

COLUMBIA
River Treaty

Columbia River Treaty Socio-Economic Integration CBRAC Update and Input Invitation

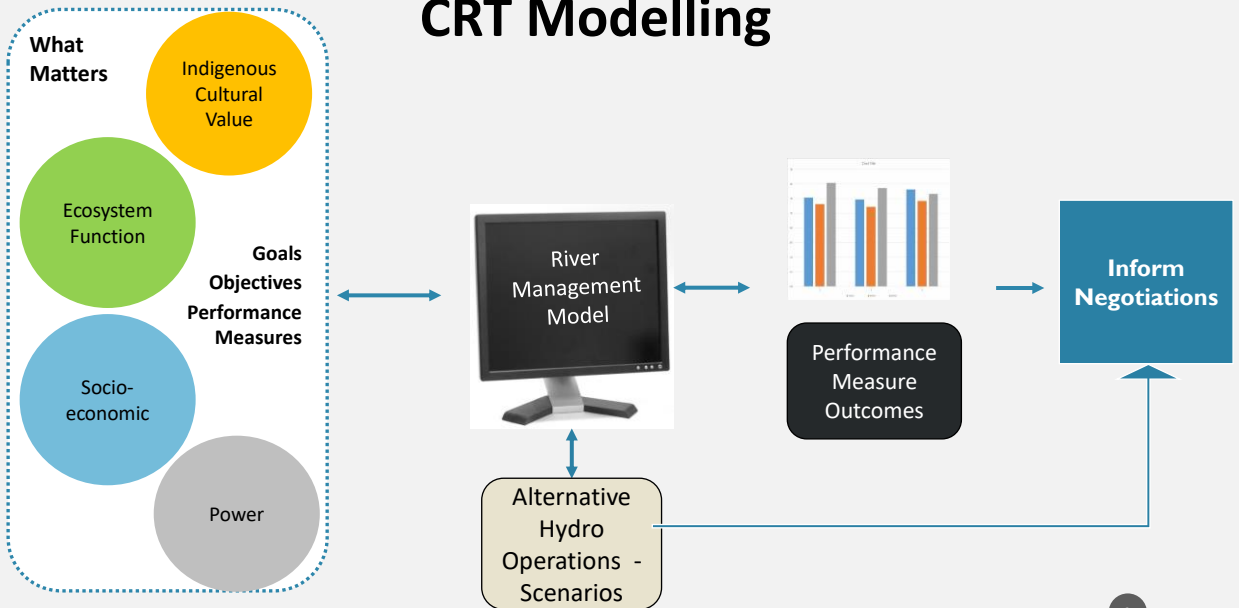
October 5, 2023

CRT SE Integration Team – Cindy Pearce, Lauren Rethoret, Ryan Macdonald,



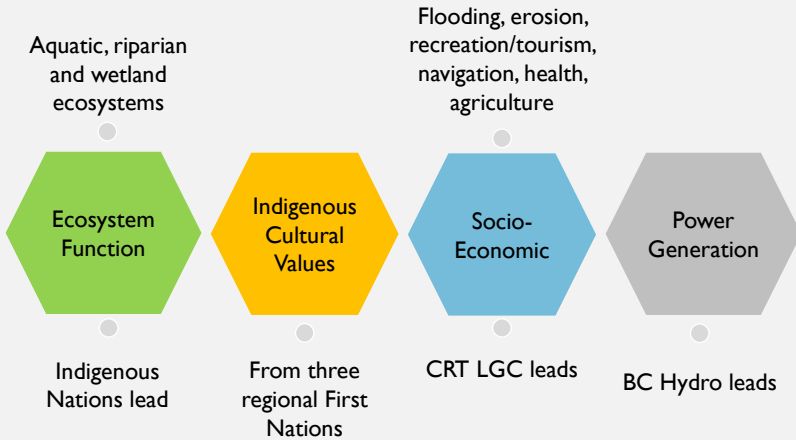
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CRT Modelling



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Basin Interests



Timeline

Nov 2020-Dec 2021

Collect Information

Community interest and SE PM data collected from a wide range of sources



Feb-Nov 2021

Design Engagement

Methods for engaging CBRAC, local governments, Indigenous Nations and the public



May-Dec 2022

Develop PMs

Revise previously-used PMs based on new info and develop new PMs where needed



Oct 2022-Feb 2023

Community Feedback

Feedback from CBRAC, local governments and public collected



Nov 2022-Ongoing

SE PM Recommendations

Feedback reviewed/incorporated and LGC recommends SE PMs



Dec 2022 - Ongoing

Confidential Scenario Modeling

PMs finalized and used to model scenarios



Outline

1. Update
2. Next steps
3. Performance measures for input

➤ ***Your feedback is welcomed: during the webinar and by email***

- Support for or concerns about the next steps and recommended performance measures

*Please remember - this is a **long-term endeavor** and there will be revisions over time*

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Update

- **January and early February** – Local government webinar and public virtual Info Sessions inviting input on draft PMs (339 participants)
- **February** – online survey and email input (44 responses)
- **April** – CBRAC and LGC review of team recommendations
- **August** – Funding approval of final recommendations
- **Throughout** – ongoing refinement of performance measures

<https://www.crtlgc.ca/copy-of-crt-socio-economic-2>

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Next Steps

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Considerations Impacting Next Steps

- ✓ Probability of creating performance measures that meaningfully signal differences between scenarios
- ✓ Estimated cost to developing meaningful performance measures
- ✓ Scale of impacts – quality of life, financial, geographic
- ✓ Timeline to complete performance measures to support a) current CRT scenario evaluations and b) future implementation of modernized CRT
- ✓ Relative priority given limited resources

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1. Performance Measures (PMs)

First Priority

- Low water impacts (navigation-log handling, motorized boat access, beach use) – Arrow initially
- Complete PMs that are substantially underway (Koocanusa grazing access, Kootenay Lake agriculture)
- Support local governments to complete Lower Columbia flood risk mapping

Pending – Consider upcoming report from [Dr. Stewart Rood](#) on Koocanusa recreation/tourism to inform methodology going forward

More information needed – Valemount and Burton dust, Duncan mosquitoes, angling (refer to CRT Ecosystem Function Sub-Committee)

On hold – Koocanusa grazing condition, erosion – awaiting modelling workshop

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PM Status and Next Steps

Location	Flooding	Navigation	Recreation/ Tourism?	Health	Agriculture	Erosion
Columbia						
Kinbasket Reservoir	?	X	X*	?		?
Arrow Reservoir		X*	X*	??	X	?
Lower Columbia River	X?	?	X			
Kootenay						
Koocanusa Reservoir			X?		*	
Duncan Reservoir/ Lower Duncan River	X		X	?		
Kootenay Lake	X	X	X			

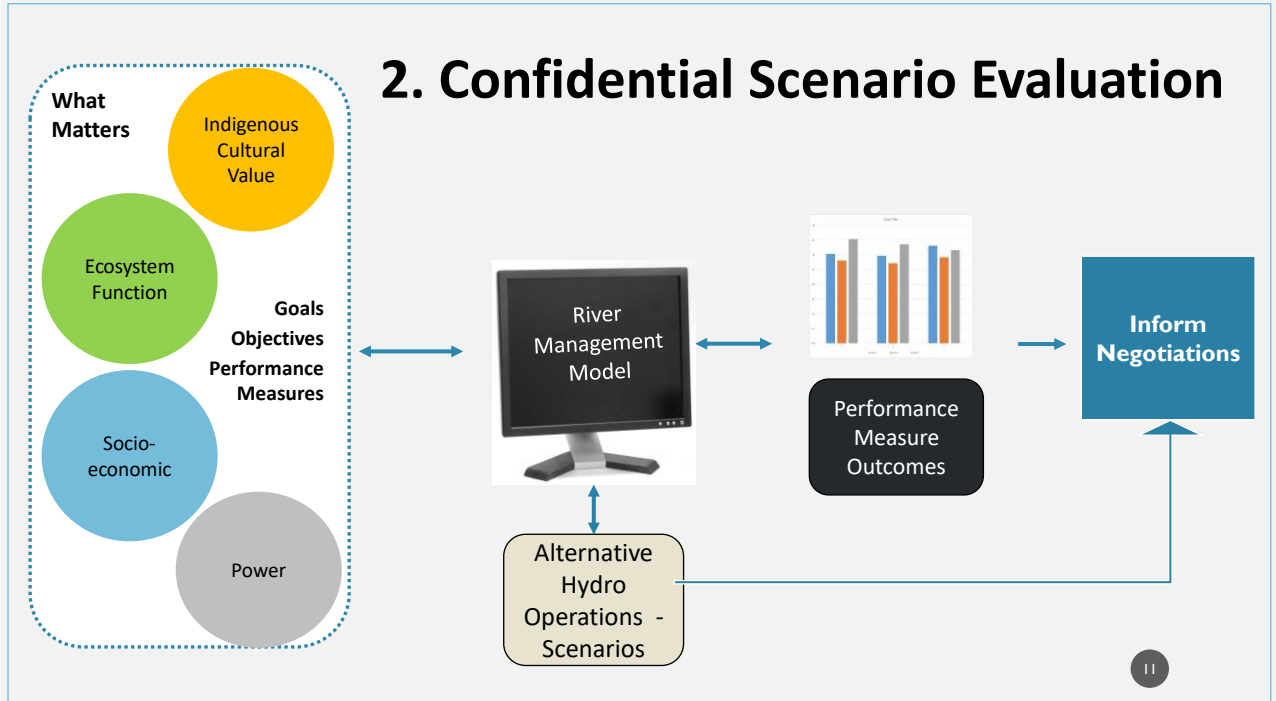
X PMs approved

* Additional PMs being researched

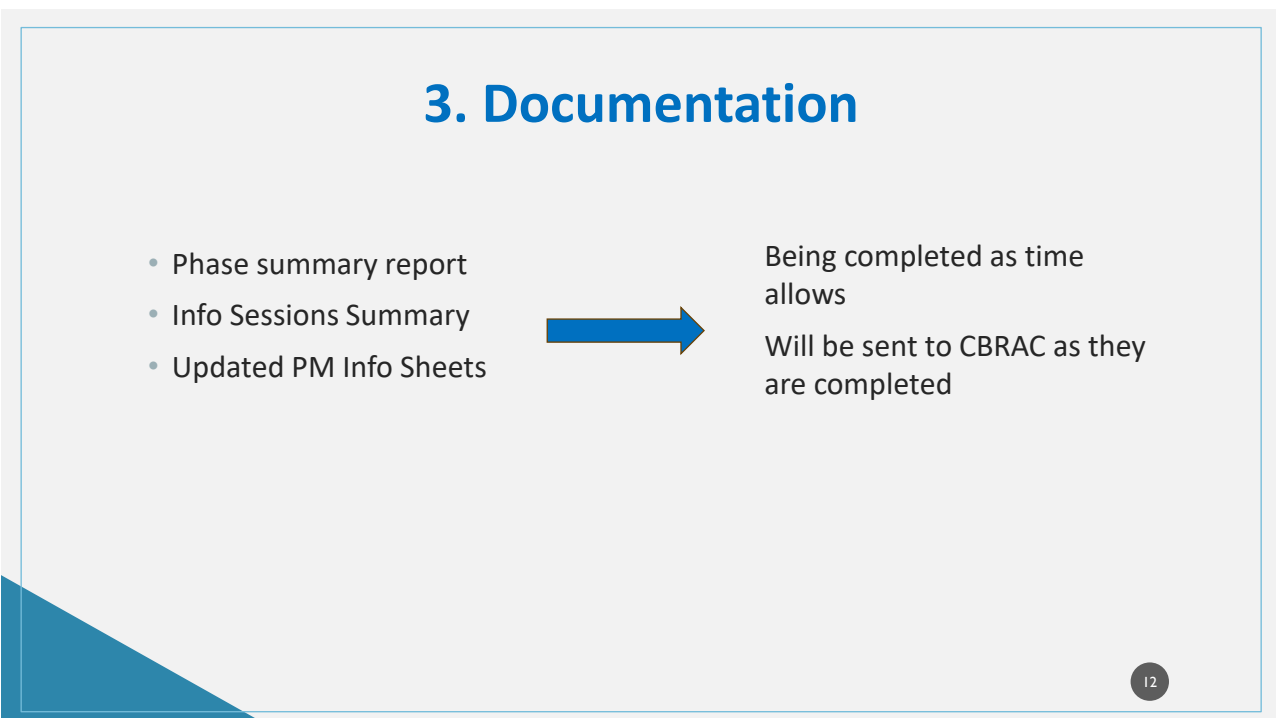
? Awaiting further information

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Performance Measures for Input

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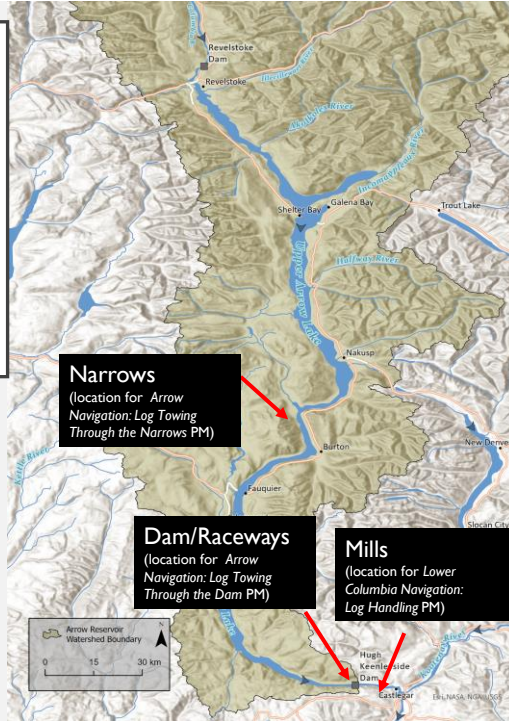
COLUMBIA PMS

Reservoir/ River Segment	Previous Approved PMs	New - Requesting Input	In progress	On Hold
Kinbasket	<ul style="list-style-type: none"> - Navigation - Recreation and Tourism 		<ul style="list-style-type: none"> - Rec and Tourism <ul style="list-style-type: none"> • Motorized boating low water access 	<ul style="list-style-type: none"> - Erosion - Flooding
Arrow	<ul style="list-style-type: none"> - Recreation and Tourism (main measure and sub-measures) - Navigation-Log towing (Narrows) - Agriculture Potential (using FRW as surrogate) 	<ul style="list-style-type: none"> - Navigation-Log towing (Narrows) - Navigation-Log towing (Raceways) - Recreation and Tourism: <ul style="list-style-type: none"> • Motorized Boat Access • Nakusp beach low water use 	<ul style="list-style-type: none"> - Rec and Tourism <ul style="list-style-type: none"> • Syringa beach low water use 	<ul style="list-style-type: none"> - Erosion - Flooding - Dust Potential (Burton)
Lower Columbia	<ul style="list-style-type: none"> - Flooding - Recreation and Tourism 		<ul style="list-style-type: none"> - Navigation – Log Handling 	

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ARROW AND LOWER COLUMBIA NAVIGATION – LOG HANDLING



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NAVIGATION – LOG TOWING THROUGH THE NARROWS

Approved PM

Performance Measure	Description										
Navigation – Log Towing Through the Narrows	<p>Number of weighted days annually that the reservoir water level allows for log transport through the Narrows, according to the following table. More is better.</p> <table border="1"> <thead> <tr> <th>Elevation Range</th> <th>Weighting</th> </tr> </thead> <tbody> <tr> <td>Above 1420 ft</td> <td>1</td> </tr> <tr> <td>1415-1420 ft</td> <td>0.5</td> </tr> <tr> <td>1400-1415 ft</td> <td>0.3</td> </tr> <tr> <td>Below 1400 ft</td> <td>0</td> </tr> </tbody> </table>	Elevation Range	Weighting	Above 1420 ft	1	1415-1420 ft	0.5	1400-1415 ft	0.3	Below 1400 ft	0
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1400-1415 ft	0.3										
Below 1400 ft	0										

- Extended low water period in early 2023 and now have presented opportunities to test how well this PM reflects reality
- Mill representatives indicated that they were able to tow between 1395 and 1400', although in very limited quantities.

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NAVIGATION – LOG TOWING THROUGH THE NARROWS

Recommended Adjusted PM

Performance Measure	Description												
Navigation – Log Towing Through the Narrows	Number of weighted days annually that the reservoir water level allows for log transport through the Narrows, according to the following table. More is better.												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: black; color: white;">Elevation Range</th> <th style="background-color: black; color: white;">Weighting</th> </tr> </thead> <tbody> <tr> <td>Above 1420 ft</td> <td>1</td> </tr> <tr> <td>1415-1420 ft</td> <td>0.5</td> </tr> <tr> <td>1400-1415 ft</td> <td>0.3</td> </tr> <tr style="background-color: yellow;"> <td>1395-1400 ft</td> <td>0.1</td> </tr> <tr> <td>Below 1395 ft</td> <td>0</td> </tr> </tbody> </table>	Elevation Range	Weighting	Above 1420 ft	1	1415-1420 ft	0.5	1400-1415 ft	0.3	1395-1400 ft	0.1	Below 1395 ft	0
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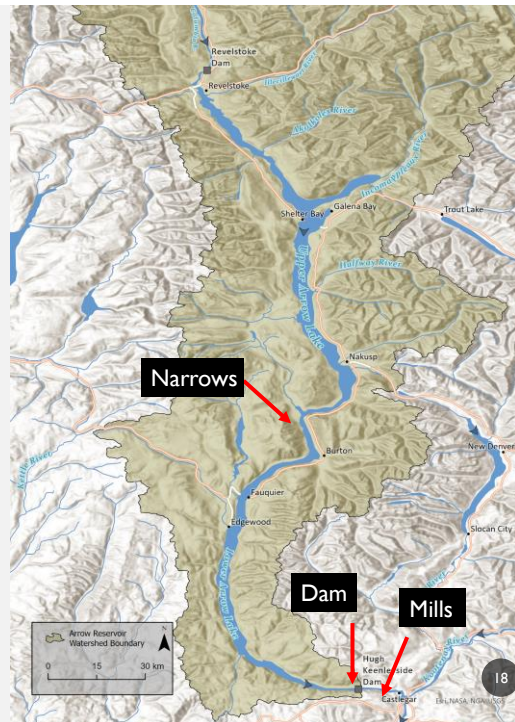
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NAVIGATION – LOG TOWING THROUGH LOCK RACEWAYS

Additional PM in development

Performance Measure	Description
Navigation – Log Transport through raceways at Hugh Keenleyside Dam	Number of days per year that elevation is below ?ft. (??m) . Less is better.

- Levels below 1390 feet impede use of one of the two raceways leading up to the dam, however this does not impact mill operations
- We are monitoring whether lower elevations limit towing through the second raceway, with impacts on mill operations
- Affects both Interfor and Mercer-Celgar (contracts Interfor for log delivery)



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ARROW RECREATION AND TOURISM

Approved Combined PM

Performance Measure	Description
Recreation and Tourism – Main Measure	Total number of days that the reservoir water level is within the preferred range (1420-1437 ft / 432.8 – 438 m) during the recreation season (1 Apr – 15 Oct). More is better.

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RECREATION AND TOURISM

Approved Sub-Measures

Sub-Measure Objective	Season	Elevation Range
Nakusp beach floating dock use preference	Jun 15 – Sep 15	1437ft (438m) and above
Motorized boating access (Revelstoke Centennial Ramp)	Apr 1 – Oct 15	1437ft (438m) and above
Private boat launch and dock use preference	Apr 1 – Oct 15	1430ft–1435ft (435.9m–437.4m)
Scotties Marina preference	Apr 1 – Oct 15	1428ft–1430ft (435.2m-435.9m)
General shoreline preference (Shelter Bay to Hugh Keenleyside Dam)	Apr 1 – Oct 15	1425ft–1435ft (434.3m-437.4m)
Syringa beach preference	Jun 15 – Sep 15	1425 –1435 ft (434.3 - 437.4 m)
Motorized boating experience preference	Apr 1 – Oct 15	1424ft–1435ft (434m-437.4m)
Motorized/non-motorized access to the Revelstoke reach drawdown zone	Apr 1 – Oct 15	Below 1424ft (434m)
Nakusp Marina dock damage avoided	Apr 1 – Oct 15	Above 1420ft (432.8m)
Motorized boating access (Scotties Marina boat ramp)	Apr 1 – Oct 15	1408ft (429.2m) and above
Motorized boating access (BC Hydro Boat Ramps)	Apr 1 – Oct 15	Above 1401ft (427m)

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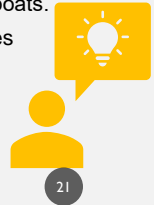
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RECREATION AND TOURISM- LOW WATER BOATING ACCESS

New Low water motorized boating access PM

Performance Measure	Description
Low Water Motorized Boating Access	Total number of days per year that the reservoir elevation is below 1401 ft (427.0 m), all year. Less is better.

- Acknowledges that recreation happens outside of the defined season and that low water has impacts on motorized boating access
 - BC Hydro boat launches around the reservoir start to become unusable at levels below 427 m (1401 ft)
 - Scotties Marina docks begin to be dewatered/damaged below 1403', necessitating removal of boats.
- Recommended as a main measure rather than a sub measure for easy inclusion in scenario analyses



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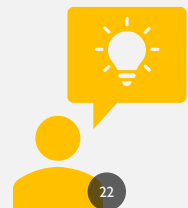
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RECREATION AND TOURISM – NAKUSP LOW WATER BEACH USE

New Nakusp low water beach use PM

Performance Measure	Description
Recreation and Tourism (Nakusp Low Water Beach Use)	Number of days annually that the reservoir water level is at or above 1418 ft (432.2 m) during the swimming season (Jun 15 – Sep 15). More is better.

- Elevates beach access to a full performance measure
- Represents 'swimmable' levels at the Nakusp Beach
- "Swimmable" = access to water and beach is not impeded by mud, vegetation, rocks, etc.
- Can be refined if/as new information becomes available. Current criteria::
 - Evidence of conditions that make swimming difficult or unenjoyable
 - Number of people enjoying the beach in comparison to higher water levels
- Season may be shortened to reflect the highest use swimming season, if we can secure data
- Requires adjustment of current dock and boom log locations which is being discussed with Nakusp staff



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RECREATION AND TOURISM – SYRINGA LOW WATER BEACH USE

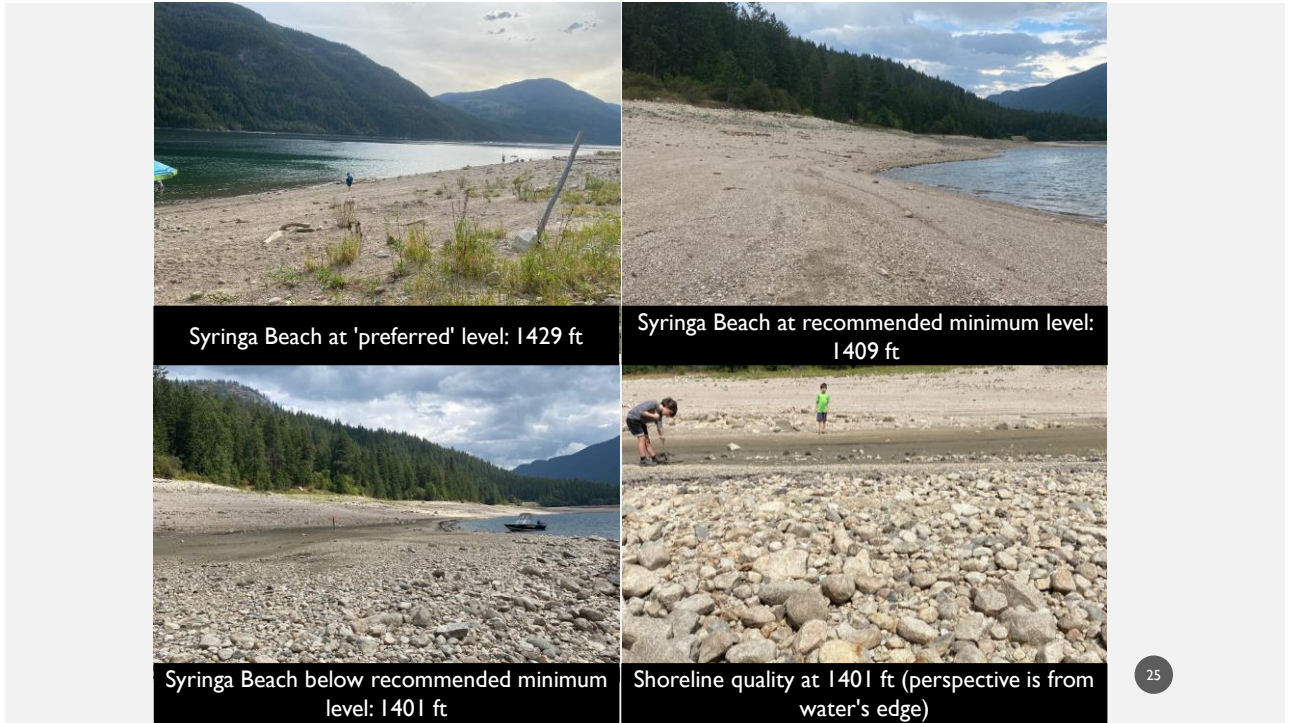
PM in development

Performance Measure	Description
Recreation and Tourism (Syringa Low Water Beach Use)	Number of days annually that the reservoir water level is at or above 1409 ft (429.6 m) during the swimming season (Jun 15 – Sep 15). More is better.

- Represents 'swimmable' levels at the main Syringa beach – lowest accessible beach at Syringa
- Just above the old road where a rocky shoreline emerges
- Recommendations for mitigative work if low water becomes more frequent (e.g., improved trails from campground)



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Summary: PMs for Input

Performance Measure	Description		
Navigation – Log Towing Through the Narrows	Number of weighted days annually that the reservoir water level allows for log transport through the Narrows, according to the following table. More is better.		
		Elevation Range	Weighting
		Above 1420 ft	1
		1415-1420 ft	0.5
		1400-1415 ft	0.3
		1395-1400 ft	0.1
Below 1395 ft	0		
Recreation and Tourism (Syringa Low Water Beach Use)	Number of days annually that the reservoir water level is at or above 1409 ft (429.6 m) during the swimming season (Jun 15 – Sep 15). More is better.		
Recreation and Tourism (Low Water Motorized Boating Access)	Total number of days per year that the reservoir elevation is below 1401 ft (427.0 m), all year. Less is better.		
Recreation and Tourism (Nakusp Low Water Beach Use)	Number of days annually that the reservoir water level is at or above 1418 ft (432.2 m) during the swimming season (Jun 15 – Sep 15). More is better.		

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Input Welcomed

- Support for or concerns about the next steps?
- Input on recommended PM revisions and new PMs

- Send emails to lrethoret@selkirk.ca

Feedback Deadline: End of day October 26, 2023

Thank you!

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