Lakelse River Watershed - Condition and Fish Habitat Summary Table

	Lakelse River residual	Furlong Creek	Hatchery Creek	Scully Creek	Upper Coldwater Creek	White Creek	Williams Creek
Area (ha)	25,945	1,079	3,060	2,933	5,537	2,761	16,970
% Private land	10	0	0	0	0	0	0
Area logged or otherwise disturbed < 50 yrs (%)	44	5	1.5	13	6	8	15
Fish habitat value rating (L/M/H)*	High	High	High	High	High	High	High
Description of value*	Historically the watershed was most productive system in the Skeena watershed - providing 35% of the commercial fishery for coho, sockeye, and pink salmon on the Skeena River. Mainstem is migration corridor for all salmonids in and out of the Lakelse system. High value spawning and rearing habitat occurs in tributary systems including Sockeye and Blackwater Creeks.	Historically productive for sockeye, returns have decreased, coho still use system above the highway.	Historically productive for sockeye, returns have decreased as a result of channel confinement on fan and reduction in habitat value.	Historically very productive for sockeye relative to basin size. Returns severely depressed since early 1990's, assumed to be the result of disturbance on fan., including major avulsion.	Not specifically described in background reports. Included as high value habitat along with all tributaries to Lakelse River between Lakelse Lake and the Skeena River.	Not well described but included as high value habitat along with all tributaries to Lakelse River between Lakelse Lake and the Skeena River	Provides 80% of total sockeye habitat within the larger Lakelse system. Currently, sockeye returns are severely depressed.
Habitat type*	Migration through mainstem, some spawning and rearing in tributaries other than those listed as basins.	Spawning for sockeye and coho, rearing for coho. Resident fish assumed present year round.	Spawning for sockeye and coho, rearing for coho. Resident fish assumed present year round.	Spawning for sockeye and coho, rearing for coho. Resident fish assumed present year round.	Not described in background reports - assume accessible reaches used by sockeye, coho and resident fish for spawning and rearing, spawning only for sockeye.	Not described in background reports - assume accessible reaches used by sockeye, coho and resident fish for spawning and rearing, spawning only for sockeye.	Spawning for sockeye, coho, and steelhead. Rearing for coho and steelhead. Resident fish assumed present year round.
Habitat condition (poor/fair/good)**	Mainstem - good. Some tributaries poor to fair.	Poor	Poor	Poor	Not described in particular but included in comments provided for lower Lakelse River - very high fine and coarse sediment load mentioned.	Not described in particular but included in comments provided for lower Lakelse River - very high fine and coarse sediment load mentioned.	Poor
Description of habitat and condition (from background)**	Movement of fish up to Lakelse Lake. Mainstem channel described as stable with reasonable riparian function. Sedimentation levels have increased in the mainstem and tributaries as a result of road erosion, channel destabilization in tributary fan and floodplain areas, and land-use related slumps and landslides in tributary systems. Beavers affect fish access in low lying areas, could be related to old non-status roads and trails in addition to deciduous dominated stands in old riparian logging areas.	High value habitat restricted to fan which has been heavily modified by logging, road and trail construction, channel confinement, rural development and recent windthrow along cutblock boundaries. System receives significant bedload from upstream areas - assumed to be natural source. Turbidity monitoring data suggest instability in the watershed.	High value habitat restricted to fan. The channel has been confined (dyked) on the fan to protect the highway and lakeshore property resulting in a reduction in channel complexity and suitable habitat. Active sediment sources near the apex aggrade the channel through to Lakelse Lake.	High value habitat restricted mostly to fan which has been disturbed by past logging, avulsions related to old roads, trails, gas line infrastructure, and agricultural clearing and ditching. Multiple distributary channels and old road crossings provide good opportunity for beaver dams with negative effects on fish access. Slumping of banks occurs often along fine textured fan channels.	Not described in background reports but increase in sedimentation to Lakelse River mentioned as a result of road erosion and land-use related slumps and slides in tributary systems. Channel and fan destabilization mentioned in watershed assessment report. Suggests at least some negative effect on tributary habitat. Based on Google Earth review mainstem channel has been clearly destabilized by past harvesting or other land-use related clearing in riparian areas.	Not described in background reports but increase in sedimentation to Lakelse River mentioned as a result of road erosion and land-use related slumps and slides in tributary systems. Channel and fan destabilization mentioned in watershed assessment report. Suggests at least some negative effect on tributary habitat. Based on Google Earth review mainstem channel has been clearly destabilized by past harvesting or other land-use related clearing in riparian areas.	Sockeye spawning and rearing on lower fan, coho and steelhead habitat in upstream areas. Fan disturbed by past harvesting in riparian areas and increase in sedimentation - both natural and development related. The system experienced a significant increase in sedimentation from natural sources in the early 1970's which is working its way through the system. There is some disagreement around the amount of sediment contribution from forest development however the bulk of landslides observed in the system have been attributed to some type of forest development activity. The channels and associated habitat on the fan are recovering from the increase in sedimentation and past harvesting in riparian areas.
Sensitive to land-use disturbance*	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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	Lakelse River residual	Furlong Creek	Hatchery Creek	Scully Creek	Upper Coldwater Creek	White Creek	Williams Creek
Land-use related concern(s) for fish	Increases in stream sedimentation and reductions in riparian function throughout including foreshore areas. Glaciomarine clays underlay a significant portion of the residual area.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The Furlong Creek basin is steep and well drained (flashy), most of the basin is hydrogeomorphically connected to high value fish habitat.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The Hatchery Creek basin is steep and well drained (flashy), most of the basin is connected hydrogeomorphically to fish habitat.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The Scully Creek basin is steep and well drained (flashy), most of the basin is connected hydrogeomorphically to fish habitat.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The Upper Coldwater Creek basin is steep and well drained (flashy), most of the basin is hydrogeomorphically connected to high value fish habitat.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The White Creek basin is steep and well drained (flashy), most of the basin is hydrogeomorphically connected to high value fish habitat.	Potential increases in peak flow and stream sedimentation, and reductions in riparian function. The Williams Creek basin is relatively steep and well drained, most of the basin is connected hydrogeomorphically to high value fish habitat.
Special management recommended to protect fish and fish habitat	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Relevant land management objectives	Sediment delivery and riparian function throughout.	Rate of cut, sediment delivery, riparian function.	Rate of cut, sediment delivery, riparian function.	Rate of cut, sediment delivery, riparian function.	Rate of cut, sediment delivery, riparian function.	Rate of cut, sediment delivery, riparian function.	Rate of cut, sediment delivery, riparian function.
Specifics	Extra attention to terrain stability where glaciomarine clay is involved.	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributaries).	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributaries).	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributaries)	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributary basins).	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributaries).	Distribute cut by aspect, elevation and location in basin (i.e. do not concentrate development in tributaries)
Restoration opportunities* **	Increase crown ownership of Lakelse Lake foreshore area and manage for fish habitat. Improve fish access where affected by beaver. Inventory and risk rate beaver dams with respect to potential failure. Review opportunities for riparian treatment to promote conifers. Deactivation of non-status roads and trails where erosion or diversions occur.	Improve fish access where affected by beaver. Inventory and risk rate beaver dams with respect to potential failure. Increase crown ownership of Furlong fan, manage for recovery and restoration of natural hydrogeomorphic processes, where possible.	Increase crown ownership of Hatchery fan, manage for recovery and restoration of natural hydrogeomorphic processes, where possible.	Improve fish access where affected by beaver.Inventory and risk rate beaver dams with respect to potential failure. Increase crown ownership of Scully fan, manage for recovery and restoration of natural hydrogeomorphic processes, where possible. Future fish production could be limited by anoxic environment.	Review opportunities for riparian treatment to promote conifer regeneration where logging or other form of land-use clearing has occurred in riparian areas.	Review opportunities for riparian treatment to promote conifer regeneration where logging or other form of land-use clearing has occurred in riparian areas.	Improve fish access where affected by beaver. Inventory and risk rate beaver dams with respect to potential failure. Review opportunities for riparian treatment to promote conifers. Increase crown ownership of Williams fan, manage for recovery and restoration of natural hydrogeomorphic processes, where possible.

* Information derived from FSW Candidate Evaluation Workshop Results - 2008. Includes information for the major fans, despite their inclusion in the residual area, as fan habitat is directly connected to basin level conditions.
** Information derived from Lakelse Lake Backgrounder, BC Ministry of Environment - 2009.
*** Includes discussion of opportunities on major fans associated with the six basins.