

Table 16: Summary of Advantages and Disadvantages

Site Name	Site ID	Key Advantages	Key Disadvantages
Fraser Falls	STEWA-STEWA-0519-B	<p>Environmental</p> <ul style="list-style-type: none"> • Low fluctuation of reservoir level (3 m over an average year) <p>Socio-economic</p> <ul style="list-style-type: none"> • Economic benefits (i.e., jobs and business activity) are considered substantial in the context of the Yukon economy: <ul style="list-style-type: none"> ◦ High amount of construction jobs (4,800); moderate amount of operations jobs (34) • Low overlap with other Land Tenures and Dispositions (900 ha) • High construction GDP (553 million); moderate operations GDP (6.7 million) • No displacement of infrastructure • Adverse effects on community well-being in local communities is expected to be low 	<p>Environmental</p> <ul style="list-style-type: none"> • Overlap with Horseshoe Slough Habitat Protection Area and No-Gold settlement • Overlap with chinook, chum salmon and arctic grayling habitat (all three are species of high priority for a National status assessment by COSEWIC). Other fish species will also be affected • Overlap with breeding habitat of documented species at risk (woodland caribou, peregrine falcon), and possibly with winter foraging habitat for woodland caribou. • Overlap with key nesting habitat for waterfowl and with goose moulting habitat. <p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with 3,300 ha of Na-Cho Nyäk Dun Settlement Land • Overlap with highest area of Renewable Resource Areas (71,800 ha); largest flooded area (311 km²) • Overlap with Non-Renewable Resource Areas (7,800 ha) • Overlap with highest area of Traditional Aboriginal Activity use (31,200 ha) • Documented Aboriginal fishing sites: <ul style="list-style-type: none"> ◦ At Fraser Falls and downstream of Fraser Falls (Linklater 2014; DFO 2015b) ◦ Between Fraser Falls and the confluence with the McQuesten River (DFO, 2015b)

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			<ul style="list-style-type: none"> • Overlaps known Heritage and Cultural Resource sites. • Project located in area of high archaeological potential.
Two Mile Canyon	STEWA-HESS-0552	<p>Environmental</p> <ul style="list-style-type: none"> • Smallest flooded area (10,300 ha) • Reservoir located outside of mainstem of Stewart River • Relatively lower effects on wildlife and wildlife habitat <p>Socio-economic</p> <ul style="list-style-type: none"> • Economic benefits (i.e., jobs and business activity) are considered substantial in the context of the Yukon economy. <ul style="list-style-type: none"> ◦ Rated in the mid-range for Construction jobs (3,600) Operations jobs (33); and, ◦ Construction GDP (412 million), Operations GDP (6.6 million) • The Two Mile site is identified in the Na-Cho Nyäk Dun Settlement Agreement as set out for expropriation for hydroelectric or water storage projects with compensation at a maximum of 3% of the construction cost • Relatively low overlap with Renewable Resource Areas (20,700 ha); • Low overlap with Non-Renewable Resource Areas (380 ha) 	<p>Environmental</p> <ul style="list-style-type: none"> • Overlap with chinook, chum salmon and arctic grayling habitat. Other fish species will also be affected. • High fluctuation of reservoir level (9 m over an average year) <p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with 2,000 ha of Na-Cho Nyäk Dun Settlement Land; • Moderate overlap with other Land Tenures and Dispositions (10,300 ha) • Project located in area of high archaeological potential.

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		<ul style="list-style-type: none"> • Relatively low overlap with areas used for Traditional Aboriginal Activities (10,300 ha) • Area is part of Na-Cho Nyäk Dun chinook fishery but no documented Aboriginal fishing sites • No displacement of infrastructure • Adverse effects on community well-being in local communities is expected to be low • No overlap known Heritage and Cultural Resource sites 	
Granite Canyon	PELLY-PELLY-0480-B	<p>Environmental</p> <ul style="list-style-type: none"> • Low fluctuation of reservoir level (3 m over an average year) <p>Socio-economic</p> <ul style="list-style-type: none"> • The amount of construction jobs (3,300) and operations jobs (2d8) and construction GDP (380 million) and 	<p>Environmental</p> <ul style="list-style-type: none"> • Downstream effects on Mica and Needlerock Creek Area of Special Consideration (Yukon Placer Fish Habitat Management System) which support genetically distinct populations of chinook salmon. Other fish species will also be affected • Overlap with chinook, chum salmon and arctic grayling habitat. Other fish species will also be affected. • Overlap with species at risk habitat (trumpeter swan) and potential overlap with wintering habitat of woodland caribou. • Overlap with important nesting habitat for waterfowl. <p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with 8,800 ha of Selkirk First Nation settlement land (highest amount)

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		<p>operations GDP (5.6 million) are lowest among the six priority sites, but considered substantial in the context of the Yukon economy.</p> <ul style="list-style-type: none"> • The Granite Canyon site is identified in the Selkirk First Nation Settlement Agreement as set out for expropriation for hydroelectric or water storage projects with compensation at a maximum of 3% of the construction cost • Low overlap with Non-Renewable Resources Areas (35 ha); • No displacement of infrastructure • Adverse effects on community well-being in local communities is expected to be low 	<ul style="list-style-type: none"> • Moderate overlap with Renewable Resources Area (32,400 ha); moderate flooded area (173 km²) • Moderate overlap with other Land Tenures and Dispositions (4,600 ha) • Moderate overlap with Traditional Aboriginal Activities (17,600 ha) • Documented Aboriginal fishing site within the reservoir footprint (i.e., at Pelly River near the confluence with Little Kalzas River (DFO 2015b)); • Documented Aboriginal fishing sites downstream: <ul style="list-style-type: none"> ○ Fort Selkirk just downstream of the Pelly River outlet (downstream of the project site; Yukon Department of Tourism and Culture 2015a); and ○ Tat'á Män Lake at the head of Mica Creek near Pelly Crossing (Downstream of the project site; Yukon Department of Tourism and Culture 2015b). • The Selkirk First Nation regards that the Pelly River upstream of Granite Canyon is of great importance and is culturally significant to them. • Overlaps known Heritage and Cultural Resource sites • Project located in area of high archaeological potential.
Detour Canyon	PELLY-PELLY-0567-B	<p>Environmental</p> <ul style="list-style-type: none"> • Substantially lower effects on wildlife and wildlife habitat 	<p>Environmental</p> <ul style="list-style-type: none"> • Downstream effects on Mica and Needlerock Creek Area of Special Consideration (Yukon Placer Fish Habitat Management System) which support genetically distinct populations of chinook salmon. Other fish species will also be affected.

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		<p>Socio-economic</p> <ul style="list-style-type: none"> • Economic benefits (i.e., jobs and business activity) are considered substantial in the context of the Yukon economy: <ul style="list-style-type: none"> ○ Construction Jobs (5,500) and Operations Jobs (37); ○ Construction GDP (634 million) and Operations GDP (7.3 million) • Relatively low overlap with Renewable Resource Areas (27,000 ha); relatively low flooded area (130 km²) • Lowest overlap with other Land Tenures and Dispositions (6 ha) • No displacement of infrastructure • Relatively low overlap with Traditional Aboriginal Activity land use (13,000 ha) • No overlap with known Heritage and Cultural Resource sites • Adverse effects on community well-being in local communities is expected to be low 	<ul style="list-style-type: none"> • Overlap with lower Anvil Creek Area of Ecological and Cultural Special Consideration (Yukon Placer Fish Habitat Management System); • Overlap with chinook, chum salmon and arctic grayling habitat. Other fish species will also be affected • High fluctuation of reservoir level (7 m over an average year) <p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with 2,300 ha of Liard First Nation/Ross River Dena Council Interim Protected Land • Overlap with 3 ha of Selkirk First Nation Settlement Land • Moderate overlap with Non-Renewable Resource Areas (10,800 ha) • Documented Aboriginal fishing sites downstream: <ul style="list-style-type: none"> ○ Fort Selkirk just downstream of the Pelly River outlet (downstream of the project site; Yukon Department of Tourism and Culture 2015a); ○ Pelly River near the confluence with Little Kalzas River (downstream of the project site; DFO 2015b); and ○ Tat'lá Män Lake at the head of Mica Creek near Pelly Crossing (Downstream of the project site; Yukon Department of Tourism and Culture 2015b). • Project located in area of high archaeological potential.

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Slate Rapids + Hoole Canyon ROR	PELLEY-PELLEY-0847-B PELLEY-PELLEY-0760-A	<p>Socio-economic</p> <ul style="list-style-type: none"> • Economic benefits (i.e., jobs and business activity) are considered substantial in the context of the Yukon economy: <ul style="list-style-type: none"> ○ Highest amount of construction jobs (11,600), highest amount of operations jobs (59) ○ Highest construction GDP (1,329 million), highest operations GDP (11.7 million) 	<p>Environmental</p> <ul style="list-style-type: none"> • Fluctuation of levels of Pelly Lakes and Fortin Lake (effects on shoreline habitat) • Downstream effects on Mica and Needlerock Creek Area of Special Consideration (Yukon Placer Fish Habitat Management System) which support genetically distinct populations of chinook salmon. Other fish species will also be affected • Documented chinook salmon in Pelly Lakes Creek, documented spawning area Pelly lake outlet to 2 km downstream. Effects on spawning reaches, migration, and downstream habitats. Other fish species will also be affected • Overlap with arctic grayling habitat. • Moderate fluctuation of reservoir level (5 m over an average year) • Project is fully within Finlayson caribou herd overwintering range. • Documented bank swallow breeding site; colony-nesting species are at greater risk of local population declines. <p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with Liard First Nation/Ross River Dena Council Interim Protected Land 4,900 ha • Highest overlap with Non-Renewable Resource areas (19,100 ha); • Moderately high overlap of Renewable Resource Area; • Moderately high overlap with Traditional Aboriginal Activities area (19,100 ha); • Documented Aboriginal fishing sites downstream:

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		<ul style="list-style-type: none"> • Low overlap with other Land Tenures and Dispositions (135 ha) 	<ul style="list-style-type: none"> ○ Fort Selkirk just downstream of the Pelly River outlet (downstream of the project site; Yukon Department of Tourism and Culture 2015a); ○ Pelly River near the confluence with Little Kalzas River (downstream of the project site; DFO 2015b); and ○ Tat'á Män Lake at the head of Mica Creek near Pelly Crossing (Downstream of the project site; Yukon Department of Tourism and Culture 2015b). • Overlaps known Heritage and Cultural Resource sites • Project located in area of high archaeological potential. • Potential displacement of Robert Campbell highway and associated community disruption
False Canyon + Middle Canyon ROR	LIARD-FRANC-0696 + LIARD-FRANC-0670-B	<p>Environmental</p> <ul style="list-style-type: none"> • Effects to fish are limited to non-anadromous fish species and therefore more localized than other priority sites • There is greater potential for moderating effects from Frances Lake complex on mercury accumulation in the reservoir. 	<p>Environmental</p> <ul style="list-style-type: none"> • Frances Lake level will be raised by 8 m • Moderate fluctuation of reservoir level (5 m over an average year) • Loss of habitats (spawning, rearing, fluvial) for bull trout (species at risk) • Loss of habitat for arctic grayling. • Documented barn swallow breeding site; colony nesting species at greater risk of local population decline • Overlap with secondary waterfowl staging area and riparian raptor breeding area. • Overlap with caribou WKA (Nahanni herd) and potential encroachment on wintering habitat.

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		<p>Socio-economic</p> <ul style="list-style-type: none"> • Economic benefits (i.e., jobs and business activity) are considered substantial in the context of the Yukon economy: <ul style="list-style-type: none"> ○ High amount of construction jobs (7,700) ○ High construction GDP (879 million) ○ Moderate amount of operations jobs (41) ○ Moderate amount of operations GDP (8.3 million) 	<p>Socio-economic</p> <ul style="list-style-type: none"> • Overlap with 1,500 ha of Liard First Nation/Ross River Dena Council Interim Protected Land • Overlaps with area of potential Traditional Aboriginal Activities • Moderately high overlap with Renewable Resource Areas; second highest flooded area (26,100 ha) • Moderately high overlap with Non-Renewable Resource Areas (3,000) • Highest overlap with other Land Tenures and Dispositions (30,000 ha) • Potential displacement of Robert Campbell Hwy and Nahanni Range Road • Overlaps known Heritage and Cultural Resource sites. Several burial sites are known to exist. • Project located in area of high archaeological potential. • Adverse effects on community well-being in local communities is expected to be low • Adverse effects on community well-being in local communities is expected to be high