FISH AND FISH HABITAT

TENAS PROJECT

Telkwa Mining Assessed the Potential Project-related Effects on the Fish and Fish Habitat Valued Component

Valued Component	Subcomponent	Potential Effects Assessed
Fish and Fish Habitat	Fish Habitat	• Change in Fish Habitat
	Fish	• Change in Fish Health

Baseline and supplementary programs were conducted between 2017 – 2024:

- Fish habitat assessments
- Fish community sampling
- Fish tissue metals sampling
- Fish spawning studies
- Fish habitat offsetting investigations
- Water crossings surveys and assessments
- Environmental Flow Needs (EFN) assessments
- Fish abundance sampling

FISH HABITAT

Goathorn Creek

- Fish bearing for 15km from the confluence of Telkwa River
- Habitat in the upper reaches of Goathorn Creek is favoured by trout and char species.
- Most smaller tributaries to Goathorn Creek provide poor access for fish and limited potential fish habitat.

Tenas Creek

- Fish bearing from the confluence of Goathorn Creek for approximately 16.5km to a 20m waterfall.
- Moderate over-wintering and migration habitat.
- More suitable rearing habitat than Goathorn Creek given abundant low velocity sections.

Four Creek

- Reach 1 (confluence of Goathorn Creek to culvert beneath a Telkwa Mining private road) offers potential spawning habitat.
- Adequate flows in Reach 2-4 (upstream of Telkwa Mining private road) to support a small resident Dolly Varden population.

Helps Creek

- Primarily potential spawning and rearing habitat, over-wintering habitat appears limited.

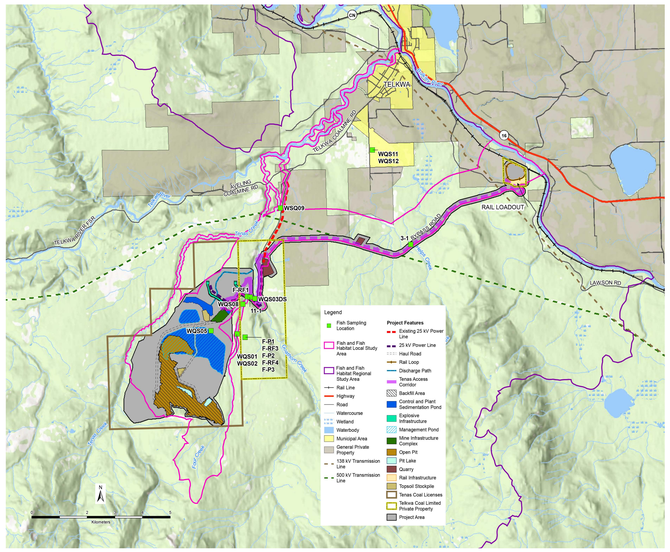
Watercourses within Minesite

- Three unnamed tributaries (TN6, TN7, and TN8) to Tenas Creek flow into the Tenas Creek mainstem from the east.
- All three are non-fish-bearing tributaries of Tenas Creek, and none directly support fish or provide fish habitat upstream of their confluence with Tenas Creek.

FISH COMMUNITIES

- Fish sampling to determine fish presence and species composition was completed in six watercourses in 2017 and 2018.

Fish Sampling Locations



Watercourse	Species
Goathorn Creek	Coho salmon, Dolly Varden, Steelhead/rainbow trout
Tenas Creek	Dolly Varden, Steelhead/rainbow trout
Four Creek	Dolly Varden, Steelhead/rainbow trout
Unnamed tributary to Four Creek	No fish caught
Bulkley River	Coho salmon, Lamprey, Steelhead/rainbow trout, Sucker (general), Chinook salmon, Dolly Varden, Longnose sucker, Minnow (general), Northern pikeminnow, White sucker
Telkwa River	Coho salmon, Steelhead/rainbow trout, Mountain whitefish, Dolly Varden

Example Mitigation Measures

- When feasible, Construction Phase activities will be scheduled to occur within the reduced risk instream work window.
- At watercourse crossings a fish salvage operation will be conducted where instream works or isolation of the work area within the watercourse will occur.
- While clearing and grubbing near watercourses, runoff patterns will be monitored.
- Clear-span bridges will be installed for fish bearing streams with abutments located outside of the bankfull water level of the stream.
- Culverts will be designed, and installation overseen by a qualified professional.
- Where water withdrawal or diversion is required, the necessary approvals will be in place.
- Disturbed banks and riparian areas will be seeded with an approved native grass mixture or planted with shrubby riparian species.

Residual Effects

- Changes in fish habitat are expected to arise from the diversion of water currently conveyed in tributaries to Tenas and Four Creeks.
- After implementation of fish habitat offsetting there will be no net loss of habitat.



TELKWA MINING LIMITED

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