

**WEBINAR:**  
**Clearing the  
way for safer  
winter driving**



# Introducing today's partners and presenters



**Neil Domonkos**

Fleet Equipment Trainer

City of Kelowna



# Introducing today's partners and presenters



**Chris Cowley**

General Manager

Mainroad - Northern Vancouver Island



# Presenters from Road Safety At Work



**Angelina Robinson**  
**Client Relationship**  
**Manager**



**Rick Walters**  
**Road Safety**  
**Manager**

# Overview

- How crews do their work: priorities, practices and challenges
- How you can use that information to plan safer winter driving
- Tips you can use for preparing for winter driving
- Tools and resources
- Questions, answers and discussion

# BC highway maintenance

- 28 service areas
- 10 to 15-year contracts
- 12 contractors



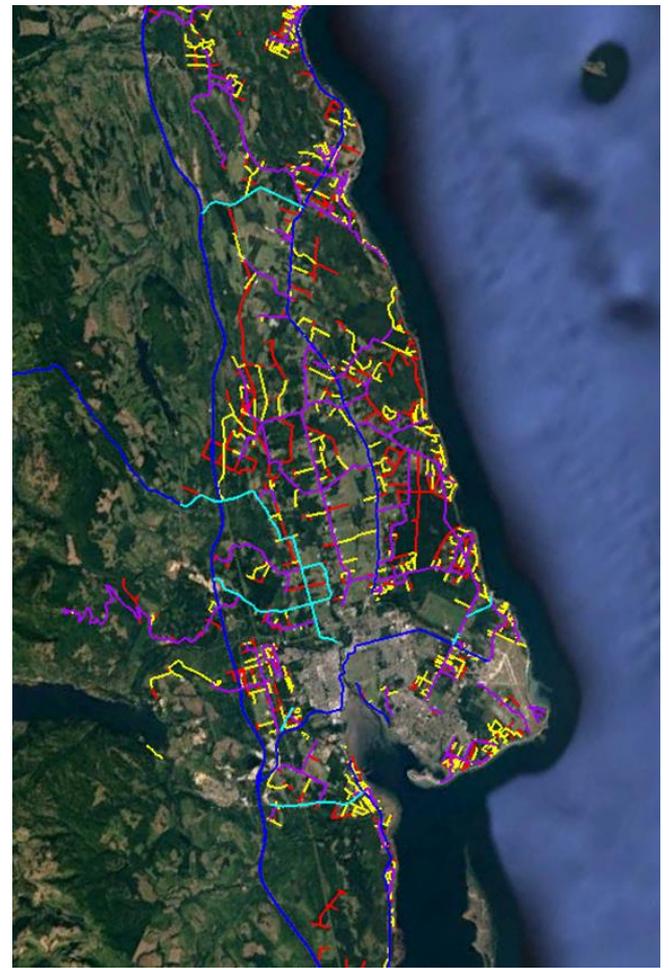
# Disclaimer

- Approach Mainroad applies to its service areas
  - SA2 – Mid Vancouver Island
  - SA3 – North Vancouver Island
  - SA6 – Lower Mainland
  - SA11 – East Kootenays
- Each contractor will use slightly different approach, methods
- Our perspective may not be representative of all contract areas or contractors in British Columbia



# BC road classification

- A** generally highways
- B, C** busy roads or bus routes
- D** “rural side roads”
- E** receive minimal maintenance
- F** unmaintained



# Provincial contract specifications

- specifications are provincial
- priorities based on road classifications (A-F)
- operations often intersect with municipalities

Performance Criteria	Response by Highway Classification				
	A	B	C	D	E
a) Bare lanes when the pavement temperature is -9°C or warmer	24 h	36 h	48 h	n/a	n/a

# Provincial contract specifications

Performance Criteria	Response by Highway Classification				
	A	B	C	D	E
a) Maintain thickness of the Compact surface no greater than 40 mm	48 h	48 h	48 h	3 d	n/a
b) Remove pot-hole in Compact exceeding 25 mm depth and averaging more than 1 per 25 metres of Highway	24 h	24 h	48 h	7 d	n/a
c) Remove rutting in Compact exceeding 25 mm in depth	72 h	72 h	4 d	7 d	n/a

# Provincial contract specifications

## **PM3.01.2-1** Remove Winter Accumulations from Travelled Lanes as follows:

Performance Criteria	Maximum Winter Accumulations Response by Highway Classification				
	A	B	C	D	E
a) One lane each direction	4 cm	6 cm	10 cm	15 cm	25 cm
b) Second lane	8 cm	10 cm	n/a	n/a	n/a
c) All other lanes including brake checks, chain up/off areas and any other vehicle accessible portions within the Right-of-...	12 cm	16 cm	20 cm	20 cm	n/a

# Taking action: pre-treatments

- **brine** or **crystal salt**, other methods
- applied based on weather forecasts
- part of specifications
- goal: prevent the bond of snow and ice to asphalt



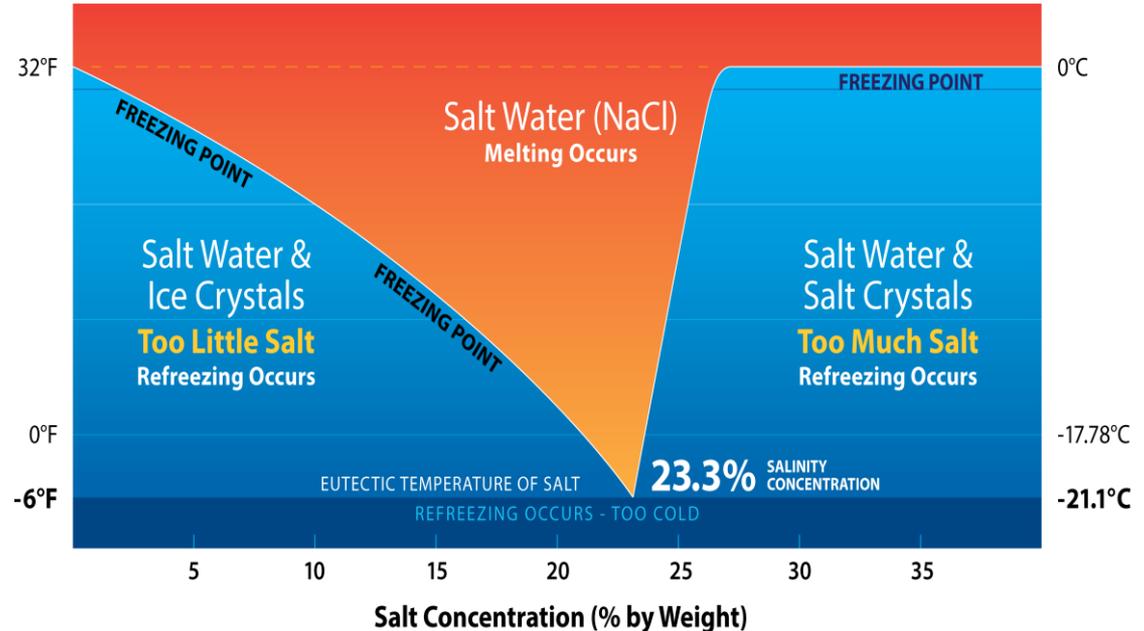
# Benefits of brine

- 23% salinity
- eliminates *bounce and scatter*
- brine stays on the road
- cover more roads in shift:  
fast application speed, shorter cycle
- accurate application as salt is  
activated with water



# How brine and salt work

- Salt prevents freezing when **mixed** with water
- Best freeze protection at 23.3% solution
- Above 23.3%: freeze protection decreases quickly



Data courtesy of the Federal Highway Administration (FHWA)

# Snow removal

- Many configurations: front-mount, underbody, wings, tow plows
- Effectiveness based on truck cycle times, snowfall rate



# Compact snow

- Heavy snow + cold temps = compact snow
- May maintain traction with sand if temperature below -9
- Need favourable conditions to clear compact snow
- Hazards during process!



# Black ice

**If you had to scrape windshield, you need to look for black ice.**

- Beware black ice risks on clear days
- Despite pre-treatments, bridge decks, shaded areas still freeze
- Road temp lower than air temp: moisture or light rain freezes



# Practical limitations

- Severe storms
- Repeated storms: reset priorities
- Heavy winds – trees on road
- Powerlines down – BC Hydro
- Abandoned vehicles on the road



# Tips to help you and the plow truck

- Never pass plow truck on right
- Don't assume operator sees you
- Difficult to see where truck and blade start / stop
- Operators will pull over when safe
- They want to get home safe, too



The road ahead is always worse than the road behind a plow truck.

# Tips for drivers

- Know before you go: check [DriveBC](#)
- Clear snow from vehicle, including roof
- Use 4 matched winter tires
- Always drive to conditions
- Allow enough travel time to safely get there
- Report bad conditions to local contractor
- Winter driving education: SM - TranBC, Shift into Winter; **share it.**



# Contractor contact info

Search: “BC Highway Maintenance Contacts”

Service Area 3 - North Vancouver Island (Courtenay)

*Mainroad North Island Contracting LP*

1 877 215-7122

Website: [mainroad.ca/our-companies/mainroad-north-island-contracting-lp](http://mainroad.ca/our-companies/mainroad-north-island-contracting-lp)

Twitter: [@MainroadNIsland](https://twitter.com/MainroadNIsland)

Facebook: [@MainroadNIsland](https://www.facebook.com/MainroadNIsland)

Instagram: [@mainroadgroup](https://www.instagram.com/mainroadgroup)

YouTube: [Mainroad Group](https://www.youtube.com/MainroadGroup)

Email: [northisland@mainroad.ca](mailto:northisland@mainroad.ca)

Ministry contact:

Courtenay Area Office - 250 334-6951



# Questions

# A municipal perspective – Neil Domonkos



# The roads we maintain

- 1700 lane km's of municipal roadway
- 805 cul de sacs
- 21 winter routes



# Our priorities



- Priority 1** Arterial and major collector roads
  - Cleared within **8 hours** of end of storm
- Priority 2** School zones, bus routes, emergency stations, hills >5% grade
  - Cleared within **12 hours** of end of storm
- Priority 3** Residential streets and alleys used for sole access
  - Cleared within **48 hours** of end of storm
- Priority 4** Alleyways - Cleared as time permits



# Our equipment resources

- 23 City of Kelowna trucks
  - 17 heavy duty trucks
  - 6 pickups, 1-ton
- 3 road graders
- 2 front end loaders
- 6 contracted plow trucks



# Our human resources

- Personnel / shifts added for winter
- Staff, contractors as needed - storms
- Weekend standby shift
- 6 RWIS stations: monitor road & weather conditions, report to foreman 7 days / week
- Communication with staff, fire halls, emergency services



# Truck and grader plowing: how we work

- Employees, contractors assigned routes at start of season
- As snow begins, drivers start on assigned routes
- During storms, drivers focus on priority roads
- Continues 24/7 until done



# 3 things to remember about snowplowing

1. Drivers work from center of roadway to the curb.
2. Snow can only be pushed to the right
3. Cul-de-sacs are a big challenge



# Sand or salt?

- Proactive anti-icing when conditions favorable
- Forecast: >70% chance of precipitation, temps above -10
- 2 anti-icing routes cover most priority 1 & 2 roads, 2 trucks
- Reactive use of sand: hills, corners, intersections, crosswalks



# How we stay safe

1. Snow & Ice driver **training**
2. Pre-Trip Inspection **training**
3. Corporate Winter Tire Guideline
  - Heavy trucks: siped lug type tire with 50%+ tread depth
  - Light vehicles: winter tires with 50%+ tread depth
4. Employees, supervisors re-schedule tasks when conditions hazardous



# Snow and ice awareness campaign

- Member of the **Winter Driving Safety Alliance**
- Annual winter driving safety **awareness campaign**
- Internal network challenge staff: **Winter Driving Safety Quiz**
- 200+ staff participated; prizes donated by vendors, WDSA members
- **Geo-fencing partnership** - spread safe winter driving messages



# Help keep your staff safe

- Visit [shiftintowinter.ca](https://www.shiftintowinter.ca)
- Before you head out, check [drivebc.ca](https://www.drivebc.ca)
- Plan trips using a travel window
- Don't pressure driver
- Be patient; take your time
- Equip your vehicle for winter driving
- Have policies and procedures your staff can rely on



## Do your part

- During storms, use off-street parking
- If amber lights flashing, stay clear
- Always use caution and courtesy
- Never pass a plow on the right
- Be patient. Work proceeds according to priority, may take up to 2 days to clear some areas
- If you see a hazard, report it to your city's service request line



# Questions

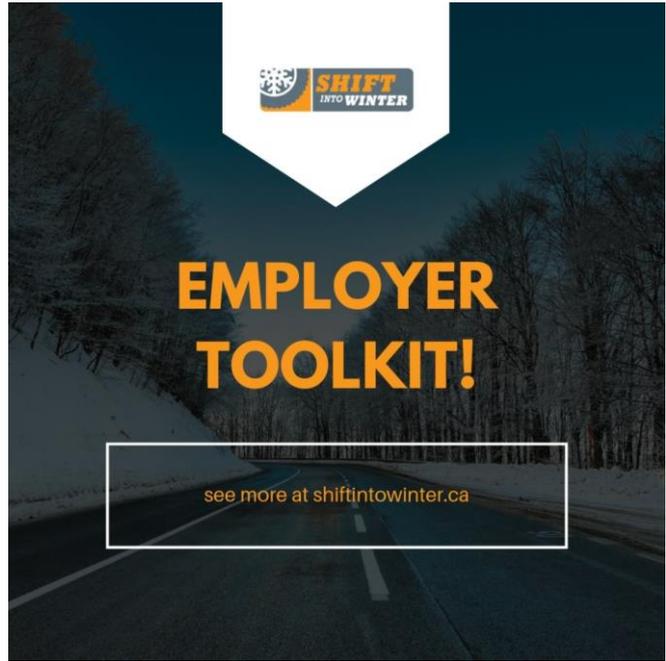
# Resources to help you be prepared

- Support advice Neil and Chris provided
- Preparation is key
- Make time *before* winter to plan, make arrangements
- Communicate as winter begins
- Lots of winter driving ahead, great time to refresh / remind



# Get ready before winter arrives

- Review last winter's results
  - Frequent issues, situations associated with incidents?
- Review your winter driving safety policy
  - What's working, what's not?
  - What's new or different this winter?
- Winter driving safety policy template



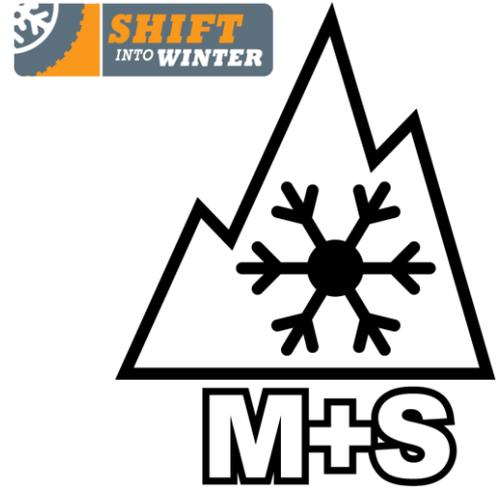
# Are your drivers ready?

- Start the conversation in early fall
- What training will employees need?
  - In-house or external?
- Shift Into Winter resources
  - Online courses, webinars
  - Tailgate meeting guides



# Are your vehicles ready?

- Winter tires
  - comply with requirements
  - develop and implement guidance
- Beat the rush, avoid frustrated plans, workers
- Schedule pre-winter maintenance
- Don't forget employee-owned vehicles used for work



# Planning safer trips

- Journey management works in winter, too
- Avoid unnecessary winter trips
- When driving is necessary, solid *trip plans* address 3 elements
  1. driver
  2. vehicle
  3. journey

## Tool Kit

### Journey Management and Trip Planning

Driving for work may be one of the most dangerous things your employees do. Journey management can help reduce the risks.

## Tool

### TripCheck

TripCheck is a step-by-step planning tool to help you reduce the risks associated with driving for work.

## Form

### Basic Trip Plan Form

Not every trip is necessary. Have supervisors and drivers use this form to confirm they've considered alternatives to driving, and have planned for the safest trip possible.

## Form

### Risk-Rated Trip Plan Form

How much does a crash truly cost your organization? Use this tool to help calculate your bills for everything from replacing injured workers to fixing vehicles to investigating the crash.

## Handout

### TripCheck offline customizable form

Journey management helps you decide when travel is necessary, and how to make it as safe as possible. Customize this checklist document and have drivers complete it before each trip.

## Handout

### TripCheck offline form

Journey management helps you decide when travel is necessary, and how to make it as safe as possible. Have drivers complete this PDF checklist before each trip.

## Handout

### Using Employee Owned Vehicles for Work Procedure Template

Employers are responsible for the safety of employees who drive a personal vehicle for work. Customize this template to create a policy for the use of employee vehicles.

## Online Course

### Building an Effective Journey Management Process Online Course

See how you can use journey management to minimize driving-related hazards. You'll understand how to plan for employee safety when they have to drive.

## Template

### Check-in Procedures Template

Keeping in contact with drivers helps ensure their safety. Customize this template to create procedures for regular check-ins while they're on the road.

## Template

### Journey Management Policy Template

Journey management can help ensure all driving is necessary and as safe as possible. Customize this template to create procedures driver can follow to plan their trips.

# Reducing journey-related risks

Clear decision criteria –  
*no-go or safe to go?*

Know before you go –  
DriveBC, weather  
forecasts, road reports

Consider the trip there  
AND back

Scheduling flexibility

Incorporate what you  
now know about road  
maintenance priorities  
and practices

# Check-in process

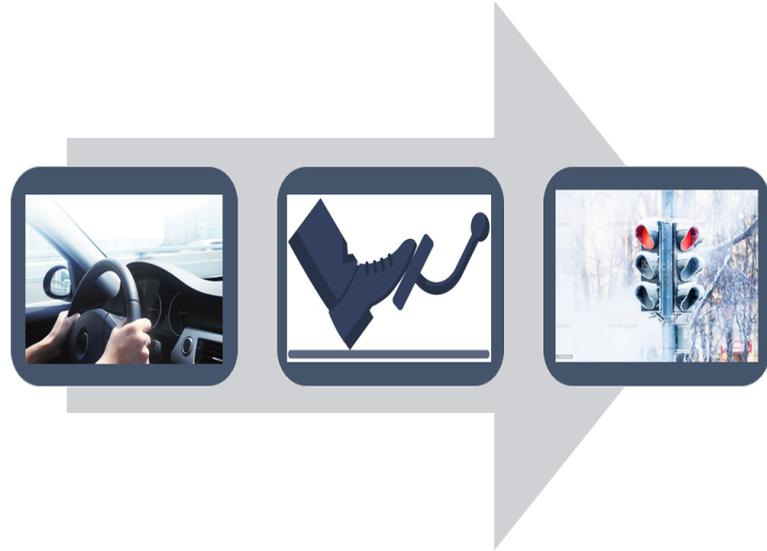
- Reliable way to verify driver is safe during trip
- Pre-set schedule
- Activate response measures if check-in missed
- See [Road Safety At Work](#) for more
- TripCheck



# When you're on the road

Planning and prep essential, but *how you drive* is ultimate determinant

1. Adjust your driving to match the conditions
2. Increase following distance to 4 seconds
3. Use smooth and patient driving maneuvers
4. Incorporate what you've learned from Chris and Neil



# Resources



SIW Employer  
tool kit



Vehicle  
Emergency Kit



Stopping  
distances fact  
sheet



TripCheck



Winter driving  
planning calendar



Winter driving  
survival checklist



Online course –  
Winter driving  
safety



DriveBC



Sample winter  
driving policy for  
workplaces

# Questions

# Contact us with your questions



[Contact Neil Domonkos,  
City of Kelowna](#)



[Contact Chris Cowley,  
Mainroad](#)



[Contact Rick Walters](#)



[Contact Angelina Robinson](#)



*Hover over titles for link to email addresses*

# Thank you

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