

PREPARATION FOR INSPECTION AND INSPECTION SAFETY

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0

Inspection Safety

- Occupational Health & Safety Act
 - high rigging
 - scaffold & swing stages
 - crane safety and rigging
 - confined spaces
 - working over water
 - working alone



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1

Inspection Safety (Continued)

- General Safety Issues
 - use proper equipment
 - park in a safe location
 - avoid unnecessary risk
 - assume all electrical is live
 - do not wear chest waders in fast moving water
 - use caution on ice
 - do not enter confined spaces
 - un-even ground
 - slippery culverts
 - fast flowing water
 - 3-point contact on bridgerails
 - inspect facing traffic – be alert
 - Working alone. Use the check-in procedure – test it!!

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2

2

Inspection Safety (Continued)

- Traffic Safety
 - If possible, schedule during low-traffic flow
 - Inform road authority
 - Park vehicles in a safe location completely off the driving surface
 - If not possible due to snow, steep side slopes etc. than vehicle must be parked a minimum of 1.0 m from the outside edge of the shoulder.
 - If no safe parking is available, may have to find nearest driveway or field access and walk back to site.
 - Avoid parking in vicinity of blind corners or hills
 - Inspection vehicles must be equipped with a Cl. 1 or 2 amber LED light bar that remains for the duration of the inspection
 - A magnetic sign (24 x 15") or similar must be on the back of the inspector's vehicle stating "Bridge/Culvert Inspection in Process" at all times during the Level 1 Inspection.

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3

3

Inspection Safety (Continued)

- Wear high visibility vests (must be CSA Cl. 2 standard)
- Be efficient and follow a routine – don't cross back and forth in traffic unnecessarily
- Be alert – be safe. Always be aware of surroundings, particularly when working near an active roadway
- During Level 1.5 and Level 2 inspections over railways or navigated water obtain permission from Railway/Transport Canada. Ensure all their requirements are met if inspector or equipment is within their ROW

4



4

Personal Safety

- Personal Equipment
 - hard hat (as required)
 - proper footwear (non-slip soles)
 - hip waders
 - chest waders*
 - eye protection
 - warm clothing
 - extra clothing
- rain gear
- 1st aid kit
- bug spray
- bear spray
- snake bite kit
- safety harness – Level 2
- life jackets – Level 2
- cell phone, gps
- satellite communication device when working remotely

5



5

Basic Tools for Inspection

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| <ul style="list-style-type: none"> • BIM Manual • Reference Manual • Clip board and extra pencils • Camera • Long tape & steel weight • Short (5-8m) wide blade tape • Chipping hammer • Prism pole or similar sturdy device for probing • Pocket knife | <ul style="list-style-type: none"> • Binoculars • Crack width gauge • Angle finder • Flashlight and headlamp c/w extra batteries • Marking crayons • Inspection mirror • Compass |
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6



6

Basic Tools for Inspection

- Surveyor hand level
- Regular hand level
- Wire brush/scrapper
- Plumb bob
- String line
- Measuring pole or laser measuring device
- Personal equipment
- Shovel
- Decontamination supplies (*discussed further with Whirling Disease*)

7



Inspection Equipment

Level 2

- portable ladders
 - base 1/4 of length from wall
 - do not work on top two rungs
 - base firm and non-slip
 - extension ladders proper overlap
- scaffold
 - anchor properly
 - design = 4X load
 - inspect daily
- safety harness – Level 2
 - adjust to fit
 - attach to fixed anchor
 - check prior to use
 - must be certified for use

8

8

Preparation for Inspection

- BIM Inspection Forms
 - order from BIS
 - carry blank forms
 - review previous inspections
- Bridge File Maps or AT Maps
 - shows bridge locations
 - GPS co-ordinates
 - plan route
 - set-up designated check-in person or system – test it!
- Bridge Inventory Information
 - use to confirm bridge characteristics
 - Inspection requirements
 - check bridge file number
 - update inventory during inspection
- Hazard Assessment
 - Complete a Field Level Risk Assessment prior to start of inspections.
 - A FLRA can represent multiple sites if hazards are similar

9

9

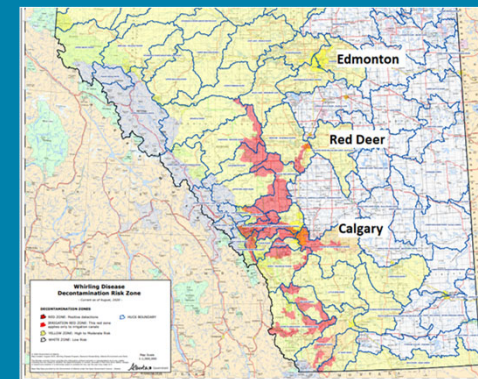
Whirling Disease

- Whirling disease is caused by a microscopic parasite of salmonid fish.
- This disease is not harmful to humans or other mammals but can have significant effects on some fish populations. It can be transmitted from infected locations to other water bodies:
 - through equipment used for swimming, paddling, boating, water pumping, and fishing
 - The movement of fish, mud, and water can potentially spread whirling disease.
- Basic Preventative Practices as outlined by Alberta Environment and Parks (AEP)
 - Clean
 - Drain
 - Dry

10

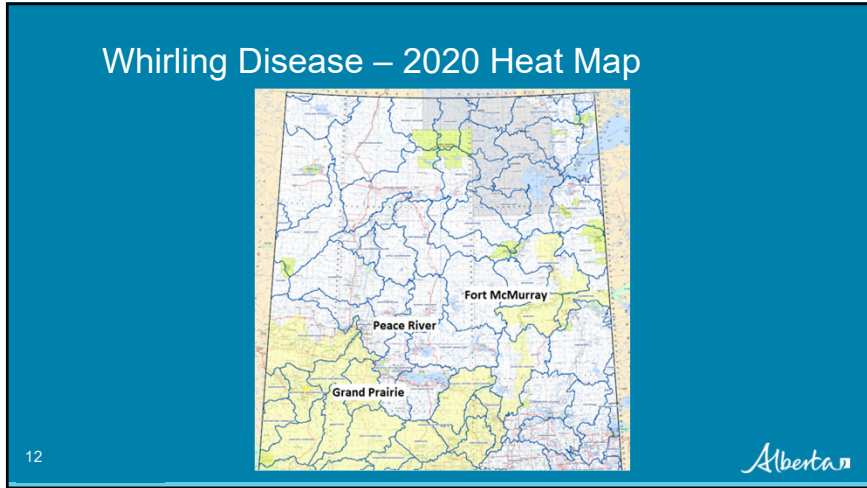
10

Whirling Disease – 2020 Heat Map



11

11



12

12

Whirling Disease

Decontamination Protocols as they apply to Bridge Inspection:

- Different levels of decontamination required depending on what zone you are working in.

WHITE ZONE PROTOCOLS	YELLOW ZONE PROTOCOLS	RED ZONE PROTOCOLS
Level 1: Streamside Clean, Drain, Dry	Level 1: Streamside Clean, Drain, Dry	Level 1: Streamside Clean, Drain, Dry
	Level 2: Streamside Clean, QUAT, Rinse	Level 2: Streamside Clean, QUAT, Rinse
		Level 3: Decontamination Hub Hot water treatment Secondary QUAT treatment

AEP has four useful documents on their website that inspectors are required to familiarize themselves with and adhere to:

- Decontamination Protocol - Watercraft & Equipment
- Decontamination Risk Map
- Decontamination Quick Reference Guide
- Decontamination Equipment List

<https://www.alberta.ca/whirling-disease.aspx>

13

Whirling Disease

- Zone (HUC6 boundary) is identified on BIM form in "Department Comments" area.
- Make appropriate preparations prior to inspections.
- Development of internal protocols is a requirement.

14

14

Questions?

15