



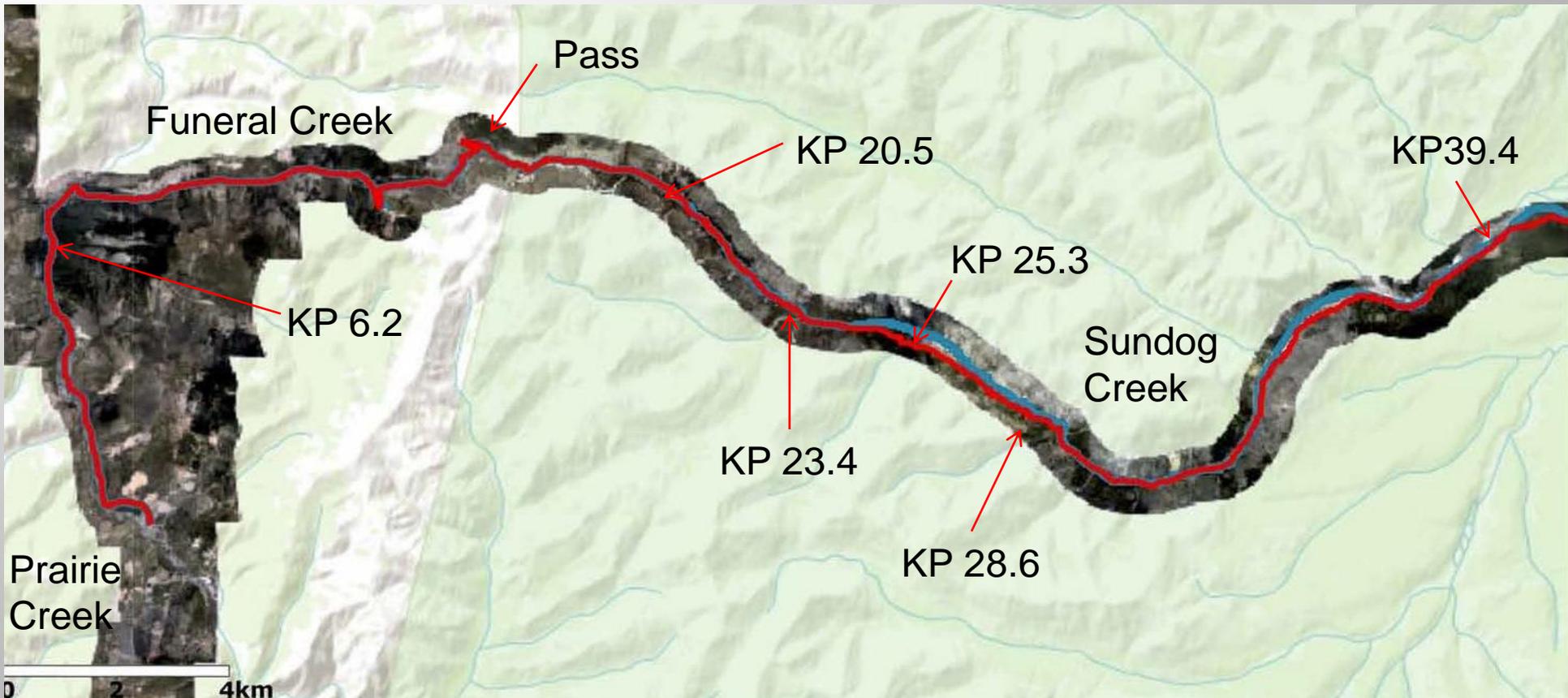
**PRAIRIE CREEK MINE
ALL SEASON ROAD
TECHNICAL SESSION
June 13-16, 2016**



Agenda

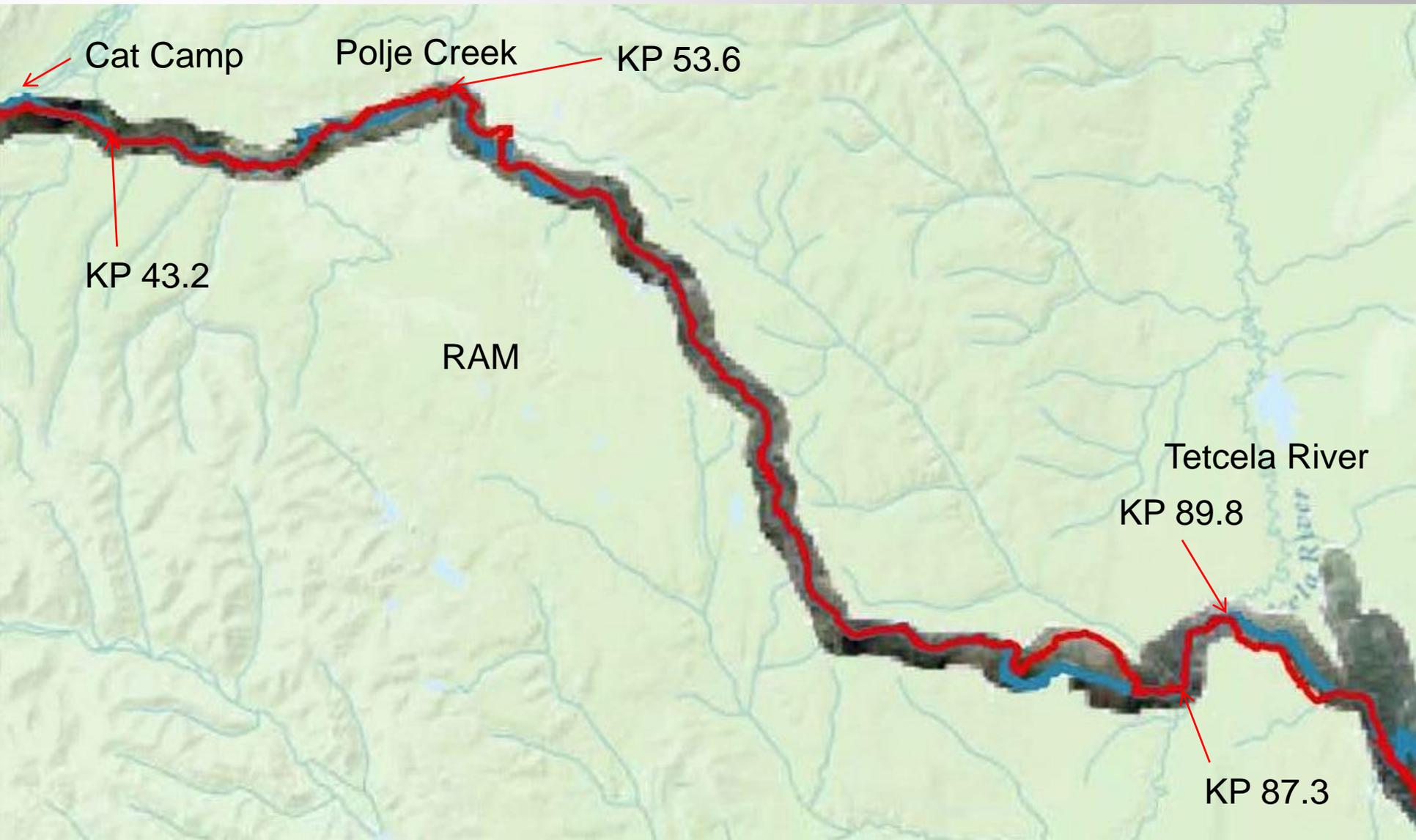
- Road Alignment and Major Watercourse Crossings
- Schedule and Timing of Road Construction
- Alignment Differences from Winter Road
- Alignment Changes since the DAR
- Other Infrastructure
- Schedule and Timing of Road Operation and Closure

Major Watercourses - Mountains

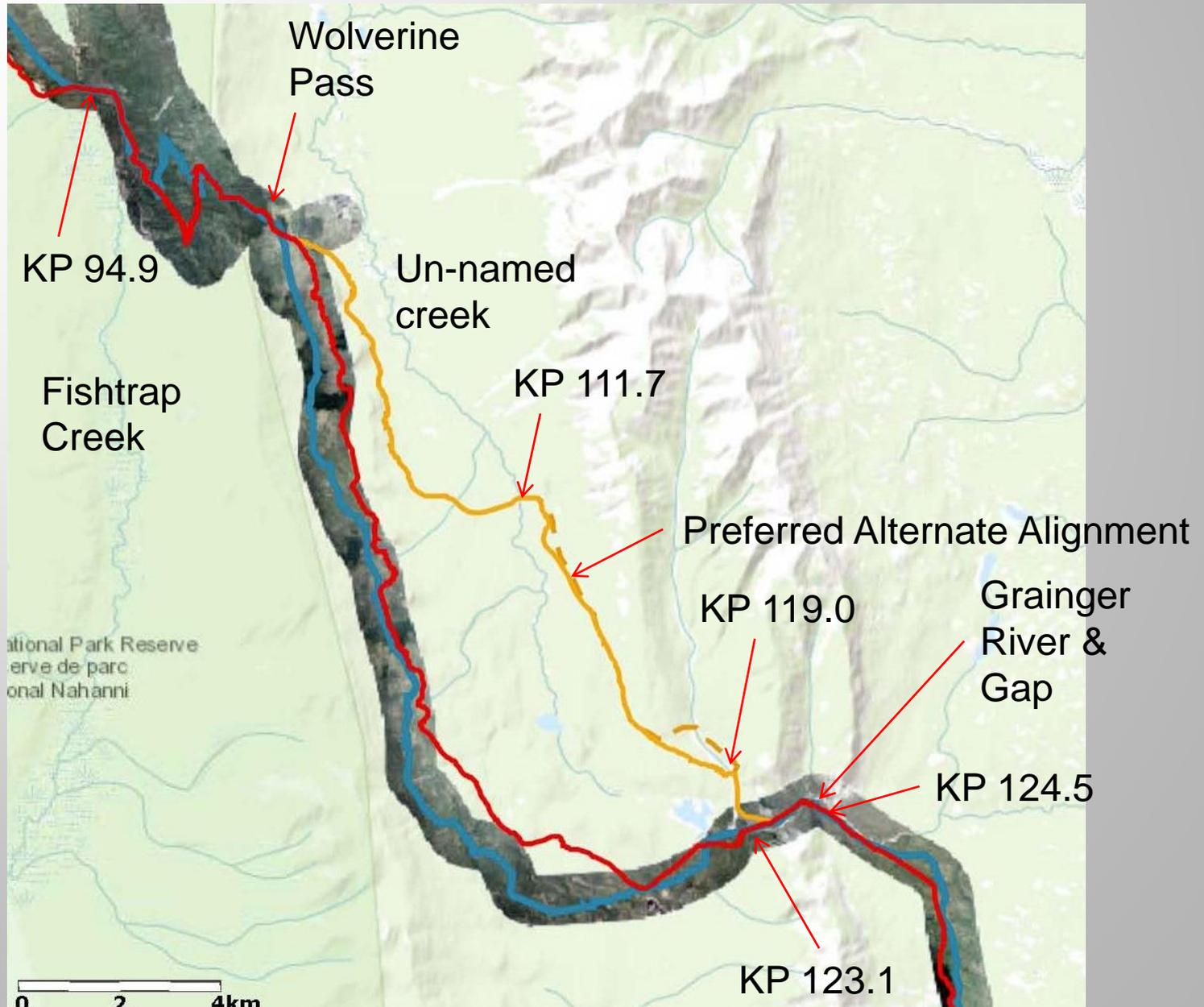


KP = Kilometre Point (KP 0 is the Mine)

Major Watercourses - Ram Plateau



Major Watercourses - Lowlands



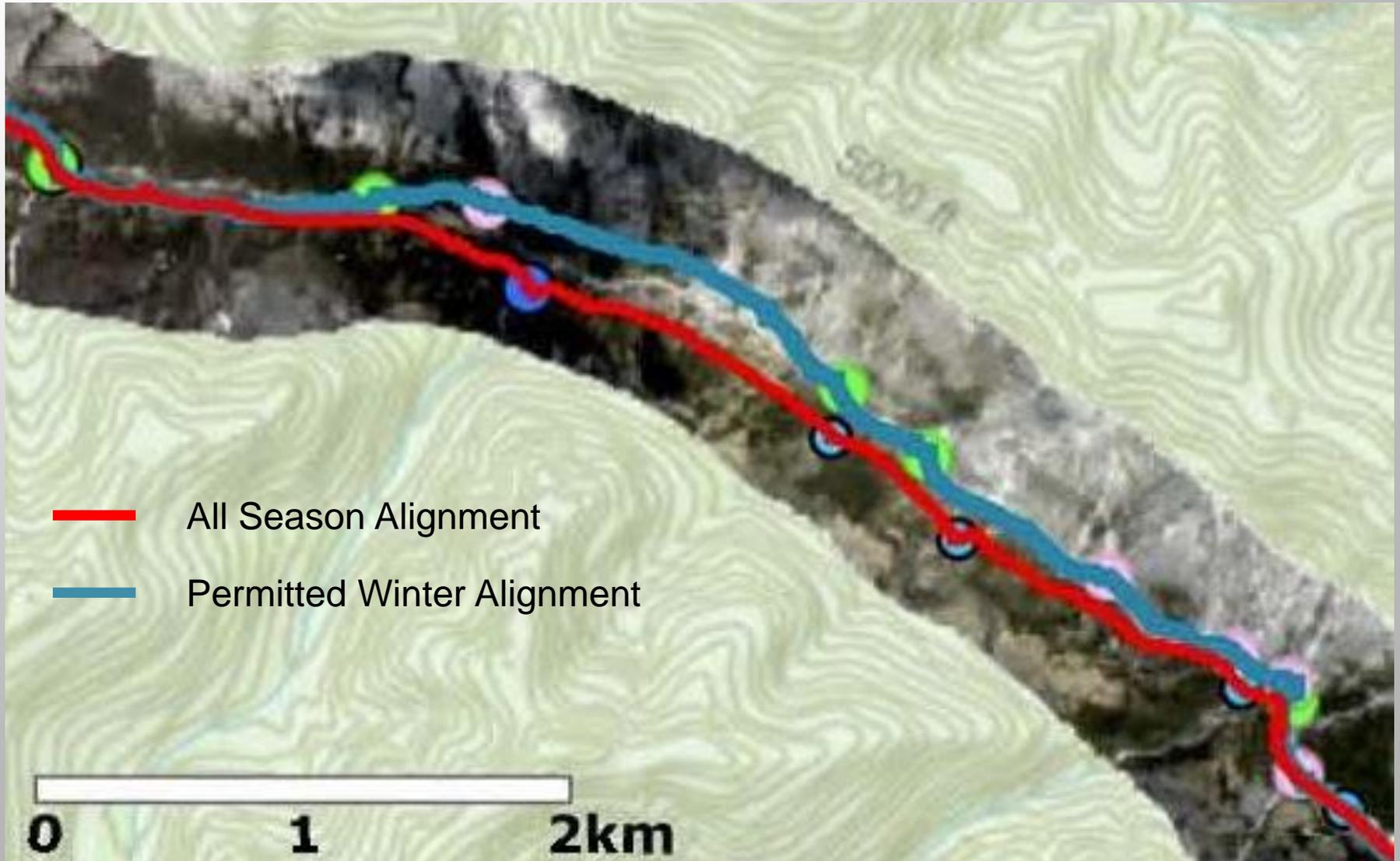
Schedule and Timing Road Construction

Year 1	Winter	Subgrade KP 174 to Liard R Liard R Ice Bridge, Barge Ramps Subgrade Liard R to Grainger G Surfacing KP 174 to Liard R Winter Road to Mine (Mine construction)
	Fall	Surfacing Liard R to Grainger G
Year 2	Winter	Liard R Ice Bridge Winter Road to Mine (equipment in) Subgrade Grainger G to KP 102 and KP 95-59 Install major crossings to KP 87

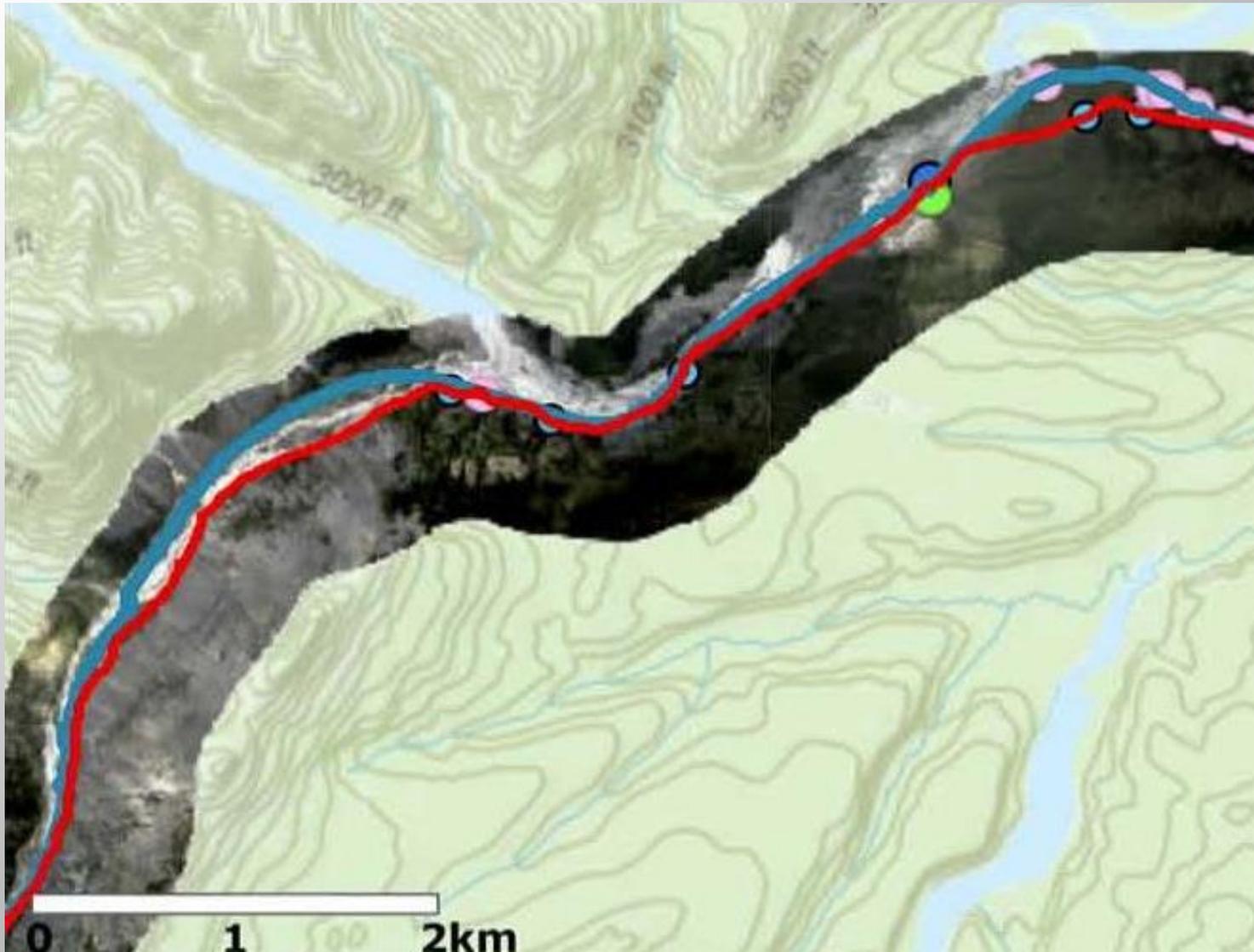
Schedule and Timing Construction

Year 2	Summer	Surfacing Grainger G to KP 102 Subgrade KP 28 to Mine, KP 102-95 Install KP 23.5 and 25.3 crossings
	Fall	Surfacing KP 102-86 Sundog Creek Realignment Mill Commissioning
Year 3	Winter	Liard R Ice Bridge Winter Road to Mine Subgrade KP 59-39 Install remaining major crossings
		Summer

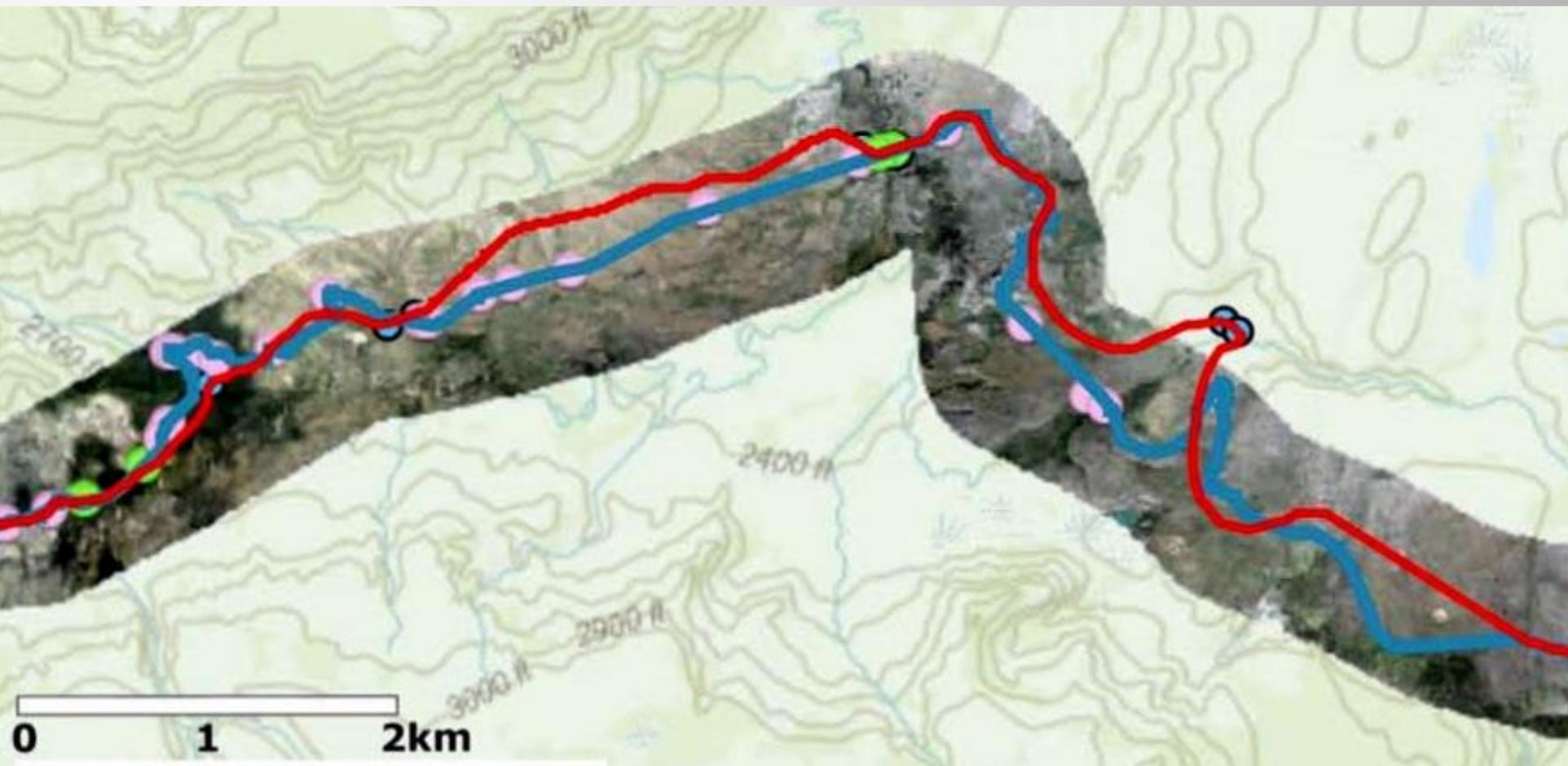
All Season vs Winter Upper Sundog KP24-29



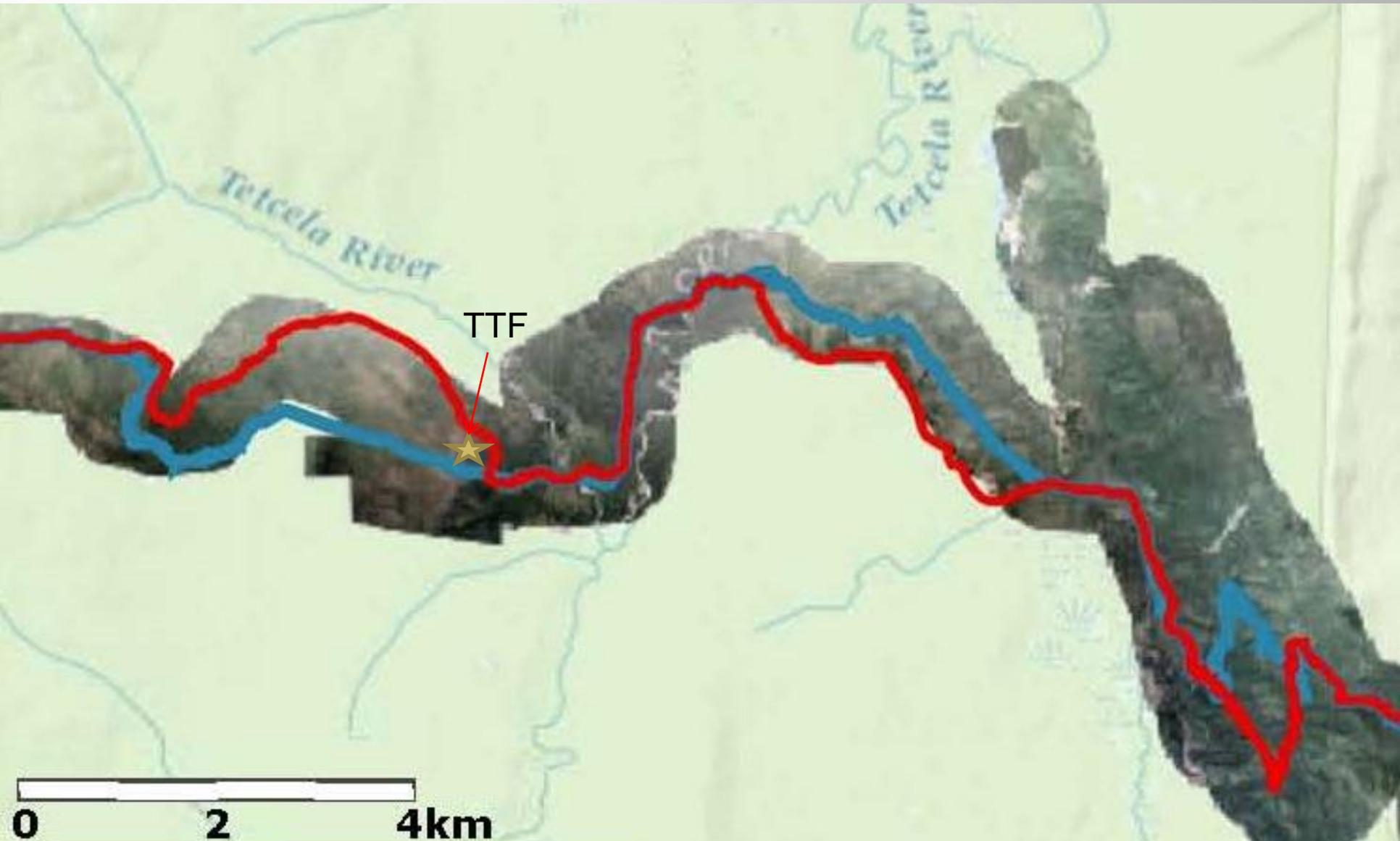
All Season vs Winter Lower Sundog KP 33-41



All Season vs Winter Polje and Ram, KP 48-59

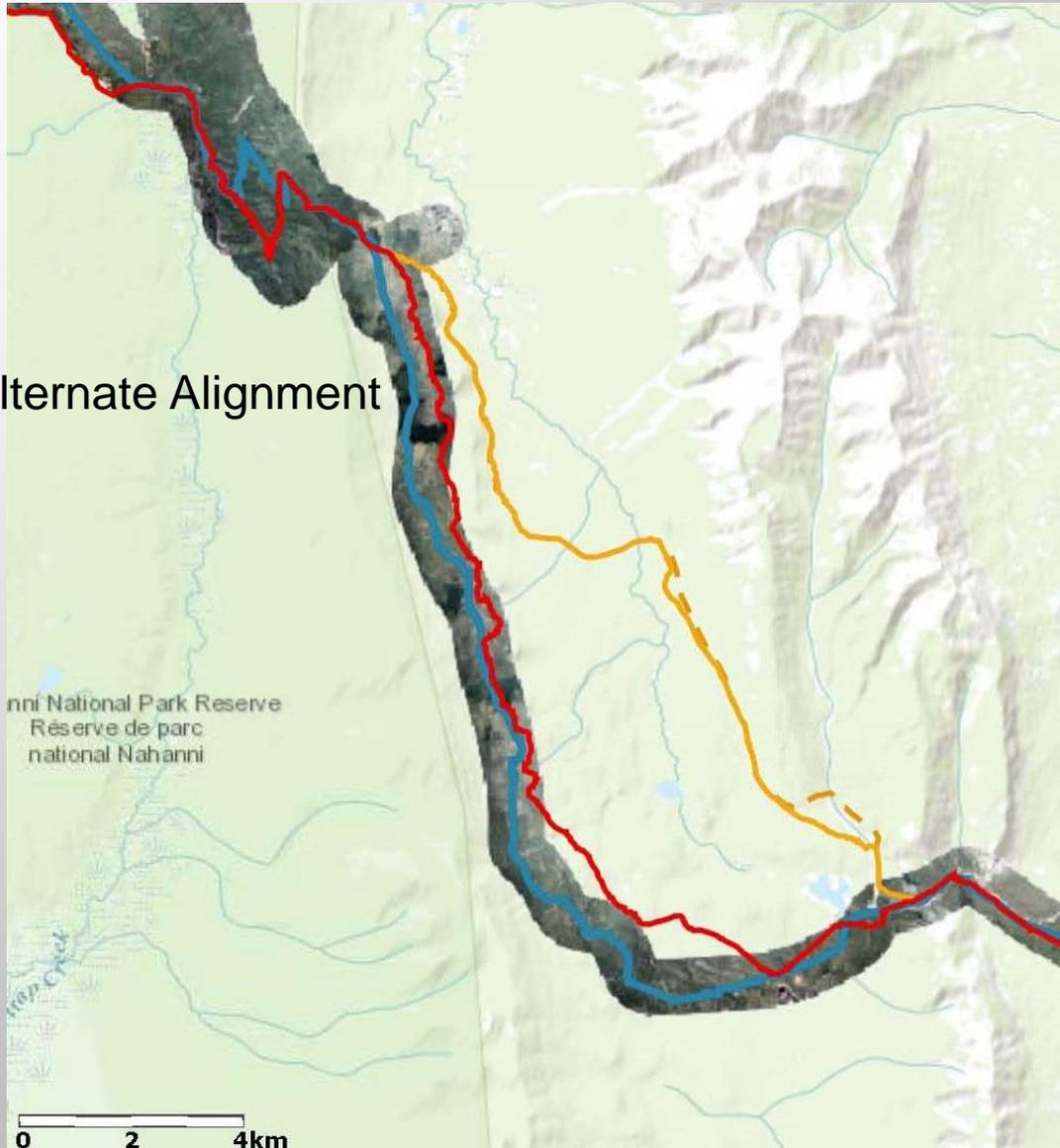


All Season vs Winter Tetcela and Silent Hills, KP 80-101

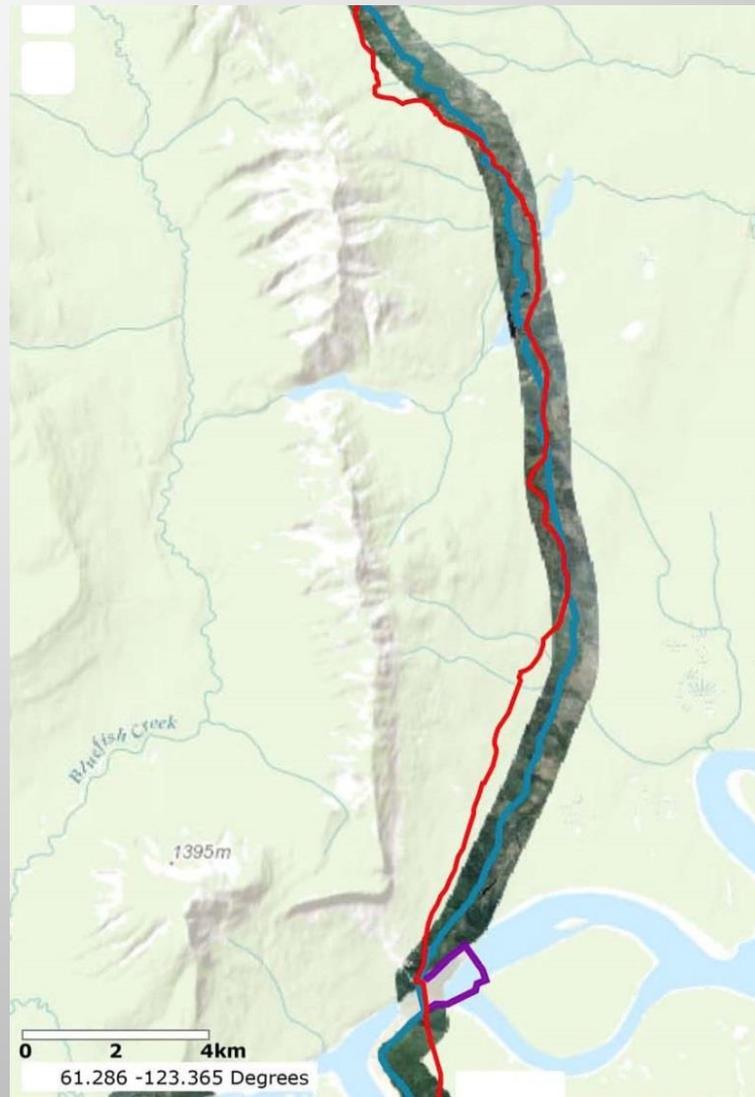


All Season vs Winter Silent Hills to Grainger Gap, KP 103-124

— Preferred Alternate Alignment



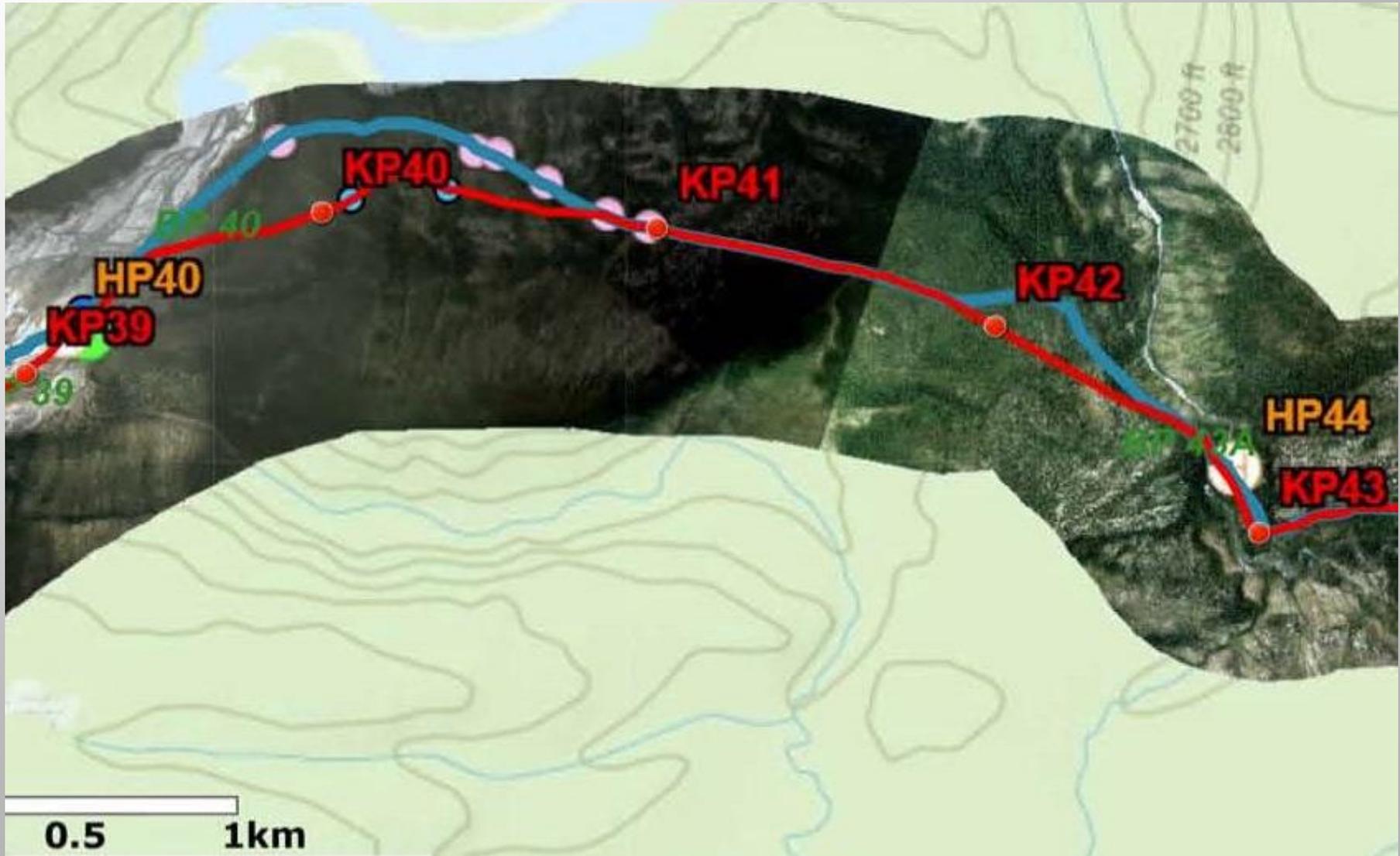
All Season vs Winter Nahanni Range, KP 134-163



Changes since the DAR KP 28.6 Crossing



Changes since the DAR KP 39-43



Changes since the DAR KP 53-59



Changes since the DAR Silent Hills to Grainger Gap, KP 103-124



Changes since the DAR Liard River proximity

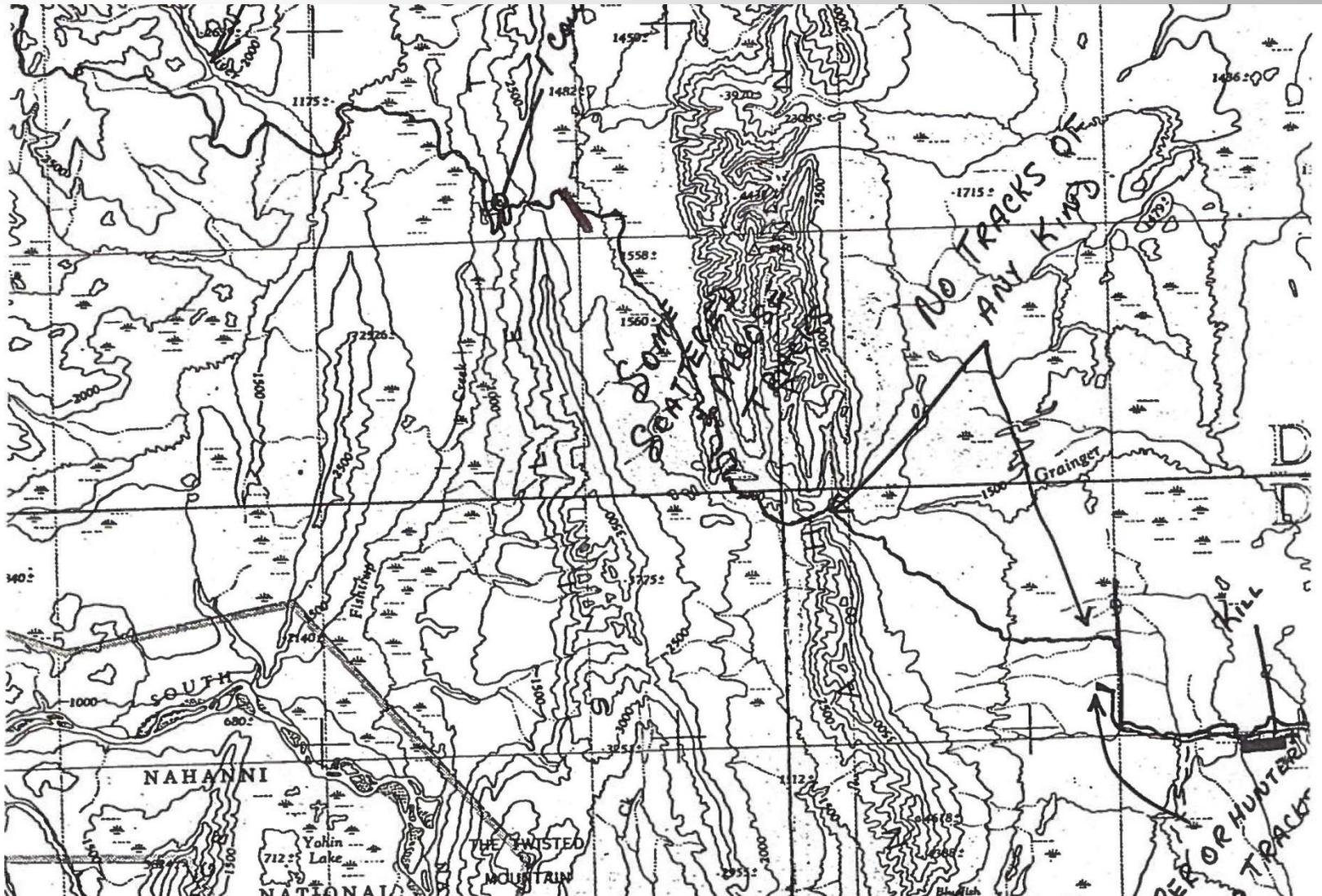


Infrastructure - Camps

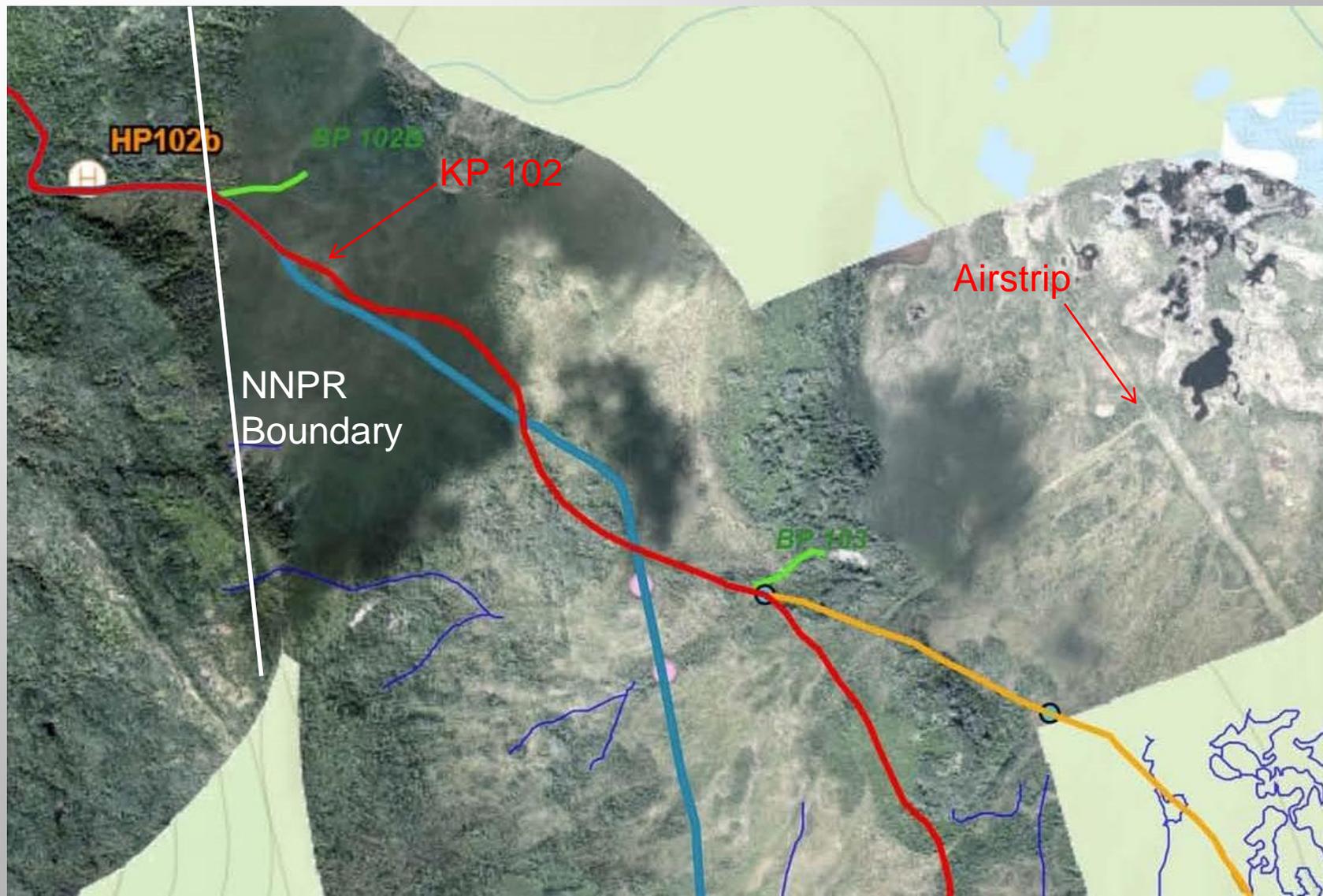
- KP 23.2
- KP 40 Cat Camp*
- KP 65
- KP 87, or Tetcela Transfer Facility (TTF)*
- KP 102 Wolverine Pass
- KP 124 Grainger Gap*
- KP 142.8
- KP 151 (alternate to KP 159)
- KP 159 Liard River

* Retain for Road Maintenance

Infrastructure Old Wolverine Airstrip



Infrastructure Wolverine Airstrip



Schedule and Timing Road Operations

Years 3-20

Mine Operations

Winter

Liard R Ice Bridge construction

Haul period Jan 1 - Mar 31

Spring

Break-up

Highway load restrictions

Summer

Liard R Barge operation

Haul period Jun 15 - Nov 4

Schedule and Timing Road Closure

Years 20-22 Mine Reclamation

Years 23-24 Period of road reclamation

Years 25-28 Period of Monitoring for runoff,
stability and revegetation

Monitoring intensity decreases
after Year 26

Major Watercourse Crossing Casket Creek KP 6.2



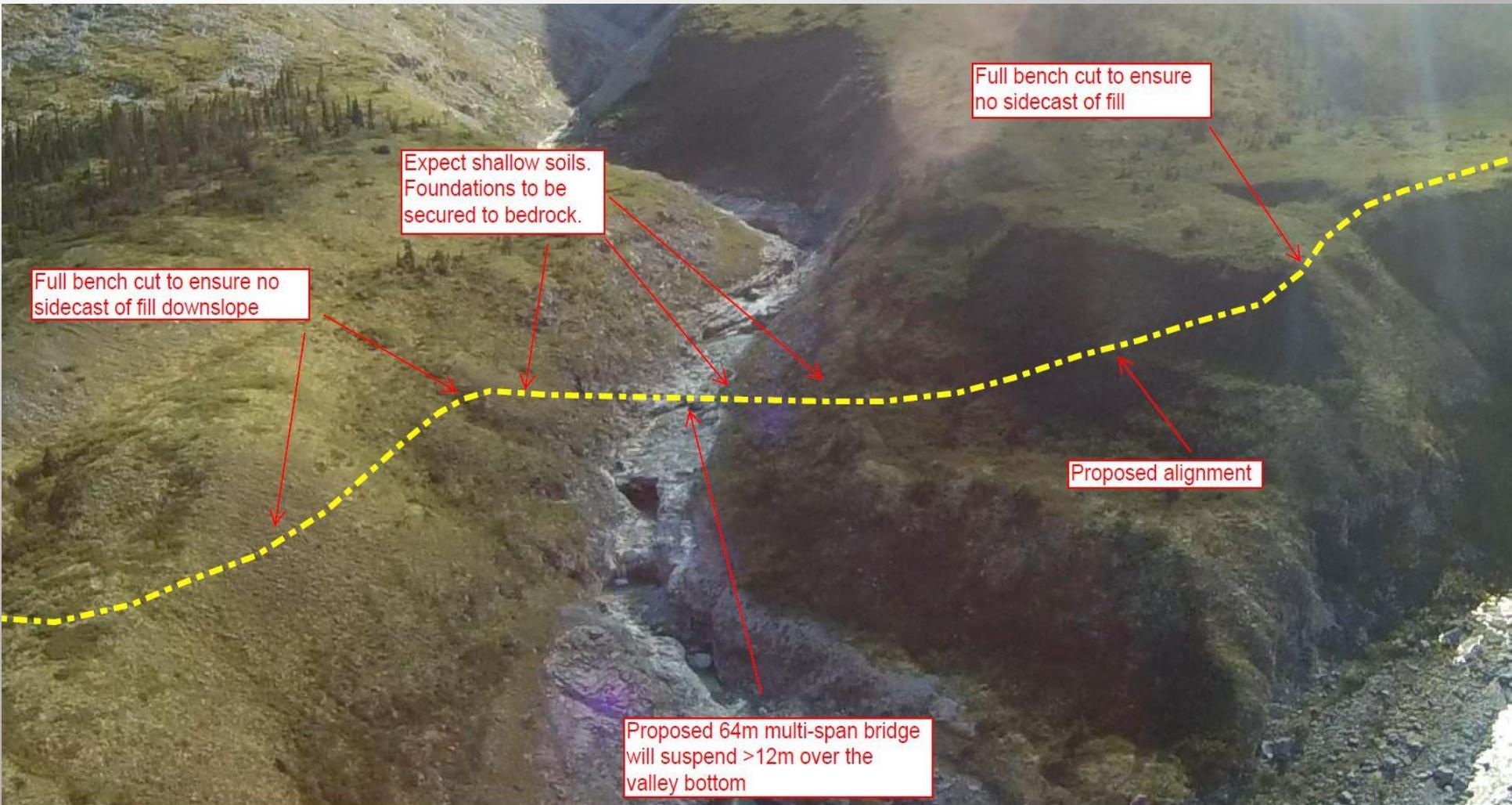
Major Watercourse Crossing Sundog Creek KP 20.5



Major Watercourse Crossing Sundog Creek KP 23.4



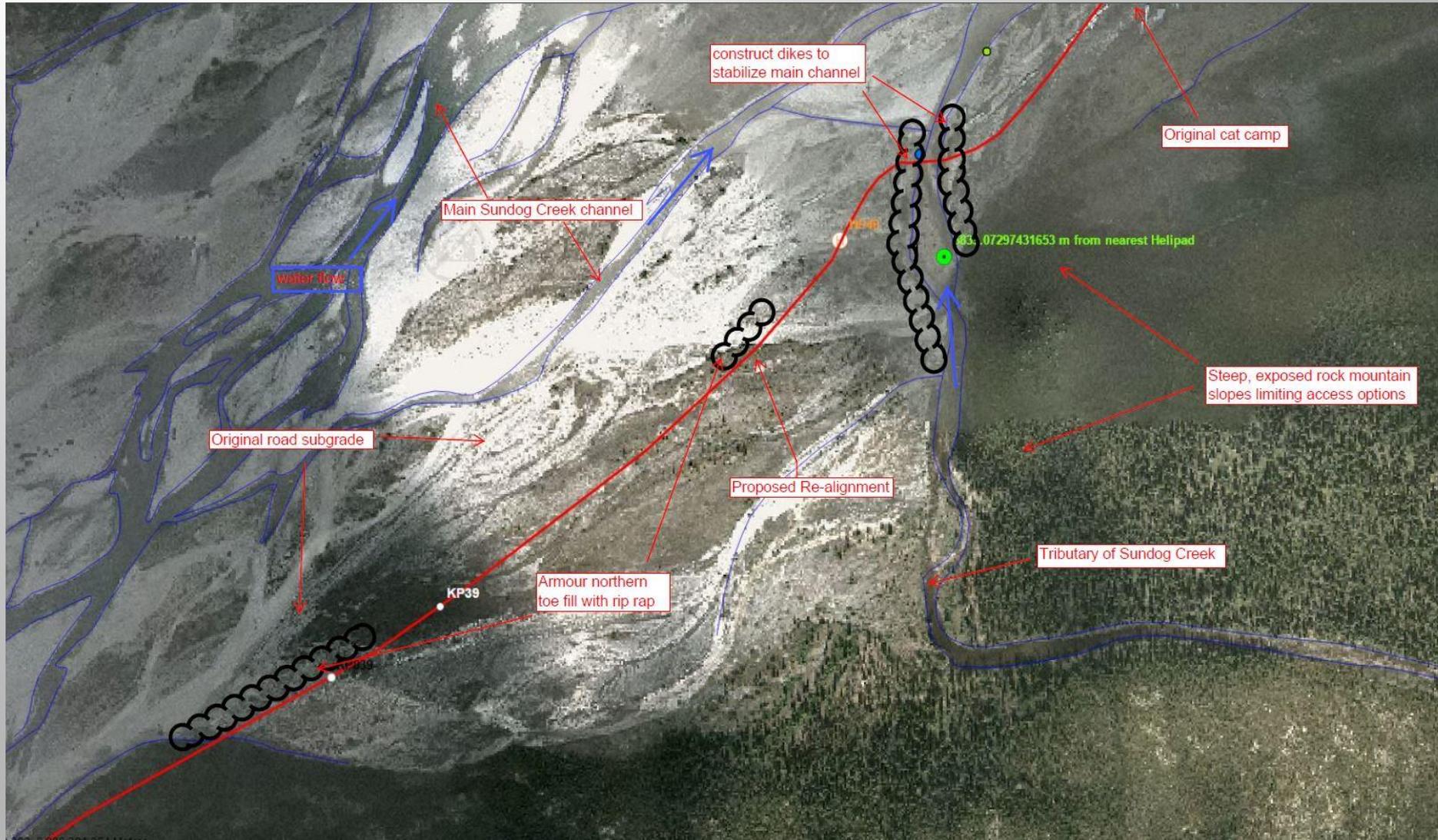
Major Watercourse Crossing Sundog Creek KP 25.3



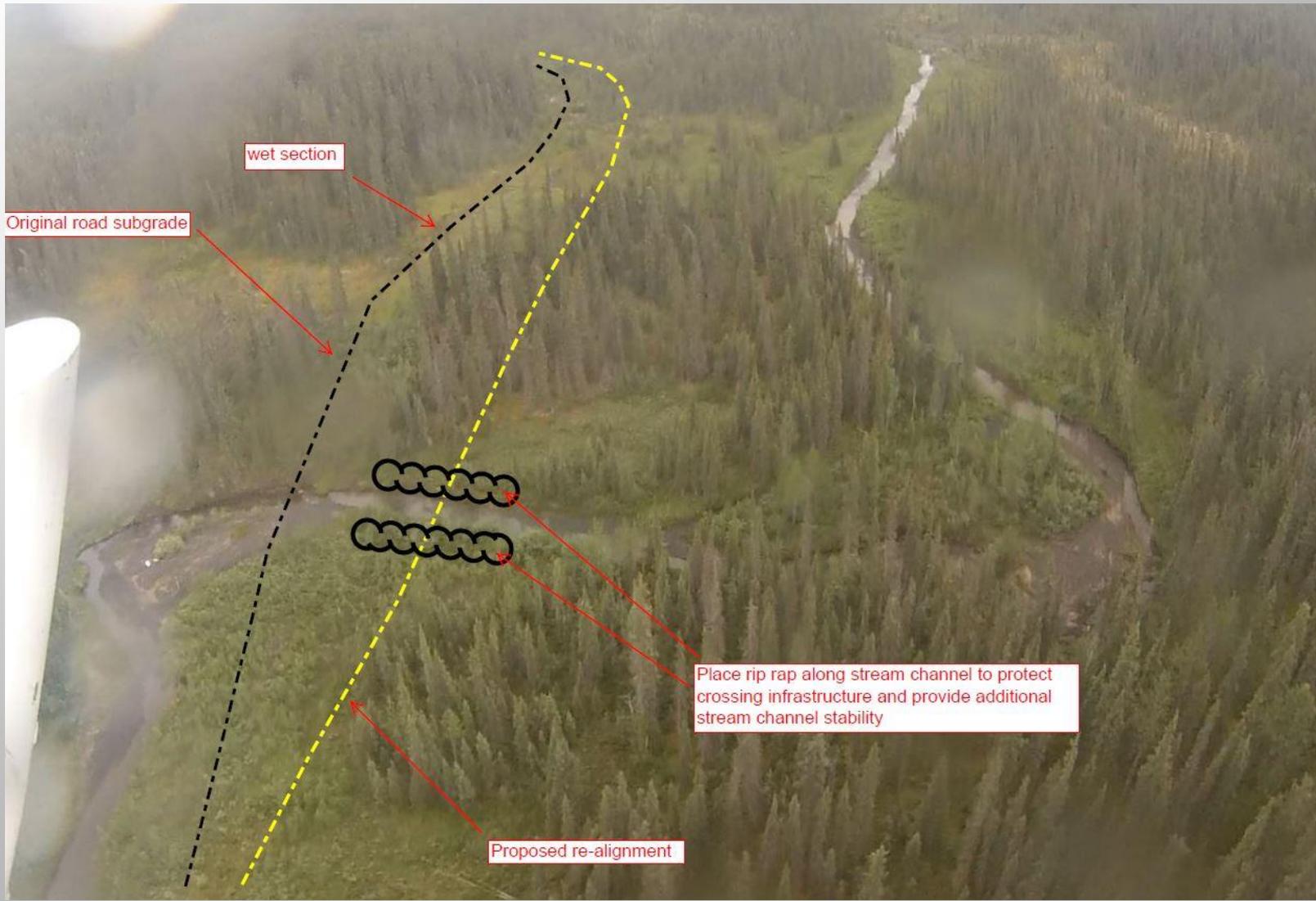
Major Watercourse Crossing Sundog Creek KP 28.6



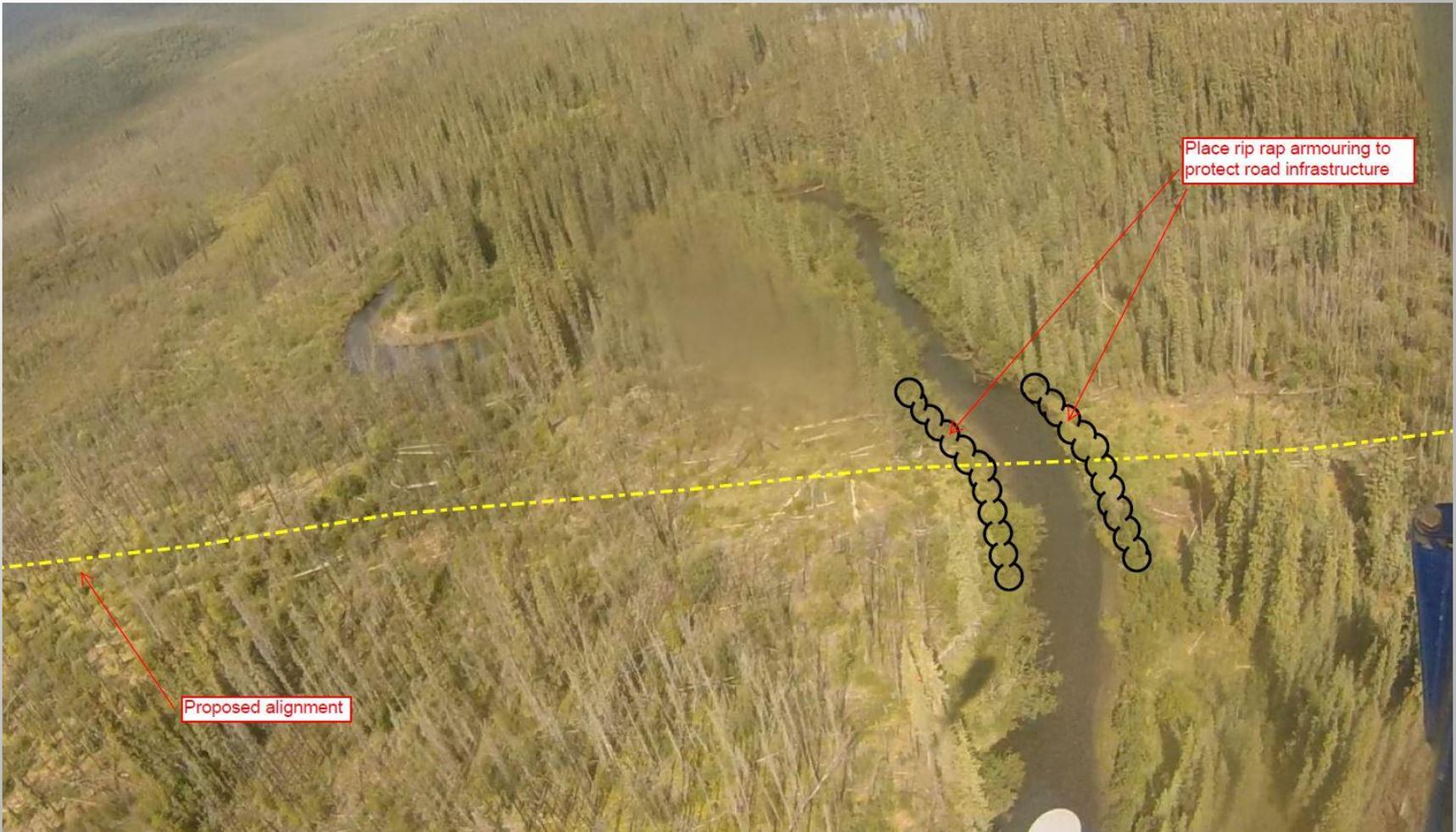
Major Watercourse Crossing Sundog Creek KP 39.4



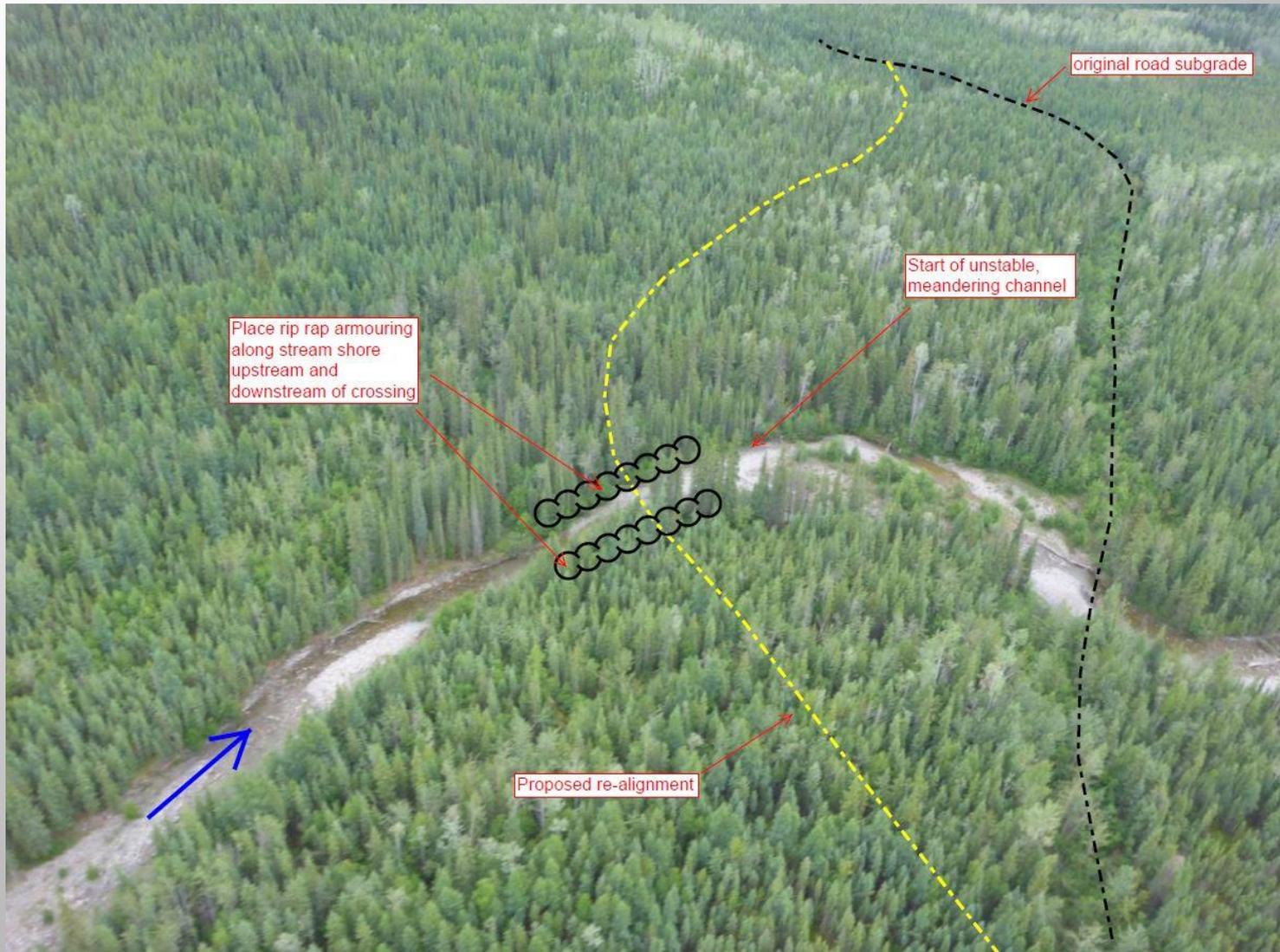
Major Watercourse Crossing Sundog Creek KP 43.2



Major Watercourse Crossing Polje Creek KP 53.6



Major Watercourse Crossing Tetcela River KP 87.3



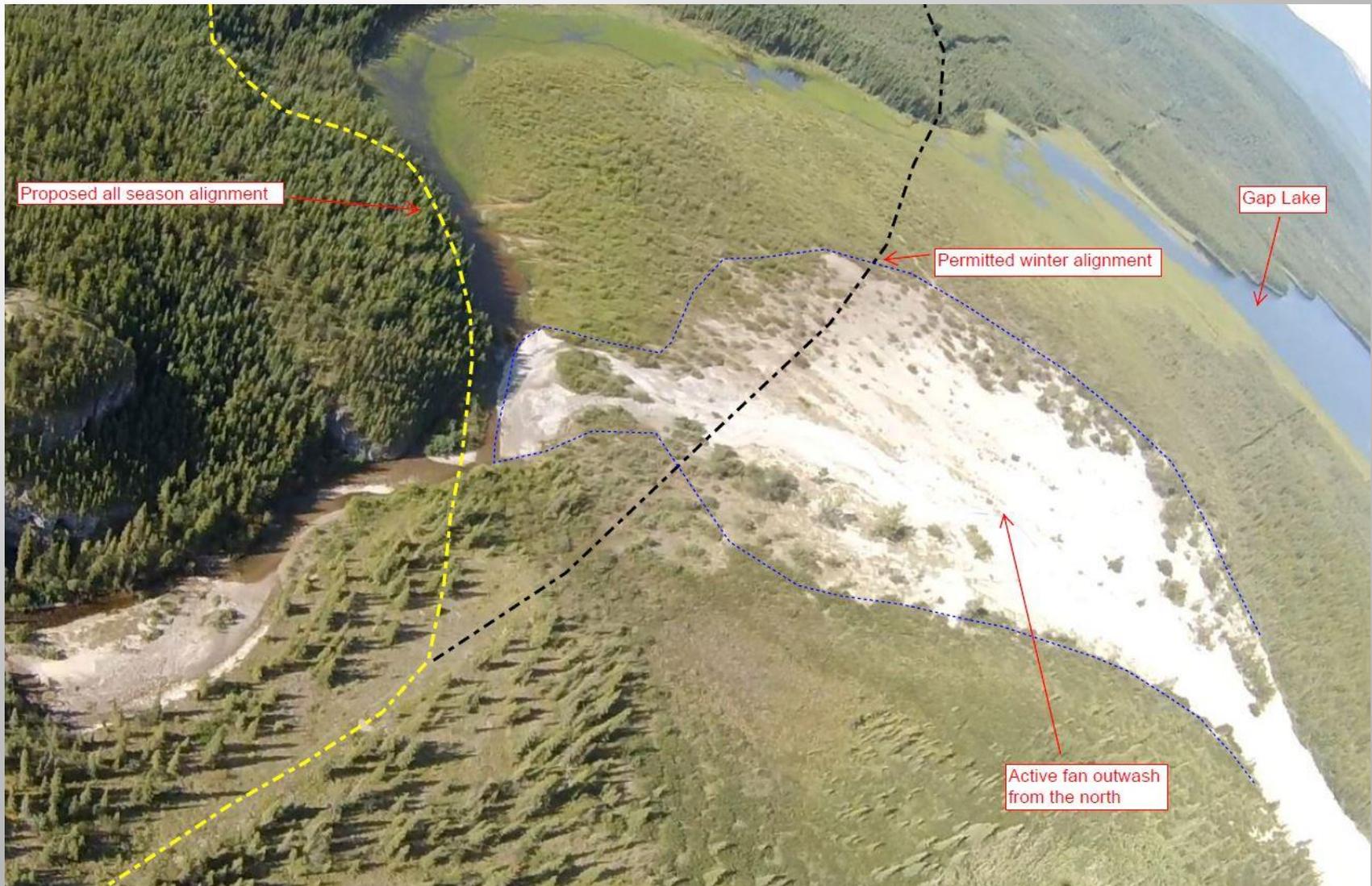
Major Watercourse Crossing Tetcela River KP 89.8



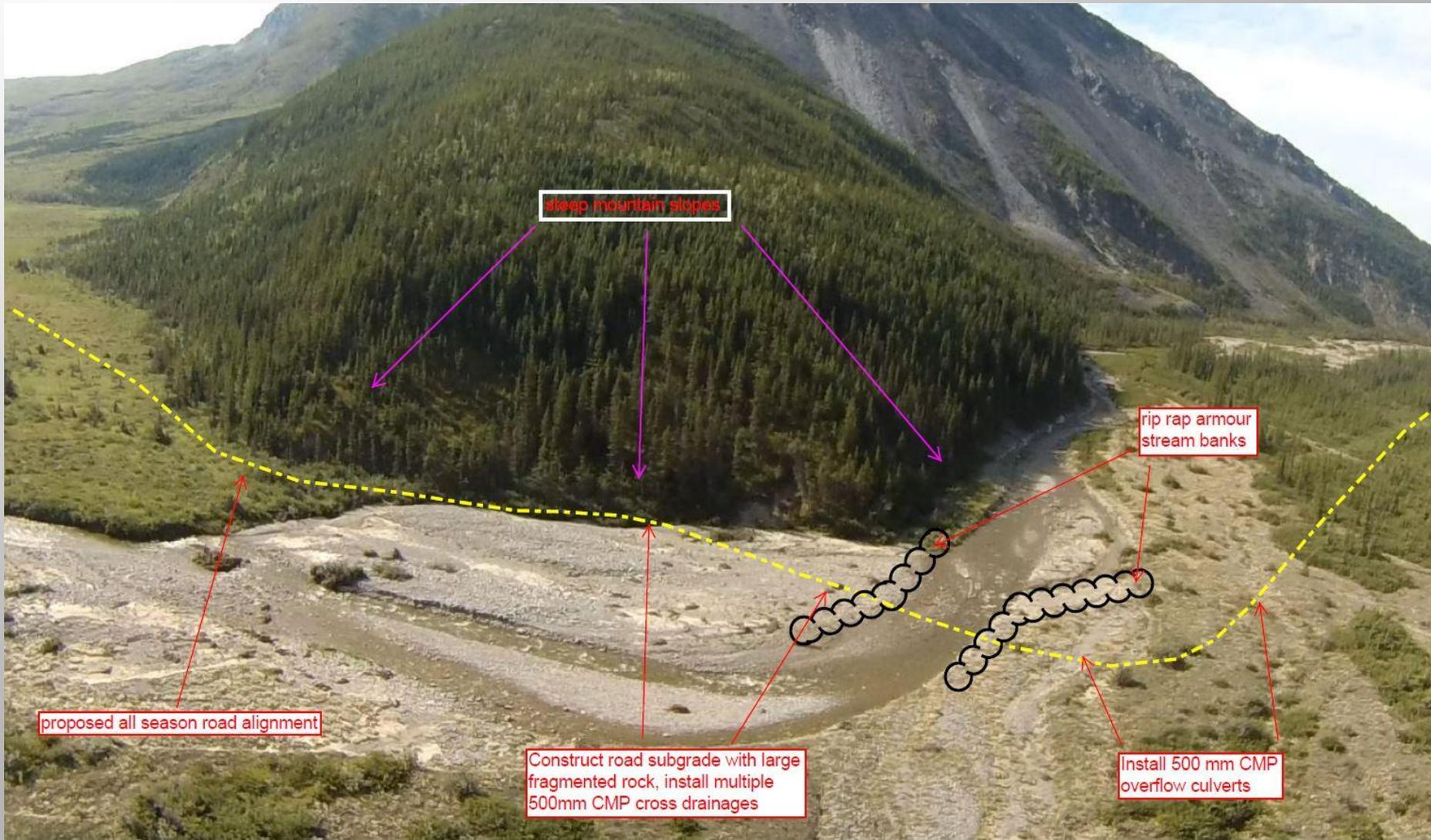
Major Watercourse Crossing Grainger River KP 119.0



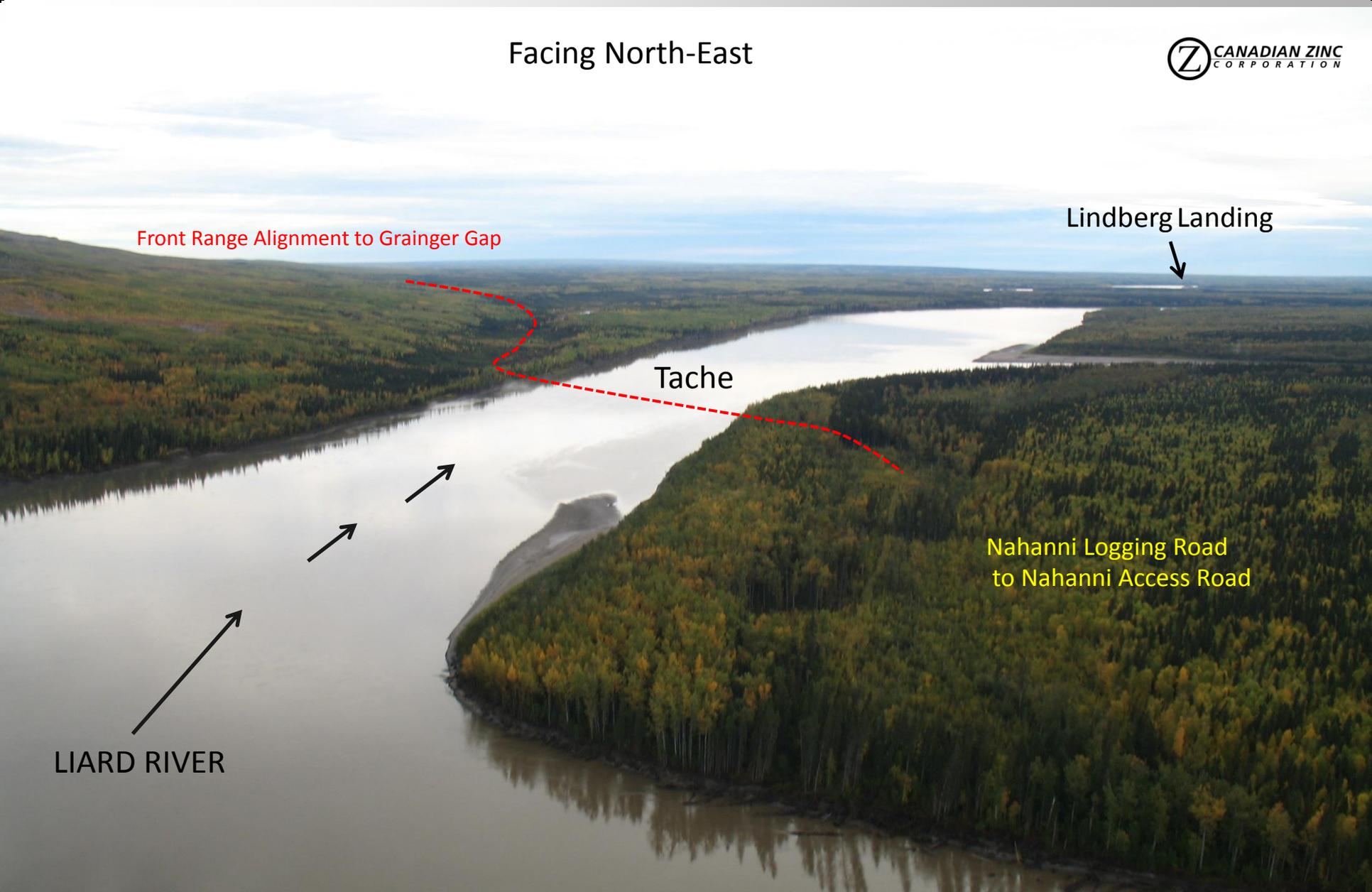
Major Watercourse Crossing Grainger River KP 123.1



Major Watercourse Crossing Grainger River KP 124.5



Facing North-East



Front Range Alignment to Grainger Gap

Lindberg Landing

Tache

Nahanni Logging Road
to Nahanni Access Road

LIARD RIVER

Location of Liard Crossing:
Ice Bridge, Barge Landings and Staging Areas