

# **Regional Community Liaison Committee Project Update**

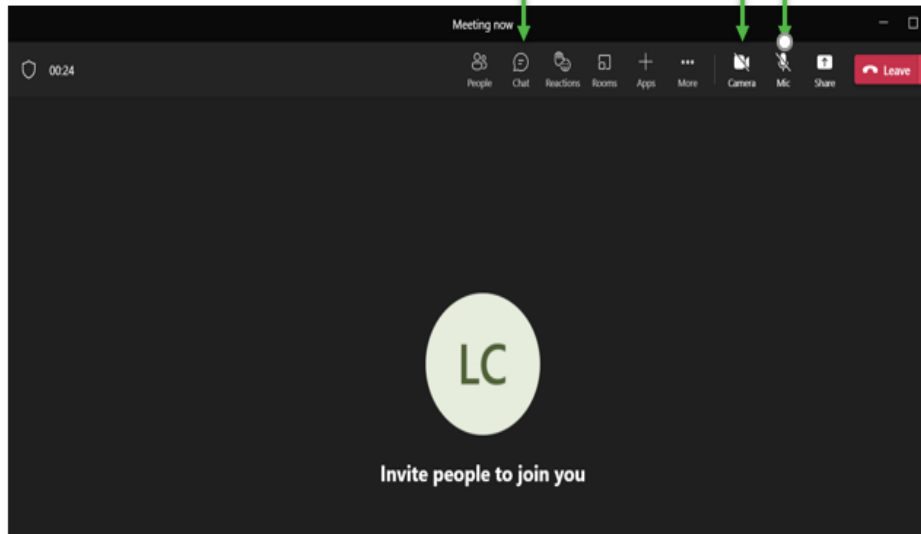
**September 13, 2023**

# Microsoft Teams Reminders

We'll be using a few basic tools, which you can find on your screen

open chat box for  
q's & feedback

turn video on/off &  
mute/unmute mic



**Site C Clean Energy Project  
Regional Community Liaison Committee**

Wednesday, September 13, 2023  
1:30 – 3:30 pm MST/PDT  
Via MS Teams Videoconference

[Click here to join the meeting](#)

Or connect by phone (audio only) at: [+1 604-343-0415,160717414#](tel:+16043430415) Canada, Vancouver  
Phone Conference ID: 160 717 414#

---

**AGENDA**

<b>Opening &amp; Welcome &amp; Acknowledgement</b> (Bob Gammer)	1:30 PM
<b>Review of Agenda &amp; Action Items</b> (Bob Gammer)	1:35 PM
<b>Dam On-site Construction Update</b> (Chris Waite) <ul style="list-style-type: none"><li>o Main Civil Works</li></ul>	1:40 PM
<b>Dam Off-site Construction Update</b> (Katrina Kelly) <ul style="list-style-type: none"><li>o Highway 29 Realignment</li><li>o Other Off Dam Site Works</li></ul>	1:55 PM
<b>Reservoir Filling and Operations</b> (Dave Hunter, Kelvin Ketchum)	2:05 PM
<b>BREAK</b> (Optional)	2:30 PM
<b>ATCO Decommissioning Update</b> (Carmen Brooks, Shanna Mason)	2:40 PM
<b>Communications Update</b> (Bob Gammer/Greg Alexis/Shanna Mason)	2:50 PM
<b>Jobs and Businesses Update</b> (Kate O'Neil)	2:55 PM
<b>Contractor Updates</b>	3:00 PM
<b>Roundtable</b> (Committee members)	3:10 PM
<b>Next Steps &amp; Closing</b> (Bob Gammer) <ul style="list-style-type: none"><li>o Next meeting – Wednesday, December 6, 2023</li></ul>	3:25 PM

# Regional Community Liaison Committee

---

## Action Items Tracking Log: January – December 2023

Item No.	Action Item	Responsibility	Meeting Date	Status / Outcome*
2023-001	Decommissioning of the ATCO Lodge	Carmen Brooks	2023-03-8	<b>Complete:</b> Tour of Two Rivers Lodge completed on June 7, 2023

# Dam Site Construction Update



# Dam Site Construction Update

- **Dam Construction**
- **Approach Channel**
- **Tailrace**
- **Spillway, Intakes and Penstocks**
- **Powerhouse**

# Earthfill Dam





# **Dam Construction: 85<sup>th</sup> Avenue Glacial Till Extraction - Completed**



# Approach Channel



# Tailrace



# Tailrace





# Spillways

# Intakes



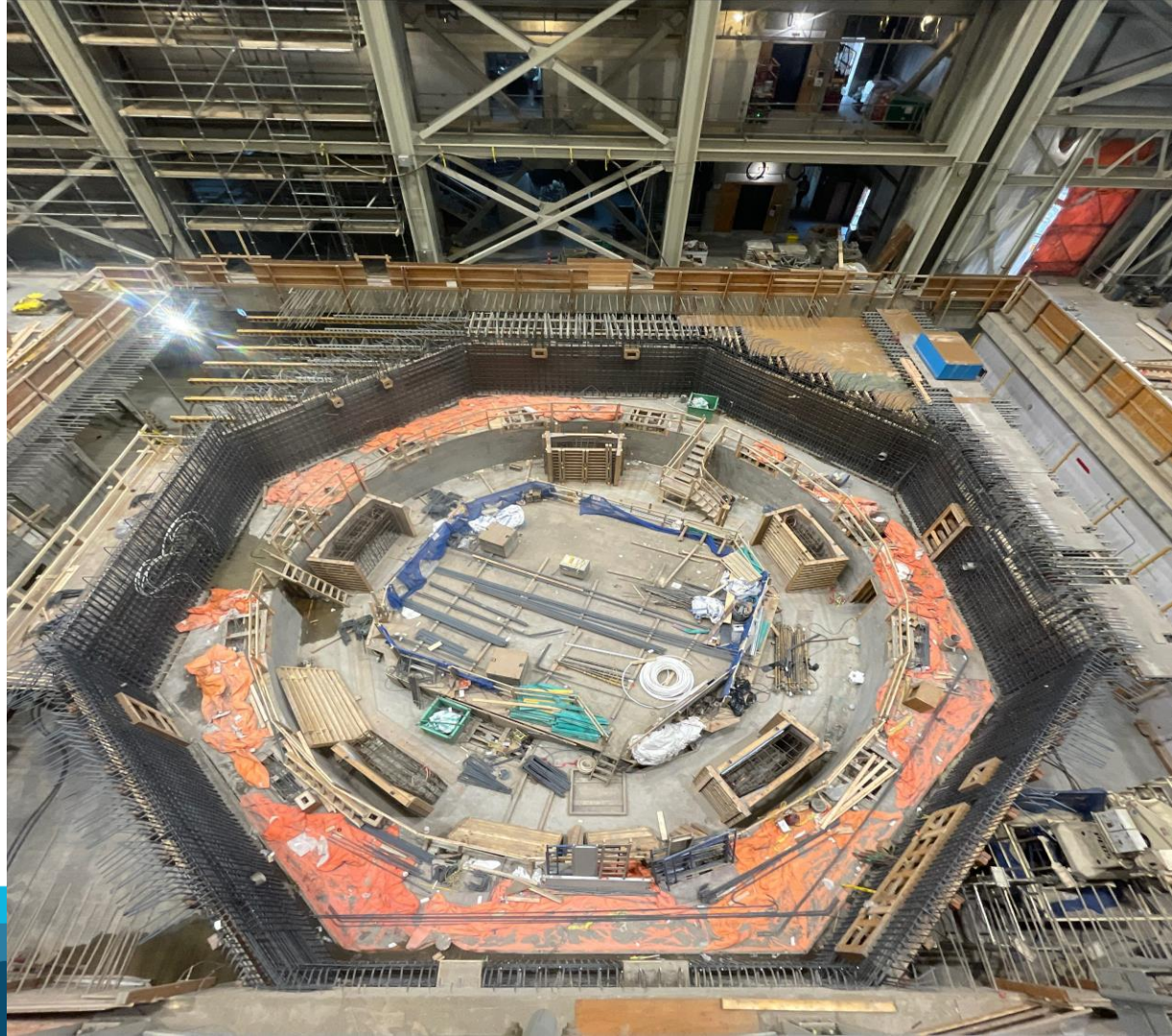
# Penstock Flexible Couplings

## Transformer and Transmission Installation



# Unit 6

## Concrete Pour



# Unit 3 Rotor Assembly





# Unit 1

## Terminating Electrical Cables



# Questions?



# Off Dam Site Construction Update

## Katrina Kelly

- **Highway 29**
- **Boat Launches**
- **DA Thomas Road and Hudson's Hope recreation site**
- **Portage Mountain Quarry Reclamation**
- **Completed Reservoir Clearing**
- **Fish Habitat Construction – Wilder Creek**



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



# Halfway River Boat Launch



# Halfway River Boat Launch



# Lynx Creek Boat Launch



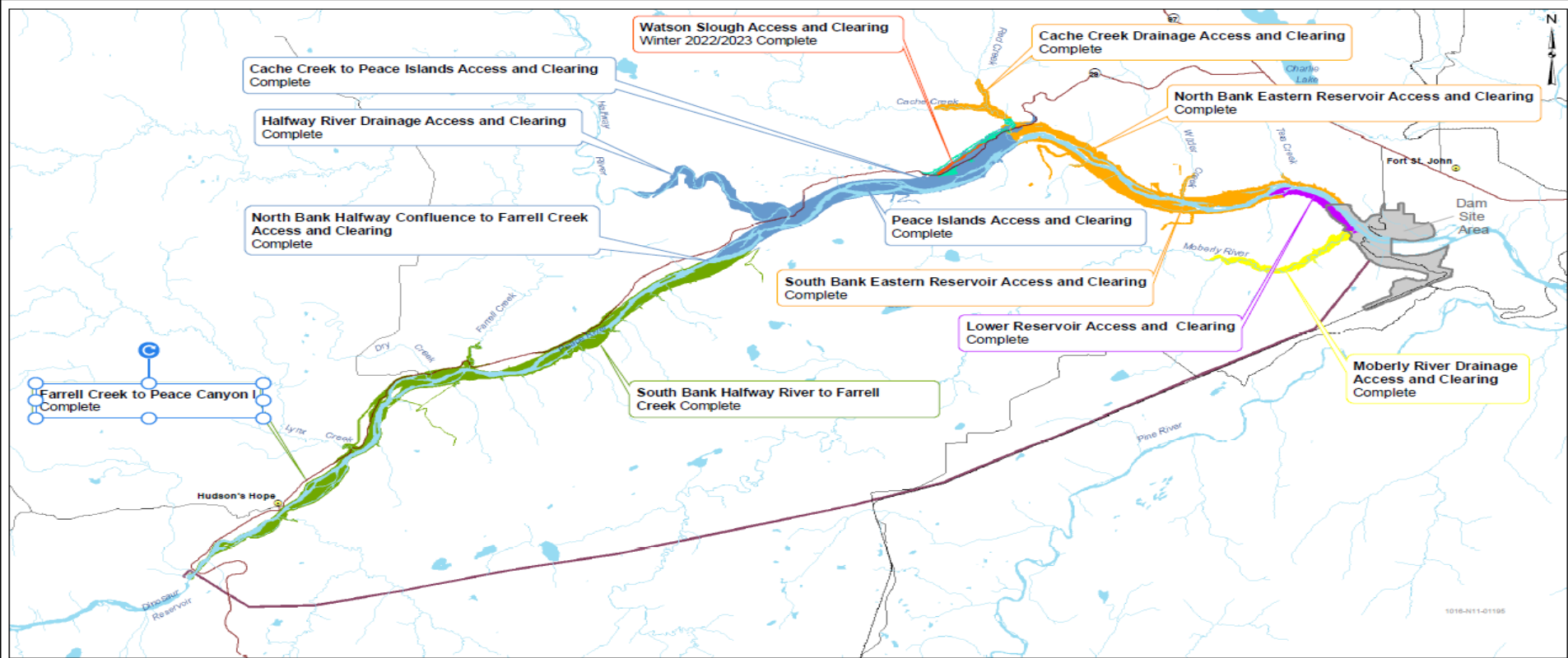
# DA Thomas Rd.





# Portage Mountain Quarry - Reclamation





Farrell Creek to Peace Canyon Complete

Cache Creek to Peace Islands Access and Clearing Complete

Halfway River Drainage Access and Clearing Complete

North Bank Halfway Confluence to Farrell Creek Access and Clearing Complete

Watson Slough Access and Clearing Winter 2022/2023 Complete

Cache Creek Drainage Access and Clearing Complete

North Bank Eastern Reservoir Access and Clearing Complete

Peace Islands Access and Clearing Complete

South Bank Eastern Reservoir Access and Clearing Complete

Lower Reservoir Access and Clearing Complete

Moberly River Drainage Access and Clearing Complete

South Bank Halfway River to Farrell Creek Complete

Hudson's Hope

Fort St. John

Dam Site Area

1016-N11-01195



Map Notes:  
 1. Datum: NAD83  
 2. Projection: UTM Zone 18N  
 3. Scale Date: Province of B.C.

**Legend**

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

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

Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

# Wilder Creek – Fish Habitat Enhancement



# Questions?



# Site C - Reservoir Filling

**Dave Hunter**

# Site C Reservoir Filling Timeline

- Project is nearly 80% complete
- Targeted fall 2023 start of reservoir fill based on:
  - Construction progress
  - Peace River System operational requirements
  - Continued compliance with environmental regulations
  - Remaining regulatory approvals



# Dam Site Construction Progress

- Earthfill dam and tunnel conversion complete
- Continued construction progress:
  - Approach channel
  - Spillways
  - Tailrace
  - Installing components in the powerhouse



# Recreational Access

**For safety reasons, the reservoir including new boat launches will be inaccessible for at least one year after filling while we monitor for slope stability.**



## **This summer:**

- The Halfway River boat launch will remain open via a gravel access road from Highway 29 for the 2023 season until Saturday, September 23.
- Following a delay from the original start date, construction has begun on the new recreation site and upgrades to D.A. Thomas Road
- Site C website: Public advisory: Boat launch access to the Peace River



# Reservoir Filling Wildlife Mitigation & Monitoring

- Measures to avoid, reduce, or off-set potential impacts on wildlife in the reservoir area including:
  - Removal of most vegetation and known bear dens to make the area less hospitable to wildlife
  - Starting the reservoir filling in fall avoids the spring/summer bird nesting period
  - Habitat enhancements including new wetlands and fish habitat, eagle nest platforms, bat boxes, snake hibernacula, and wildlife den structures,
- Despite mitigations, reservoir filling will impact some wildlife such as reptiles (snakes), amphibians (frogs), rodents (mice, voles, rats) and potentially bears



# Reservoir Fill Potential Wildlife Impacts

- Some animals, like beavers, will not likely survive reservoir filling, due to difficulty locating a new lodge and winter food cache
- Other small animals such as rodents (mice, voles, rats), reptiles (snakes), and amphibians (frogs), may not be able to move out of the area quickly enough once filling begins
- Many animals including squirrels, ungulates (deer, moose, elk), canines (coyotes, wolves, foxes), felines (lynxes), and mustelids (wolverines, fishers, martens, otters, weasels) are active and mobile through fall/winter will be able to relocate during fill in time for spring birthing



# Reducing Impact on Bears during Reservoir Fill

- Black bears are the denning species most likely affected by reservoir filling
- Planned removal of most of the known bear dens within reservoir area before reservoir filling
- Cleared as much vegetation as possible to discourage bears from denning in reservoir flood area
- Clearing the reservoir area reduces floating debris once the reservoir is filled, making it safer for animals to swim freely to shore and avoid getting caught up in large debris mats



Black bear den near Cache Creek

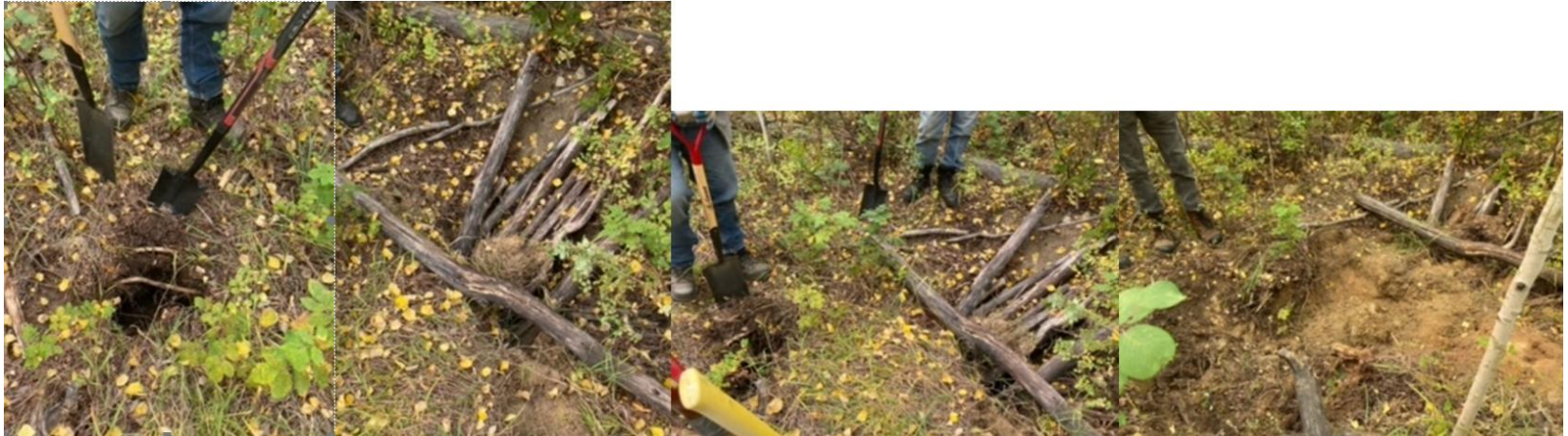
# Reducing Impact on Bears during Reservoir Fill

- Cultural Monitor removal of known bear dens commenced August 28 near Watson Slough

Bear den before removal



Bear den after removal



# Wildlife Monitoring During Reservoir Fill

- Conservation Officer Service and Cultural Monitors available to monitor reservoir area during filling for displaced or distressed animals
- Planned aerial and ground surveys during reservoir filling to conduct wildlife monitoring
- If you see an animal in distress, please contact the B.C. Conservation Officer Service through the Report All Poachers and Polluters (RAPP) Hotline so they can address the situation at 1-877-952-7277



Halfway River viewpoint



# Site C - Operations

**Kelvin Ketchum**

# 2023 BC Hydro System Operations

- In 2023, inflows into BC Hydro reservoirs have been near-record low.
- Good snowmelt inflows in May due to warm temperatures, but very low inflows since then due to low rainfall across the province.
- Runoff into Williston Reservoir is expected to be 75% of normal (Feb-Sep).
- BC Hydro overall system runoff is expected to be 76% of normal
- BC Hydro will continue to “keep the lights on” ... while taking steps to support system storage for the upcoming 2023-24 winter season.

# Site C reservoir operations after commissioning

- Normal reservoir level range: 460.0 to 461.8 m.
- The reservoir will usually be operated in the upper part of this range.
- Spillways will be used as necessary to maintain level below 461.8 m.
- During periods of very high inflows, reservoir level may exceed 461.8 m.
- Under high-inflow conditions, the auxiliary spillway will pass water if res. level exceeds 462.1 m.
- Drawdown below 460.0 m will be infrequent ... and only with permission and advance notice



# Site C discharge operations after commissioning

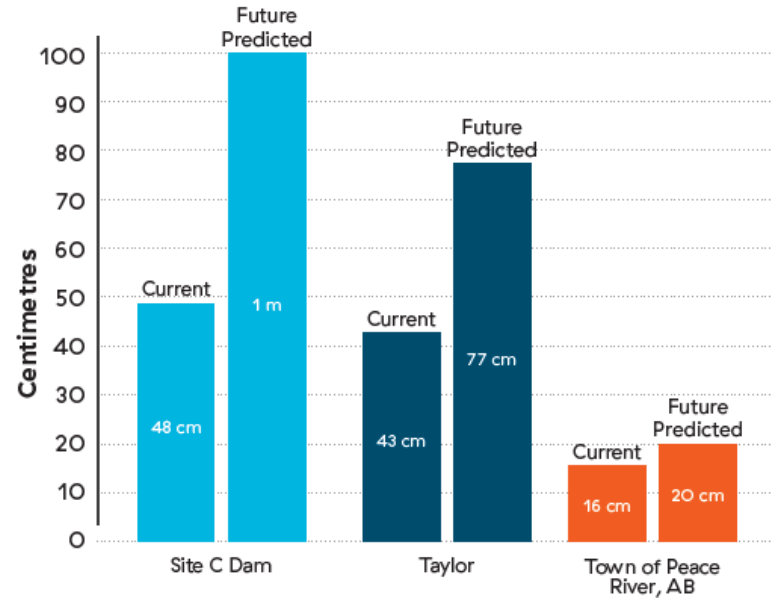


- Annual Site C average discharge = 1200-1300 m<sup>3</sup>/s. Site C operations will not significantly change the pattern of monthly river discharges.
- Minimum Site C discharge = 390 m<sup>3</sup>/s .... normally this will be turbine flow
- Maximum turbine discharge = 2700 m<sup>3</sup>/s ... with all turbines in service
- Spillway operation may increase total project discharge above 2700 m<sup>3</sup>/s
- Audible warning device (1.5 km range) operated when spillways operate

# Site C discharge operations after commissioning

- Daily average water level ranges downstream of the dam will be higher than current conditions
  - will decrease with distance from the dam
- Downstream water levels will vary depending on Site C discharges, downstream tributaries, and topography
- Until Site C turbines are in service, the maximum rate of downstream change in flows/levels cannot be confirmed
  - BC Hydro will consider all impacts (environmental, social, etc) when increasing/decreasing discharges (same as every other BC Hydro project)
  - Boater Communications Protocol will be followed

DAILY AVERAGE WATER LEVEL RANGE



# Questions?



# **ATCO Decommissioning Update**

**Carmen Brooks / Shanna Mason**

# Questions?



# **Communications Update**

**Greg Alexis / Bob Gammer / Shanna Mason**

# Reservoir community engagement

- Ongoing updates with RCLC and other key stakeholders
- Public and virtual events (**early May**);

## *Community information sessions:*

- Fort St. John – May 2
  - Hudson's Hope – May 3
  - Virtual meeting – May 9
- **Indigenous communities:**
    - Environmental forums, Peace River tours, project update meetings, dam site reservoir filling ceremony

# Reservoir Filling Communications Outreach

August 19

- North Peace Fall Fair

September 9

- Moose FM Block Party – Fort St. John

- Harvest Festival – Chetwynd





# Questions?

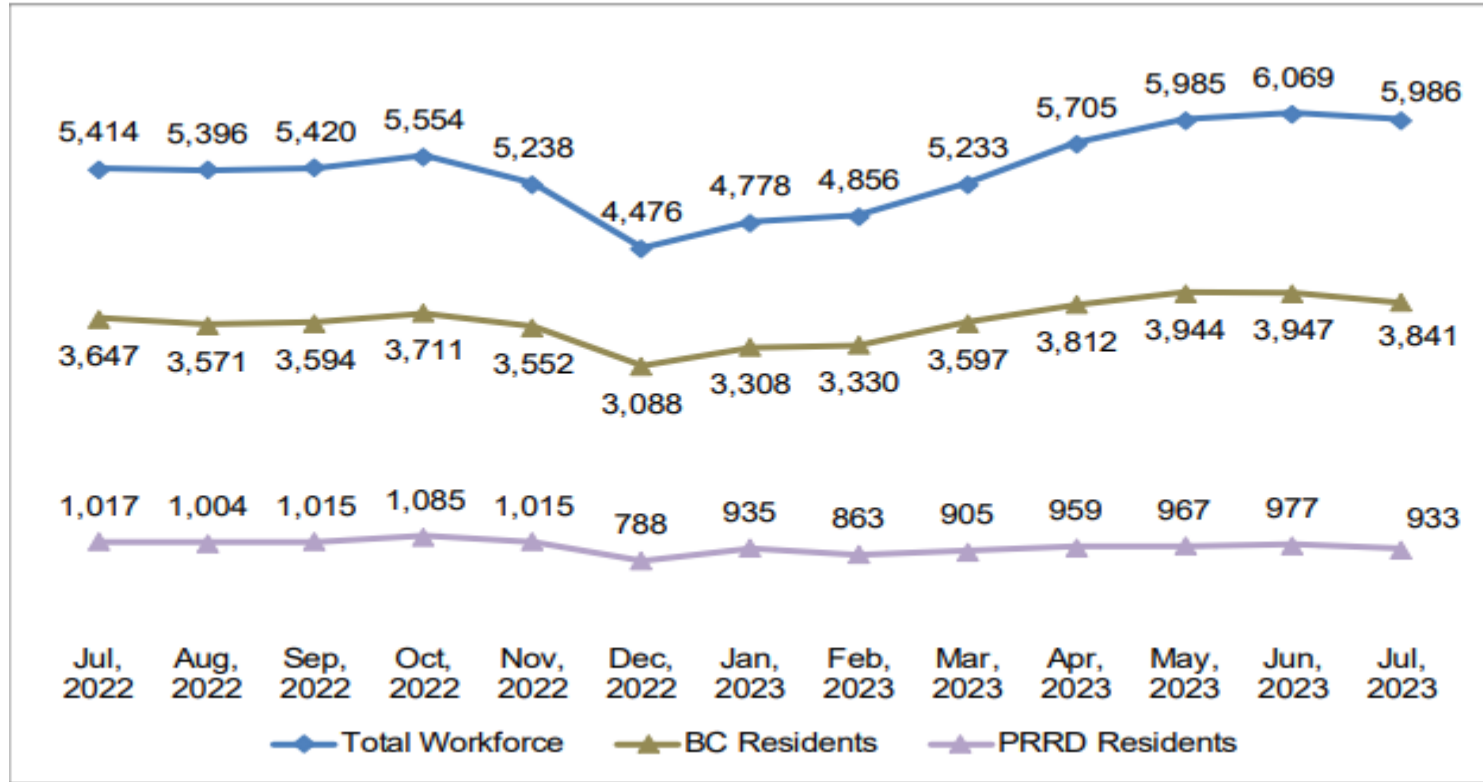


# Employment Statistics – July 2023

- The **July** workforce numbers are the total workforce numbers and include workers working off the dam site area, workers working from home and/or workers who may have been on site at any time in that month.
- BC Hydro requires all major contractors to report employment information.
- Total of **5,986** workers in **July 2023**: **3,841** from BC (64%), **933** from PRRD (19%)

Site C Employment Statistics – July 2023			
	# of total workers	# of B.C. primary residents	% of B.C. workers
Construction and non-construction contractors	5,109	3,038	59%
Engineers and project team	877	803	92%
Total workforce	5,986	3,841	64%

# Site C Jobs Annual Trends



# 2023 Q2 Regional Business Participation

Companies engaged by BC Hydro and Site C contractors to provide goods and services in relation to Site C construction between October to December

Community	# of businesses	Community	# of businesses
Baldonnel	1	Pink Mountain	2
Cecil Lake	1	Pouce Coupe	2
Charlie Lake	23	Prince George	15
Chetwynd	34	Rolla	2
Dawson Creek	27	Rose Prairie	2
Fort St. John	410	Taylor	6
Hudson's Hope	17	Tumbler Ridge	2
Moberly Lake	9		
<b>Total</b>		<b>551</b>	

# Questions?

