



## Great Bear River Bridge Offsetting Options Discussed During the Community Workshop on 8 November 2022

Type of Offsetting Offset	Offset Candidate	Target Species	Construction Concepts
1. Create or Enhance Spawning Habitat	1a. Construct or enhance shoal (reef) for spawning in a lake	Whitefish spp., Ciscoes, Lake Trout	Locally sourced logs cut and bundled on ice or boulders placed on ice using haul truck and/or loader
	1b. Add spawning gravels to small tributary	Arctic Grayling, White Sucker	Transport of clean, crushed rock by boat, truck or helicopter sling to tributary location(s)
	1c. Create off-channel pond in floodplain upstream of bridge	Walleye, Northern Pike, forage fish spp.	Use an excavator to create pond and/or excavate sediment within low-lying area to create a pond that is connected to the river
2. Improve Habitat Connectivity and Access to Spawning and/or Rearing Habitat	2a. Improve or create connection between a small pond in floodplain valley and main river channel	Walleye, Northern Pike, forage fish spp.	Use an excavator to connect an existing off-channel to the river mainstream
3. Enhance In-water Cover for Rearing Fish and Forage Fish Species	3a. Add boulder cover or large woody debris (logs) to a lake	Resident species of a lake	Placement of boulder structure or large woody debris during ice-covered conditions at select locations on lake via loader
	3b. Add boulder cover to the Great Bear River, below bridge piers	Most species in river	Placement of rock by contractor downstream of centre piers, within a deep hole in river
4. Restore Riparian Cover at Previously Disturbed Areas	4a. Riparian remediation of disturbed sites on winter road	Most species in affected waters	May include planting vegetation in riprap rock or along a shoreline. Will depend on further assessment of soil stability, high-water mark, and existing disturbance