Atmospheric River Event - Multiple Regions

Update # 11

15 November, 2021 – 1215hrs

Central Region

- An evacuation order has been issued for the entire City of Merritt.
- Buses are being used to provide transportation for persons without personal means of transit.
- Where possible persons are being encouraged to stay with family and friends. For residents where this is not an option they are being directed to Kelowna and Kamloops.
- Residents of Merritt with odd number addresses are being directed to the Kamloops ESS Reception Centre, located at McArthur Island (1655 Island Parkway).
- Residents of Merritt with even number addresses are being directed to the Kelowna ESS Reception Centre is located at 1800 Parkinson Way.

SW Region

- The JRCC is currently supporting response for persons stranded on Highway 7 due to landslides.
- 3 Cormorants are working to assist RCMP, BCEHS, Aggasiz Fire and Canada Task Force One to evacuate stranded motorists into Aggasiz.

VIR Region

- An evacuation order has been issued for the Halalt First Nations community due to flooding and an ruptured water main.

The Provincial Emergency Coordination Centre has been stood up to support response.

Further updates will be provided as information becomes available.

Colin Mathie | Provincial Duty Manager

Emergency Management BC

Block A – Suite 200, 2261 Keating Cross Rd

Saanichton, BC CANADA V8M 2A5

Ph: 250-952-4278 Fax: 250-952-4872

24 Hour Emergency: 1-800-663-3456

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Update # 10

City of Merritt – Central Region

- The water treatment plant is considered unsafe for personnel and will be locked up and un-occupied.
- As a result, there will be potentially no clean water or sewage treatment with the likelihood of evacuating the entire City of 7800 people.

Further updates will be provided as information becomes available on this developing event.

Mitchell Lee | Provincial Duty Manager

Update # 9

City of Merritt – Central Region

- The City is at risk of losing their water treatment plant which would compromise the entire city utility infrastructure.
 - Public works have been reassigned from other areas to focus on saving the plant.
- Swift water team was required to assist in evacuating one homeowner due to high, rushing water.
- This event will require ESS supports - intending to send some evacuees to Kamloops.

Mitchell Lee | Provincial Duty Manager

Update # 8

15 November, 2021 – 5:24 hrs

City of Merritt – Central Region

- Declared a SOLE due to flooding.
- Evacuation Order issued for properties South of Coldwater Avenue and East of Voght Street:

Mitchell Lee | Provincial Duty Manager

Update # 7

15 November, 2021 – 3:03 hrs

Central Region

- A SOLE was declared for the Town of Princeton.

Mitchell Lee | Provincial Duty Manager

Central Region

15 November, 2021 – 2:41 hrs

Regional District of Okanagan-Similkameen

- Village of Coalmont intends to issue an Alert.
- The fire department from Coalmont is in Tulameen assisting with efforts.

Town of Princeton

- 3 Evacuation Orders issued for low-lying properties along the Tulameen River.
- Dike has breached. Estimated water level is 18 inches above dike.
- Downtown core is flooded, as well, as areas north and west of the community.
- Group lodging/comfort centres are being set up at Riverside Community Hall. Schools may be used, if out of room.
- SAR has been requested to assist with evacuations- swift water capability only.
- Boil water notice in effect.

City of Merritt

- Dike has breached while rain is still falling and water levels rising.
- Evacuating 800 to 900 residences.
- Group lodging/warming centres are being set up. Churches may be used, if out of room.

Southwest Region

Motor Vehicle Accident – Loughheed Highway (Ruby Creek, near Agassiz)

- According to news media: 6-10 people trapped within vehicles due to mudslide.
- HUSAR TF#1 expected to be fully on site around 01:45 am.
- News link: <https://www.cbc.ca/news/canada/british-columbia/agassiz-bc-mudslides-highway-closure-1.6248999>

Mitchell Lee | Provincial Duty Manager

Update # 5

15 November, 2021 – 2:14 hrs

Central Region

City of Merritt

- An Evacuation Order issued for all properties within the Coldwater River 200-year flood plain. An Alert was previously issued for the same area.

Mitchell Lee | Provincial Duty Manager

Update # 4

15 November, 2021 – 1:36 hrs

Southwest Region

Fraser Valley Regional District

- An Evacuation Order issued for 53730 Bridal Falls Road (Camperland RV Resort & Cabins).
- An Evacuation Order issued for 4 properties on Auchenway Road in EA “E”.

District of Kent

- SOLE declared due to flooding.
- An Evacuation Alert for residents south of 6500 block of Rockwell Drive.

Mitchell Lee | Provincial Duty Manager

Update # 3

15 November, 2021 – 0:58 hrs

Southwest Region

Fraser Valley Regional District

- SOLE declared due to flooding and mudslides.

City of Abbotsford

- An Evacuation Alert issued for Clayburn Area: Clayburn Village and surrounding area.
- An Evacuation Alert issued for Eagle Mountain Areas: Cranberry Court, Briarwood Place, Doneagle Place.
- An Evacuation Alert issued for Ten Oaks: Mount Blanchard Court, Mount Blanchard Drive and Old Clayburn Road.
- An Evacuation Alert issued for Sumas Prairie: Westside of Whatcom Road, East of Huntington Village, Southside of Vye Road.
- An Evacuation Alert issued for Straiton Areas: Dawson Road East of Sumas Mountain Road.

DGIR 213178 - Train Derailment (2 Cars) - Mile 80 Yale - SWE

- Derailment likely due to rain.
- No dangerous goods. Dry materials.
- No injuries or waterways impacted.
- Assessing situation.

Central Region

City of Merritt

- An Evacuation Alert issued for all properties within the Coldwater River 200-year flood plain. An Evacuation Order is expected to be issued later.

Regional District of Okanagan-Similkameen

- An Evacuation Order issued for 34 addresses in EA “H” due to flooding.

Highway Closures

- Highway 1 (Agassiz – Spences Bridge).
 - Highway 3 (Sunshine Valley).
 - Highway 5 (Hope – Merritt).
 - Highway 7 (Maple Ridge – Hope).
 - Highway 11 (US border – Vye Road, Abbotsford).
- Further updates will be provided as information becomes available.

Mitchell Lee | Provincial Duty Manager

Update # 2

14 November, 2021 – 22:25 hrs

Southwest Region

- SWE PREOC is activated.
- Abbotsford, Pitt Meadows, District of Kent and City of Langley have activated their EOCs.
- **Landslide** – District of Kent. EPC will investigate tomorrow.
- **Landslide** – Abbotsford (Quadling Road). EPC will investigate tomorrow. No impacts to report at this time.
- **Rockslide** - Highway 1 (south of Spuzzum, north of Yale). No impacts to report at this time.
- **Mudslide** – Abbotsford (Glencoe Place). 1 residence on Evacuation Alert.
- **Mudslides** – Abbotsford (Eagle Mountain/Cranberry Court). Potential of Evacuation Order and SOLE being declared.
- **Mudslide** - Highway 1 (Hope to Chilliwack) closed in both directions between Annis Rd and K St for 38.4 km.
 - Road will remain closed pending geotechnical study.
- **Flooding** - Highway 11 (Abbotsford) is closed from 4th Avenue to the Sumas Border.
- **Tactical Evacuation** - 200 residents were tactically evacuated by Popkum Fire Department in Bridal Falls area.
- **Motor Vehicle Accident** – Lougheed Highway (Ruby Creek, near Agassiz).
 - Initial report of a semi-truck and two cars going over an embankment due to mudslide.
 - Agassiz Fire Department and Hope SAR assisting. HUSAR TF#1 called out.

Central Region

- **Evacuation** - Initial report of 24 properties evacuated in Tulameen.
 - Dike built by FLNRO has potential to burst under current conditions.
- Potential of an Evacuation Order/Alert being issued in Princeton.
- Both Princeton and Tulameen activated their EOCs.

Further updates will be provided as information becomes available.

Mitchell Lee | Provincial Duty Manager

Update # 1

14 November, 2021 – 20:00 hrs

- An additional 13 people were evacuated due to flooding in the Clayburn Lane area.
- The City of Langley has issued an evacuation order to a family of two, due to a landslide affecting their home.
- The City of Fernie, the Fraser Valley Regional District, and the Regional District of Okanagan-Similkameen activated their Emergency Operations Centres to monitor flooding and assist homeowners.
- Emergency Support Services continues to respond to support evacuees.
- Multiple roads around the Lower Mainland are experiencing closures and washouts. City/MOTI crews are responding as required.
- BC Hydro reports a large outage in Hope, Spuzzum, Yale, and surrounding areas caused by the weather event. The estimated time of power restoration is unknown at this time.

Further updates will be provided as information becomes available.

Paul Brandson | Provincial Duty Manager

Initial Report

14 November, 2021 17:00 hrs

Heavy rainfall in the southwest has resulted in mudslides closing both the Trans-Canada and Coquihalla Highway near Hope.

Highway 11 is closed near the Sumas border due to flooding.

Flooding in Abbotsford has displaced people from 12 homes in the Clayburn Lane area. Emergency Support Services is responding to provide assistance.

Chilliwack, Hope, and Abbotsford have activated their Emergency Operations Centres to monitor flooding and provide assistance as necessary.

Further updates will be provided as information becomes available.

Msg to Dist List 1, SWE.

Media:

<https://www.castanet.net/news/BC/351544/Rock-slide-closes-Highway-1-through-Fraser-Canyon-Sunday>

<https://bc.ctvnews.ca/flood-watches-issued-in-fraser-valley-fraser-canyon-amid-heavy-rain-melting-snow-1.5665962>

<https://www.cbc.ca/news/canada/british-columbia/coquihalla-closure-rainstorm-1.6248785>

Paul Brandson | Provincial Duty Manager

From: Campbell, David FLNR:EX
Sent: November 13, 2021 11:54 AM
To: Campbell, David FLNR:EX
Subject: High Streamflow Advisory – South Coast and Vancouver Island - ISSUED: 12:00PM November 13, 2021

Importance: High

**High Streamflow Advisory – South Coast and Vancouver Island
ISSUED: 12:00PM November 13, 2021**

The River Forecast Centre is **issuing a High Streamflow Advisory** for:

- **Howe Sound**
- **Sunshine Coast**
- **Sea-to-Sky**
- **North Shore Mountains**
- **Metro Vancouver**
- **Fraser Valley including the Chilliwack River and surrounding tributaries**
- **South Vancouver Island**
- **West Vancouver Island**
- **East Vancouver Island, including the Englishman River**

A significant atmospheric river is expected to impact southern coastal regions of British Columbia starting today. This is forecast to bring heavy rainfall throughout Saturday night and Sunday, and ease on Monday. Environment and Climate Change Canada have rainfall warnings in place, with the heaviest rainfall expected around Howe Sound and the Fraser Valley, with upwards of 150mm total rainfall amounts expected by Monday. Lesser rainfall amounts (75-100mm) are forecast for other regions. Temperatures are expected to rise throughout the atmospheric river, with freezing levels pushing 2000 m elevation on Sunday before cooling on Monday. Additional snowmelt of recent snow accumulations at mid-elevations (1000-1500m) is expected to add to river runoff.

Rivers are expected to rise rapidly throughout Sunday in response to rainfall, and ease on Monday as the heaviest rainfall passes. Current modelling is indicating the potential for flows in the 2-year to 5-year range.

Details of the COFFEE and CLEVER Model forecasts can be found at:

http://bcrfc.env.gov.bc.ca/fallfloods/map_coffee.html, and

http://bcrfc.env.gov.bc.ca/freshet/map_clever.html

The public is advised to stay clear of the fast-flowing rivers and potentially unstable riverbanks during the high-streamflow period.

The River Forecast Centre continues to monitor the conditions and will provide updates as conditions warrant.

BC River Forecast Centre

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

A **High Streamflow Advisory** means that river levels are rising or expected to rise rapidly, but that no major flooding is expected. Minor flooding in low-lying areas is possible.

A **Flood Watch** means that river levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.

A **Flood Warning** means that river levels have exceeded bankfull or will exceed bankfull imminently, and that flooding of areas adjacent to the rivers affected will result.

Lewthwaite, Jennifer TRAN:EX

From: EMBC PECC Operations 1 EMBC:EX
Sent: November 16, 2021 8:49 PM
Subject: PECC Situation Report November 16, 2021
Attachments: PECC-SITREP_16 Nov Overview Flood Notifications.pdf; PECC_SITREP_16 Nov 2021 Overview Map.pdf; PECC_SITREP_16_Nov 2021_RoadEventsMap.jpg; 21_PECC SitRep_Nov 16_2021_#2_FINAL.pdf

Please find attached, the situation report for the Provincial Emergency Coordination Centre for November 16, 2021.

Martin Caldwell
Operations Section Chief
Provincial Emergency Coordination Centre (PECC)
Emergency Management BC
PO Box 9201 Stn Prov Gov
Victoria, B.C. CANADA V8W 9J1

Ph: 778-698-8626 Fax: 250-652-0107
24 Hour Emergency Reporting 1-800-663-3456

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Emergency Management British Columbia Provincial Flood Overview

Date: November 16, 2021
Time: 4:10:31 PM

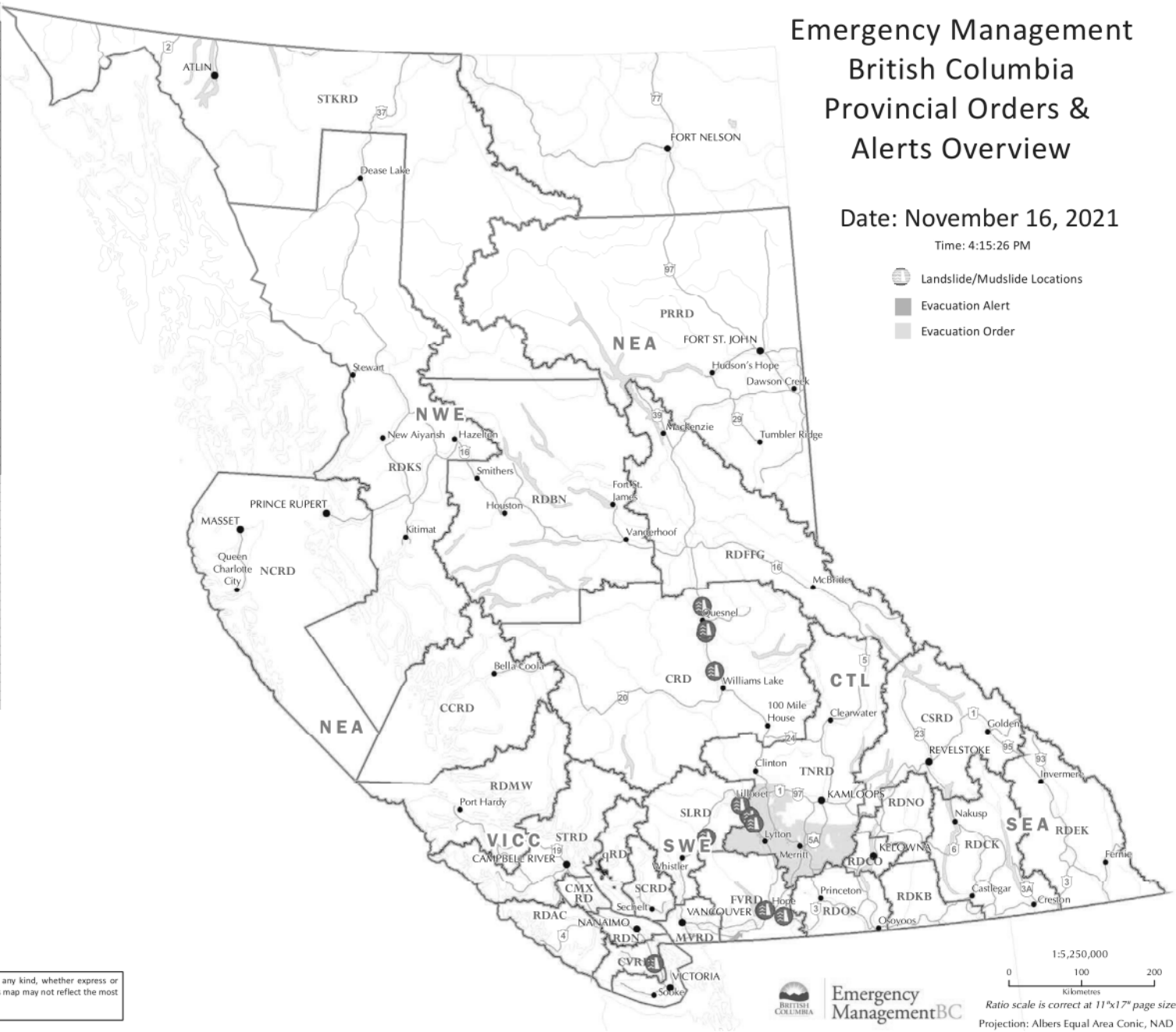
- Landslide/Mudslide Locations
- Flood warning
- Flood watch
- High streamflow advisory

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Kilometres
Ratio scale is correct at 11"x17" page size.
Projection: Albers Equal Area Conic, NAD 83

any kind, whether express or
map may not reflect the most

X:\PEP\response\PEC\Task - Freshwater projects\EMBC Provincial Overview Flood Notifications 20211116.mxd

Communities & First Nations Affected by Flooding - November 16, 2021	Communities & First Nations Affected by Flooding - November 16, 2021
Arnold	Nickewash 25
Aspen 10	Nicolet 6
Aspen Grove	Nicola
Ashcroft 5	Nicom 1
Barrowton	Nikah 10
Baquet	Norcen 19
Banquet 3	Norhem 23
Bastinas 15	Norwich 10
Benton Flats	Norwich Grass 9
Brookme	Norton
Carleton 13	Norwin 2
Canford	Norwin 2A
Chaparron Creek 6	Norwin 2B
Cheslatta	Oregon Jack Creek 2
Chopaka 7 & 8	Pagum 27
Churchwashed 5	Pagum 27A
Churchwashed 5A	Pagum Graveyard 27C
Chaparron	Paul's Basin 2
Colbertville	Peigog 3
Couflee	Peigog 3A
Coyk	Pinzok
Dat	Pinzok 10
Douglas Lake	Proceyeth 3
Drynoch	Putkwa 14
Ennah 11	Quichana
Falls Creek	Sackum 3
Gladwin	Salmon Lake 7
Grasslands 7	Schkauffon 16
Gulcha 3A	Seah 5
Gwen Lake 3	Sedell
Hablaeden 14	Serlin
Hablaeden 14A	Shawben 4B
Hamilton Creek 2	Shawben 7
Iby Meadow 1	Shuochien 15
Humbang 6	Sika Flat 5B
Humbang 6A	Siemodukaren 7
Inukcheen 21	Siemodukaren 8
Inukcheen 21B	Sikpowit 4
Inukcheen 21C	Sikpowit 2
Jozaya 2	Skuppoth 2A
Kanaka	Skuppoth 2B
Kanaka Bar	Skuppoth 3A
Kanaka Bar 2A	Skuppoth 4
Kanaka Bar 2	Skuppoth 4A
Kingson	Skuppoth 26
Kitowit 20	Skuppoth 26
Kitowit 17	Skuppoth 26
Kitowit 15	Skuppoth 26
Kitowit 22	Skuppoth 26
Kitowit 22A	Skuppoth 26
Kitowit 22B	Skuppoth 26
Kitowit 22C	Skuppoth 26
Kitowit 22D	Skuppoth 26
Kitowit 22E	Skuppoth 26
Kitowit 22F	Skuppoth 26
Kitowit 22G	Skuppoth 26
Kitowit 22H	Skuppoth 26
Kitowit 22I	Skuppoth 26
Kitowit 22J	Skuppoth 26
Kitowit 22K	Skuppoth 26
Kitowit 22L	Skuppoth 26
Kitowit 22M	Skuppoth 26
Kitowit 22N	Skuppoth 26
Kitowit 22O	Skuppoth 26
Kitowit 22P	Skuppoth 26
Kitowit 22Q	Skuppoth 26
Kitowit 22R	Skuppoth 26
Kitowit 22S	Skuppoth 26
Kitowit 22T	Skuppoth 26
Kitowit 22U	Skuppoth 26
Kitowit 22V	Skuppoth 26
Kitowit 22W	Skuppoth 26
Kitowit 22X	Skuppoth 26
Kitowit 22Y	Skuppoth 26
Kitowit 22Z	Skuppoth 26
Kitowit 23	Skuppoth 26
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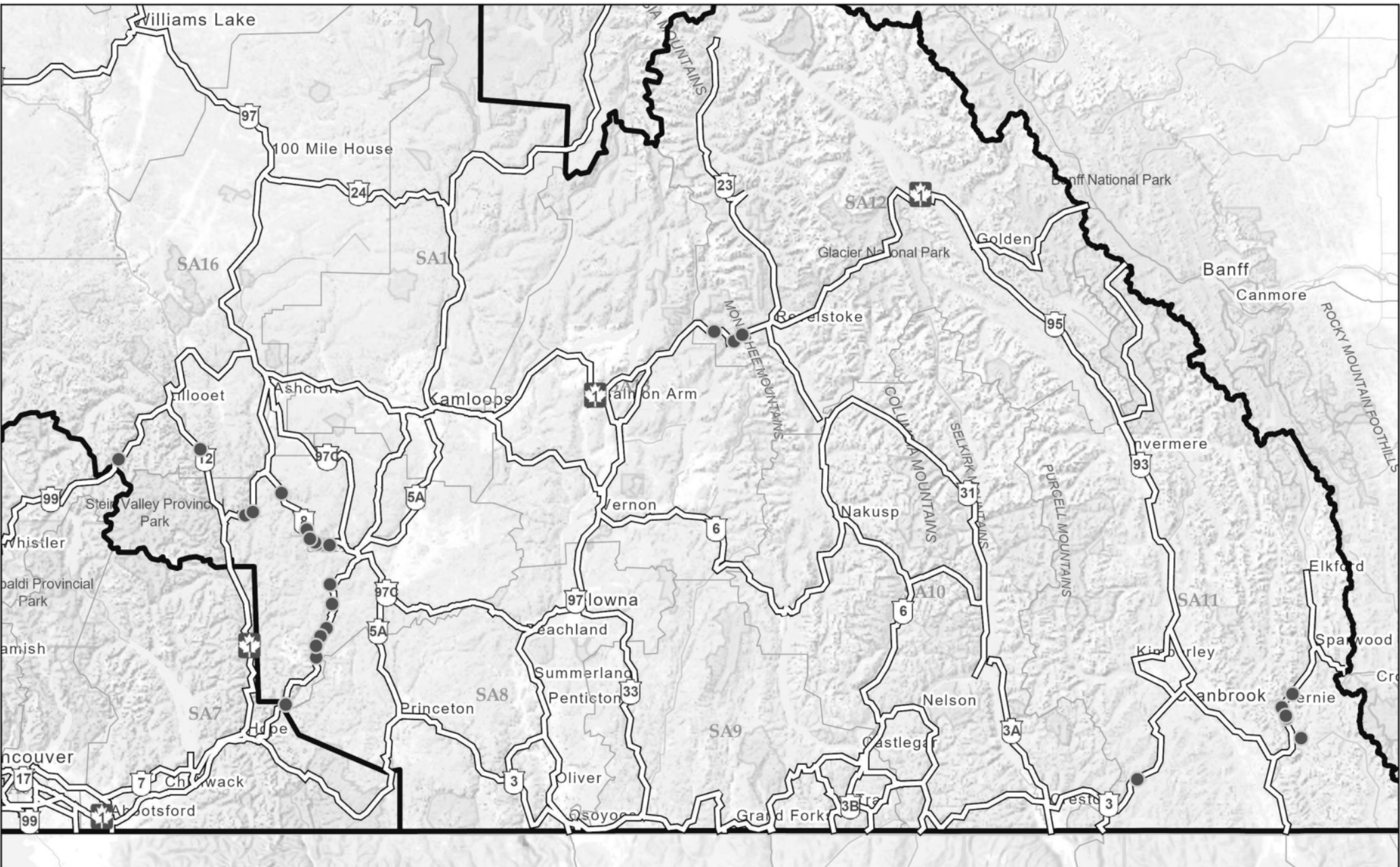
Disclaimer: This map and all of the information it contains are provided "as is" without warranty of any kind, whether express or implied. Flood, fire and/or COVID-19 information is updated as it is received. Information shown on this map may not reflect the most current flood, fire, or covid situation, and therefore should only be used for reference purposes.

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Emergency
Management BC

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Road Events

November 16, 2021 6:11 PM

- Event
- MoTI Highway
- Regional Boundary
- Service Area

Map Location

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Ministry of Transportation and Infrastructure

Page 18 of 59 TRA-2021-15225

Disclaimer : This information should not be relied on as an accurate source for legal use. It is intended to be used for general reference purposes only. Path: I:\Projects\Tasks\P21_GEO725_PECC_SitRep\APRX\P21_GEO725_PECC_SitRep\P21_GEO725_PECC_SitRep.aprx



PECC ACTIVATION DAY NO. 2

NOVEMBER 16, 2021

Hazard(s): Atmospheric River Storm

Operational Period: November 16, 2021, 08:30 hrs to Closing

Next Sitrep will be issued: November 17, 2021

Primary PECC E-mail: pecc.ops1@gov.bc.ca

Primary PECC Phone: 778-698-8617

Information current as of Nov 16, 2021 at 17:00h

***New information is noted in blue font**

Note: Information contained in this situation report is for operational purposes only. The contained information is not meant for external dissemination. If you wish to use information contained herein for release, you must clear it with the PECC Director.

PROVINCIAL SITUATION

The EMBC Provincial Emergency Coordination Centre (PECC) activated today in support of three Provincial Regional Emergency Operations Centres (PREOCs) and the impacts of the atmospheric river storm event that resulted in multiple flooding, landslide, mudslide, power outage and other incidents and human consequence impacts across the BC southern coastal and interior regions.

The storm damaged, blocked, and impacted multiple roadways, causing widespread road closures and stranding hundreds of motorists overnight on Nov. 14, 2021. Rescue efforts have continued throughout Nov. 16, 2021, and many stranded motorists have now been able to seek shelter and appropriate supports in nearby communities. However, several communities and First Nations remain isolated, and efforts are ongoing to provide accommodation and support. MOTI anticipates Highways 1,3, and 7 may be restored this week.

Travelers have also found themselves stranded in many areas of the province and the Province is following up to support them. Currently, in Hope 1,100 stranded travelers are receiving local support, with 900 of those in group lodgings. BCWS is working to move resources by air to support the relief efforts

Many First Nations and Local Authority communities have seen widespread flooding and power outages which have led to roadway closures, infrastructure impacts, evacuation orders and evacuation alerts. Current estimates suggest that there are approximately 17,775 people evacuated due to impacts from this storm event in BC, with 5,918 properties on Evacuation Order, and 3,632 properties on Evacuation Alert.

As a result of the severe weather events this week, EMBC has approved Disaster Financial Assistance (DFA) for flooding in the Vancouver Island & Central Coast, Southwest, and Central regions of the province, including all First Nations communities, electoral areas, and municipalities within these areas.

WEATHER OUTLOOK AND ALERTS

This morning was largely dry, with a ridge of high pressure over the interior, bringing largely cold and dry conditions. This afternoon, mainly dry conditions were also expected, with only the Northwest mountain range seeing increasing cloud and precipitation ahead of an advancing warm front.

On Wednesday, it will remain dry provincially as the core of the high-pressure retreats into Alberta, but a secondary ridge still extends into the Columbias, maintaining clear conditions with gradually moderating temperatures.

Many of the weather watches and warnings in effect yesterday have now been rescinded by Environment Canada, with snowfall warnings and winter storm warnings remaining only for northern coastal BC.

RIVER FORECAST CENTRE (RFC) WATCHES AND WARNINGS

Flow reductions are anticipated overnight tonight and for the remainder of the week.

EMBC Central Region

RFC is maintaining a Flood Warning for:

- Lower Nicola River
- Coldwater River

And has downgraded Flood Warnings to Flood Watches for:

- Similkameen River
- Tulameen River and tributaries

EMBC Southwest Region

RFC is maintaining Flood Warnings for:

- Coquihalla River
- Sumas River and areas around the US Border

And has maintained the following Flood Watches for:

- Fraser Canyon tributaries, including tributaries around Hope
- Fraser Valley

EMBC Vancouver Island Central Region

RFC has downgraded to High Streamflow Advisories for:

- Chemainus
- Englishman River
- Cowichan River
- Koksilah River

HUMAN CONSEQUENCE IMPACTS

PROVINCIAL SUMMARY

The following numbers reflect documents related to recent storm events, not pre-existing events, and should be considered approximate only.

	CTL	NWE	NEA	SEA	SWE	VIC	Totals
Band Council Resolutions	1						1
States of Local Emergency	7				4	2	13
Evacuation Orders	10				12	4	26
Properties on Order	3,290				2,581	47	5,918
Population on Order	9,750				7,803	222	17,775
Evacuation Alerts	7			1	5		13
Properties on Alert	3,368			10	254		3,632
Population on Alert	4,479			-	720		5,199

EMERGENCY SUPPORT SERVICES (ESS)

- The Provincial ESS Call Centre is receiving a consistently high call volume and have extended their hours of operation.
- Commercial accommodation in Kamloops is limited and only those on Order are receiving commercial accommodation.
- Kelowna has some capacity and buses are transporting people from Kamloops to Kelowna if they need accommodation support.
- ESS HQ Staff are working to support Abbotsford who is seeking personnel support at their Reception and Group Lodging sites. Abbotsford is also engaged with Samaritan's Purse to support.

The total number of active ESS Reception Centres is reported to be approximately 20 (many of these communities are providing mutual aid as host communities) and some may be informal centres not seeking provincial support.

Known communities hosting Reception Centres include:

- Kamloops

- Kelowna
- Abbotsford
- Chilliwack
- Hope
- Agassiz
- Regional District Okanagan Similkameen/Penticton
- Salmon Arm
- Cowichan Valley Regional District

Reception Centre locations are posted publicly on Emergency Info BC.

FLOOD IMPACTS

INFRASTRUCTURE & TRANSPORTATION

- Highway Closures:
 - Highway 1 (Agassiz – Spences Bridge) – Major reconstruction will be required for Hwy1 (Tank Hill).
 - Highway 3 (Sunshine Valley) – Likely to be the first route to lower mainland opened.
 - Highway 5 (Hope – Merritt) - Major reconstruction will be required for the Hwy 5 bridge over Coldwater River.
 - Highway 7 (Maple Ridge – Hope) – Now cleared for emergency access to Chilliwack with progress towards Hope.
 - Highway 8 (Merritt to Spences Bridge) - Alternate route being established, expected opening for foot access is 2 days, vehicles 5 days.
 - Highway 11 (US border – Vye Road, Abbotsford).
 - Highway 99 (South of Lillooet) – freed travelers headed south towards Pemberton.
 - As of the evening of Nov. 15, 2021, all motorists are reported to have arrived in Hope
 - Further emergency supports are being planned for the Hope community and travellers stranded there for Nov. 16, 2021.
- CP Rail lines damaged through Fraser Valley
 - Understand no short-term impact to Lower Mainland critical supplies.
 - One train caught in Debris flow east/north of Spuzzum.
 - No injuries. Empty, no releases.
- Reports are being investigated of further mud and landslides events impacting District of Kent, Highway 1, and Abbotsford
- There have been multiple additional road closures throughout the day in the SWE, CTL and VIC regions, with impacts continuing in numerous locations across all 3 regions.
- For a complete list of highway and road closures, including ferry disruptions due to flooding, see [DriveBC](#).

UTILITIES/ TELECOMMUNICATIONS

- BC Hydro
 - Restored service to 56k customers overnight.
 - Remaining: 13k in Thompson-Shuswap and Okanagan, 1k North Fraser
 - Limited access is delaying restoration for remaining clients.
 - Hope: Weather mitigation in progress, anticipate stable power for Hope today.
- Dams:
 - Receding inflows at all LML and Sea-to-Sky sites.

- Flows peaked 15th Nov. Flows are not significant to river levels.
- Walheach Dam continues to use spillway.
- Fortis BC:
 - Sunshine Coast at Roberts Creek distribution line and intermediate pressure line exposed in creek. Hydro line de-energized and FD on scene.
 - Halfmoon Bay distribution pressure line is exposed
 - A main distribution line at Princeton is impacted with up to 1200 customers possibly affected
 - Distribution line at Merritt is impacted but the full extent cannot be confirmed due to current high-water levels
 - Fraser Valley distribution line service in a farmer's field near Seabird Island is leaking and being isolated
- Telecommunications:
 - Bell cellular voice/data outages in the Fraser Valley and Northern Vancouver

CROSS-MINISTRY AND AGENCY UPDATES

HEALTH

- Power outages and road closures are impacting staffing and critical supply lines to health facilities and Long-Term Care and Assisted Living sites, particularly in the Hope area. Work is underway to supply relief physicians and pharmaceuticals to Hope Medical Centre, despite lack of road access.
- The water system has failed in Princeton causing the health facilities needed to be closed. IHA evacuating the 10 hospital and 38 residents from one care home.
- Princeton and Merritt: Long-term care, acute care, and assisted living patients evacuated.

SAR BRANCH

The EMBC SAR Unit is activated in support of the evacuations due to floods.

High Level SAR Activation Summary: November 14/21 1300 – Nov. 16/21 1300:

- 37 SAR Incident(s) with 290 Public Safety Lifeline Volunteers (PSLVs) responded
- 21 Civil Emergency Response(s) with 266 PSLVs responded

SWE SAR Group Updates:

Hope

- Team is isolated due to road closures
- Team is rested

Chilliwack

- Working on clearing people from the Sumas prairie using boats and rafts
- Team is also isolated due to road closures

Coquitlam

- Team not directly affected by flooding
- Regional HET's team working with CFVSAR on the Sumas Prairie

South Fraser

- Team is rested and not directly affected by local flooding
- Mutual aid help to Central Fraser Valley SAR

Kent Harrison

- Team is isolated due to road closures. Only connection is with Chilliwack
- SAR trucks were caught behind a landslide but since then Rescue truck was recovered and other truck was left behind for transport to deliver evac notices

Central Fraser Valley

- Directly impacted by the flooding (Sumas prairie)
- Conducting evacuations on the Sumas Prairie

Mission

- Did a rescue of 6 subjects in their area due to road wash out
- Mutual aid help to CFVSAR for evacuation of the Sumas prairie

Ridge Meadows

- Team not directly affected by the flooding
- Team has the capability to provide mutual aid

CTL SAR Group Updates:

Princeton

- Team was exhausted as of November 15, Penticton provided coverage
- Community has been impacted by flooding waters. SAR Hall has been used for operations

Nicola Valley

- Municipality under Evacuation Order
- Response capacity is reduced, but no request for replacement
- Unable to deploy out of area, minimal resources available

Kamloops

- High operation temp November 11 – 15 created fatigue
- Response truck has been recovered

Vernon

- Winch is unavailable with no ETA of return
- Low in SAR Managers

PROVINCIAL REGIONAL UPDATES

CENTRAL REGION (CTL)

CTL PREOC has activated in response to flooding.

KEY CTL REGIONAL INFORMATION

Total Active Alerts: 9

Total Orders: 14

Total States of Local Emergency: 5

Total Band Council Resolutions: 3

FIRST NATIONS

- Coldwater First Nation
 - Band Council Resolution.
 - IR #2 has been isolated and is without water and power.
- Cook's Ferry Indian Band
 - Band Council Resolution.

- One Alert for for IRs #2, 3, 4A, 4B, 4C, 5, 5A, 6, 8, 8A, 9, 10, 11, 11A, 16, 17, 18, 19, 20, 21 & 22.
 - Two Orders for #1 and IR#7.
- Lower Similkameen Indian Band
 - Band Council Resolution.
 - Chopaka bridges have been compromised and are closed in both directions.
 - One Alert for Chopaka IR #7/8; Similkameen IR #2, Alexis IR #9, Ashnola IR #10.
- Lytton First Nation
 - Community is without power.
 - Water system currently not operational.
- Nicomen Indian Band
 - Bridge has been washed out
- Nooaitch First Nation
 - Band Council Resolution.
 - Two bridges washed out.
 - Community is isolated.
- Shakan First Nation
 - Band Council Resolution Declared
 - Evacuation Order issued for IR# 11
- Skuppah Indian Band
 - George Rd washout has caused there to be no access to the water treatment plant.
 - IR #4 water intake has been washed out.
 - Currently relying on the remaining water supply in their reservoir.

LOCAL AUTHORITIES

- City of Merritt
 - State of Local Emergency Declared.
 - Evacuation Order Issued: Entire Community (approx. 7800 people), due to failure of sewage treatment plant (unsanitary conditions).
 - The wastewater treatment plant is down, with no estimated date for bringing it online
 - The water system is contaminated as a result of a well malfunction and the City has turned the water off.
 - Middlesboro Bridge has collapsed.
- Columbia Shuswap Regional District
 - Activated the EOC to a level one on November 15, 2021 in response to flooding and sandbag requests.
- Regional District Okanagan-Similkameen
 - EOC Activated
 - RDOS EAB – 1 Alert for low-lying properties along the Similkameen River. 1 order for 4 properties on Chopaka Road.
 - RDOS EAG – 1 Alert for low-lying properties along the Similkameen River, 1 order for properties Schedule 1.
 - RDOS EAH – 1 Alert for low-lying properties along the Similkameen River, 2 orders for the community of Coalmont.
 - RDOS – Keremeos – One Alert for low-lying properties along the Similkameen River within the Village of Keremeos.
- Thompson Nicola Regional District

- TNRD – Nicola - Reports of stranded residents at risk along Highway 8. RCMP requested to assist with wellness checks and determine if evacuation is required.
- TNRD – One Alert issued for the following Electoral Areas:
 - Electoral Area “I” (Blue Sky Country)
 - Electoral Area “M” (Beautiful Nicola Valley – North)
 - Electoral Area “N” (Beautiful Nicola Valley – South)
- TNRD – Brookmere – 2 Orders for 51 properties in Brookmere and 2 properties in EAN.
- Town of Princeton
 - EOC Activated
 - State of Local Emergency declared.
 - 3 Evacuation Order Issued: Properties along the Tulameen River.
 - 2 Evacuation Alerts Issued: Properties along the Similkameen & Tulameen Rivers.

SOUTHWEST REGION (SWE)

SWE PREOC activated today in response to flooding.

KEY SWE REGIONAL INFORMATION

Total Active Alerts: 10

Total Orders: 10

Total States of Local Emergency: 5

Total Band Council Resolutions: 0

FIRST NATIONS

- Chawathil First Nation
 - EOC activated for flooding. 1 home is flooding and material is sliding off of bluffs around the community
- Kwikwetlem First Nation
 - EOC activated for flooding.
 - Put on flood alert from BC Hydro Dams.
- Leq’á:mel First Nation
- Lower SStl’atl’imx (LSTC)
 - Approximately 60 households are without power in Samahquam and Skatin.
 - LSTC has spoken to FLNRO, BC Hydro, and Lizzie Bay/IRM to coordinate efforts to restore power and access. FLNRO and BC Hydro will have assessment crews out first thing 2021NOV16 to begin the repair/reconnection of power lines and routes
 - In-SHUCK-ch FSR - Road access to north to Pemberton has not been established for all communities.
- Matsqui First Nation
 - Band Council Resolution
 - Requested sandbags and sand due to localized flooding on IR 2 and IR 4.
- Peters First Nation
 - EOC activated due to flooding.
- Seabird Island
 - EOC activated for flooding.
- Shsw’ow’hamel First Nation
 - EOC activated for flooding.

- Skawahlook First Nation
 - EOC activated for flooding.
- Soowahlie First Nation:
 - EOC activated for flooding.
 - Currently no power or water due to flooding activity.
- Squamish First Nation:
 - EOC activated for flooding.
- Sts'ailes First Nation:
 - Currently 2 flooded houses and 1 mobile home with water underneath. Community is currently out of sandbags.
- Sumas First Nation
 - EOC activated for flooding

LOCAL AUTHORITIES

- City of Abbotsford
 - State of Local Emergency declared
 - 2 Evacuation Orders Issued
 - Straiton Road (22 Homes)
 - Sumas Prairie including the area bordered by: Sumas Mountain, DeLair Road and Old Yale Road to the North, The USA Border to the South, Chilliwack City border to the East, The Ridge West of Railway Road to the West (1119 Homes)
 - 8 Evacuation Alerts Issued
 - Sumas Prairie: The Southern Rail Line to the West, Whatcom Road to the East, Highway 1 to the North, United States Border to the South (1700 Homes).
 - for Matsqui Village: Grace Road North to the Matsqui Slough (12 Homes).
 - Clayburn Area: Clayburn Village and surrounding area (30 Homes).
 - Eagle Mountain Areas: Cranberry Court, Briarwood Place, Doneagle Place (12 - 15 Homes).
 - Ten Oaks: Mount Blanchard Court, Mount Blanchard Drive and Old Clayburn Road (30 Homes).
 - Sumas Prairie: Westside of Whatcom Road, East of Huntington Village, Southside of Vye Road; Westside of Sumas Way to West of Riverside Road, East of Sumas River Dike to Boundary Road (140 Homes).
- Bowen Island
 - EOC activated due to flooding
- City of Chilliwack
 - 1 Alert for Yarrow, from Boundary Road to Browne Road, and from the Vedder River to Majuba Hill Road.
 - 2 Orders, Yarrow, from Boundary Road to Browne Road, and all of Majuba Hill and 4 properties on Yale Road and 3 properties on Chartwell Drive.
- Delta - EOC Activated in response to issues related to flooding and high winds
- Fraser Valley Regional District
 - State of Local Emergency Declared
 - 1 Alert for Chilliwack River Valley, FVRD Electoral Area "E" for 7 properties on Obyrne Road.
 - 5 Orders:
 - FVRD EA "B" for 3 properties on Fish Camp Road and 5 properties on Othello Road.

- FVRD EA “D” for 1 property on Bridal Falls Road (24 people).
 - FVRD EA “E” for 4 properties on Auchenway Road.
 - FVRD EA “E” for 13 properties on Chilliwack Lake Road and 8 properties on Wilson Road.
 - FVRD EA “H” for 17 properties on Lakeshore Drive.
- Village of Harrison Hot Springs – EOC activated due to flooding in the Miami Slough.
- Town of Hope
 - Access from all Highways (1,3,5) cut off.
 - Significant power outages for much of the day (w/hospital on generator)
 - Currently no food in town due to no power. Stores/restaurants closed.
 - Meal flown in via helicopter 2021NOV16 and provided by Salvation Army.
- Delta
 - EOC Activated in response to issues related to flooding and high winds.
 - Working to mitigate localized flooding and support critical infrastructure (drainage stations).
 - Working to restore communications (internal and external) to full capacity.
- District of Hope
- District of Kent
 - 1 Orders for Rockwell Drive, Rockwell Lane, Rockwell Place, Pirates Lane, Thunderbird Crescent, and Dogwood Lane (6 homes).
- City of Langley – EOC activated
 - Rainfall caused widespread flooding on public and private property, as well as parks and trails, and sewer lift stations.
 - Multiple roads impacted due to flooding.
- Maple Ridge- EOC activated
- Metro Vancouver- EOC activated
- Mission - EOC activated
 - Two residences on King Avenue are isolated due to complete road wash out.
 - Planning/preparing to open RC in Mission if required to support ESS flood response if required.
- New Westminster – EOC activated.
- Pemberton – EOC activated.
 - The neighbourhoods of the Peaks, Pioneer Junction, the Trailer Park on Hwy 99, the Industrial Park and One Mile Lake area have all have experienced substantial flooding.
 - A sandbag station has been set up at Municipal Hall.
- Pitt Meadows
 - Determining flood spill conditions and possible scenarios from the Alouette Dam
 - Notification to some properties along the Alouette/Pitt Rivers.
- Port Coquitlam - EOC activated.
- Squamish Lillooet Regional District – EOC activated.
- Sunshine Coast Regional District – EOC activated.
 - Stormwater flooding and erosion has impacted public services (drinking water, fire flows, roads, transit, wastewater treatment, parks) in 35+ locations, regionally. Fortis reports exposed gas line at Stephens Road and Lower Road and are preparing for re-routing and/or shutoff.
- Surrey – EOC Activated.

VANCOUVER ISLAND AND CENTRAL COAST REGION (VIC)

VIC PREOC activated today in response to flooding.

KEY VIR REGIONAL INFORMATION

Total Active Alerts: 1

Total Orders: 4

Total States of Local Emergency: 4

Total Band Council Resolutions: 0

FIRST NATIONS

- Halalt First Nation:
 - Band Council Resolution.
 - Flooding for 10 homes due to a watermain break and overland flooding.
- Snuneymuxw First Nation:
 - Evacuation Order Issued.
 - 25 evacuees (approximate).
- Penelakut First Nation:
 - 50 evacuees (approximate.)
- Cowichan Tribes:
 - Evacuation Order Issued.
 - 120 evacuees (approximate).
 - SAR doing door to door notifications. Evacuation orders and alerts in place.
- Pauquachin First Nation
 - Evacuation Order Issued

LOCAL AUTHORITIES

- Cowichan Valley Regional District:
 - Major flooding event taking place in the Cowichan region due to heavy rainfall over the past 48 hours - Multiple road closures (incl. highway), restricting areas throughout the region, including within the boundaries of the Municipality of North Cowichan.
 - SOLE was issued at 1100 hrs on 2021-11-15 - 4 Evacuation Orders in effect - incl. CVRD, Cowichan Tribes, Halalt and Penelakut First Nations.
- Nanaimo Regional District:
 - States of Local Emergency in place.
 - 1 Evacuation Orders remains, 2 orders rescinded: Nanaimo River and Cedar Grove/Riverside/Waters Road.
- Capital Regional District
 - EOC Activated. Highway 1 in both directions reduced to single, alternating route on Malahat. Some localized power outages throughout the CRD. Water service in Fulford Harbour area down for 21 households.
- District of Sooke
 - EOC Activated.
- District of Highlands
 - EOC Activated.
- City of Langford

- EOC Activated.
- 20+ properties on alert.
- Central Saanich
 - EOC activated
 - Localized flooding throughout the district. Supporting Public Works with the Brentwood Bay area, liaising with Saanich Peninsula Hospital with resources as needed and status update.

Key Internet Links:

Avalanche Canada Weather Forecast [Drying out at last \(avalanche.ca\)](https://www.avalanche.ca/)

Emergency Info BC

<https://www.emergencyinfobc.gov.bc.ca>

BC Hydro Outage Map <https://www.bchydro.com/power-outages/app/outage-map.html>

BC River Forecast Centre

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/drought-flooding-dikes-dams/river-forecast-centre>

Drive BC

<https://www.drivebc.ca/mobile/events/index.html>

Information about Disaster Financial Assistance is available on the DFA web site at

<http://www.gov.bc.ca/disasterfinancialassistance>

Environment Canada [British Columbia - Weather Conditions and Forecast by Locations - Environment Canada](#)

APPROVED BY:

Janet Adams
PECC Deputy Director

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Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 11:14 AM
To: Fleming, Rob TRAN:EX; Harrison, Veronica TRAN:EX; Champion, Ella D TRAN:EX; Crebo, David GCPE:EX; Krishna, Kaye TRAN:EX; Hayre, Courtney TRAN:EX; Phillips, Holly TRAN:EX; Sirett, Steve TRAN:EX; Cousins, Paula TRAN:EX; Bhatti, Ashok A TRAN:EX; Staite, Janelle A TRAN:EX; Gedney, Vanessa R TRAN:EX
Subject: Update: 11:00, Weather Closures on Provincial Highways & Roads

HIGHWAY IMPACTS:

South Coast Region

Highway 7 - Seabird Island

- Closed between Walheach Road to Johson Slough •Two debris flows and down powerlines across the highway.
- Emergency crews and heavy equipment currently staged on either side of the closure.
- Currently 175 vehicles, with 250 people stranded between the debris flows. No injuries reported.
- Heavy equipment actively excavating the east side and west sides.
- ETO: Unknown – assessment in progress

Highway 1

- Closed between Popkum and Hope (Highway 9 exit to Flood-Hope Exit).
- Multiple debris flows across all travel lanes in both directions (5 known sites).
- No people trapped.
- Heavy equipment on both sides of closure.
- Geotech assessment pending.
- ETO: Unknown – assessment in progress

Highway 3 – Sunshine Valley

- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1) •Multiple debris flows across the highway.
- All stranded individuals have been transported to Manning Park •Heavy equipment on site.
- ETO: Unknown – assessment in progress

Highway 5 - Othello

- Closed.
- Both southbound lanes have been washed away.
- Heavy washout with debris, mud, and water on road •Heavy equipment on site.
- ETO: Unknown – assessment in progress

Highway 5 – 10 Mile Creek

- Closed between 10 Mile Creek and Portia Interchange.
- Two debris flows across travel lanes.
- Valley Helicopter has evacuated all 20 stranded individuals to Hope.
- Once flows subside and Geotech assessment takes place crews will begin work on the debris flows.
- Heavy machinery on site.
- ETO: Unknown – assessment in progress

Highway 7 - Mt Woodside

- Closed between Highland Blvd to Bodher Road •Water is flowing down and pooling significantly •Rocks falling in the vicinity of the water flow, unable to safely operate equipment •Heavy equipment arriving.
- ETO: Unknown – assessment in progress

Other Locations:

Highway 7 - Maple Ridge

- Closed between 240th Street to 272nd Street •Water and debris on the highway.

Highway 11

- Closed at Valley Rd due to flooding across the highway near Willband Creek Park.

Columbia Valley Road at Lakeshore Drive

- Closed at Lakeshore Drive due to a washed out culvert •Detour established through the FN reserve, first responders on-scene maintaining the closure •High water flow has overwhelmed culvert and undermined the road

Rockwell Drive

- Losing asphalt in 3 places at Green Point, risk is high around 3380 Rockwell Drive where flow rate is significantly higher than drainage sizing.
- Residents have been evacuated along Green Point and RCMP/Fire are going door-to-door notifying residents of the hazards •Debris flow cleared at 3380 with loader to allow residents to get away from rapidly deteriorating asphalt
- Managing closure until Dynasty Traffic on-site to relieve, ETA 30-60 min •On 300 street tracked excavator arrival, crews will begin clearing facilitating drainage

Hemlock Valley Road

- Flashing arrow board at Seabird advising of closures further up •Initial reports indicate drainage appliances working correctly

Farms Road

- Road closed
- Road is under water between Dale Road and Stave Lake Road

Dale Road

- Road closed
- Road is under water

Various locations

- Isolated pooling into travelled lanes in many locations in Agassiz area •Significant flow across roads at Lundgren, Beyer, Sylvester at Kontney and Seux, and many other smaller isolated flows •Large concrete box culvert installed on Sylvester last year is beyond capacity and underwater oOverflow path maxed out and water pooling on road oFlow is leading to Lundgren which may be at risk

Highway 13

- SB ramp to Hwy 1 eastbound has flooded and Ramp is closed

Highway 10

- EB at 177B fast lane blocked with vector truck parked on sanitary manhole lid, raw sewage floating out Surrey looking after it

Highway 99

- SB and NB between Shell Rd and Westminster Hwy slow lanes flooded as well as ramps to Hwy 91 closed •Currently one lane in each direction remain open, plan is to close it in both directions. On site assessing.

Highway 91

- WB ½ km W of Westminster Hwy still need to repair fire hyd and repave shoulder, Richmond doing the work
- SB at Cliveden slow lane flooded
- Nordel interchange minor flooding on a few ramps vehicles still getting through

Highway 91A

- SB ramp to Howes, right side of ramp flooded vehicles still getting through

Highway 14 - E of Sooke

- Closed at Impala Road.
- Flooding over the barrier across both lanes
- Water level between 1-2 meters deep.
- No detour available as local roads are flooded.
- ETO: Unknown – assessment in progress

Highway 1 - Duncan

- Closed at Mt Sicker Road
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Highway 1 - Malahat

- Closed Tunnel Hill
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Other Locations:

Briarwood Road (Shawnigan Lake area)

- Road and culvert washed out.
- High water levels continue and temporary bridge has been requested.
- Residents are trapped.
- ETO: Unknown – assessment in progress

Significant flooding on local side roads however too many to mention.

SIR

Highway 5 Coquihalla

- Closed in both directions between Hope and Merritt
- Continuing to see heavy rain across corridor, 196mm of rain fell over last 36 hours (as of 6am) at Coquihalla Summit
- Helicopter flight is on standby due to weather
- Significant damage to both the highway and structures (Bottle Top Bridge) but not a full picture yet.
- Expecting Coquihalla to be closed for multiple days.

Highway 1 – Fraser Canyon

- Closed at Spences Bridge.

- Debris flows have been identified south of Lytton at Tank Hill and other locations are also seeing mud across the highway.

Highway 1 - Kamloops to Golden

- One lane open.
- Debris removal in progress.

Highway 3 – Princeton

- Closed
- Flooding over road.
- Once water recedes, we will assess the damage.

Highway 3 – Fernie

- Closed
- Flooding with a local detour in place
- We assess when water levels recede.

Highway 5A – Princeton

- Open
- Water has receded and safe to open.

Highway 23 north of Nakusp

- Reports of a slide.
- Staff are on route to investigate.

Highway 99 35 km W of Lillooet

- Closed in both directions due to a mudslide
- Confirming details.

MoTI and MC staff and equipment have been fully deployed during the weekend, day and night.

MEDIA CALLS

-09:00 call this morning when well with Minister Farnworth: Paula and Janelle provided technical support

-scheduled 15:00 media call today, GCPE to provide details

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 11:07 AM
To: Wanamaker, Lori PREM:EX
Cc: Krishna, Kaye TRAN:EX
Subject: Update 11:05: Weather Impacts to Provincial Highways and Roads

Highway 99

- Closed in both directions due to a mudslide
- Confirming location and details.

Highway 1 - 3 Valley Gap

- One lane open.
- Debris removal in progress.

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 11:04 AM
To: Wanamaker, Lori PREM:EX <Lori.Wanamaker@gov.bc.ca>
Cc: Krishna, Kaye TRAN:EX <Kaye.Krishna@gov.bc.ca>
Subject: Update 11:00: Weather Impacts to Provincial Highways and Roads

Priority Locations:

Highway 14 - E of Sooke

- Closed at Impala Road.
- Flooding over the barrier across both lanes
- Water level between 1-2 meters deep.
- No detour available as local roads are flooded.
- ETO: Unknown – assessment in progress

Highway 1 - Duncan

- Closed at Mt Sicker Road
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Highway 1 - Malahat

- Closed Tunnel Hill
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Other Locations:

Briarwood Road (Shawnigan Lake area)

- Road and culvert washed out.
- High water levels continue and temporary bridge has been requested.
- Residents are trapped.
- ETO: Unknown – assessment in progress

Significant flooding on local side roads however too many to mention.

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 10:56 AM
To: Wanamaker, Lori PREM:EX <Lori.Wanamaker@gov.bc.ca>

Cc: Krishna, Kaye TRAN:EX <Kaye.Krishna@gov.bc.ca>

Subject: Weather Impacts to Provincial Highways and Roads

HIGHWAY IMPACTS:

South Coast Region

Highway 7 - Seabird Island

- Closed between Walheach Road to Johnson Slough
- Two debris flows and down powerlines across the highway.
- Emergency crews and heavy equipment currently staged on either side of the closure.
- Currently 175 vehicles, with 250 people stranded between the debris flows. No injuries reported.
- Heavy equipment actively excavating the east side and west sides.
- ETO: Unknown – assessment in progress

Highway 1

- Closed between Popkum and Hope (Highway 9 exit to Flood-Hope Exit).
- Multiple debris flows across all travel lanes in both directions (5 known sites).
- No people trapped.
- Heavy equipment on both sides of closure.
- Geotech assessment pending.
- ETO: Unknown – assessment in progress

Highway 3 – Sunshine Valley

- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1)
- Multiple debris flows across the highway.
- All stranded individuals have been transported to Manning Park
- Heavy equipment on site.
- ETO: Unknown – assessment in progress

Highway 5 - Othello

- Closed.
- Both southbound lanes have been washed away.
- Heavy washout with debris, mud, and water on road
- Heavy equipment on site.
- ETO: Unknown – assessment in progress

Highway 5 – 10 Mile Creek

- Closed between 10 Mile Creek and Portia Interchange.
- Two debris flows across travel lanes.
- Valley Helicopter has evacuated all 20 stranded individuals to Hope.
- Once flows subside and Geotech assessment takes place crews will begin work on the debris flows.
- Heavy machinery on site.
- ETO: Unknown – assessment in progress

Highway 7 - Mt Woodside

- Closed between Highland Blvd to Bodher Road
- Water is flowing down and pooling significantly
- Rocks falling in the vicinity of the water flow, unable to safely operate equipment
- Heavy equipment arriving.
- ETO: Unknown – assessment in progress

Other Locations:

Highway 7 - Maple Ridge

- Closed between 240th Street to 272nd Street
- Water and debris on the highway.

Highway 11

- Closed at Valley Rd due to flooding across the highway near Willband Creek Park.

Columbia Valley Road at Lakeshore Drive

- Closed at Lakeshore Drive due to a washed out culvert

- Detour established through the FN reserve, first responders on-scene maintaining the closure
- High water flow has overwhelmed culvert and undermined the road

Rockwell Drive

- Losing asphalt in 3 places at Green Point, risk is high around 3380 Rockwell Drive where flow rate is significantly higher than drainage sizing.
- Residents have been evacuated along Green Point and RCMP/Fire are going door-to-door notifying residents of the hazards
- Debris flow cleared at 3380 with loader to allow residents to get away from rapidly deteriorating asphalt
- Managing closure until Dynasty Traffic on-site to relieve, ETA 30-60 min
- On 300 street tracked excavator arrival, crews will begin clearing facilitating drainage

Hemlock Valley Road

- Flashing arrow board at Seabird advising of closures further up
- Initial reports indicate drainage appliances working correctly

Farms Road

- Road closed
- Road is under water between Dale Road and Stave Lake Road

Dale Road

- Road closed
- Road is under water

Various locations

- Isolated pooling into travelled lanes in many locations in Agassiz area
- Significant flow across roads at Lundgren, Beyer, Sylvester at Kontney and Seux, and many other smaller isolated flows
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Highway 13

- SB ramp to Hwy 1 eastbound has flooded and Ramp is closed

Highway 10

- EB at 177B fast lane blocked with vector truck parked on sanitary manhole lid, raw sewage floating out Surrey looking after it

Highway 99

- SB and NB between Shell Rd and Westminster Hwy slow lanes flooded as well as ramps to Hwy 91 closed
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Highway 91

- WB ½ km W of Westminster Hwy still need to repair fire hyd and repave shoulder, Richmond doing the work
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- Significant damage to both the highway and structures (Bottle Top Bridge) but not a full picture yet.
- Expecting Coquihalla to be closed for multiple days.

Highway 1 – Fraser Canyon

- Closed at Spences Bridge.

- Debris flows have been identified south of Lytton at Tank Hill and other locations are also seeing mud across the highway.

Highway 1 - Kamloops to Golden

- Closed west of Revelstoke at 3 Valley Gap
- Excessive water at the bluffs, bringing down rocks and debris.
- Helicopter assessment is underway
- 108mm of rain in past 36 hours (as of 6am)

Highway 3 – Princeton

- Closed
- Flooding over road.
- Once water recedes, we will assess the damage.

Highway 3 – Fernie

- Closed
- Flooding with a local detour in place
- We assess when water levels recede.

Highway 5A – Princeton

- Open
- Water has receded and safe to open.

Highway 23 north of Nakusp

- Reports of a slide.
- Staff are on route to investigate.

MoTI and MC staff and equipment have been fully deployed during the weekend, day and night.

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 12:15 PM
To: Kristianson, Eric PREM:EX; Zacharuk, Christina PREM:EX
Cc: Krishna, Kaye TRAN:EX; Wanamaker, Lori PREM:EX
Subject: Update: 11:30, Weather Closures on Provincial Highways & Roads

HIGHWAY IMPACTS:

South Coast Region

Highway 7 - Seabird Island

- Closed between Walheach Road to Johson Slough
- Two debris flows and down powerlines across the highway.
- Emergency crews and heavy equipment currently staged on either side of the closure.
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Highway 1

- Closed between Popkum and Hope (Highway 9 exit to Flood-Hope Exit).
- Multiple debris flows across all travel lanes in both directions (5 known sites).
- No people trapped.
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- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1)
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- All stranded individuals have been transported to Manning Park
- Heavy equipment on site.
- ETO: Unknown – assessment in progress

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- Two debris flows across travel lanes.
- Valley Helicopter has evacuated all 20 stranded individuals to Hope.
- Once flows subside and Geotech assessment takes place crews will begin work on the debris flows.
- Heavy machinery on site.
- ETO: Unknown – assessment in progress

Highway 7 - Mt Woodside

- Closed between Highland Blvd to Bodher Road
- Water is flowing down and pooling significantly
- Rocks falling in the vicinity of the water flow, unable to safely operate equipment

- Heavy equipment arriving.
- ETO: Unknown – assessment in progress

Other Locations:

Highway 7 - Maple Ridge

- Closed between 240th Street to 272nd Street
- Water and debris on the highway.

Highway 11

- Closed at Valley Rd due to flooding across the highway near Willband Creek Park.

Columbia Valley Road at Lakeshore Drive

- Closed at Lakeshore Drive due to a washed out culvert
- Detour established through the FN reserve, first responders on-scene maintaining the closure
- High water flow has overwhelmed culvert and undermined the road

Rockwell Drive

- Losing asphalt in 3 places at Green Point, risk is high around 3380 Rockwell Drive where flow rate is significantly higher than drainage sizing.
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 - o Overflow path maxed out and water pooling on road
 - o Flow is leading to Lundgren which may be at risk

Highway 13

- SB ramp to Hwy 1 eastbound has flooded and Ramp is closed

Highway 10

- EB at 177B fast lane blocked with vactor truck parked on sanitary manhole lid, raw sewage floating out Surrey looking after it

Highway 99

- SB and NB between Shell Rd and Westminster Hwy slow lanes flooded as well as ramps to Hwy 91 closed
- Currently one lane in each direction remain open, plan is to close it in both directions. On site assessing.

Highway 91

- WB ½ km W of Westminster Hwy still need to repair fire hyd and repave shoulder, Richmond doing the work

- SB at Cliveden slow lane flooded

- Nordel interchange minor flooding on a few ramps vehicles still getting through

Highway 91A

- SB ramp to Howes, right side of ramp flooded vehicles still getting through

Highway 14 - E of Sooke

- Closed at Impala Road.

- Flooding over the barrier across both lanes

- Water level between 1-2 meters deep.

- No detour available as local roads are flooded.

- ETO: Unknown – assessment in progress

Highway 1 - Duncan

- Closed at Mt Sicker Road

- Flooding over the barrier across both lanes

- Water level between 1-1.5 meters deep.

- No detour available

- ETO: Unknown – assessment in progress

Highway 1 - Malahat

- Closed Tunnel Hill

- Flooding over the barrier across both lanes

- Water level between 1-1.5 meters deep.

- No detour available

- ETO: Unknown – assessment in progress

Other Locations:

Briarwood Road (Shawnigan Lake area)

- Road and culvert washed out.

- High water levels continue and temporary bridge has been requested.

- Residents are trapped.

- ETO: Unknown – assessment in progress

Significant flooding on local side roads however too many to mention.

SIR

Highway 5 Coquihalla

- Closed in both directions between Hope and Merritt

- Continuing to see heavy rain across corridor, 196mm of rain fell over last 36 hours (as of 6am) at

Coquihalla Summit

- Helicopter flight is on standby due to weather

- Significant damage to both the highway and structures (Bottle Top Bridge) but not a full picture yet.

- Expecting Coquihalla to be closed for multiple days.

Highway 1 – Fraser Canyon

- Closed at Spences Bridge.

- Debris flows have been identified south of Lytton at Tank Hill and other locations are also seeing mud across the highway.

Highway 1 - Kamloops to Golden

- One lane open.

- Debris removal in progress.

Highway 3 – Princeton

- Closed

- Flooding over road.
- Once water recedes, we will assess the damage.

Highway 3 – Fernie

- Closed
- Flooding with a local detour in place
- We assess when water levels recede.

Highway 5A – Princeton

- Open
- Water has receded and safe to open.

Highway 23 north of Nakusp

- Reports of a slide.
- Staff are on route to investigate.

Highway 99 35 km W of Lillooet

- Closed in both directions due to a mudslide
- Confirming details.

MoTI and MC staff and equipment have been fully deployed during the weekend, day and night.

MEDIA CALLS

- 09:00 call this morning when well with Minister Farnworth: Paula and Janelle provided technical support
- scheduled 15:00 media call today, GCPE to provide details

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 4:33 PM
To: Fleming, Rob TRAN:EX; Harrison, Veronica TRAN:EX; Champion, Ella D TRAN:EX; Crebo, David GCPE:EX; Krishna, Kaye TRAN:EX; Hayre, Courtney TRAN:EX; Phillips, Holly TRAN:EX; Sirett, Steve TRAN:EX; Cousins, Paula TRAN:EX; Bhatti, Ashok A TRAN:EX; Staite, Janelle A TRAN:EX; Gedney, Vanessa R TRAN:EX
Subject: Update: 16:00, Nov 15, Weather Closures on Provincial Highways & Roads

South Coast Region Weather Forecast:

- Precipitation: 15-25 mm rain expected this afternoon. Dry this evening and overnight
- Winds & Gusts: Strong SSE winds continue with gusts up to 55-65 km/h tapering off by midnight.
- Temperatures: Current 12°C. Snow Levels dropping to 500-400m early Tuesday AM (16th) as winds shift WNW.
- Dry conditions expected Tuesday to Friday.

HIGHWAY IMPACTS:

Highway 7 - Seabird Island

- Closed between Walheach Road to Johnson Slough.
- Two debris flows and down powerlines across the highway.
- 175 vehicles stranded including approximately 250 people where ~70% have been airlifted out and the remainder will be evacuated tonight.
- No injuries reported.
- EMBC organized the airlift and was looking after the airlifted people.
- Heavy equipment working on the east side.
- West side still on hold till Geotech confirms it is safe.
- ETO: Unknown – assessment in progress

Highway 7 – Haig Bluffs

- Closed between Johnson Slough and Haig
- A debris flow that has covered all travel lanes, as well as BC Hydro lines.
- Approximately 700 vehicles are trapped.
- Helicopters were not able to fly until this afternoon.
- BC Hydro have de-energized lines and heavy equipment has commenced debris removal.
- An emergency route will be created to allow travellers to get to Hope tonight.
- EMBC is working on accommodation for the travellers.
- ETO: Unknown – assessment in progress

Highway 1 - Popkum

- Closed between Popkum and Hope (Highway 9 exit to Flood-Hope Exit).
- Multiple debris flows across all travel lanes in both directions (5 known sites).
- No people trapped.
- Geotech evaluating prior to cleanup activities.
- Equipment deployed to the west and east end of the closure.
- ETO: Unknown – assessment in progress

Highway 1 – Abbotsford

- Planning to close from Highway 11 to #3 Road due to flooding of the Sumas and Nooksack Rivers around 19:00.
- Proactive measure.

Highway 1 – Fraser Canyon

- Closed between Hope and Spences Bridge
- Washout at Hells Gate and Alexandra bridge.
- Water has overtopped the highway and eroding the shoulders and travel lanes.
- No people trapped.
- Heavy equipment on site working.
- ETO: Unknown – assessment in progress

Highway 3 – Sunshine Valley

- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1)
- Multiple debris flows across the highway.
- All stranded individuals have been transported to Manning Park.
- Heavy equipment on site.
- ETO: Unknown – assessment in progress

Hwy 5 – Hope to Merritt

- Othello:
 - Both SB lanes have been washed away.
 - Heavy washout with debris, mud, and water on road.
 - Heavy equipment on-site.
 - ETO: Unknown – assessment in progress
- Sowoqua
 - The SB Sowoqua structure has been washed away.
- Dewdney Creek:
 - Debris flow that is covering all the travel lanes.
 - Assessment in progress
- 10 Mile Creek
 - Closed between 10 Mile Creek and Portia Interchange.
 - Two debris flows across travel lanes.
 - Valley Helicopter has evacuated all 19 stranded individuals to Hope.
 - Once flows subside and Geotech assessment takes place crews will begin work on the debris flows.
 - Heavy machinery is at site and additional machinery is on route.
 - ETO: Unknown – assessment in progress

Hwy 7 - Mt Woodside

- Closed between Highland Blvd to Bodher Road
- Rock fall with debris and water flowing down the hillside onto the roadway.
- Geotech assessment pending. Assessment required prior to initiating cleanup activities.
- 1 loader on site.
- ETO: Unknown – assessment in progress

Other Locations:

Highway 7 - Maple Ridge

- Highway 7 is closed between 240th Street to 272nd Street
- Water and debris on the highway.

Highway 11 - Mission

- Highway is closed at Hazelwood Drive and Valley Rd due to flooding across the highway near Willband Creek Park.

Columbia Valley Road – Chilliwack

- Closed at Lakeshore Drive due to a washed out culvert
- High water flow has overwhelmed culvert and undermined the road
- FVRD has initiated Sleepy Hollow Protocol initiated - Detour established through the Soowahlie Reserve, first responders on-scene maintaining the closure.

Rockwell Drive – District of Kent

- Closed at Lillooet Drive.
- Losing asphalt in 3 places at Green Point Park
- Residents have been evacuated by local RCMP/Fire. Debris flow cleared to support evacuation.
- Heavy equipment on site.

Hatzic Prairie

- Multiple sideroad closed north of highway 7 due to flooding.
- Significant flow across roads at Farms, Dale, Stave Lake, Lundgren, Beyer, Sylvester at Kontney and Seux, and many other smaller isolated flows

Hwy 13 - Aldergrove

- SB ramp to Hwy 1 eastbound has flooded and ramp.

Hwy 99 – Richmond

- Closed between Westminster Hwy and Oak Street Bridge
- All lanes flooded.

Highway 1 Duncan area

- Closed at Mt Sicker Road
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Highway 1 Malahat

- Closed Tunnel Hill
- Flooding over the barrier across both lanes
- Barrier has been removed to assist with water level.
- Shoulder has eroded and exposed the Bin wall, and reduced the northbound lane by about ½ a lane.
- Scarp crack is forming in the median (unstable landslide).
- Bin wall has failed and has lost almost all fill.
- Road will not be open until further Geotech assessments can be made tomorrow.
- Water level between 1-1.5 meters deep.
- No detour available
- BC Ferries is attempting to increase sails to saltspring and brentwood bay
- ETO: Unknown – assessment tomorrow

Highway 14 east of Sooke

- SLAT at Impala road between Gillespie and kangaroo road.
- Flooding across the road
- Water level between 1-2 meters deep. Water levels receding
- No detour available as local roads are flooded.
- ETO: Unknown – assessment in progress,

Other Locations:

Briarwood Road (Shawnigan Lake area)

- Road and culvert washed out at approx. 2:30am,
- Temporary bridge is now on site, just waiting for Crane to arrive, work to begin as soon as possible.
- Residents (~3/4) are trapped.
- ETO: Unknown – assessment in progress

Pacific marine circle route

- Route closed due to flooding on road at fairy lake currently 1-1.5 meters deep.
- No ETO, further assessment required.

Highway 4 at Kennedy Hill

- Closed due to large rock slide Rock Slide
- ETO 6PM for opening.

Stakeholder notifications

- We have reached out to the Halalt First nations and the Pacheedaht First nation, to see if we can provide any further assistance. Have not received a response as of yet.

Highway 1 - Lytton

- Closed S of Lytton
- Debris flows and substantial washouts have been identified south of Lytton at Tank Hill area.
- Highway requires major reconstruction at Tank Hill
- Nicomen Road has been washed out and cut off access/egress for Nicomen community.
- We are connecting with community to understand impacts and needs.
- EMBC has been informed.

Highway 1 - 3 Valley Gap

- Open to SLAT
- Heavy equipment working.

Highway 1 - Enchanted Forest (W of Revelstoke)

- Closed at enchanted forest
- Mudslide occurred at the Enchanted Forest and several creeks have jumped their banks.
- Assessment is in progress but there is a high likelihood the corridor will be closed overnight.

Highway 3 - Princeton

- Closed 12 km E of Princeton
- Continues to be underwater
- Once water recedes, we will assess the damage and determine ETO
- Communities of Coalmont and Tulameen are currently cut off due to washouts. RDOS is supporting communities.

Highway 3 – Fernie

- Closed 4 km E of Hartley Creek
- Heavy equipment on site working

- Local detour available
- Flooding on Highway 3 in Fernie has now subsided and open.

Highway 5A – Princeton

- Open
- Water has receded and safe to open.
- Will remove from future updates.

Highway 5 Coquihalla - Merritt to Hope

- Closed ~30 km S of Merritt
- Helicopter flight is on standby due to weather
- Bottletop southbound structure abutments have now been washed away.
 - Bottletop Bridges both NB and SB have lost their abutments.
- SB lanes have been washed into Coldwater River between Juliet and Larson Hill
- Brodie Bridge – crews haul rock in an attempt to mitigation erosion to abutment.
- Coldwater road also washed out in multiple locations.
- Significant damage to both the highway and structures between Mine Creek and Britton Creek
- Have not been able to assess area between Britton Creek and Portia.
- Expecting Coquihalla to be closed for multiple days.

Highway 8 - Merritt to Spences Bridge

- Closed W of Merritt
- Two locations of the highway are under significant water, three more locations at risk.
- Several side road structures have been compromised and we are working with local and Indigenous governments to coordinate and support impacted residents
 - Approach to the Canford Bridge (Petit Creek Road) has washed out
 - Structure accessing Nicomen road has also been impacted
 - Working with EMBC and local government to assist impacted residents

(NEW) Highway 12 - Lillooet

- Closed 35 km S of Lillooet.
- Debris flow across highway.
- Crews on route to assess.

Highway 93S - Kootenay National Park

- Open
- Travel Advisory still in effect for winter conditions.

Hwy 97A - Sicamous

- SLAT 4 km S of Sicamous
- Minor slide blocking on lane
- Expect to be fully open tonight.

Hwy 99 - Lillooet

- Closed 30 km W of Lillooet
- 3 slides have closed highway in both directions.
- DRM has been able to punch through one slide and all people are now free and heading south to Pemberton.
- One person unaccounted for and one confirmed fatal.
- 4 people on route to hospital with minor injuries.
- Still no ETO for getting Hwy 99 fully open.
- Assessment underway

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 15, 2021 4:35 PM
To: Kristianson, Eric PREM:EX; Zacharuk, Christina PREM:EX
Cc: Krishna, Kaye TRAN:EX; Wanamaker, Lori PREM:EX
Subject: Update: 16:00, Weather Closures on Provincial Highways & Roads

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HIGHWAY IMPACTS:

Highway 7 - Seabird Island

- Closed between Walheach Road to Johnson Slough.
- Two debris flows and down powerlines across the highway.
- 175 vehicles stranded including approximately 250 people where ~70% have been airlifted out and the remainder will be evacuated tonight.
- No injuries reported.
- EMBC organized the airlift and was looking after the airlifted people.
- Heavy equipment working on the east side.
- West side still on hold till Geotech confirms it is safe.
- ETO: Unknown – assessment in progress

Highway 7 – Haig Bluffs

- Closed between Johnson Slough and Haig
- A debris flow that has covered all travel lanes, as well as BC Hydro lines.
- Approximately 700 vehicles are trapped.
- Helicopters were not able to fly until this afternoon.
- BC Hydro have de-energized lines and heavy equipment has commenced debris removal.
- An emergency route will be created to allow travellers to get to Hope tonight.
- EMBC is working on accommodation for the travellers.
- ETO: Unknown – assessment in progress

Highway 1 - Popkum

- Closed between Popkum and Hope (Highway 9 exit to Flood-Hope Exit).
- Multiple debris flows across all travel lanes in both directions (5 known sites).
- No people trapped.
- Geotech evaluating prior to cleanup activities.
- Equipment deployed to the west and east end of the closure.
- ETO: Unknown – assessment in progress

Highway 1 – Abottsford

- Planning to close from Highway 11 to #3 Road due to flooding of the Sumas and Nooksack Rivers around 19:00.
- Proactive measure.

Highway 1 – Fraser Canyon

- Closed between Hope and Spences Bridge
- Washout at Hells Gate and Alexandra bridge.
- Water has overtopped the highway and eroding the shoulders and travel lanes.
- No people trapped.
- Heavy equipment on site working.

- ETO: Unknown – assessment in progress

Highway 3 – Sunshine Valley

- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1)
- Multiple debris flows across the highway.
- All stranded individuals have been transported to Manning Park.
- Heavy equipment on site.
- ETO: Unknown – assessment in progress

Hwy 5 – Hope to Merritt

- Othello:
 - Both SB lanes have been washed away.
 - Heavy washout with debris, mud, and water on road.
 - Heavy equipment on-site.
 - ETO: Unknown – assessment in progress
- Sowoqua
 - The SB Sowoqua structure has been washed away.
- Dewdney Creek:
 - Debris flow that is covering all the travel lanes.
 - Assessment in progress
- 10 Mile Creek
 - Closed between 10 Mile Creek and Portia Interchange.
 - Two debris flows across travel lanes.
 - Valley Helicopter has evacuated all 19 stranded individuals to Hope.
 - Once flows subside and Geotech assessment takes place crews will begin work on the debris flows.
 - Heavy machinery is at site and additional machinery is on route.
 - ETO: Unknown – assessment in progress

Hwy 7 - Mt Woodside

- Closed between Highland Blvd to Bodher Road
- Rock fall with debris and water flowing down the hillside onto the roadway.
- Geotech assessment pending. Assessment required prior to initiating cleanup activities.
- 1 loader on site.
- ETO: Unknown – assessment in progress

Other Locations:

Highway 7 - Maple Ridge

- Highway 7 is closed between 240th Street to 272nd Street
- Water and debris on the highway.

Highway 11 - Mission

- Highway is closed at Hazelwood Drive and Valley Rd due to flooding across the highway near Willband Creek Park.

Columbia Valley Road – Chilliwack

- Closed at Lakeshore Drive due to a washed out culvert
- High water flow has overwhelmed culvert and undermined the road
- FVRD has initiated Sleepy Hollow Protocol initiated - Detour established through the Soowahlie Reserve, first responders on-scene maintaining the closure.

Rockwell Drive – District of Kent

- Closed at Lillooet Drive.
- Losing asphalt in 3 places at Green Point Park
- Residents have been evacuated by local RCMP/Fire. Debris flow cleared to support evacuation.
- Heavy equipment on site.

Hatzic Prairie

- Multiple sideroad closed north of highway 7 due to flooding.

- Significant flow across roads at Farms, Dale, Stave Lake, Lundgren, Beyer, Sylvester at Kontney and Seux, and many other smaller isolated flows

Hwy 13 - Aldergrove

- SB ramp to Hwy 1 eastbound has flooded and ramp.

Hwy 99 – Richmond

- Closed between Westminster Hwy and Oak Street Bridge
- All lanes flooded.

Highway 1 Duncan area

- Closed at Mt Sicker Road
- Flooding over the barrier across both lanes
- Water level between 1-1.5 meters deep.
- No detour available
- ETO: Unknown – assessment in progress

Highway 1 Malahat

- Closed Tunnel Hill
- Flooding over the barrier across both lanes
- Barrier has been removed to assist with water level.
- Shoulder has eroded and exposed the Bin wall, and reduced the northbound lane by about ½ a lane.
- Scarp crack is forming in the median (unstable landslide).
- Bin wall has failed and has lost almost all fill.
- Road will not be open until further Geotech assessments can be made tomorrow.
- Water level between 1-1.5 meters deep.
- No detour available
- BC Ferries is attempting to increase sails to saltspring and brentwood bay
- ETO: Unknown – assessment tomorrow

Highway 14 east of Sooke

- SLAT at Impala road between Gillespie and kangaroo road.
- Flooding across the road
- Water level between 1-2 meters deep. Water levels receding
- No detour available as local roads are flooded.
- ETO: Unknown – assessment in progress,

Other Locations:

Briarwood Road (Shawnigan Lake area)

- Road and culvert washed out at approx. 2:30am,
- Temporary bridge is now on site, just waiting for Crane to arrive, work to begin as soon as possible.
- Residents (~3/4) are trapped.
- ETO: Unknown – assessment in progress

Pacific marine circle route

- Route closed due to flooding on road at fairy lake currently 1-1.5 meters deep.
- No ETO, further assessment required.

Highway 4 at Kennedy Hill

- Closed due to large rock slide Rock Slide
- ETO 6PM for opening.

Stakeholder notifications

- We have reached out to the Halalt First nations and the Pacheedaht First nation, to see if we can provide any further assistance. Have not received a response as of yet.

Highway 1 - Lytton

- Closed S of Lytton
- Debris flows and substantial washouts have been identified south of Lytton at Tank Hill area.
- Highway requires major reconstruction at Tank Hill
- Nicomen Road has been washed out and cut off access\egress for Nicomen community.

- We are connecting with community to understand impacts and needs.
- EMBC has been informed.

Highway 1 - 3 Valley Gap

- Open to SLAT
- Heavy equipment working.

Highway 1 - Enchanted Forest (W of Revelstoke)

- Closed at enchanted forest
- Mudslide occurred at the Enchanted Forest and several creeks have jumped their banks.
- Assessment is in progress but there is a high likelihood the corridor will be closed overnight.

Highway 3 - Princeton

- Closed 12 km E of Princeton
- Continues to be underwater
- Once water recedes, we will assess the damage and determine ETO
- Communities of Coalmont and Tulameen are currently cut off due to washouts. RDOS is supporting communities.

Highway 3 – Fernie

- Closed 4 km E of Hartley Creek
- Heavy equipment on site working
- Local detour available
- Flooding on Highway 3 in Fernie has now subsided and open.

Highway 5A – Princeton

- Open
- Water has receded and safe to open.
- Will remove from future updates.

Highway 5 Coquihalla - Merritt to Hope

- Closed ~30 km S of Merritt
- Helicopter flight is on standby due to weather
- Bottletop southbound structure abutments have now been washed away.
 - Bottletop Bridges both NB and SB have lost their abutments.
- SB lanes have been washed into Coldwater River between Juliet and Larson Hill
- Brodie Bridge – crews haul rock in an attempt to mitigation erosion to abutment.
- Coldwater road also washed out in multiple locations.
- Significant damage to both the highway and structures between Mine Creek and Britton Creek
- Have not been able to assess area between Britton Creek and Portia.
- Expecting Coquihalla to be closed for multiple days.

Highway 8 - Merritt to Spences Bridge

- Closed W of Merritt
- Two locations of the highway are under significant water, three more locations at risk.
- Several side road structures have been compromised and we are working with local and Indigenous governments to coordinate and support impacted residents
 - Approach to the Canford Bridge (Petit Creek Road) has washed out
 - Structure accessing Nicomen road has also been impacted
 - Working with EMBC and local government to assist impacted residents

(NEW) Highway 12 - Lillooet

- Closed 35 km S of Lillooet.
- Debris flow across highway.
- Crews on route to assess.

Highway 93S - Kootenay National Park

- Open
- Travel Advisory still in effect for winter conditions.

Hwy 97A - Sicamous

- SLAT 4 km S of Sicamous
- Minor slide blocking on lane
- Expect to be fully open tonight.

Hwy 99 - Lillooet

- Closed 30 km W of Lillooet
- 3 slides have closed highway in both directions.
- DRM has been able to punch through one slide and all people are now free and heading south to Pemberton.
- One person unaccounted for and one confirmed fatal.
- 4 people on route to hospital with minor injuries.
- Still no ETO for getting Hwy 99 fully open.
- Assessment underway

Lewthwaite, Jennifer TRAN:EX

From: Richter, Kevin J TRAN:EX
Sent: November 16, 2021 7:27 PM
To: Wanamaker, Lori PREM:EX; Zacharuk, Christina PREM:EX; Kristianson, Eric PREM:EX
Cc: Krishna, Kaye TRAN:EX
Subject: Update: 19:00, Nov 16, Weather Closures on Provincial Highways & Roads

South Coast Region

Lower Mainland

HIGHWAY IMPACTS:

Priority Locations:

Highway 7 – Mission to Agassiz

- Open to emergency vehicles.
- Heavy equipment continue to work to fully open to supply vehicles.
- As water drops, emergency responders have identified previously unidentified vehicles in the debris.
- RCMP and emergency responders have asked.

Highway 7 – Agassiz to Hope

- Open to emergency vehicles.
- As water drops, emergency responders have identified previously unidentified vehicles in the debris.
- RCMP and emergency responders have asked heavy equipment actives to cease while and RCMP and emergency responders conduct their search and rescue.

Highway 1 – Popkum to Hope

- Closed between Popkum and Hope.
- Multiple debris flows across all travel lanes in both directions and locations of significant shoulder and lane erosion.
- Heavy equipment working.
- ETO: Sunday November 21: 1800 hrs for emergency access only.

Highway 1 – Fraser Canyon (South Coast and Southern Interior)

- Closed between Hope and Spences Bridge.
- Significant failures at Nicomen Bridge, Tank Hill and Jackass Mountain.
- Other areas with shoulder/lane erosion and debris on road.
- Emergency access available between Hope and Boston Bar.
- Heavy equipment working on debris and erosion areas.
- ETO: plans being developed for significantly impacted areas

Highway 1 – Abbotsford

- Sumas River overtopped Highway 1 on Nov 15 at 1920 hrs.
- Closed between McCallum Rd to Yale Rd.
- Due to rising water levels the closure was extended east to the Yale Rd interchange and west to McCallum Rd.
- ETO: Unknown – assessment in progress.

Highway 3 – Sunshine Valley

- Closed between Hope Slide and Sunshine Valley and at Engineers Rd (Mile 1)
- Multiple debris flows across the highway and some shoulder erosion.
- Heavy equipment working.
- ETO: Sunday November 21: 1800 hrs for emergency access only.

Hwy 5 – Hope to Merritt

- Closed
- Kilometers of highway (numerous locations) impacted with debris on highway and areas where the shoulders and lanes have been eroded.
- Othello Both SB lanes have been washed away ~1 km.
- Othello Bridge impacted by debris
- Jessica Bridge – 2 bridge jump spans lost
- Caroline Bridge – bridge approach fills eroded
- Juliet Bridge – 2 bridge jump spans compromised
- Bottletop Bridge – 3 bridge jump spans lost and substantial approach fill erosion
- Brodie Bridge – bridge abutment compromised

Silver Skagit Road

- Multiple mudslides have closed Silver Skagit Road
- ETO: Unknown – assessment in progress

Highway 11 - Mission

- Closed from Delair to the USA border (flooding).

Rockwell Drive – District of Kent

- Closed at Lillooet Drive (erosion).
- Heavy equipment working.

Hatzic Prairie

- Multiple sideroads closed north of highway 7 due to flooding.
- Significant flow across roads at Farms, Dale, Stave Lake, Lundgren, Beyer, Sylvester at Kontney and Seux, and many other smaller isolated flows

Hwy 99 – Richmond

- Highway 99 closed between Westminster Hwy and Oak Street Bridge
- SB has **re-OPENED**, NB still remains closed.

Vancouver Island

Priority Locations:

Highway 1 (Duncan area)- highway is now fully **OPEN**

Highway 1 (Malahat)

- Malahat is **OPEN** to SLAT traffic currently.
- Traffic advisory has been issued and DriveBC updated outlining the nighttime closure (6 PM to 6 AM) over the next 6 nights for construction.
- The night time closures are required for temporary repair to re-establish 1 lane of traffic in each direction.
- The pacific marine Circle route, is open as an alternate route

Southern Interior Region

Highway 1 - Enchanted Forest – **OPEN** SLAT

Highway 3 - Princeton - Closed

- Continues to be underwater
- Once water recedes, we will assess the damage and determine ETO
- **Access to Communities of Tulameen and Colemont have been impacted, working with EMBC and local government**

Highway 3 - Hartley Creek 4km east of Fernie – Closed

- Heavy equipment working.
- Local detour available
- Opening anticipated within 48hours

Highway 8 - Merritt to Spences Bridge – Closed

- Many kilometers complete destruction of the highway as multiple locations.
- Multiple structures and culverts destroyed.
- Many isolated FN and non FN residents throughout the corridor.

Highway 97A - 4km S of Sicamous – **OPEN** to SLAT

- Minor slide blocking on lane
- Expect to be fully open tonight.

Highway 99 - 30-42km S of Lillooet – Closed

- Aerial geotechnical assessment complete.
- Crews are working with search and rescue before crews to clear the highway.
- ETO: targeting Sunday - will be updated tomorrow afternoon.

From: Jollymore, Ashlee FLNR:EX
Sent: November 15, 2021 11:27 AM
To: Jollymore, Ashlee FLNR:EX
Subject: UPGRADED – Flood Warning – Lower Nicola River | MAINTAINED - Flood Warning – Similkameen River, Tulameen River, Coldwater River | UPDATE: 11:30 AM November 15, 2021

Importance: High

UPGRADED – Flood Warning – Lower Nicola River
MAINTAINED – Flood Warning – Similkameen River, Tulameen River, Coldwater River
UPDATE: 11:30 AM November 15, 2021

The River Forecast Centre is **upgrading a Flood Warning** for:

- **Lower Nicola River**

The River Forecast Centre is **maintaining Flood Warnings** for:

- **Similkameen River**
- **Tulameen River and tributaries**
- **Coldwater River**

A significant atmospheric river has made landfall across southern coastal regions of British Columbia. Observed rainfall amounts since yesterday have been in the 50-185 mm range across the Coquihalla, upper Coldwater and Tulameen River watersheds. Temperatures have been rising, with temperatures in the 5-7°C range being observed at automated snow weather stations across the region. Snowmelt is being observed at mid-elevations and is adding additional runoff to rivers. Rivers have risen rapidly today, with further rain in the forecast through today, Monday November 15th (turning to snow at higher elevations). Current conditions include:

- Tulameen River at Princeton (Water Survey of Canada gauge 08NL024) has peaked early this morning (Nov 15) and is currently at 3.811 m on the gauge. This is beyond the flow estimate range for this station is estimated to be beyond a 50-100 year return period flow
- Coldwater River at Merritt (08LG010) is at 3.48 m gauge height. This is beyond the flow estimate range for this station and is estimated to be beyond a 50-100 year return period flow. Continued rises are possible through Monday, though the rate of increase has slowed.
- Similkameen River at Hedley (08NL038) is flowing at 972 m³/s (approaching a 50-100 year flow) and has begun to peak. Additional rises are possible through Monday afternoon.
- Nicola River near Spences Bridge (08LG006) is flowing at 376 m³/s (near a 50 year flow) and rising rapidly. Additional rises are expected into the afternoon or later Monday and may reach or exceed 400 m³/s.

The public is advised to stay clear of the fast-flowing rivers and potentially unstable riverbanks during the high-streamflow period.

The River Forecast Centre continues to monitor the conditions and will provide updates as conditions warrant.

BC River Forecast Centre

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

A **High Streamflow Advisory** means that river levels are rising or expected to rise rapidly, but that no major flooding is expected. Minor flooding in low-lying areas is possible.

A **Flood Watch** means that river levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.

A **Flood Warning** means that river levels have exceeded bankfull or will exceed bankfull imminently, and that flooding of areas adjacent to the rivers affected will result.

Shoquist, Sarah TRAN:EX

From: Campbell, David FLNR:EX
Sent: November 15, 2021 8:27 AM
To: Campbell, David FLNR:EX
Subject: UPDATE - Flood Warning – Coquihalla River - Flood Watch – Sea-to-Sky (NEW), North Shore (NEW), Howe Sound (NEW), Fraser Valley, Fraser Canyon, Chilliwack River - High Streamflow Advisory – South Coast - UPDATE: 8:30AM November 15, 2021

Importance: High

Flood Warning – Coquihalla River

Flood Watch – Sea-to-Sky (NEW), North Shore (NEW), Howe Sound (NEW), Fraser Valley, Fraser Canyon, Chilliwack River

High Streamflow Advisory – South Coast

UPDATE: 8:30AM November 15, 2021

The River Forecast Centre is **maintaining a Flood Warning** for:

- **Coquihalla River**

The River Forecast Centre is **upgrading to or maintaining a Flood Watch** for:

- **Sea-to-Sky (UPGRADED)**
- **Howe Sound (UPGRADED)**
- **North Shore Mountains (UPGRADED)**
- **Fraser Valley including surrounding tributaries**
- **Fraser Canyon tributaries, including tributaries around Hope**
- **Chilliwack River**

The River Forecast Centre is **maintaining a High Streamflow Advisory** for:

- **Sunshine Coast**
- **Metro Vancouver**

A significant atmospheric river has made landfall across southern coastal regions of British Columbia. Observed rainfall amounts since yesterday have been in the 100-140mm range through Howe Sound, North Shore Mountains, and Sunshine Coast; 90-160mm in the Fraser Valley – East, Fraser Canyon and areas around Hope and Harrison Lake.

Environment and Climate Change Canada have continued rainfall warnings in effect across the region. Rainfall is expected to taper off by Monday afternoon, with additional amounts of around 50mm expected through the eastern Fraser Valley, and 30-40mm in other areas.

Temperatures have been rising, with temperatures in the 5-7°C range being observed at automated snow weather stations across the region. Snowmelt is being observed at mid-elevations and is expected to add additional runoff to rivers.

Rivers have risen rapidly from rainfall since yesterday. Current conditions include:

- Chilliwack River above Slesse Creek (08MH103) have reached 375 m³/s (approaching a 20-year flow). Additional increases are possible through the day on Monday
- Chilliwack River at Vedder Crossing (08MH001) reached a high of approximately 490 m³/s overnight and has dropped through Monday morning
- Coquihalla River above Alexandra Creek (08MF068) is flowing at approximately 550 m³/s (between a 10-year and 20-year flow) and has leveled over the past few hours. Additional rises are possible through the day on Monday
- Stawamus River at Highway 99 (08GA076) is flowing at 85 m³/s (between a 2-year and 5-year flow) and rising at approximately 15 m³/s per hour

Rivers through the region are expected to remain high through Monday morning, with improvements expected Monday afternoon as rainfall eases.

The public is advised to stay clear of the fast-flowing rivers and potentially unstable riverbanks during the high-streamflow period.

The River Forecast Centre continues to monitor the conditions and will provide updates as conditions warrant.

BC River Forecast Centre

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

A **High Streamflow Advisory** means that river levels are rising or expected to rise rapidly, but that no major flooding is expected. Minor flooding in low-lying areas is possible.

A **Flood Watch** means that river levels are rising and will approach or may exceed bankfull. Flooding of areas adjacent to affected rivers may occur.

A **Flood Warning** means that river levels have exceeded bankfull or will exceed bankfull imminently, and that flooding of areas adjacent to the rivers affected will result.