



Taking Action

Protect Structures

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NWT
RIVERBANK EROSION
WORKSHOP 2025

DEC 2-4 | CHATEAU NOVA HOTEL | YELLOWKNIFE

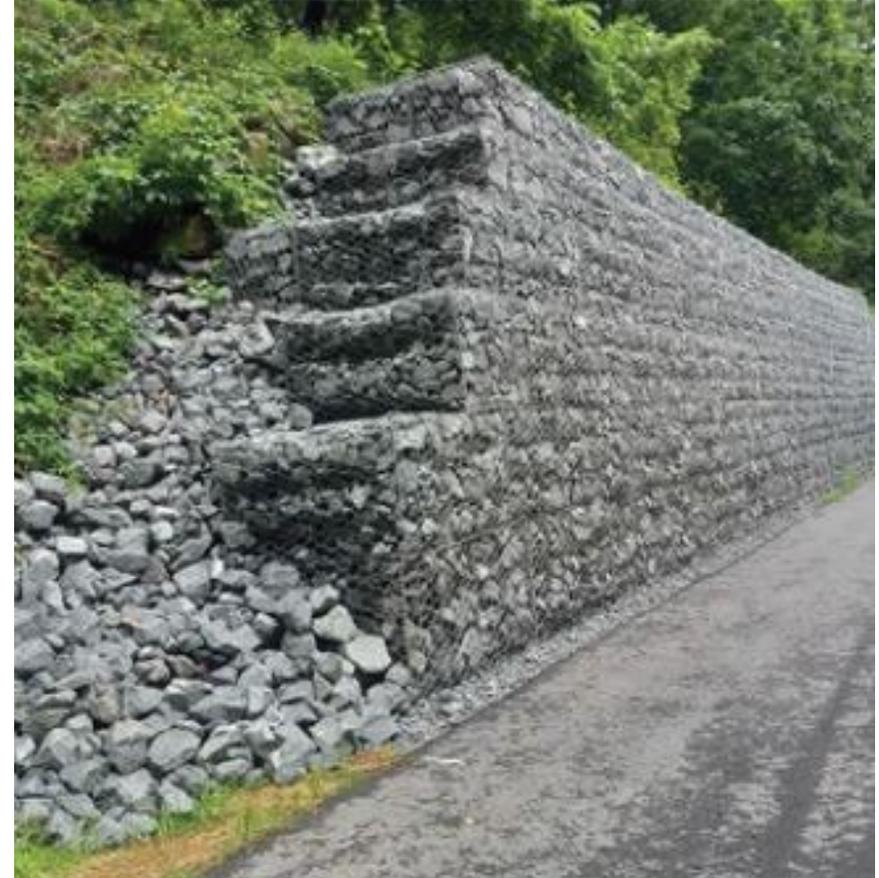
Setbacks and Slope Stability

- Already covered under “Giving the River Space”
- From engineering point of view, the ground is more stable the further you are away from the slope – imagine the slope is flatter
- May not be possible if infrastructure is already there, so...



Stabilizing the Slope

- Toe berm
- Flatten the slope
- Retaining wall
 - steel sheet pile wall
 - gabion baskets or “lok-blocks”
 - mechanically stabilized earth (MSE) walls
- Reinforcement (e.g., “soil nailing”)



Reinforce the Foundation

- Supplement the foundation – mat slab
- Stiffen the foundation – tension cables or beams
- Underpin a foundation



Some Thoughts on Protecting Permafrost

- Generally, an uphill battle
- Rock blanket
- Thermoprobes
- Air convection embankments (ACE embankments)
- Insulating materials – use with caution

