

# Columbia River Treaty Review - Addendum Report (2 new alternatives)

Presented at Fall 2013 Public Sessions



FOR GENERATIONS

# Alt. 7 TT -- Treaty terminated, with Arrow operation stabilized at mid-elevation

Operate Arrow to maintain reservoir level at: (a)1425 ft, or (b)1420 ft (currently, the Arrow “full pool” level is 1444 ft)

- Mica operations and Arrow discharges similar to original “TT” (Treaty terminated) alternative
- 1425 ft is bottom of recreation range for Arrow. Communities affected differently, some more beach in early summer, others further from water

| <b>Benefits</b>  | <b>Impacts</b>  |
|--|---|
| Establish vegetation for wildlife habitat and aesthetics. <ul style="list-style-type: none"><li>- 1425 ft → 480 ha</li><li>- 1420 ft → 980 ha</li></ul> Mid-Columbia shore-based recreation improves | Aquatic productivity down (nutrient residence time decreases)<br><br>Mid Columbia recreation boating lower (smaller reservoir)<br><br>Celgar/Interfor log transport operation affected at 1420 ft |

Note: Some performance measures were designed to capture differences with fluctuating levels throughout the drawdown zone, therefore do not always capture changes that may occur over time if the reservoir is stabilized at a specific elevation. [Example, heritage, kokanee access]

# Alt.8 TT – Treaty terminated, with reservoirs operated for Ecosystem Function

## Mica

- Limit reservoir draft in “average to low” water years
- Allow reservoir to fill into top 15ft only in “very wet” years (20% of years with highest forecast runoff volume)

## Arrow

- Operation stabilized at 1425 ft
- Allow reservoir level to fill to full pool only in “very wet” years (20% of years with highest forecast runoff volume)
- Target whitefish and trout flows downstream of Arrow

## Note:

- Alt 8 TT is not optimized for ecosystem function. Instead, it is intended to explore different possibilities for potential ecosystem benefits. Further mapping and other analysis would be needed to refine the alternative.
- Although designed for ecosystem benefits in Canada, the resulting flows across the US-Canada border will increase U.S. Columbia River flows during the spring and early summer and may have additional benefits to U.S. salmon recovery and other U.S. ecosystem values

# Alt. 8 TT, with Ecosystem Function

- Unanticipated consequence at Mica is a divergence between the “dry” years (when draft is limited) and “wet” years (with no draft limit)
- Arrow operation similar to Alt 7 (stabilize @1425) except reservoir fills in 20% of years. Could take till fall to draft back down to 1425 ft in an orderly fashion

| <b>Benefits (Mica)</b>   | <b>Impacts(Mica)</b>   |
|--|--|
| <ul style="list-style-type: none"><li>- Potential to improve vegetation for wildlife habitat in top 15 ft at Mica</li><li>- Boat access improves as not drafted as deep</li></ul>    | <ul style="list-style-type: none"><li>- Aquatic productivity (residence time decreases)</li></ul>  |
| <b>Benefits (Arrow and downstream)</b>   | <b>Impacts(Arrow and downstream)</b>   |
| <ul style="list-style-type: none"><li>- Whitefish &amp; trout flows improve with higher spring flow</li><li>- Unclear if benefit or impact to recreation relative to Alt 7</li></ul> | <ul style="list-style-type: none"><li>- Aquatic productivity (residence time less than Alt 7)</li><li>- Increase flows in spring likely to increase flood risk</li></ul> |

# Value of Power Generation

- 3 components of power

