#	Indicator(s)	Project	1st year Cost (K)	1st year Effort (Days)	Subs. Year's Cost (K)	Subs. Year's Effort	5th Year Cost (K)	5th Year Effort (Days)	Comments
1	Stream and Lake Pressure -Watershed: Total land cover alterations -Riparian disturbance -Watershed: Road Density		2,304	690	Dep. on extent of analysis				¾ PY GIS analyst and 2 years to gain all of data from Province, might be able to do in one year but doubtful
2		Streams and Lakes To enable weighting of different land-use types, do probability analysis of different types of land use impacts.	9.0	85					Project only needs to be undertaken once.
3		Streams and Lakes Develop correlation between road density, road network (via spatial analysis), stream network (S1, S2, etc.), fish	0	0					Included in #2

1

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		distribution and crossing type e.g. culvert, bridge, etc.							
4	Stream Pressure Water extraction		8.5K	34		-			May run again in 10? years if L'eau model captures climate change effects
5	Stream, Lake and Estuary Pressure Permitted Discharges		-	-		-			TBD once data is more readily available in a couple of years
6	Stream Pressure Sediment		326K	371					In subsequent years, 20 days of effort in Yukon decreased to 5 days
7		Stream Develop correlation curve of Turbidity Units to TSS	74K	60		-			Would only do the one year
8	Stream Status Water Quality		1.5K	6					
9	Stream Status -Temperature, Coho		74.5	?40?	?70?				Collaborate with Province and their Temp. Sens. Stream

2

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	juvenile rearing -Temperature, Migration Spawning all species								work to ID priority monitoring sites
10		Stream Augment Temperature Sensitive streams database, Yukon water Temperature Data, WATEMP Database where needed with Mean Weekly Average temperature.	TBD						
11	Stream Status Stream discharge		19.4K	30					
11a.		Stream Audit Yukon flow modeling in sensitive rearing areas.	53.9	77					Not much data on Yukon stream discharge, so this Project needed to address data gap

3

#	Indicator(s)	Project	1st year Cost (K)	1st year Effort (Days)	Subs. Year's Cost (K)	Subs. Year's Effort	5th Year Cost (K)	5th Year Effort (Days)	Comments
12		Stream Review Ron Ptolemy water data and where gaps for data exist, examine augmenting and updating with current information	TBD						For Yukon, the literature not available, project 11a recommended.
13		Stream Predicted/Potential fish distribution of juveniles and adults-Investigate if Yukon Habitat Suitability or Provincial FSW models could work for WSP.	28K	20					For the Yukon's Porcupine Drainage
14	Stream Status Benthic Invertebrates		0.5						
15	Stream Quantity Accessible stream length, barriers		40K	160			10K	40	Estimate based on paper audit alone; subsequent audit in 5th year should have less new entries to review

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#	Indicator(s)	Project	1st year Cost (K)	1st year Effort (Days)	Subs. Year's Cost (K)	Subs. Year's Effort	5th Year Cost (K)	5th Year Effort (Days)	Comments
16	Stream Quantity Key Spawning Areas		25K?	1000					25K for FISS audit, likely an overestimate of effort but conservative as there could be compliations, should undertake at same time as barriers audit
17	Lake Quantity Lake Productive Capacity		1.4K	4.5			14.75K	9	Future year's projections if sockeye lake's group didn't do further analysis
18	Lake Quantity Coldwater refuge zone		2.3K	5.5	1K	2	1K	2	Adding this work to Sockeye Lakes Group's field work
19	Lake Quantity Shore spawning area		14K				Need N. Coast		Not recommended for the Yukon
20		Lake Recommend Sockeye Lakes study group also capture shoreline temperatures.	15K	16					Estimate for only one lake, one season, highly risky project, not recommended for the Yukon

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#	Indicator(s)	Project	1st year Cost (K)	1st year Effort (Days)	Subs. Year's Cost (K)	Subs. Year's Effort	5th Year Cost (K)	5th Year Effort (Days)	Comments
21		Lake Create a model to ID land conversion on deltas in lakes utilizing Watershed Statistics data.	TBD						
22	Estuary Pressure Marine vessel traffic		3.0K	7					
23		Estuary Model for coarse particulate matter in estuaries-use estuarine gradient from CHS data and lease information for log-storage. May be able to use deposition model from Scotland for log-storage.	TBD						
24	Estuary Pressure		2.7 K	5.5			2.7 K	5.5	

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	Disturbance of riparian, intertidal (e.g. Carex and Typha) and sub-tidal (e.g. eel-grass) habitats								
25	Estuary Status Chemistry e.g. N, P, N:P and Contaminants e.g. Metals, PAHs and PCBs		0.75K	3					
26	Estuary Status Indicator and Project Dissolved Oxygen		TBD	7					
27	Estuarine Quantity Estuarine Quantity (Riparian, sedge, eelgrass and mudflat)		3.0K						

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28		Estuary and Stream Predictive model for stream and estuarine off-channel habitat.	TBD						
29		Estuary Develop sampling program for presence/absence of key indicator species of invertebrates in the estuary as an alternative to RCA or IBI	TBD						
		GIS administration and management of the update processes	2.5K	10					is dependent upon volume of new information
		GIS Project management (internal)	6K	20					Didn't add into cost estimate
Total			3000K	1657.5					
30		**Joint Project with Other Program**	Joint funding						

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		Stream, Lakes and Estuaries Increase FPR information to allow for calculations of habitat gains i.e. include quantity, geo-referenced location, and the same standards are used to quantify that habitat	TBD						
31		**Joint Project with Other Program** Stream, Lakes and Estuaries Capture gains/losses in project reviews, mitigation efforts, authorized and unauthorized works	Joint funding TBD						

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