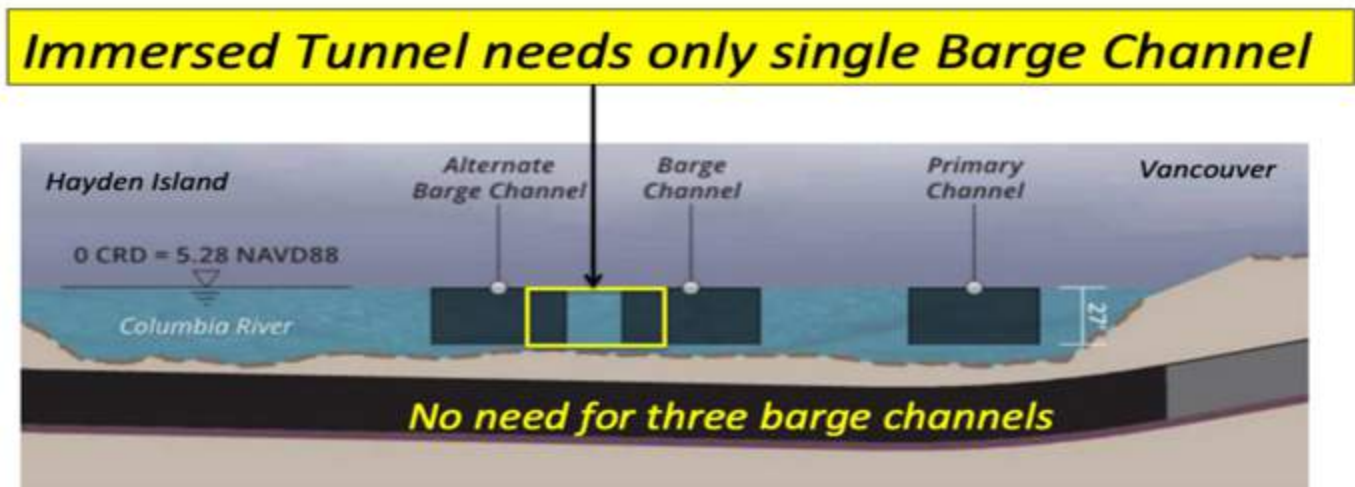


## IBR's "Tunnel Concept Assessment" is misleading

Columbia River barge captains, depending on the river level and the height of their barge, can select one of three barge channels to pass under the current I-5 Bridge. If an immersed tunnel replaced the current bridge there would be no height restrictions or piers to navigate between, only a single channel near the center of the river.

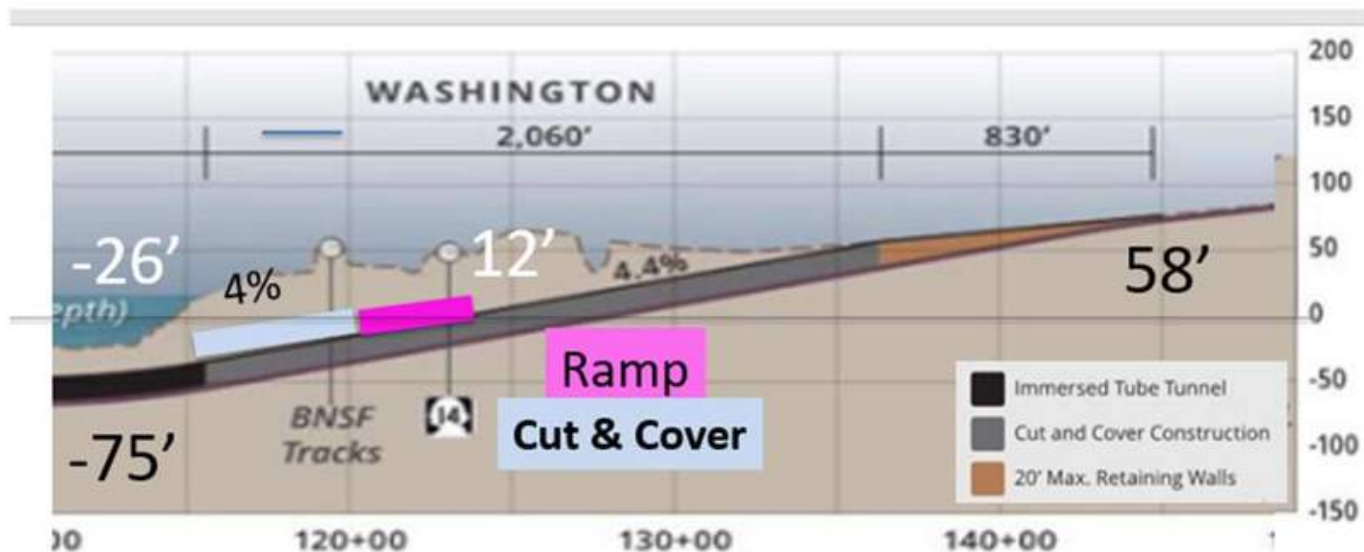
The Interstate Bridge Replacement Program's "Tunnel Concept Assessment" is incorrect and misleading because it evaluated a tunnel that goes under three current barge channels that would not exist with an immersed tunnel.



The IBR's "Tunnel Concept Assessment" requires a long steep ramp and cut & cover section to get under the primary channel at the current bridge lift. This channel will not be needed with an immersed tunnel. An immersed tunnel can have a ramp and cut & cover section one third as long and with 90% less excavation and cost.

The IBR graphic has a very poor scale and does not have an accurate elevation profile.

Distances and elevations can be checked with Google Earth.



The IBR's misleading evaluation has extremely inaccurate estimates of excavation, 7.9 million cubic yards.

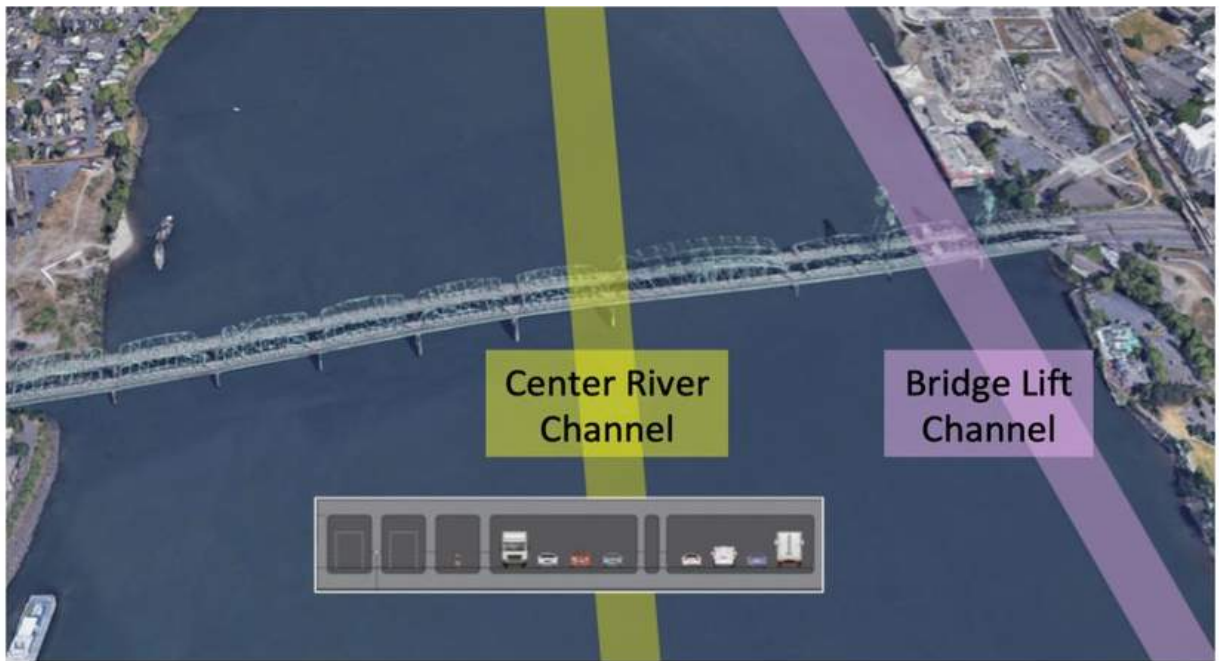


Table 1. Preliminary Tunnel Excavation Quantities Upstream Alignment

Location	Bridge Lift Channel	Center River Channel
Hayden Island (on land)	1,800,000 yd <sup>3</sup>	169,000 yd <sup>3</sup>
Columbia River (in water)	3,800,000 yd <sup>3</sup>	1,223,000 yd <sup>3</sup>
Vancouver (on land)	2,300,000 yd <sup>3</sup>	138,000 yd <sup>3</sup>
<b>Total</b>	<b>100% 7,900,000 yd<sup>3</sup></b>	<b>19% 1,530,000 yd<sup>3</sup></b>

