Table 12.4-12: Spawning Potential for Fish Bearing Reaches in the Alexander Creek Watershed

Reach	Spawning Potential
ALE1	Good
ALE2	Good
ALE7	Good
ALE8	Moderate
ALE9	Moderate
ALE10	Poor
WAL1	Good
WAL2	Poor

A total of 38 potential spawning habitat units were documented as being good for potential use by spawning WCT during the spring spawning survey at ALE7. These sites contained appropriate spawning gravel size of 10 to 75 mm (Johnston and Slaney, 1996), some overhead cover, suitable flow, adequate water depth, and sufficient proximity to holding water. Three separate observations of WCT were noted during the 2017 survey; however, none of these fish were displaying spawning behaviour.

While suitable spawning habitat was noted, no redds were observed during the fall survey at ALE7. However, three potential redds were observed during the fall spawning surveys in October 2017 located on the edge of glides in gravel/small cobble substrate. The sizes of the redds were approximately 0.5 by 1.5 m, suggesting that these were likely Bull Trout redds, as opposed to Eastern Brook Trout redds.

Spawning potential was considered moderate for WCT in ALE8 and ALE9. Areas of suitably sized spawning gravel were infrequent but sufficient due to suitable water depths and low gradients. No fish or redds were observed during the spring spawning surveys in ALE8, but three WCT were observed in ALE9, although none displayed typical spawning behaviours. Spawning potential throughout ALE10 was considered poor, as areas of sizeable spawning gravel were limited due to shallow water depths and steep gradients. No fish or redds were observed during the spring spawning surveys in ALE10.

Fall spawning habitat in ALE8 was considered poor due to shallow water depths in both reaches, and no fish or redds were observed during the fall spawning surveys in ALE8. No fish or reds were observed during the fall surveys in ALE9 and ALE10.

A total of 22 habitat units, as defined by FHAP, were documented in WAL1 as having good potential to be used by WCT for spawning. These sites contained adequate spawning gravel size, overhead cover, flow, and water depth. One pair of WCT was observed during the 2017 spring spawning survey, but was not displaying typical spawning behaviour. In 2021, 7 redds were recorded in WAL1 confirming that this reach provides spawning habitat for the suspected subpopulation of Westslope Cutthroat Trout inhabiting this section of the creek (Figure 12.4-14).

Limited spawning potential was observed for fall-spawning species (e.g., Bull Trout and Eastern Brook Trout), as water depths were seasonally shallow. No spawning fish or redds were observed during either fall spawning survey. Steeper gradients and a lack of suitable spawning substrate limited the spawning potential in WAL2. This reach is considered to have spawning potential for Westslope Cutthroat Trout but further assessment would be needed to confirm this observation.