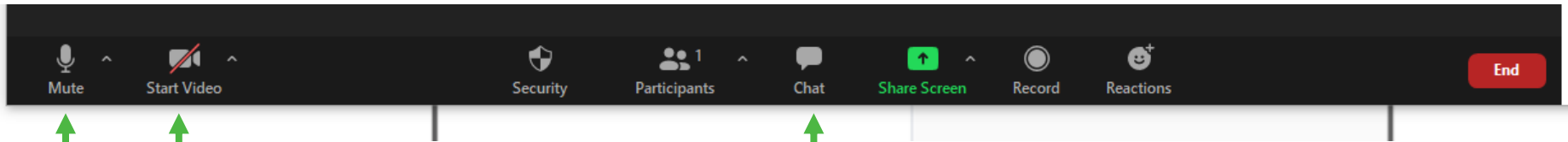


Regional Community Liaison Committee Project Briefing

December 8, 2021

Zoom Meeting Reminders

We'll be using a few basic tools, which you can find at the bottom of the screen



Mute/unmute your mic
& turn your video on/off

Open the chat panel for
questions / feedback

Site C COVID-19 Update

Shanna Mason

Dam Site Construction Update

Chris Waite

Dam Site Construction Update

- **Main Civil Works**
- **Powerhouse, Intakes, Penstocks, and Spillway**
- **Right Bank Foundation Enhancements**
- **Turbines and Generators**

Dam Site Construction Update



Main Civil Works

Dam and Core Trench



Roller Compacted Concrete (RCC) Dam Buttress



Approach Channel



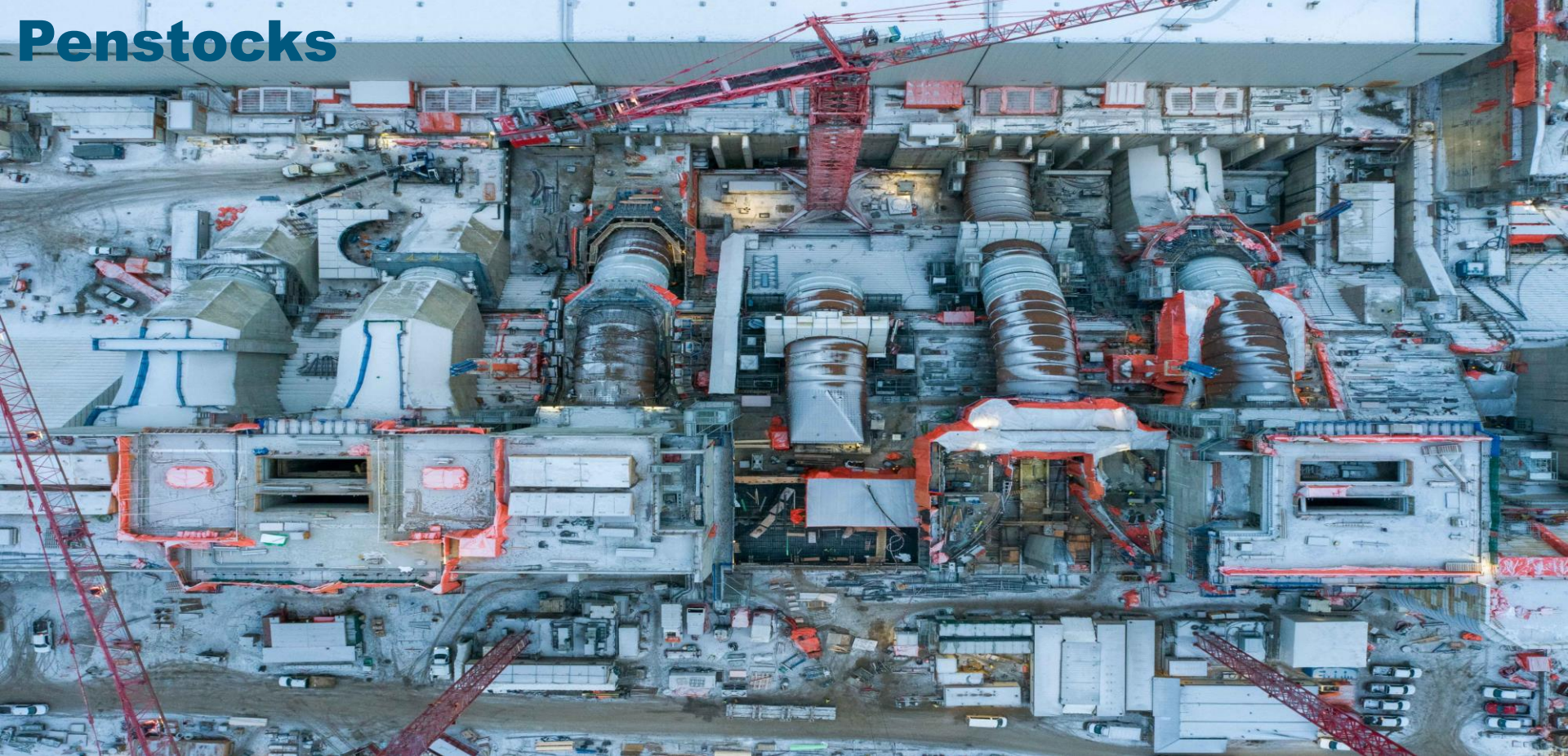
Powerhouse, Penstocks, Intakes, and Spillway





Powerhouse and Operations Building

Penstocks



Intakes



Spillway, Stilling Basin and Headworks



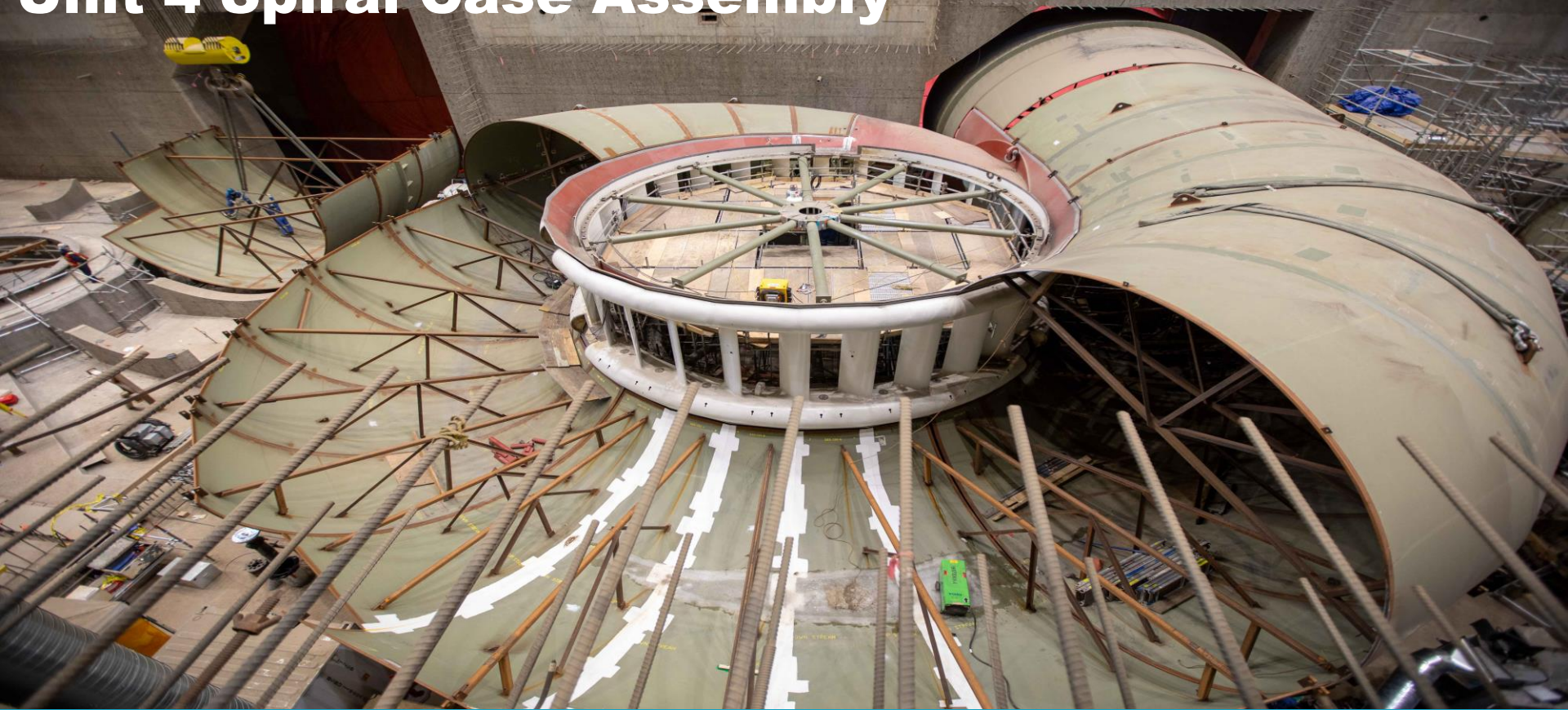


Unit 1 Upper Pit Liner and spiral case installation

Powerhouse Turbine Unit Area



Unit 4 Spiral Case Assembly



Teco Pit (Area E) Material Source & Ice Bridge Road Upgrades



- Road, including Right-of-Way ~ 63 ha - Crown Land
- Area E Mine Site ~ 55 ha - Crown land that is licensed to BC Rail; BCH also seeking crown land tenure
- *BC Hydro posted a request for proposals on [BC Bid](#) for Area E road upgrades, pit development and hauling work at Site C. Closing date December 8, 2021.*

85th Avenue Laydown



- Temporary 3.46 Ha laydown area for outdoor storage for equipment and spares
- Scope: vegetation clearing, grading and compaction

Questions?

BC Hydro
Power smart

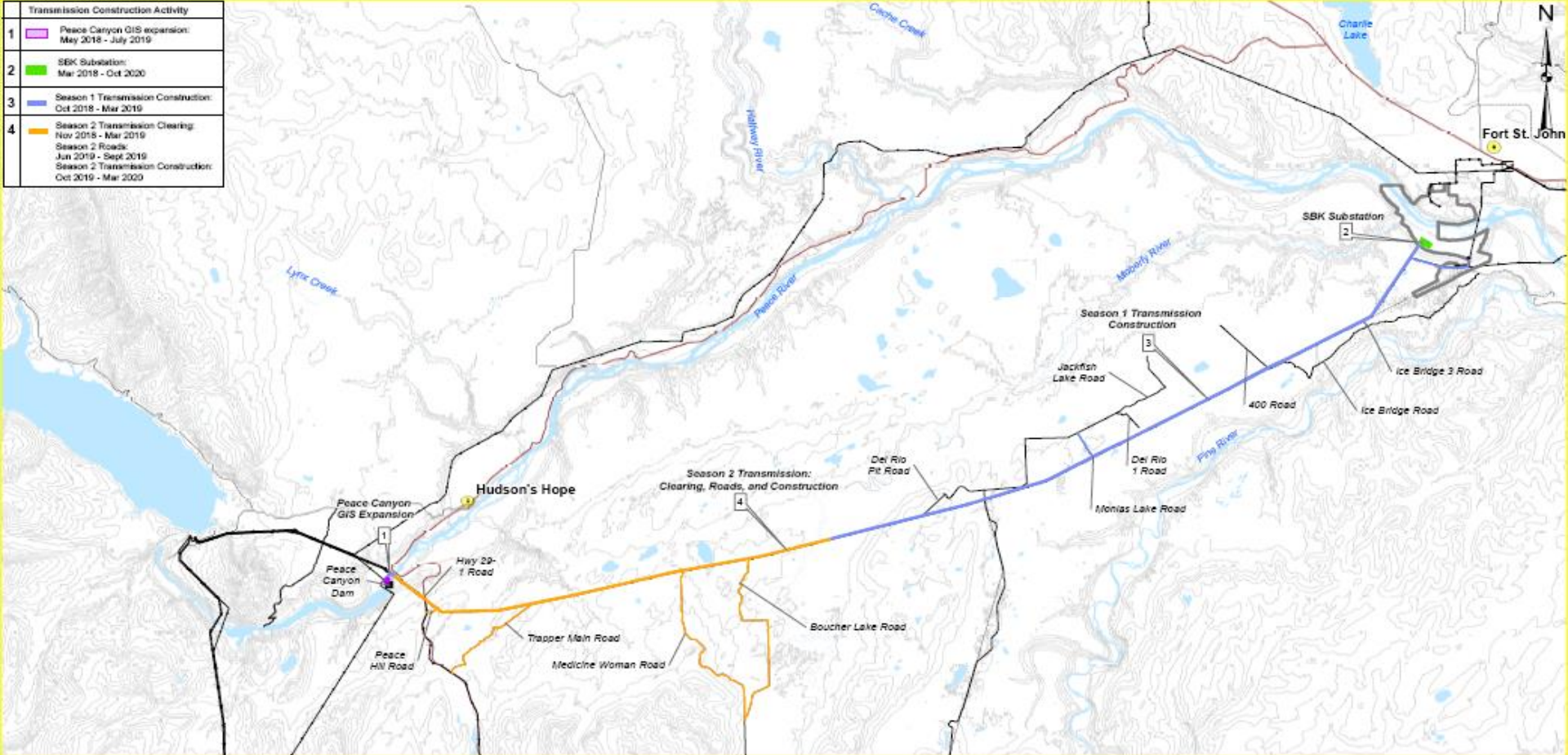
Off Dam Site Construction Update

Matt Drown

Off Dam Site Construction Update

- **Transmission**
- **Highway 29 realignment**
- **Hudson's Hope Shoreline Protection**
- **Reservoir Clearing**

Transmission Construction Activity	
1	Peace Canyon GIS expansion: May 2018 - July 2019
2	SBK Substation: Mar 2018 - Oct 2020
3	Season 1 Transmission Construction: Oct 2018 - Mar 2019
4	Season 2 Transmission Clearing: Nov 2018 - Mar 2019 Season 2 Roads: Jan 2019 - Sept 2019 Season 2 Transmission Construction: Oct 2019 - Mar 2020



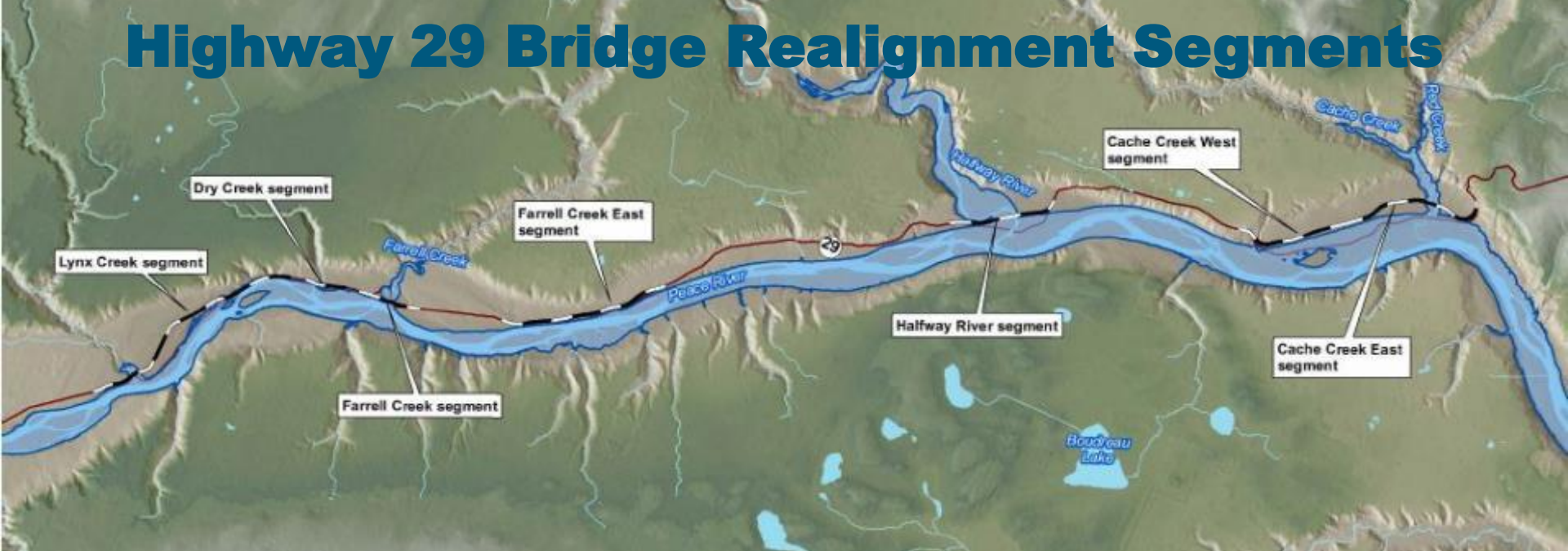
Powerline Technicians Splice Two Conductors Together





Catching the Sockline for Line Stringing

Highway 29 Bridge Realignment Segments



Construction Schedule Start to Finish

Lynx Creek – 8.1 km
 Dry Creek - 1.4 km
 Farrell Creek – 1.9 km
 Farrell Creek East – 3.0 km

2019 to 2022
 2020 to 2022
 2020 to 2022
 2021 to 2022

Halfway River – 3.7 km
 Cache Creek West – 4.0 km
 Cache Creek East – 8.6 km
 Highway decommissioning:

2018 to 2022
 2018 to 2020
 2019 to 2022
 2022 to 2023

Cache Creek East Realignment Bridge Construction



Cache Creek East Realignment First Girders Placed



Cache Creek East Highway Subgrade from West Abutment



Halfway River Bridge



Farrell Creek East

Facing West Over the New Highway Alignment



Farrell Creek Realignment

Pouring Concrete on Pier 2, Pier Cap



Dry Creek Realignment Bridge Deck Concrete Pour



Dry Creek Realignment Bridge Deck Wet Curing and Parapet Heating



Lynx Creek Realignment

Bridge Steel Installation Completed





Hudson's Hope Shoreline Protection

Laying Filter Cloth

Hudson's Hope Shoreline Protection

Placing Riprap and Filter to Bring Berm to Design Height



Fall/Winter Clearing work: Halfway River to Farrell Creek – Phase 2 Farrell Creek to Peace Canyon

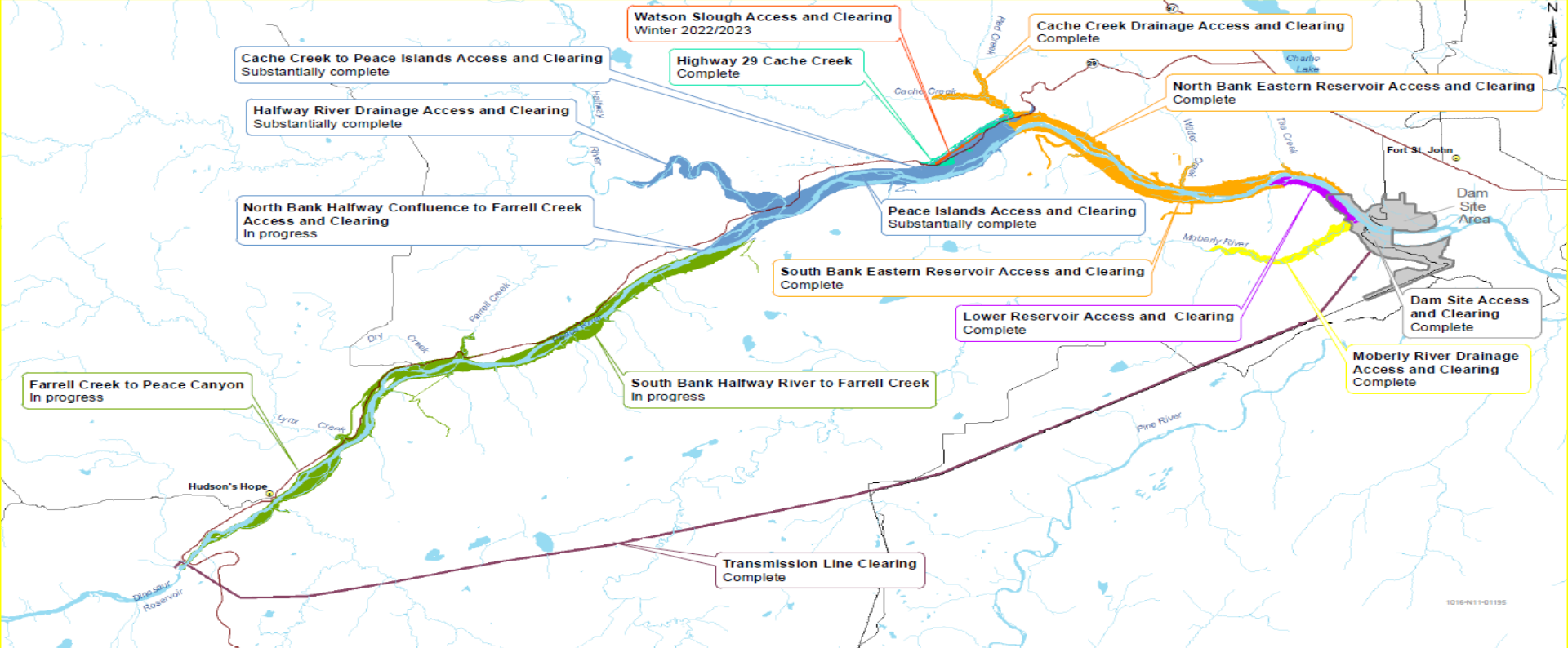




Flying Merchantable Timber



Installing Bridge WR-33



Farrell Creek to Peace Canyon
In progress

Cache Creek to Peace Islands Access and Clearing
Substantially complete

Halfway River Drainage Access and Clearing
Substantially complete

North Bank Halfway Confluence to Farrell Creek
Access and Clearing
In progress

Watson Slough Access and Clearing
Winter 2022/2023

Highway 29 Cache Creek
Complete

Peace Islands Access and Clearing
Substantially complete

South Bank Eastern Reservoir Access and Clearing
Complete

Lower Reservoir Access and Clearing
Complete

Moberly River Drainage
Access and Clearing
Complete

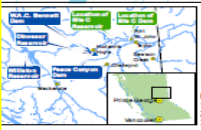
North Bank Eastern Reservoir Access and Clearing
Complete

Dam Site Access and Clearing
Complete

South Bank Halfway River to Farrell Creek
In progress

Transmission Line Clearing
Complete

Cache Creek Drainage Access and Clearing
Complete



Map Notes:
1. Datum: NAD83
2. Projection: UTM Zone 10N
3. Base Data: Province of B.C.

Legend

- Lower Reservoir
- Eastern Reservoir
- Hwy 29 Cache Creek
- Middle Reservoir
- Watson Slough
- Moberly River Drainage
- Transmission Line
- Dam Site
- Western Reservoir

Notes:
1. Reservoir clearing smelings include wood waste disposal.
2. The remaining Highway 29 realignment clearing areas to be added.
3. Timing is based on:
September 2020 - Start River Diversion
September 2023 - Start Reservoir Filling

1:215,000

BC Hydro

Site C Reservoir Clearing

DATE	Nov 24, 2021	1016-N11-01195	R 1
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Questions?

BC Hydro
Power smart

Shoreline Enhancement Work

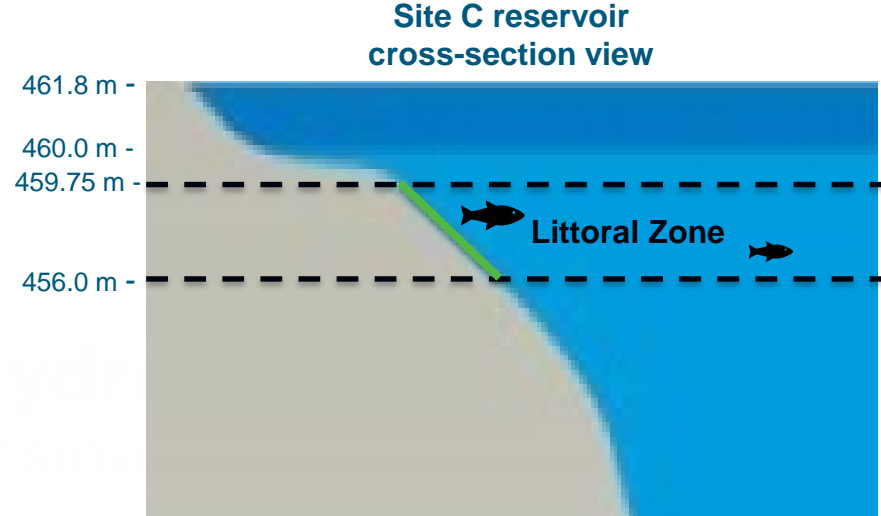
Katrina Kelly & Dave Hunter

Regulatory Background

- Fisheries Act Authorization (for Main Civil Works and Project Operations) requires BC Hydro to construct Site C reservoir shoreline fish habitat enhancements
 - Spawning shoal
 - Enhanced shallow water habitat
 - Develop 33 ha of new shallow water habitat

Reservoir Shoreline Enhancement

- Goal is to create a diversity of Site C reservoir shoreline habitats for fish and increase the area of productive shallow water fish habitat
- Most productive fish habitat in reservoir littoral or shallow water zones (456.0 m - 459.75m)
- Below maximum and minimum normal Site C reservoir operating levels of 461.8 and 460.0 m
- Littoral zones supports:
 - ✓ Increased light penetration leading to enhanced aquatic vegetation growth & aquatic bug density
 - ✓ Higher densities of fish (e.g. Rainbow Trout, Bull Trout, Burbot)



Example: small lake

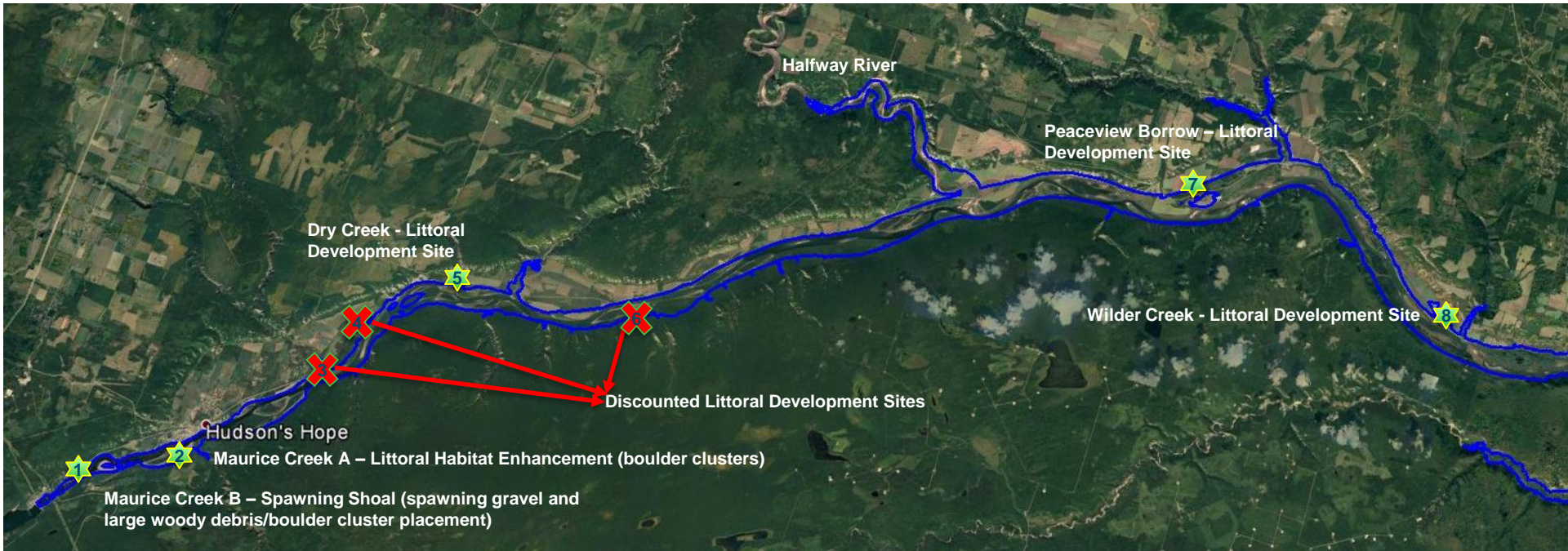


Site C Reservoir Littoral Habitat

Background – How the sites were selected?

- Vigorous selection process that considered:
 - Shallow sloped reservoir shoreline areas at risk for fish stranding (460 m – 461.8 m normal operating zone)
 - Environmental impacts of construction – access construction and clearing requirements (i.e. minimize forest loss)
 - Property ownership (BCH/Crown)
 - Site C reservoir hydrological conditions (e.g., water velocities, rate of sediment deposition)

Shoreline Enhancements - Map

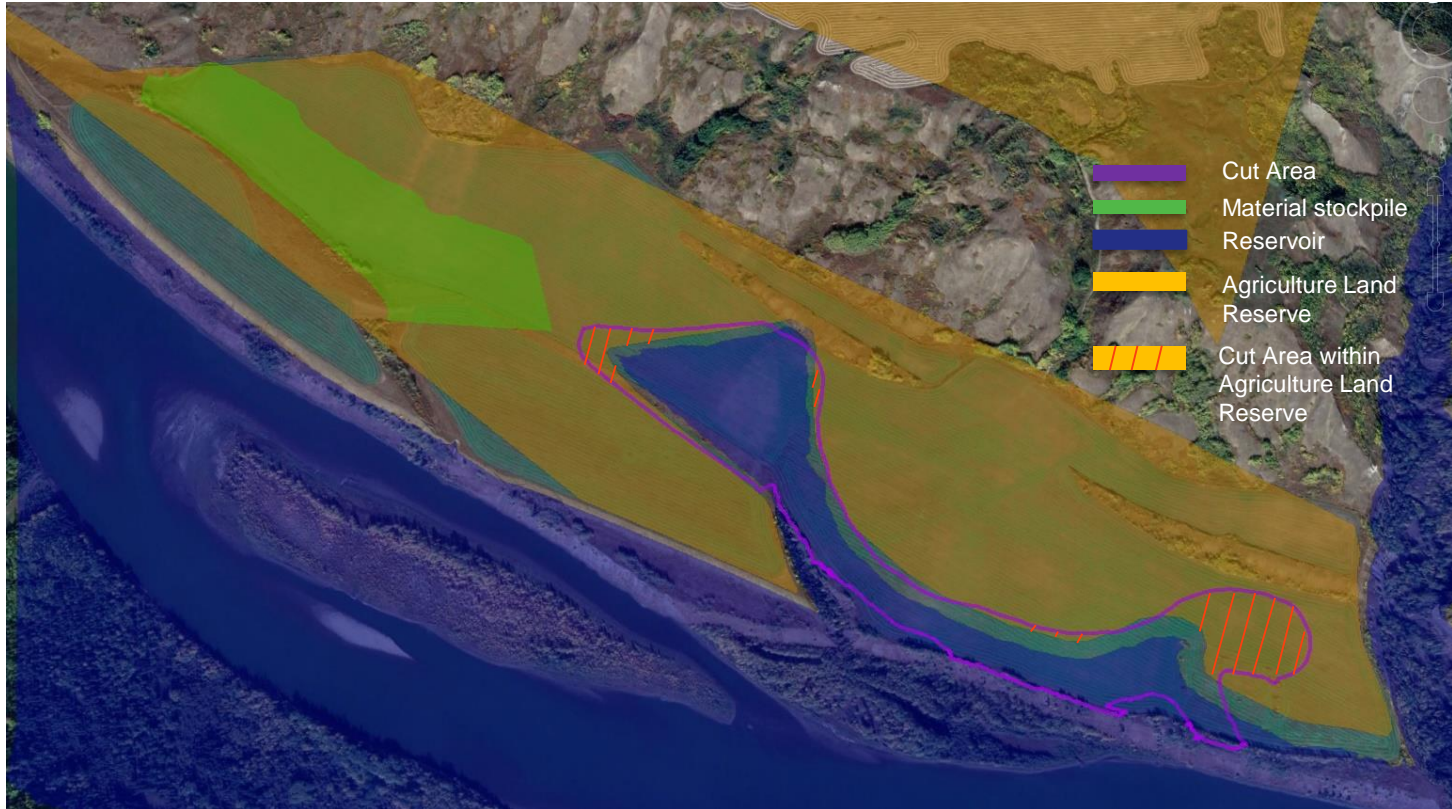


Project Scope

Wilder Creek (22 ha)

- Majority of the excavation is within the future reservoir footprint. Approximately 7 hectares of Agricultural Land Reserve will be excavated at Wilder Creek
- Excess material at Wilder Creek will be stockpiled on site and capped with topsoil. Area will be available for agricultural use post project
- Elevation of stockpile raised above Site reservoir 466 m Flood Impact Line

Wilder Creek - Map



Site C Fish Passage Update



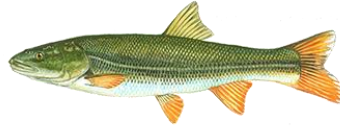
December 8, 2021

Passed 2465 fish in 2021



1300

Mountain Whitefish



45

Northern Pikeminnow



6

Kokanee



567

Longnose Sucker



27

Redside Shiner



2

Rainbow Trout



432

Largescale Sucker



17

Bull Trout



1

Slimy Sculpin



57

White Sucker



11

Arctic Grayling

[Monthly operations reports](#)

Adjustments to top of fishway

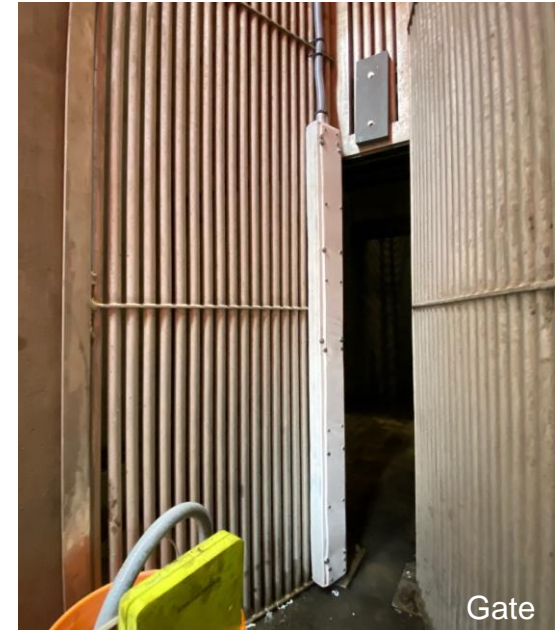
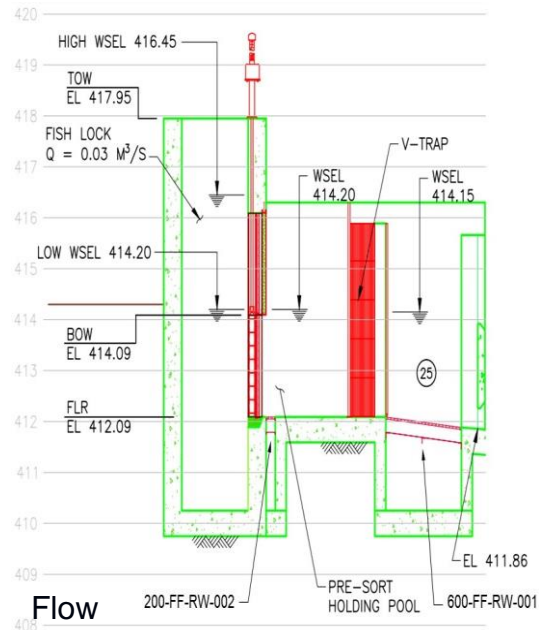
- Lower than predicted passage and trapping efficiency (fish holding in top pool, immediately downstream of trap)



Fish in last fishway pool

Adjustments to top of fishway

- Consulted with experts from other facilities
- Experimentally manipulated light, flow and gate closures



Adjustments to top of fishway

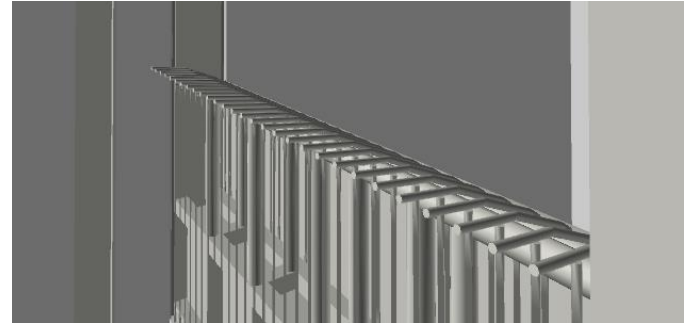
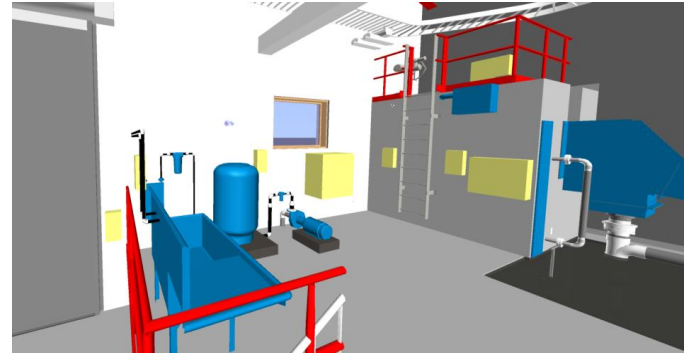


- Passed 17 Bull Trout
- Released at the Halfway River
- Observed on spawning grounds



TUF to the PUF

- Applied (100+) lessons learned from the TUF to update the design of the PUF
 - Trapping mechanism: simplify operations and improve trapping efficiency
 - Operate over wider range of water levels
 - Filters on pumps to improve effectiveness monitoring
- Construction of the PUF begins in spring 2022



Community and Social Mitigation Update

Ben Rauscher

Boater Information

Updates to the Site C boater webpage have been completed with other values to be added:

- Boater safety information and advisories for the Peace River
- Status of the current boat launches at Halfway River and Lynx Creek
- Updates on the three new boat launch locations including renderings (where available)
- Bathymetric mapping of the future Site C Reservoir
- Reservoir Opportunities Plan
- Portage program seasonal information
- Updates to the www.SiteCProject.com/boating website will be shared with local government, indigenous groups, stakeholder groups and the public.

Fund Updates

- **BC Hydro Peace Agricultural Compensation Fund**
 - On December 3, 2021, the recipients were announced for the fifth round of Fund grants with nearly **\$517,000** being approved for **19 projects**
 - Since Fund establishment, over **\$1.2M** has been awarded to **53 projects**
 - Application intake for the sixth round is currently underway, closing on January 31, 2022
- **GO Fund**
 - To date, **63 projects** have received **\$552,566**
 - The December 2nd, 2021 application review announcements are pending
 - Next application review meeting scheduled for March 2022
- **Rustic Recreation Site Fund**
 - The 2021 intake closed on October 31, 2021, and application review is ongoing

Jobs and Business Opportunities



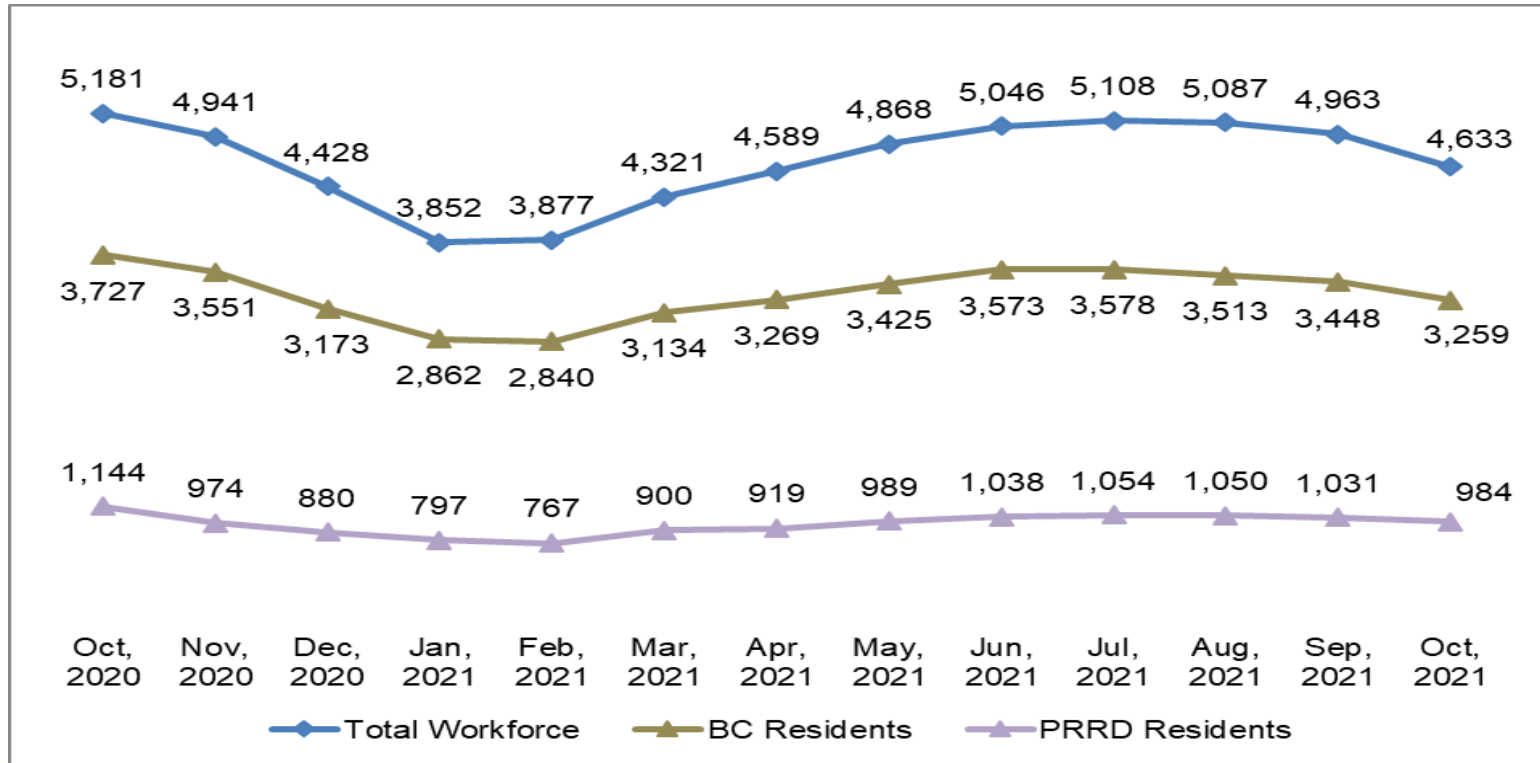
Employment Statistics

Note: The October workforce numbers reflect the Provincial Health Officer order for large scale industrial camps to gradually resume construction activities.

- BC Hydro requires all major contractors to report employment information.
- Total of **4,633** workers in October 2021: **3,259** from BC (70%), **984** from PRRD (25%)

Site C Employment Statistics – October 2021			
	# of total workers	# of B.C. primary residents	% of B.C. workers
Construction and non-construction contractors	3,913	2,583	66%
Engineers and project team	720	676	94%
Total workforce	4,633	3,259	70%

Site C Jobs Annual Trends (October 2021)



2021 Q3 Regional Business Participation

Companies engaged by BC Hydro and Site C contractors to provide goods and services in relation to Site C construction between July – September 2021

Community	# of businesses	Community	# of businesses
Arras	1	Moberly Lake	20
Baldonnel	1	Montney	2
Cecil Lake	1	Pink Mountain	2
Charlie Lake	24	Pouce Coupe	2
Chetwynd	42	Prince George	29
Dawson Creek	28	Rolla	2
Fort Nelson	1	Rose Prairie	2
Fort St. John	410	Taylor	9
Hudson's Hope	10	Tumbler Ridge	3
Total		589	



BC Hydro

Power smart