



REPAIRING THE COQUIHALLA AN INTEGRATED APPROACH



Ministry of
Transportation
and Infrastructure



Kiewit



WHO WE ARE



MINDY STECKMEST

Design Engineering Director



JENNIFER FRASER

Executive Director



MINDY STECKMEST

EXCELLENCE AND LEADERSHIP IN DESIGN AND INTEGRATED DELIVERY

As **Senior Design Engineer Manager**, Mindy provides executive oversight of Kiewit's engineering operations and aligns technical resources to deliver innovative, collaborative solutions that exceed client expectations. Recent projects include San Diego International Airport Terminal Development Program, Port of Anchorage North Extension, and I-405 Widening.



JENNIFER FRASER

EXECUTIVE DIRECTOR

Jennifer has a passion for taking on big challenges and creating results. Over the span of her 25+ years in the forest and transportation industries she has led large, diverse teams, developed expertise in large scale project delivery, initiated continuous improvement work to drive change in project delivery, and led the delivery of the first Alliance contracts used for highway infrastructure improvements in British Columbia. Jennifer is an accomplished leader known for her strategic thinking skills, ability to develop strong relationships, and effective communication skills. Jennifer is currently the Executive Director Highway Reinstatement Program for the BC Ministry of Transportation and Infrastructure with responsibility for leading the reconstruction of Highways 1, 5, and 8 following the November 2021 atmospheric river event.



TERRITORIAL ACKNOWLEDGEMENT

BACKGROUND AND WHAT HAPPENED

	City	MM
1	Hope	252
2	Coquihalla Summit	238
3	Agassiz	228
4	Chilliwack	219
5	Squamish	206
6	Port Mellon	193
7	Malahat	182
8	Pitt Meadows	178
9	Abbotsford	172
10	Cloverdale	169



HIGHWAY DAMAGE | Due to Nov 15, 2021 Storm Event

HIGHWAY 99
Whistler to Lillooet

HIGHWAY 8
Spences Bridge to Merritt

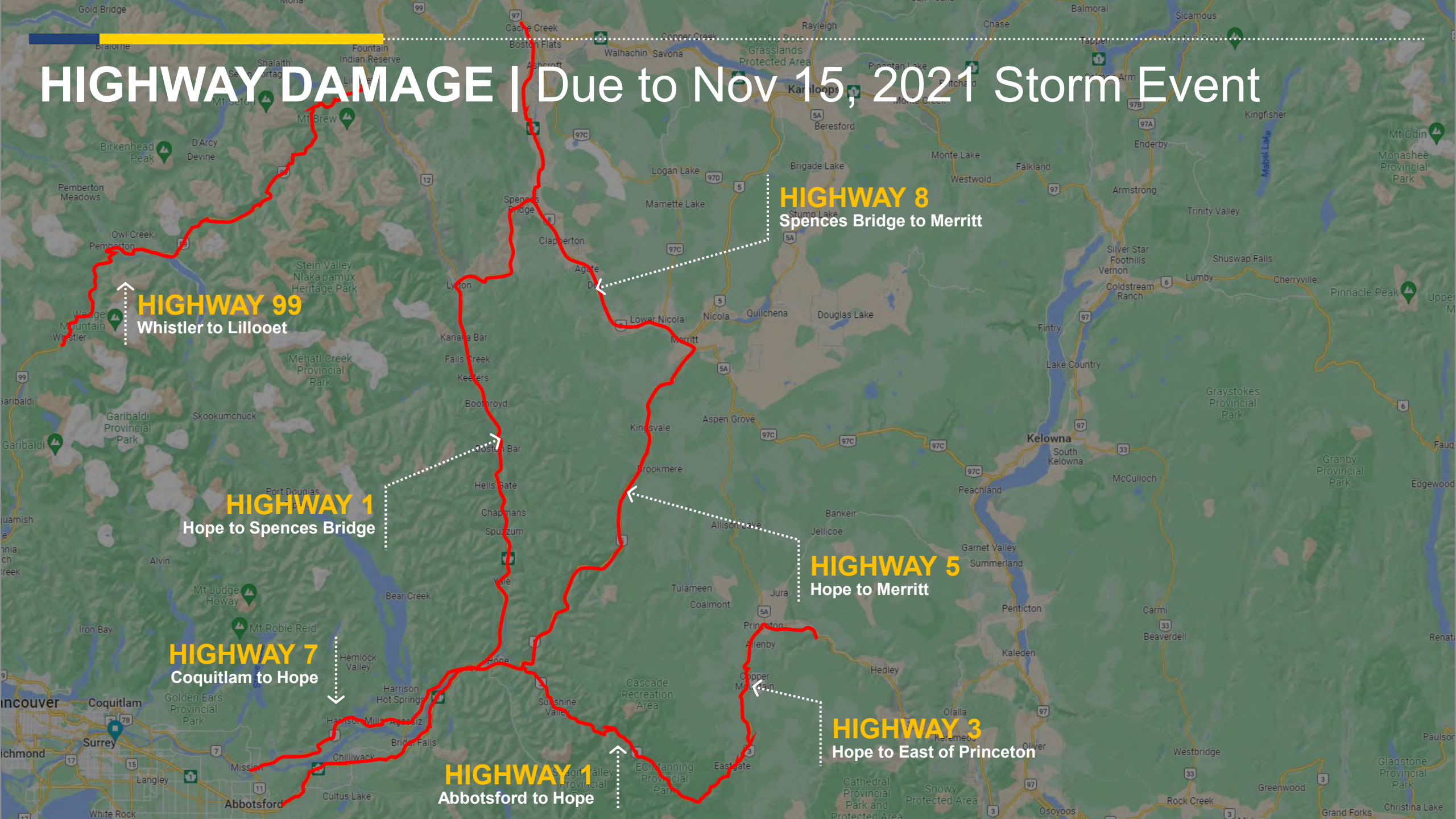
HIGHWAY 1
Hope to Spences Bridge

HIGHWAY 5
Hope to Merritt

HIGHWAY 7
Coquitlam to Hope

HIGHWAY 3
Hope to East of Princeton

HIGHWAY 1
Abbotsford to Hope



COQUIHALLA LOCATION

The Coquihalla is the main connecting highway moving people and goods from the lower mainland to the interior and the rest of Canada.



VANCOUVER

KAMLOOPS

MERRITT

HOPE



COQUIHALLA CONSTRUCTION

COQUIHALLA HIGHWAY 5 DAMAGE



IMPACTED AREA

Hope to Merritt = 130 km

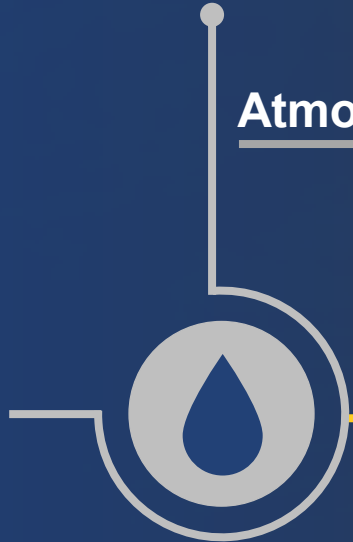
27 damaged sites:

- 15 erosion washout sites
- 7 impacted bridge structures
- 5 debris flows

TIMELINE – EMERGENCY RESPONSE

Nov 13-15, 2021

Atmospheric River Event



Coquihalla Closes

No access.

Nov 15, 2021

Dec 16, 2021

Coquihalla Reopens

Opens to commercial traffic only with 2 lane sections



Coquihalla Reopens

All traffic.

Jan 19, 2022

2023 Mission



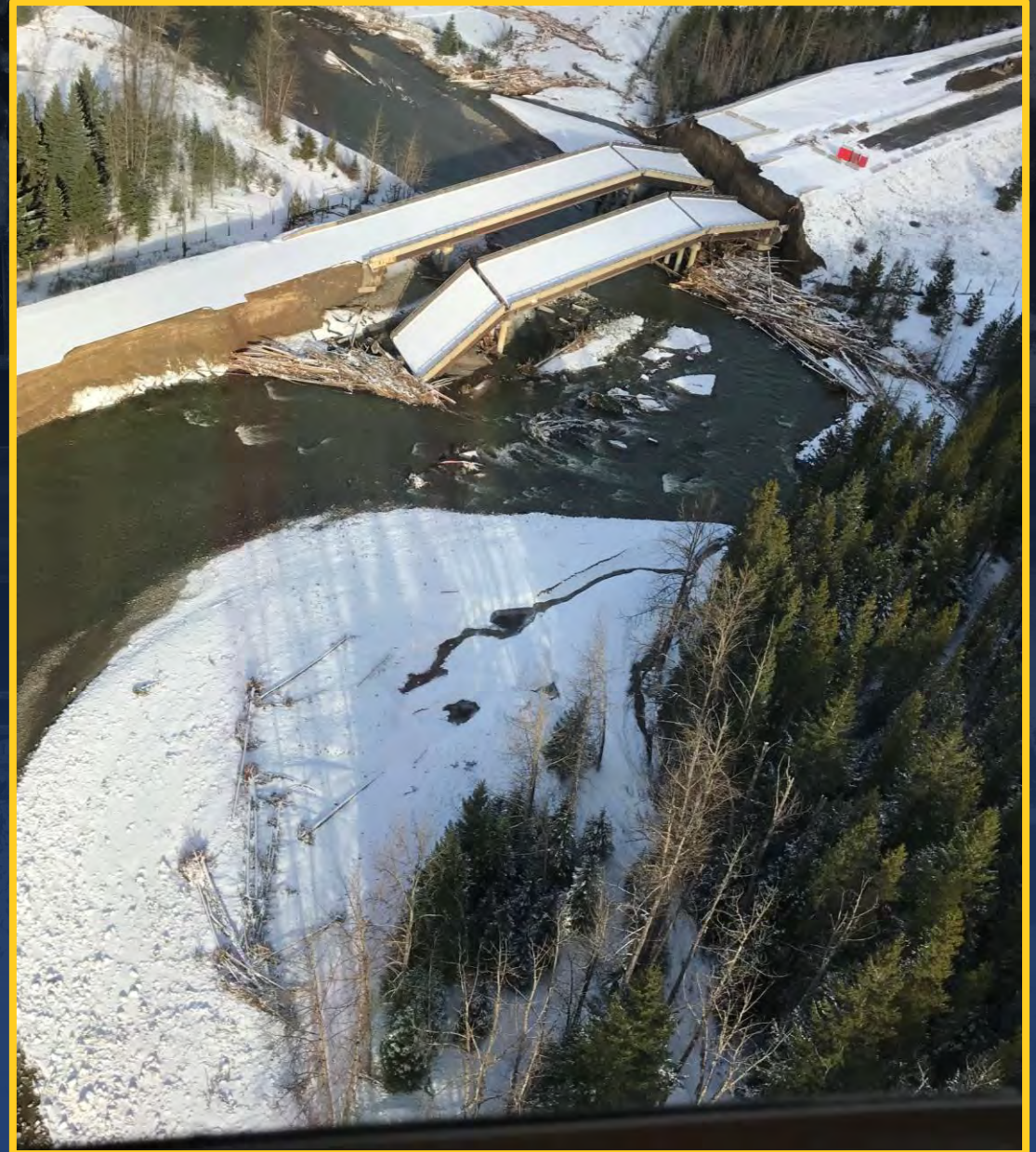




PERMANENT REPAIRS

PERMANENT REPAIRS | GOALS

- Timeliness
- Respect Indigenous Territories
- Employment Opportunities
- Climate Change Resiliency
- Traffic Flow
- Value for Money
- Safety



PERMANENT REPAIRS - SECTOR OUTLOOK

- Material supply chain challenges
- Craft labour shortage
- Climate change standards
- Booming construction industry
- Cost fluctuations



ALLIANCE CONTRACTING

- Integrated design, construction and owner team
- Shared risk model
- Target cost
- Performance incentives

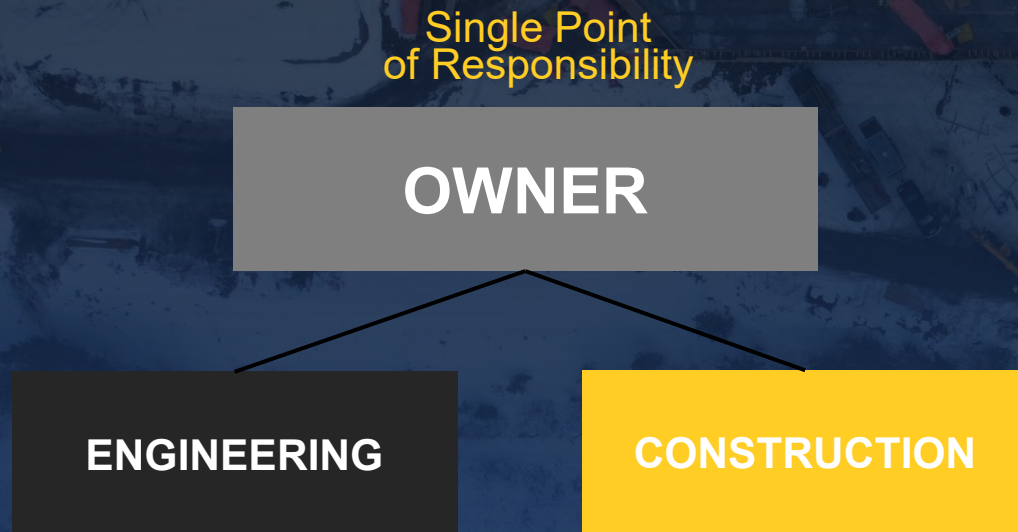




ALLIANCE MODEL WHAT MAKES IT DIFFERENT

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THE ALLIANCE DELIVERY MODEL is a relationship-based arrangement with aligned interests and shared project risks and rewards



ALLIANCE DELIVERY



Collective
responsibility for
delivering the
project



Collective
Approach to Risk
Management



Shared interest
in project
success



Consensus &
shared decisions

ORGANIZATIONAL STRUCTURE

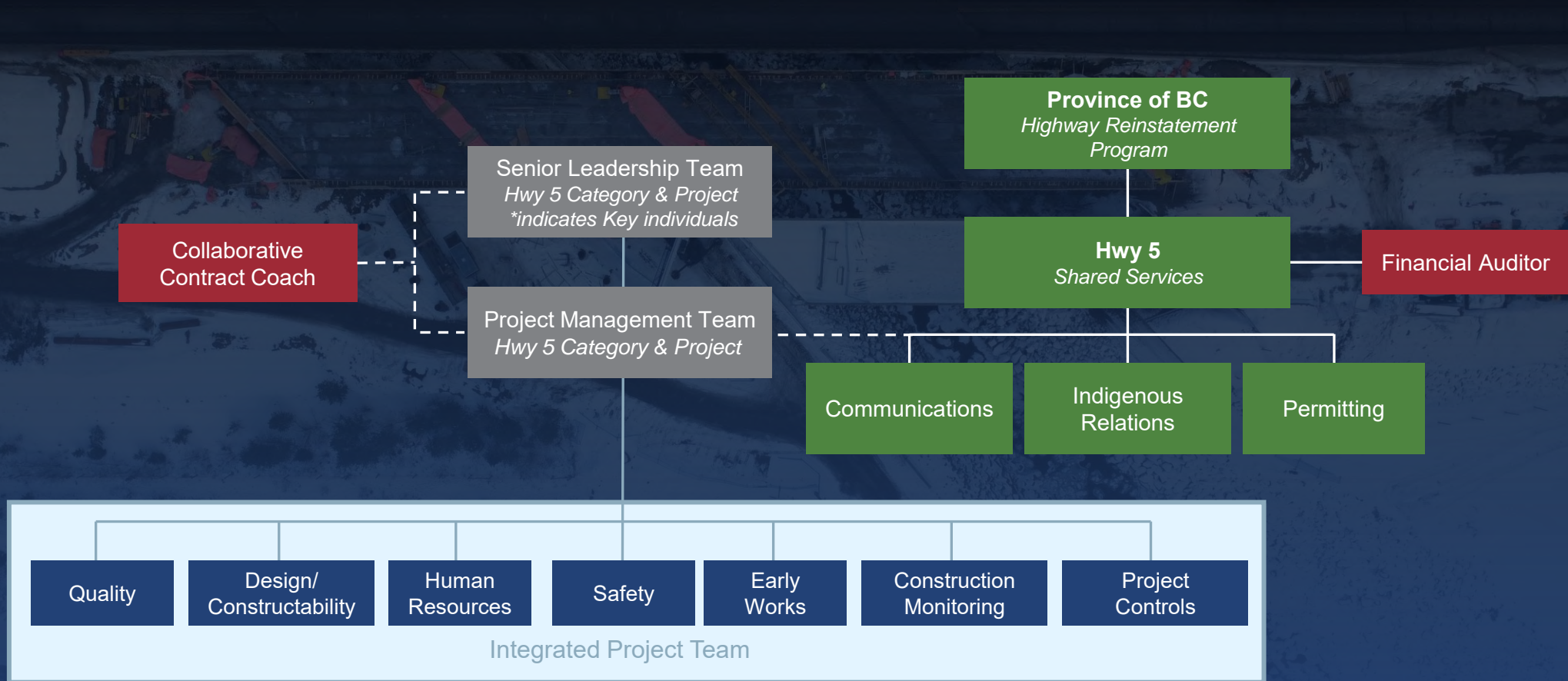
LEGEND

Owner (Province)

Owner and Non-Owner

Either Owner or Non-Owner

Third Party



ALLIANCE COMPENSATION MODEL

TOTAL PROJECT COST =

OWNER COST

+

OWNER CONTINGENCY

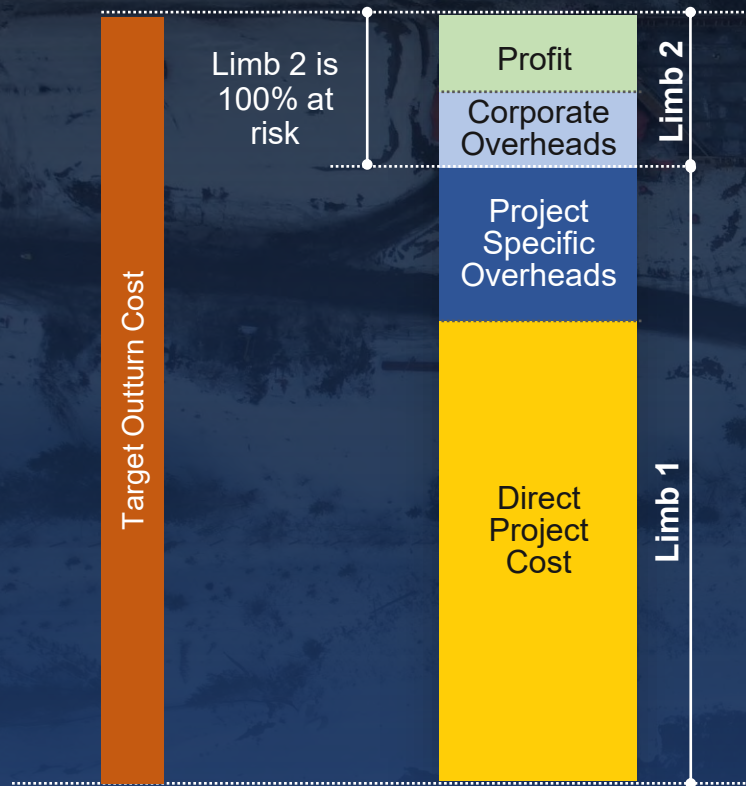
+

TARGET OUTTURN COST

+

KPI

ALLIANCE COMPENSATION MODEL



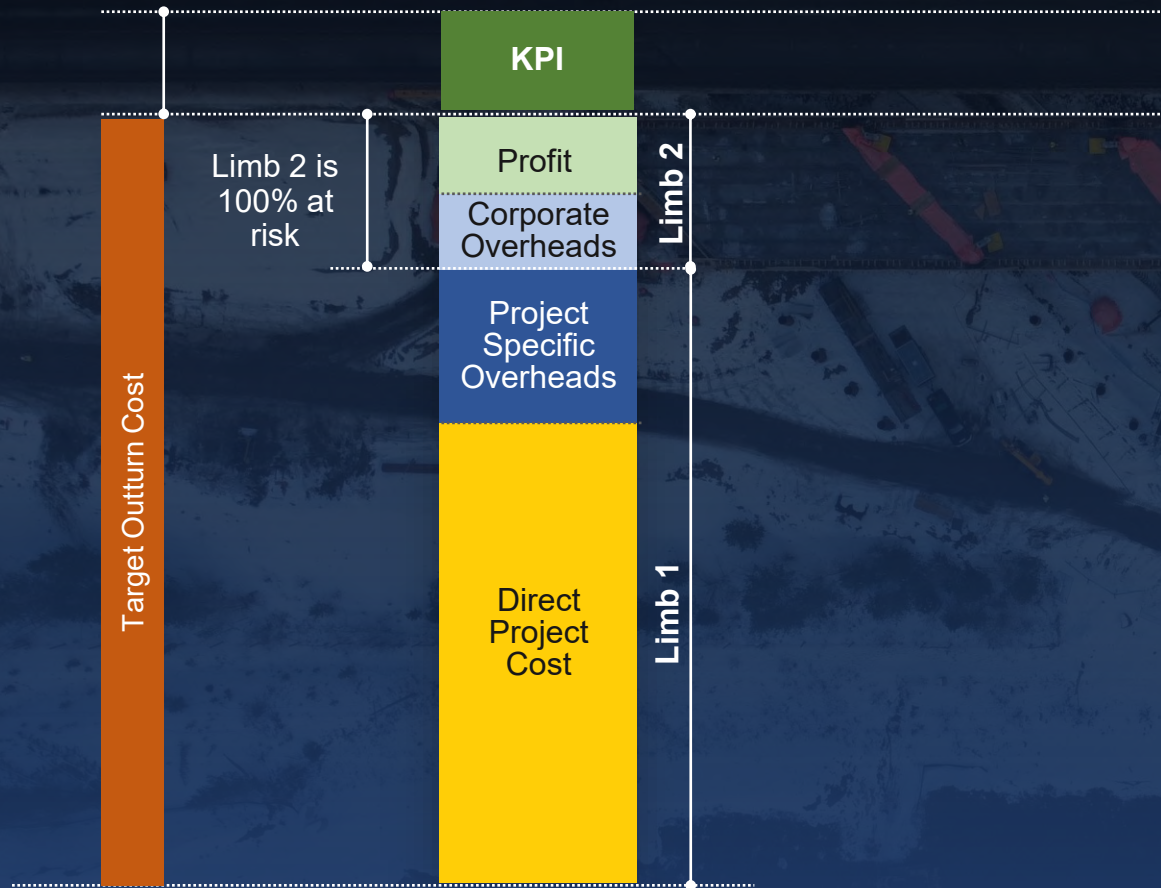
LIMB 1 | Reimbursable Costs

A reimbursement of actual direct costs and project specific overheads incurred in performing in the project works.

LIMB 2 | The Fee

A fee (designated as a percentage of Limb 1) to cover 'typical' profit and a contribution towards NOP's non-project specific overheads

ALLIANCE COMPENSATION MODEL

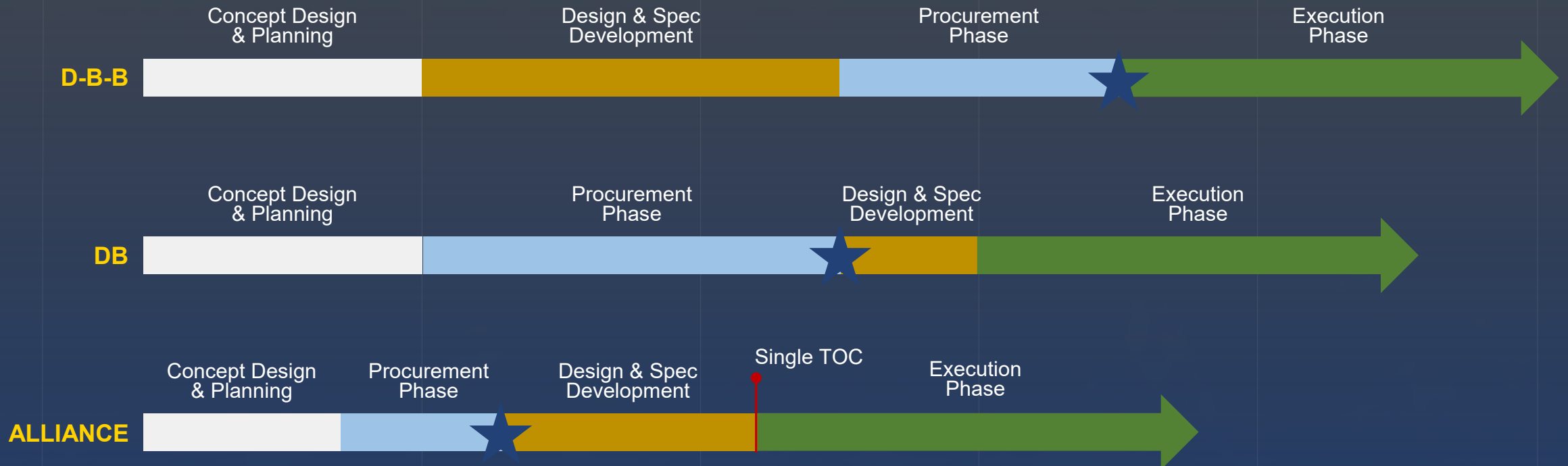


KPI | Key Performance Indicator

Provides opportunities to earn a gainshare or painshare for each KPI depending on the results the Project achieves. Gainshare and painshare is capped for each KPI.

DELIVERY SCHEDULE COMPARISON

PROJECT INCEPTION





THE COQUIHALLA ALLIANCE TEAM

COQUIHALLA ALLIANCE TEAM



=



OUR MISSION

June, 2022

CAT 5 Team Established

Dec 31, 2023

Permanently Reopen 4 Lanes

Estimated Date

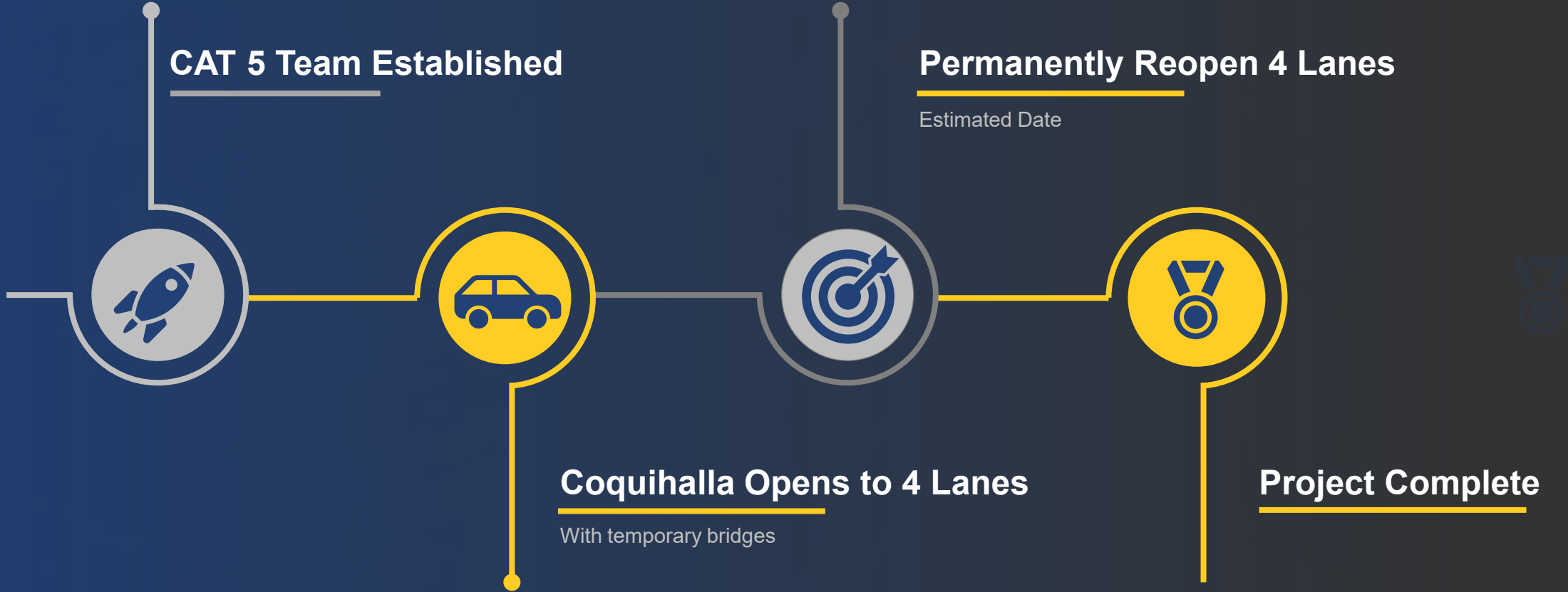
Coquihalla Opens to 4 Lanes

With temporary bridges

Project Complete

December 16, 2022

June 2024





REFLECTIONS

LESSONS LEARNED



**CONSTRUCTION
CAN BE AGILE**



**INTEGRATED TEAMS
ARE POWERFUL**



**EMBRACE THE
PROCESS**

CLOSING THOUGHTS

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