

# Thompson Watershed Disaster Mitigation Community to Community Forum

February 14, 2018  
Kamloops, BC



Photo credit: Jason Miller



Meeting summary as at February 27, 2018

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Thompson-Nicola Regional District  
*The Region of BC's Best*



## **Introduction**

Over sixty people, including elected officials and staff from local, Secwepemc and Nlaka'pamux governments, and staff from provincial and federal governments attended to initiate the Thompson Watershed Disaster Mitigation project, with a focus on flood and debris flow risk assessment.

## **Welcoming Comments**

Mike Simpson, Senior Regional Manager, Fraser Basin Council, welcomed everyone and thanked them for attending.

Jeanette Jules, Councillor, Tk'emlups te Secwepemc, gave an opening prayer and a welcome to the territory. Arjun Singh, Councillor, City of Kamloops, gave a welcome.

Participants around the room introduced themselves (Appendix 1).

Mike Simpson acknowledged the funders:

- Emergency Management BC, for 50% of the project funds
- Public Safety Canada, for 50% of the project funds
- Union of BC Municipalities (UBCM) for Community to Community Forum funds to host today's event, administered through Thompson-Nicola Regional District

## **Agenda and Objectives**

The agenda was reviewed (Appendix 2), and the objectives were noted as follows:

- Initiate the Thompson Watershed Disaster Mitigation Risk Assessment project
- Bring together elected officials and staff from local, provincial and First Nations governments to build relationships and share technical knowledge and resources
- Strike an advisory committee to oversee the flood and land/debris flow risk assessment

Participants were asked to be respectful of each other and different perspectives, to be tough on the issue but not the person, and to focus on flood and debris flow risk assessment, and not response to last year's floods or its emergency response.

## **The Project and National Disaster Mitigation Program**

Mike explained the origins of the project, the unique scope in that it covers:

- The entire Thompson River Watershed, 5.6 million hectares
- 200 000 people live in the watershed
- Twenty-six First Nations governments, covering territories of Secwepemc, Nlaka'pamux, Syilx and St'at'imc over different portions of the watershed
- Fifteen municipalities and 4 regional districts

Risk assessment is the first stream of the [National Disaster Mitigation Program](#) for which funding has been secured. Subsequent funding streams are for flood mapping; mitigation planning; and investments in non-structural and small scale mitigation projects.

Mike's presentation can be accessed [here](#). A map has been created showing jurisdictions across 5 sub-watersheds of the Thompson (Appendix 3).

## **Emergency Management BC and Disaster Mitigation**

Jesal Shah, P.Eng., MBA, Director, Disaster Mitigation Branch of Emergency Management BC gave an overview of how flood mitigation has changed over the decades and a variety of funding opportunities for local and first nations governments. Jesal also spoke of new technologies, including Light and Detection Ranging or LiDAR to accurately map floodplains. Jesal's presentation can be accessed [here](#).

## **Keynote Presentation: Climate Adaptation and Future Flood and Debris Flow Risk**

Dwayne Meredith, P.Ag., Project Manager, Water Resources at KWL Engineering and based in Vernon, has over 25 years watershed management and emergency management experience in BC. Dwayne has worked around the BC in various capacities, previously for the provincial government, and now in the consulting field. Dwayne presented on climate change, why floods and debris flows are increasing in frequency and severity, and how risk assessment and mitigation planning, involving many participants, are key steps to reducing flood and debris flow risks. Dwayne's presentation can be accessed [here](#).

## **Watershed-level Discussions**

Participants were divided into 5 sub-watersheds (North Thompson, South Thompson, Thompson, Bonaparte and Nicola) to discuss the following:

- 2017 (or recent) flood impacts and values affected
- What's already complete, or underway for flood or floodplain mapping, risk assessment
- What are areas of priority for risk assessment in your area – geographic areas, topics, values

See Appendix 4 for a list of watershed-specific input; also, notes were made on maps that will be retained at Fraser Basin Council's office and shared with the technical consultant doing the work.

## **Next Steps**

A meeting summary will be produced, and presentations from today will be made available online.

Fraser Basin Council will strive to keep all orders of government informed of progress.

A request for proposals for the technical work will be issued in February.

An Advisory Committee will be struck, ideally with a maximum of 10 representatives of local and First Nations governments from around the Thompson Watershed (perhaps one each from each of the 5 sub-watersheds). Anticipated advisory committee tasks could include helping review proposals, reviewing draft products, advising on future funding applications for subsequent stages of work, and perhaps tackling larger issues that will likely arise including climate adaptation, development on floodplains, and restoration of floodplains, insurance industry issues, and more.

**ACTION:** interested parties should contact Mike Simpson by email [msimpson@fraserbasin.bc.ca](mailto:msimpson@fraserbasin.bc.ca) by March 1, 2018 with their interest in participating on the advisory committee.

## **Evaluation**

Those that expressed comments on the forum and the initiation of this project mostly agreed that it was good to convene all orders of government on this topic, and this helps with capacity in smaller local governments, and by bringing responsibility for these issues closer to home.

All participants were thanked for their participation, and were wished safe travels.

## Appendix 1 - Participants

First	Last	Title	Organization
Donna	Aljam	Chief	Nicomen Indian Band
Michelle	Allen	Chief Administrative Officer	Village of Ashcroft
Barry	Banford	Councillor	District of Clearwater
Rick	Berrigan	Mayor	Village of Chase
Thomas	Blank	Assistant Manager, Security, Emergency Management & Maintenance	Tk'emlups te Secwepemc
Len	Block	Senior Engineer	Indigenous Services Canada
Trevor	Bohay	Section Head, Regional Water Management	Min. of Forests, Lands, Nat Res Opns, Rural Dev. (MFLNRORD)
Kurt	Christopherson	Councillor	City of Merritt
Alistair	Crick	Protective Services Manager	Regional District of North Okanagan
Ryan	Day	Chief	Bonaparte Indian Band
Denis	Delisle	Alternate Director, Electoral Area F	Regional District of North Okanagan
Paul	Demenok	Director, Electoral Area C	Columbia Shuswap Regional District
Tina	Donald	Councillor	Simpcw
Kevin	Duncan	Natural Resources Manager	Nlaka'pamux Nation Tribal Council
Holly	Edwards		Nicomen Indian Band
Dawn	Francois		Little Shuswap Lake Indian Band
Gerome	Garcia	Councillor	Coldwater
Keir	Gervais	Chief Administrative Officer	Village of Cache Creek
Leslie	Groulx	Chief Administrative Officer	District of Clearwater
John	Haugen	Director, Nlaka'pamux Nation	Fraser Basin Council
Joni	Heinrich	Chief Administrative Officer	Village of Chase
Jack	Jeyes	Mayor	Village of Ashcroft
Jeanette	Jules	Councillor	Tk'emlups te Secwepemc
Bill	Kershaw	Director, Electoral Area O Lower North Thompson	Thompson-Nicola Regional District
Alex	Krause	Manager of Planning Services	Thompson-Nicola Regional District
Todd	Kyllo	Councillor	District of Sicamous
Tim	Lavery	Councillor	City of Salmon Arm
David	Lawrence	Lands and Resources Manager	Nooaitch
Joe	McCulloch	Operations Manager	District of Sicamous
Bruce	McFarlane	Regional Water Engineer	MFLNRORD
Neil	Menard	Mayor	City of Merritt
Dwayne	Meredith	Project Manager, Water Resources	KWL Consulting Engineers

<b>First</b>	<b>Last</b>	<b>Title</b>	<b>Organization</b>
Larry	Morgan	Director, Electoral Area F	Columbia Shuswap Regional District
Cait	Murphy	Program Assistant, Youth	FBC
Steve	Newton	Regional Manager	Emergency Management BC
Dave	Nordquist	Manager, Title and Rights, TUS, Special Projects	Adams Lake Indian Band
Diana	Norgaard	Councillor	City of Merritt
Sean	O'Flaherty	Corporate Officer/Planner	Village of Chase
Wilfred	Paul	Water Operator	Cook's Ferry Indian Band
Kayla	Pepper	Regional Manager	Emergency Management BC
Tim	Perepolkin	Manager of Public Works	Village of Chase
Mark	Phillpotts	Ecosystems Biologist	MFLNRORD
Jan	Polderman	Councillor	Village of Lytton
Jessy	Rajan	Consultant	Consultant
Steve	Rice	Director, Electoral Area I Blue Sky Country	Thompson-Nicola Regional District
Mel	Rothenburger	Director, Electoral Area P Rivers and the Peaks	Thompson-Nicola Regional District
Regina	Sadilkova	Director of Development Services	Thompson-Nicola Regional District
Carol	Schaffer	Director, Electoral Area A Wells Gray Country	Thompson-Nicola Regional District
Jesal	Shah	Director, Disaster Mitigation Branch	EMBC
Sarah	Simon	Flood Safety Engineer	MFLNRORD
Mike	Simpson	Senior Regional Manager	FBC
Arjun	Singh	TNRD Director, City of Kamloops Councillor	Thompson-Nicola Regional District
Alison	Slater	Executive Director	Southern Interior Local Government Association
Huntley	Smith	Councillor	Village of Lytton
Mike	Smith	Fire Chief/Roads, Fleet & Equipment Manager	District of Clearwater
Lee	Spahan	Chief	Coldwater
Ron	Storie	Director of Community Services	Thompson-Nicola Regional District
Derek	Sutherland	Protective Services Team Leader	Columbia Shuswap Regional District
Josie	Symonds	Ecosystems Biologist	MFLNRORD
John	ter Borg	Manager, Planning and Engineering	Tk'emlups te Secwepemc
Jan	Thingsted	Planner	Columbia Shuswap Regional District
Tracy	Thomas	Assistant Regional Manager	FBC
Erin	Vieira	Associate Regional Manager	FBC
Margo	Wagner	Chair	Cariboo Regional District

## Appendix 2 – Agenda



Fraser Basin Council

**Thompson Watershed Disaster Mitigation  
Community to Community Forum**  
**10:00AM-3:00PM, Wednesday February 14, 2018**  
**Sandman Signature Hotel, 225 Lorne St., Kamloops**

### Meeting objectives:

- Initiate the Thompson Watershed Disaster Mitigation Risk Assessment project
- Bring together elected officials and staff from local, provincial and First Nations governments to build relationships and share technical knowledge and resources
- Strike an advisory committee to oversee the flood and land/debris flow risk assessment

### Invited Participants:

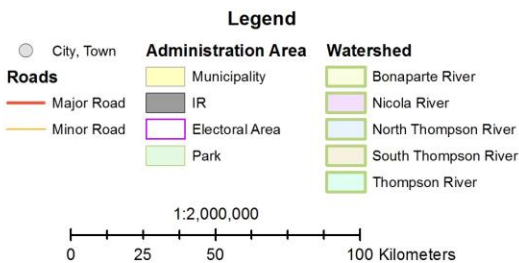
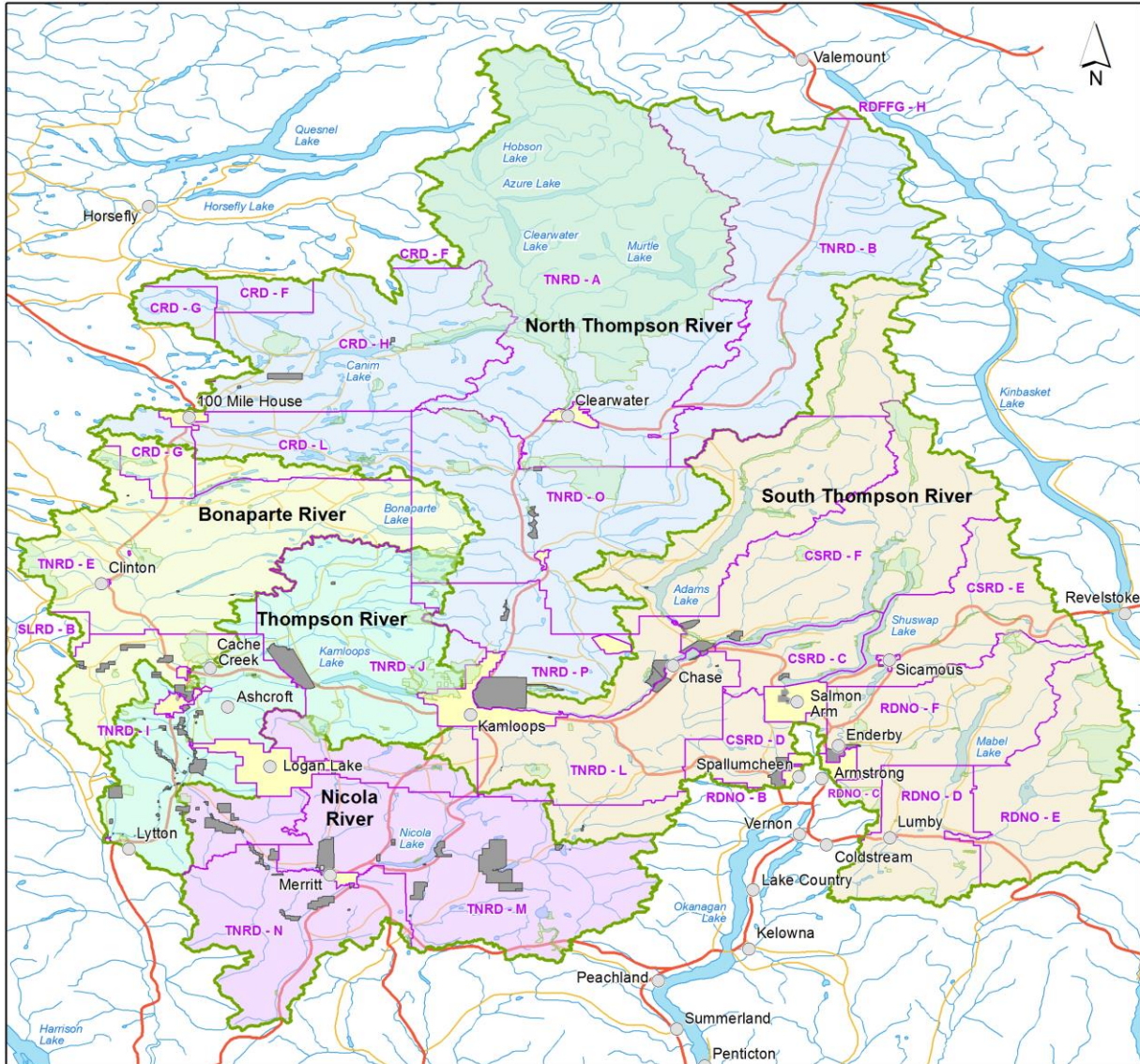
- Elected leaders and emergency management or planning/development staff from 48 First Nations and local governments in the Thompson watershed
- Provincial government - Ministry of Forests, Lands, Natural Resource Operations and Rural Development (MFLNRORD), Emergency Management BC (EMBC)
- Federal government - Indigenous Services Canada

Time	Topic	Format or Who
9:30AM	Doors open, coffee available, registration, networking	-
10:00AM	Welcome, introductions	Tk'emlups te Secwepemc, City of Kamloops
10:20AM	Review agenda, objectives	Mike Simpson, Fraser Basin Council
10:30AM	The project - National Disaster Mitigation Program Stream 1 Risk Assessment	Mike Simpson
10:45AM	Emergency Management BC and Disaster Mitigation	Jesal Shah, Director, Disaster Mitigation Branch, EMBC
11:00AM	Keynote - climate change adaptation, future flood risk and debris flows	Dwayne Meredith, Project Manager - Water Resources, KWL Consulting Engineers
12:00PM	Lunch	
1:00PM	Watershed-level discussions (North Thompson, South Thompson, Thompson, Bonaparte, Nicola) <ul style="list-style-type: none"> <li>▪ 2017 (or recent) flood impacts, values</li> <li>▪ What's already complete, or underway</li> <li>▪ What are areas of priority for risk assessment</li> </ul>	Small groups, review maps, capture ideas
2:15PM	Coffee break	
2:30PM	Next steps <ul style="list-style-type: none"> <li>▪ Advisory Committee formation</li> <li>▪ Request for proposals</li> </ul>	Mike Simpson
2:45PM	Evaluation	Participants
3:00PM	Adjourn	-



## Appendix 3 – Map

# Jurisdictions within the Thompson Watershed



The Secwepemc, Nlaka'pamux, Syilx and St'at'imc nations assert title and rights over different portions of the Thompson Watershed

**Regional District Abbreviation Key**

CRD—Cariboo Regional District  
 FVRD—Fraser Valley Regional District  
 RDCK—Regional District of Central Kootenay  
 CSRD—Columbia Shuswap Regional District  
 RDNO—Regional District of North Okanagan  
 RDOS—Regional District of Okanagan Similkameen  
 SLRD—Squamish-Lillooet Regional District  
 TNRD—Thompson Nicola Regional District



## **Appendix 4 – Watershed-level Discussion Input**

### Entire Southern Interior

- Indigenous and Northern Affairs Canada commissioned flood hazard assessments for all Indian Reserves circa 2000; FBC has paper reports of these
- Forest licensees and BC Timber Sales have completed numerous watershed assessments over the years; no requirement to share results however

### South Thompson watershed:

- City of Enderby completed a Hazard Risk and Vulnerability Assessment in 2006, and floodplain mapping in 2012
- Past geotechnical reports for Columbia Shuswap Regional District Area C, and Swansea Point (Mara Lake)
- Sicamous recently completed a hydrological connectivity report
- Chase – studies and assessments of Chase Creek were done in 1990s and early 2000s; a source of sediment
- Village of Lumby currently has funds for floodplain mapping (tendered in Sept 2017)
- Columbia Shuswap Regional District currently has funds for a landslide risk assessment in the Sunnybrae area
- Sicamous has applied for funding for flood mitigation in Sicamous channel
- Adams Lake Indian Band is currently doing climate modelling for Salmon River, Chase Creek and other areas
- Regional District of North Okanagan – recently applied for funds for structural mitigation upgrades on Shuswap R, Harris Cr, Duteau Creek; ongoing concerns with Ashton Creek flooding and erosion, and lower Gardom Creek
- Priority areas include: Ashton Creek, Gardom Creek, Burton Creek and others in RDNO that need to be cleaned out; Mabel Lake; Anglemont landslide assessment; Swansea Point, Hummingbird Creek for debris flows and flood; Ross Creek; Eagle Bay; Salmon River; Chase Creek; and various orphan dikes that likely need maintenance

### North Thompson watershed:

- Flood and/or floodplain maps are old (assumed 1970s)
- Wells Gray Community Forest completed a watershed assessment in 2016 on Russell, Hascheak and McDougall watersheds, which are above District of Clearwater's water intake system
- Clearwater experienced floods in 1972, dikes were built during the flood, and haven't been maintained since
- Tk'emlups te Secwepemc completed a risk assessment on Paul Lake dam in recent past
- Irrigation dam at outlet of Heffley Lake
- 2017 wildfires near Canim Lake, mitigation planning underway
- Clearwater plans to apply for funds for a stormwater management plan
- Thompson-Nicola Regional District has a North Thompson official community plan currently being prepared/updated
- Portion of Tk'emlups te Secwepemc had flood plain mapped as part of City of Kamloops in 2004
- Priority areas include valley bottoms where people live, farmland and critical infrastructure including but not limited to: Heffley Creek; Sinmax Creek; Louis Creek; Paul Lake and Paul Creek; Pinantan Lake; Dixon Creek; within Clearwater the flats below Russell-Hascheak-McDougall watersheds and School Creek; Birch Island (concerns about ice jam backups); Hwy 5 north of Little Fort where it's very flat and adjacent to the North Thompson River;

bridges with abutments in the middle of rivers; lower part of Barriere River; concerns about blockages in the Clearwater River that would eventually blow out; Clearwater Valley road (single road in/out, it's washed out before); and Lemeiux Creek near Little Fort (could impact Hwy 24).

#### Thompson Watershed:

- City of Kamloops updated floodplain maps in 2004
- Many small municipalities have some form of hazard risk vulnerability assessment, but not very current flood or floodplain mapping
- Major industries such as BC Hydro, Teck Highland Valley Copper, and Trans Mountain pipeline may have relevant reports
- Tk'emlups te Secwepemc has recently applied for funding to rip-rap creeks
- Numerous dikes in municipal areas, notably Kamloops and Ashcroft, and orphaned dikes north of Ashcroft, along the South Thompson River
- Kamloops – North Thompson River, overrun catchment basins on the top of Westsyde that “weren’t able to function with the amount of water they got in 2017”
- INAC has a program to upgrade and devolve dams to First Nations underway
- Priority areas include the dry belt (wet belt areas can absorb more impacts); areas impacted by wildfires; Shuswap Road (Tk'emlups te Secwepemc reserve lands, to the east) is facing bank erosion; Cherry Creek; Kamloops Lake; Savona; Oak Hills that flooded in 1972; upper elevation areas with high equivalent clearcut areas; railways; highways and bridges; winter ice jams; back roads from Spence’s Bridge to Ashcroft; debris pile ups and sediment buildup in-river at mouth of Nicola River at Spence’s Bridge; heavy rain events in Kamloops (2014 flash flooding);

#### Bonaparte Watershed

- Approximately 40% of watershed burned in Elephant Hill wildfire in 2017; recovery planning underway with MFLNRORD and Secwepemc First Nations
- Province contracted a consultant (fall 2017) and provided finding of reports with an HRVA component.
  - Bonaparte watershed was considered at risk
  - Bonaparte watershed will be able to expect higher summer rainfall events
  - Much of the soil is hydrophobic post fires
  - No floodplain mapping available to date.
- Bonaparte Indian Band completed Phase 1 assessment Bonaparte Indian Band (2001); funding submission in place for follow up; 2004 Assessment ACRES by FN Emergency services
- Cache Creek has secured funding of \$150,000 from province for flood mapping studies; not started to date; community level HRVA completed; combination of first responders in the regional district (does not include engineers or external professionals)
- West Fraser Mills is currently conducting a watershed assessment for Bonaparte and Deadman watershed (possibly required)
- Priority areas are those affected by wildfire; interest in ecological restoration from Bonaparte Indian Band; Department of Fisheries and Oceans engaged on salmon habitat impacts

#### Nicola Watershed

- Diking exists on Kingsvale Road, on Coldwater Reserve #1,
- Nooaitch completed hydrological study in 2015
- Provincial government operates dam at outlet of Nicola Lake

- Lower Nicola Indian Band operates Mammit Lake dam
- Fish weir exists in Voght Park, City of Merritt
- City of Merritt completed aquifer study in past, old floodplain maps exist, and information was collected using LIDAR in 2016
- Water storage studies completed for Coldwater River
- Current work underway includes Nooaitch has funds for flood mitigation planning, groundwater mapping and budget work underway (FBC); Thompson-Nicola Regional District is assessing options to manage Stump Lake levels;
- Priority areas include the following (many were impacted by 2017 floods): Stump Lake (all time high right now; it flooded in 2017); Hwy 8 parallel to Nicola River; Douglas Lake Ranch feedlot and run off into Douglas Lake; Merritt wastewater treatment plant affected by floods; integrity of Voght Street bridge and Nicola Ave. bridge in Merritt; tributaries that intersect with roads, in particular Kwingshatin Creek, a tributary to Coldwater River on Coldwater Reserve #1; Guichon Creek (severely eroded in 2017 floods); erosion of clay banks of Nicola mainstem; Nooaitch IR #10; Shackelly Creek; Nuuaitch Creek; KVR Railway Bridges (at risk due to 2017 flood event / existing erosion. Railway bridge down by Dot Ranch a listed concern in Nooaitch 2016 Hydrological study, was impacted during the 2017 flood event); Nooaitch IR #9; Spius Creek confluence with the Nicola River (very dynamic area); Prospect Creek Road 22km (slide event in 2016/17); Shackan Indian Band IR; UNIB Indian Band IRs; Upper Nicola River; Douglas Lake; Mill Creek (TransMtn pipeline was impacted at risk due to 2017 flood event, the pipe was exposed and larger debris was coming down Mill Creek at high velocity. Emergency mitigation was required); Highway 5A adjacent to Nicola Lake; Mameet Lake Dam (Lower Nicola Indian Band completed emergency works in 2017 floods); Helmer Dam (impacted by 2017 flood; a major risk to City of Merritt if it breaches); Coldwater IR; Highway 5, adjacent to the Coldwater River; entirety of the existing TransMountain pipeline routing
- A significant issue discussed in the Nicola is addressing fish habitat and integrity of riparian areas and ecosystem function, in addition to flood risks; and acknowledging that the Nicola watershed regularly experiences drought and the impacts on fish, ecosystems and the agriculture sector. So rather than just addressing flood and debris flows, how do we improve the overall health of the watershed for fisheries, water quantity for multiple values.
- Forestry licensees are reviewing their forest stewardship plans; main concerns include watershed assessments concluded including methodology and cumulative disturbance rates. A Fisheries Sensitive GAR order is proposed for the Coldwater and Spius Creek