

SUSKWA WATERSHED RESTORATION PROGRAM

Level 1

November 1995

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Executive Summary

This report summarizes the Suskwa Watershed Restoration Program. The report is laid out in three components. The general approach and main areas of concern are listed below and described in detail in the report.

This initial section summarizes the Suskwa Watershed Restoration Program (SWRP) and provides a general description of the watershed, methodology utilized, and works that will form the basis for Level 2 assessments and conclusions.

Part 1 This section contains the road, hillslope and gully assessments as well as the overall watershed hydrology. Office review of air photos, maps, and reports, were supplemented with aerial overview field observations. Major potential and real impacts, both natural and logging-related, are described. Recommendations for Level 2 assessment work and identification of high priority areas are laid out in tabular form and on the maps. Areas of instability, including earthflows, debris and avalanche slides are discussed and mapped. The hydrology of the watershed is looked at from the perspective of union between overall natural and anthropogenic upslope activity and the stream channels. Geomorphologically active stream reaches are noted and an hypothesis of activity is presented.

Part 2 All reaches of the Suskwa and its tributaries were classified and correlated with the fish habitat reach classification. Air and photo reconnaissance were used to identify sediment sources or other areas of potential instability along stream channels that may have resulted from development in the watershed. The main areas of concern for the stream channel assessments are streambank and ~~sca~~ slope destabilization in the Iltzul and Denison drainages.

Part 3 Fish habitats were assessed by reviewing available MOF and DFO fisheries inventory reports for the Suskwa drainage and by a limited sampling program. Using fish information and stream gradient data, stream reaches were classified and correlated with the stream channel classification. The major areas of concern for fish and fish habitat are access under road crossings, removal of riparian vegetation in certain cutblocks, and within block alterations to fish habitat. A major effort needs to be put into confirming and determining fish presence within the watershed.

Riparian vegetation was assessed on air photos, followed by a helicopter reconnaissance that provided an aerial overview and

quick ground reconnaissance. The assessment concentrated on those reaches where cutblocks abut major channels of the Suskwa watershed. A total of 11 high priority stream segments were identified in the watershed and are considered to be areas requiring ground assessment and rehabilitation prescriptions in 1996. In addition, the two other major areas of concern are road crossings and riparian areas along low order streams within cutblocks.

Introduction

The Suskwa Watershed Restoration Program is an initiative of the B.C. Government's Forest Renewal Plan. The Watershed Restoration Program proposes to accelerate the restoration of logging impacted watersheds and to rehabilitate local impact sites. In the Suskwa Watershed, the areas impacted by road building, logging, and silviculture have grown steadily over the past 25 years. As a result, forest harvesting activities have been at least partially responsible for changes in ecosystem diversity.

While the forest industry forms a substantial component of the economy in the Suskwa drainage, the damage to other natural resources due to certain forest practices, is considered to be substantial.

The Suskwa Watershed Restoration Program is overseen by the Suskwa Watershed Steering Committee (SWSC). This partnership includes:

- Skeena Cellulose Inc. (SCI)
- Gitxsan Wet'suwet'en Watershed Authority (GWWA)
- Office of Wet'suwet'en Hereditary Chiefs (OHWC)
- Suskwa Watershed Gitxsan Houses
- Bell Pole Co. Ltd.
- Pacific Inland Resources (PIR)
- Suskwa Restoration Society (SRS)

Skeena Cellulose was the lead proponent, and Suskwa Restoration Society was the subcontractor. Results of this Level 1 assessment will be brought forward to this group of stakeholders to be discussed and make recommendations on.

A multi-disciplinary group of professionals worked on the project, while community and First Nation workers were provided with new skills and employment.

Suskwa Watershed forest ecosystems that are not meeting society's expectations or are functioning below their biological potential are in need of restoration. The current Level 1 **Assessment** suggests there are several areas needing attention. Given Level 1 Assessment in the Suskwa was a brief overview study, many smaller impacts did not get

observed or noted. The cause of logging related impacts and damage can be traced in part to overuse of renewable resources, past management practices, and limited or nil funding support for non-timber resource management.

Humans are an integral part of ecosystems and closely tied to other biological components. Watershed health, integrity, and stability are linked to local resource dependent communities. Resource dependent jobs and lifestyles are only as stable as the resources they depend on. Different cultures are impacted by resource extraction activities in different ways. These differences often lead to attitudes of negativism. Both Gitksan and Wet'suwet'en history, culture, and spirituality are firmly bound to the Suskwa Watershed's forest and water, as is their future well-being. Both First Nations' historic resource use is framed by the concept that "everything is one." Describing restoration of economic and social components of ecosystems is beyond the scope of this Level 1 Assessment. Both First Nations' program participants and House group leaders expressed their dismay with the economic, social, and spiritual impacts that resource management activities are having on their respective territories.

The public of B.C. calls for watershed restoration focuses beyond simply restoring damaged areas to restoring a balance in how we value and treat forest ecosystems to prevent future damage. This potential future damage will hopefully be taken care of with the application of the FPC guidelines and the willingness of First Nations and Government policy makers to act together on resource management concepts and issues.

The current Watershed Restoration Program is limited in restoration focus to terms of soil, water, and sedimentation. Different sustainable ecosystem approaches can be used to ensure that landscapes, habitats, and species are conserved. Historical variability in vegetation types, amounts, and spatial patterns that reflect the transitional nature of the watershed can be used as reference points, but other alternatives that better meet society's expectations may be more desirable as restoration goals. Also, resource values on a site can be expected to change over time because of inherent disturbance events required to maintain these historically dynamic ecosystems within the Suskwa Watershed. The restoration of biological components of the watershed should provide increased opportunities for the restoration of human, cultural, social, and economic components and increase options for the historically resource dependent communities.

Watershed Characteristics

Suskwa watershed is located in West-central B.C., close to Smithers and Hazelton, and historically has been a major supplier of wood fibre to both communities. The drainage is approximately 1338 square km and is a major tributary of the Bulkley River. The topography varies greatly within a semi-circle of high relief peaks, which are located in the central portion of the Babine Range in the Southern Skeena Mountains. The Nechako Plateau fingers into these mountains in the Harold Price Creek drainage.

The great variety of landforms seen today, from the soaring peaks to the lush floodplains, represents a stage in the repeated cycle of events during which the land has been raised, lowered, folded, ground by ice, and re-elevated to go through the cycle again. Sedimentary and volcanic rocks of the Hazelton group underlie the watershed. Complex structures have been created over time by folding and granodiorite intrusions (Bulkley Intrusions) leaving mineralized areas of significance. Surfaces below 1800M were overridden by the Pleistocene ice-sheet, which rounded the ridges and summits, with drift being widespread and covering the valleys. All of the mountain peaks and rugged ridges retain striking glacial features as a result of cirque and local glaciation during the recession of the ice-sheet. The glacial legacy includes outwash terraces, eskers, fans, floodplains, and remnant glaciers.

The coast-interior transitional climate here is dominated by easterly moving weather systems that produce cool, wet winters and warm, dry summers, and could be termed subcontinental. The forests are lush from valley bottom to timberline, and reflect extensive fire history, creating a myriad of landscapes.

The Suskwa River and its tributaries do not have an hydrometric station. There are generally two peak flows observed. In late spring there is a moderate peak flow generated by low elevation snowmelts. In late May-early June the high peak flow is generated by the high elevation snowpack. The Harold Price Creek drainage, which constitutes approximately 60% of the contributing flow to the Suskwa River, has a higher base elevation and thus a higher snowpack.

Fall rain-on-snow events occur more frequently in the Suskwa drainage due to the proximity of coastal influences. It is now known how much logging has changed the melt and flow rates from these events, as there is no data to support conclusions.

Using the Biogeoclimatic Ecological Classification (BEC) system, the BEC zones and subzones overlying the Suskwa Watershed are as follows:

Interior Cedar Hemlock	ICH	ICHmc1 & ICHmc2
Sub-Boreal Spruce	SBS	SBSmc2
Engelmann Spruce-Subalpine Fir	ESSF	ESSF wv & ESSF wvp ESSF mc & ESSF mcp
Alpine Tundra	AT	

The ICH is represented by two variants, the ICHmc1 and ICHmc2, which differentiate the valley bottom and uplands. The ICHmc2 occupies the valley bottoms and lower uplands and is warmer and drier; typically the forest is fire-originated coniferous, although seral stands are abundant. The ICHmc2 landscape has been strongly influenced by both natural and native fires. The ICHmc1 lies above the ICHmc2 and transits into the SBS and ESSF at about 1000 M. Red cedar is scattered and infrequent and seral stands appear infrequently other than in avalanche tracks and riparian areas.

The Sub-Boreal Spruce zone is represented in the Suskwa drainage by two mid-elevation fingers that overlay the Nechako Plateau (in the Harold Price area) and poke into the mountains. These two fingers possess a seasonal, moderately extreme climate: moist warm summers passing to cold winters with heavy snowpack. Spring snowpack at Chapman Lake, the closest snow course adjacent to the watershed, is 154 cm, triple the snowpack at the Harold Price-Suskwa confluence. The broad and gentle topography of the Harold Price, Blunt and Touhy valleys typically is timbered with hybrid spruce, subalpine fir and pine.

The ESSF subzones ESSFwv and ESSFmc lie above the ICH and SBS subzones respectively, and encompass the forests and parklands below the Alpine Tundra. The ESSF possesses a relatively cold, moist, snowy continental climate. Both spruce and subalpine fir dominate the canopy with subalpine fir in wetter and higher elevation forests.

Historical Use

Post-glacial predecessors of the present day Gitksan and Wet'suwet'en most likely maintained year-round settlements approximately 8,000 years ago. Following the recession of ice from refugia in the Yukon region, a highly adaptable microlith culture spread throughout the Skeena Region. These hardy northerners, accustomed to subsistence on the resources of a wide range of habitats, were adept at fishing, fowling, the hunting and trapping of animals, and utilizing botanical knowledge.

This technology and its organization led to a stable society with systems of tenure, access, and resource management on the land. Society was maintained by a complex series of actions: several clans existed within each tribe and inter-related through marriage bans and support relationships. Clans were broken down into Houses, with each House consisting of an extended family and controlling food-producing territories.

A strong economy, mainly preoccupied with food gathering, was based around the fishery, with a developed trail systems connecting the Suskwa and Harold Price areas with the Skeena and Bulkley valleys. The way of life and sustenance revolved around the seasons. The Babine Trail, the main east-west thoroughfare, used for thousands of years, passes on the north side of the Suskwa River.

In 1860, the first Europeans started to pass through the Suskwa on the Babine Trail. The Omineca Gold Rush brought a flurry of excitement to the Suskwa area. In 1870, the Babine Trail was the principal route to the Omineca mines, with over 700 people over it by early June. This unprecedented entry of prospectors had some examining and working prospects in the Suskwa. In 1872, over 5,000 people went over the trail, and small scale mining went on for the next 60 years until the Depression. The hardships of the Depression brought mining prospects and the biggest horse packing business in North America to a close. As well, it brought native families back to their territories, where they could cope better utilizing their skills and reaching a balance between self-sufficiency and reliance on outside markets. It is said that, "the Suskwa was our bread bowl in the Depression time."

The 1940's, the 1950's, and early 60's brought few changes to the area. In 1966, a decision was made to build large sockeye-spawning channels at Babine Lake to increase declining sockeye members. Two major reasons for this enhancement were the over-fishing management policies on the coast and a need for stock recovery from the Babine Slide. This response to population decline caused an ongoing disaster for natural stocks of all species. The coast mixed stock fishery caught thousands of fish from unenhanced streams. While the Babine fish could handle such pressure, the Suskwa River system fish could not.

The late 1960's saw small-scale logging occurring around the Suskwa-Natlan area primarily for cedar poles. The wood went to town via the Babine Trail and then the forestry road that traverses the west ridge of Blunt Mtn.

In 1971, the Suskwa Watershed lost its relative tranquility of small resource extraction as clearcut logging commenced. Several events led up to and contributed to this: the region being tied together by an expanding transportation system, the pulp mill at the mouth of the Skeena River, and the majority of forested land being alienated to companies whose unrestrained profit motives caused them to alter vast areas of fragile habitat. This latter point led to the near-total collapse of traditional and pioneer-adapted economies. Small-scale logging and sawmill operations, along with trapping opportunities, declined dramatically. Canadian Cellulose Co., B.C. Timber, Westar Timber, P.I.R., D. Groot's, and Skeena Cellulose Inc. have been allocated the cut historically. To date, approximately 11,600 ha. have been clearcut logged in the Suskwa drainage.

Public use and appreciation within the Suskwa Watershed is varied. The watershed presently supports individuals, families, outdoor groups, and commercial operators using the landscape for a myriad of purposes. Due to its relative proximity to Smithers, Hazelton, and Highway 16, the Suskwa is used extensively for hunting, fishing, mountaineering, hiking, skiing, snowshoeing, snowmobiling, canoeing, kayaking, whitewater rafting, and horseback riding. It is clear that the state of the environment in the Suskwa is important to public values and opportunities for enjoying and appreciating an easily accessed area.

Methodology

The Level 1 work was initiated with compilation and distribution of relevant data to the professionals involved. The data compiled was:

- Forest Cover Maps
- Forest Development Plans (maps and reports)
- Trim Maps
- NTS topography maps
- 1992, 1986, and 1975 air photos and indexes
- Terrain maps and reports
- Bedrock geology maps
- House Territory maps
- Road permit maps
- Aquatic Bio-physical maps
- SISS maps and reports
- River and lakes file reports
- MLSIS and ISIS reports

The methodology to complete Level 1 watershed assessment is detailed in the upslope, watershed hydrology, fish and habitat, stream channel and riparian sections included in Parts 2 and 3 respectively.

Results

The results of Level 1 assessment are the logging related impacts that are prominent with the overview methodology utilized. The high impact areas related to logging activities are listed site specific in the following Parts 2 and 3.

There is a need for background information on fish and habitat, water quality and quantity, soils, climatic, terrain, unique and riparian habitats. These information gaps reflect an attitude to resource management that needs to change in order for good up-to-standard forest planning and practices to be achieved. This change will behove restoration objectives and activities, as a more conclusive picture can be drawn as to the state of watershed health.

Generally speaking, the Suskwa drainage has had a moderate level of hydrological impact. The extensive road system has no doubt resulted in suspended sediment loads to the tributaries and the mainstem, particularly in spring snowmelt and highflow conditions. The biggest impact in the Harold Price area is the extensive logging in the riparian areas of tributaries and the mainstem. Inadequate riparian vegetation for LWD recruitment, shading, cover, bank stability, and organic input is a general problem within the watershed. This occurs on many sites and over considerable lengths of streams. Another widespread problem is the potential for road crossings to hinder or prevent fish passage and to be a source of sediment inputs. Defining a hazard rating for the many small streams with crossings is difficult at this assessment level, because it depends on fish presence and sedimentation potential which must be ascertained in the field.

Small mass wasting and slides related to logging are relatively few and need further work to assess failure initiation, character, geological processes, cause, and rehabilitation effort. Many failures are natural activity, although they may have been exacerbated by logging.

Natlan Creek, Iltzul Creek, and Blunt Creek show failure activity currently with the potential for large scale mass wasting along Iltzul Creek.

The Level 1 assessment data suggests there are changes in channel location on the lower Harold Price and mid Suskwa River. Sediment stored in tributary reaches is unknown. Potential impacts on the above reaches where spawning and rearing habitat is prime, could over time be carried downstream into the mainstem, in effect moving the impact downstream. Stream channel impacts are complex areas to assess.

Results of the Level 1 assessment were tabulated by sub-basin. Sub-basins within the Suskwa watershed were derived based on drainage characteristics, and do not correspond well with timber development or the number of impacts, which tend to be site specific and not necessarily concentrated within any given sub-basin.

In summary, the results of Level 1 set the priority and timing of Level 2 assessment. All Level 2 assessments can be completed within the 1996 field season. Table 2 in Part 2 summarizes all road and hillslope assessments. Within Part 3, 2.3 summarizes logging related impacts to the stream banks or channel bed; Table 4.2 summarizes the highest priority riparian areas affected by logging. In Appendix 2, Table 3 summarizes fish distribution and habitat impacts.

Table 1: Time estimates for Level 2 Assessments

Project	Field	Office
Road and Hillslope		
Table B impacts	6	6
Gully Assessment	8	2
Earthflow Assessment	10	2
Landslide Assessment	16	3
Jumbo Cr. Assessment	4	1.5
Roads and Blocks	89	20
Watershed Hydrology - Modelling		5.5
Stream Bank and Channel Stability		
Assess % of Watershed Logged	4	3.5
Level 2 as per Part 3	12	1.5
Assess Wandering Reach -Suskwa R.	4	4
Sediment Budgeting of Tribs.	8	4
Streamside Mass Movement Inventory	3	3
Fish and Fish Habitat		
Headwaters Inventory	15	3
Habitat Surveys	34	5
Level 2 Checks	6	2
Riparian		
Team Field Visits	30	
In-block riparian assessments	not determined	
Silvicultural Surveys	80	
Fish Habitat Surveys	20	
Rehabilitation Plan	10	

Table 2: Road and Cutblock Level 2 Assessment

Map Sheet No.	Km. of Road	No. of Blocks
93M .004	0.24	
93M .005	12.46	3
93M .006	15.63	9
93M .007	3.52	5
93M .015	4.80	3
93M .016	24.78	44
93M .017	3.54	15
93M .023		1
93M .024	33.21	27
93M .025	10.92	7
93M .026	40.7	16
93M .034	23.19	19
93M .035	24.36	16
93M .045	4.0	5
Total	201.35	170

Average road assessment is 5 km. per day -- 40.25 Man Days

Average block assessment is 3.5 per day -- 48.85 Man Days

Total technical assessment is 89 Field Days.

PART 2

SUSKWA WATERSHED RESTORATION PROGRAM

LEVEL 1

ROADS & HILLSLOPES ASSESSMENT

Suskwa Level 1 Watershed Assessment

Phase 2 Road and Hillslope Assessment

Conducted by Scott Davidson, G.I.T.

This report is concerned with the results of the Level 1 assessment of roads and hillslopes in the Suskwa watershed. The constraints upon data collection imposed by Level 1 assessment mean that the information presented is based upon broad examination of the watershed from the air and from photographs. This information is considered to be of adequate quality to make recommendations for Level II assessment work and identification of high impact areas within the watershed.

Method of assessment:

The level 1 work conducted in the Suskwa watershed involved a combination of data collection techniques. Data was collected from the following sources;

- 1992 colour and B&W air photographs
- 1:20,000 trim maps
- 1:20,000 forest cover maps
- four reports on terrain stability and erosion potential for portions of the Suskwa Valley
- eight hours of helicopter reconnaissance
- two hours of vehicle reconnaissance

An effort was made to complete the aerial photograph survey of the watershed prior to the commencement of field work, but this was not possible. However, photographs for the entire watershed were reviewed prior to the completion of this report. With respect to the helicopter reconnaissance the eight hours allotted to this portion of the contract was not enough. Due to the number of blocks and road segments that required visual examination a further two-four hours would have been required to adequately cover the entire watershed. As a result of these limitations blocks in the upper portion of Blunt Cr. and the southern most blocks in the Harold Price Creek area were not assessed from the air.

Person hours

Table A outlines the breakdown of the hours spent on the Level 1 assessment of the Sukwa by the contractor. A description of the phases is also provided in the table.

Table A Phase 2 Assessment work breakdown

Phase	#hours	Description
Photo review	32	checking for visual/physical impact of blocks and roads
Report review	4	Reading of terrain reports on the Suskwa
Roads (field)	5	Field assessment of roads for impacts
Blocks (field)	4	Field assessment of blocks for impact
Terrain (field)	1	Evaluation of potential terrain problems for current and proposed development
Mapping	8	Location of impacts upon 1:20,000 FC maps
Report	16	Preparation of report
Risk determination	26	Completion of Table 2 risk calculations

Results of inspection:

This section deals with the results of the office and field analysis of the Suskwa watershed. Much of the data compilation is presented in Tables 2 and 2A that accompany this report. Due to the length of these tables the gullies and failures observed and deemed to be in need of Level II assessment are dealt with in Part 2 of the following text.

The results of the risk analysis of cutblocks and roads within the Suskwa watershed was conducted using W.R.T.C. No. 3 as a guide. Hazard ratings were derived based upon visual observations made during the reconnaissance flights in conjunction with aerial photograph examination and consultation of 1:20,000 TRIM maps of the area occupied by the object in question. Consequence ratings for roads were derived based upon the proximity of sections of a road to a stream. A distance of 100 metres was used as a rule of thumb for delineating between high and low consequence ratings. The use of a high consequence rating for road sections within the 100 metre distance of a creek was based upon direct and downstream impacts upon fisheries values within the watershed. Consequence ratings for cutblocks was based primarily upon the proximity of the cutblock to a stream.

Prioritization of the work for level II assessment was conducted using the results of the risk calculations contained in Table 2. An exception to this rule is the list of high impact areas requiring immediate attention that was compiled as a result of the helicopter overview flights of the valley.

Overview of results:

Blocks:

One of the main problems associated with the method of data collection followed was that, from photographs and helicopter flights, impact upon drainage within blocks could not always be ascertained. Low gradient portions of many of the blocks viewed showed impact upon drainage as a result of skidding and landing construction. Firebreaks

constructed around the perimeters of blocks also showed evidence of impact upon drainage and in many instances were sources of sediment production.

Instability was observed in several instances where blocks were situated close to the edge of terraces. The instability is believed to result from increased snow meltwater production and/or drainage impact following harvesting. These failures represent sources of sediment production into creeks. It should be noted that natural failures were also observed on the edges of terraces with no logging history upslope. Where failures are located below WRP eligible cutblocks, funding should be sought for stabilization of the failure surface through planting or seeding.

Roads:

Road construction in the Suskwa Valley benefits from the presence of areas of low gradient terrain. Within blocks, much of the roads examined from the air had only minor erosion occurring from cut or fill slopes. The sediment being produced from this erosion has a low deliverability to creeks. The main problems associated with road construction seem to occur where road systems cross major tributary gullies and where roads traverse the faces of terraces. At many of the gully crossings, large cutslopes were actively eroding and were directly connected by ditches to the gully system. Where roads traversed the faces of terraces, cut and fill slope erosion to streams was often evident and in restricted areas (eg. Hamblin Main) slumping of the cutslope was occurring.

Recommendations for Level II Assessment:

The recommendations for Level II Assessment work contained in this section are broken into two parts. The first portion deals with areas of the watershed that are considered to require immediate attention to minimize impact to streams. The second portion deals with recommendations for areas that require a Level II Assessment, but do not necessarily require the work to be completed prior to this winter.

Part I High Priority Level II Assessment Areas:

Table B lists the impacts that are deemed high priority for Level II Assessment. A high priority rating was given to those impacts that required assessment prior to the coming winter if at all possible.

Table B High priority impacts in the Suskwa Valley

Ranking	Map Location	Description
1	93M.024	Hamblin Main bridge. erosion of upstream bridge abutment.
2	93M.034	cut and fill slope erosion into Denison River.
3	93M.034	cut and fill slope erosion into Natlan Creek.
4	93M.034	cut and fill slope erosion into Natlan Creek.
5	93M.034	fill slope erosion into Natlan Creek.
6	93M.024	Hamblin Main ~0.3-0.85 km. cutslope is slumping into ditch. One fillslope failure to the Suskwa River in this area suggests that blockage of the ditch could initiate instability of the road prism.
7	93M.044	Stringer on old bridge over Natlan Creek has broken allowing bridge surface material to directly enter creek.
8	93M.034	Earthflow has been logged. Field examination of block required to assess for tension cracking within block.
9	N/A	Examination of all major tributary gully crossings in the watershed for eroding cut and fill slope material.

Part II Other Assessment Recommendations:

1. As mentioned in the overview section examination of blocks from the air is not always effective in determining impacts of logging operations on drainage. This is especially true when low gradient areas are contained within a block. To adequately determine the level of impacts to drainage within a block it is necessary to examine blocks from the ground. As a result, it is recommended that all WRP eligible blocks within the study area be scheduled for Level II Assessment.
2. Time allotted for a Level I Assessment does not permit field examination of all roads within an area. It is, therefore, possible that the field work conducted in the Suskwa Valley may have overlooked impacts of road systems. All roads within the study area should be examined from the ground for evidence of erosion, slumping, or improper drainage. Main roads should be examined prior to this winter so that Level III work may be implemented prior to snowpack establishment.
3. Gully Assessment: From analysis of air photos and the aerial reconnaissance a total of eight gullies were identified as requiring assessment by the procedures outlined in the Gully Assessment Procedure Guidebook. These gullies are shown on the 1:20,000 forest cover maps by the boxed G symbol. Of the eight gullies to be assessed six have not yet been logged but are crossed or adjacent to proposed development. The other two gullies have had portions impacted by past logging and have signs of instability.

4. Earthflows: Three earthflows were observed in the Iltzul Creek drainage. Two of these flows are on the East side of the creek while the third is located on the West side of the creek. The western flows has been logged and is listed in Table B as one of the high impact areas that should be investigated on the ground by a qualified professional. The two flows on the eastern side of the drainage are adjacent to proposed logging and the boundaries of these flows should be identified on the ground. Two other areas were identified as being possible flows based upon their form. These areas may be found on 93M.025 and should not require ground proofing unless development is proposed for the area.
5. Landsliding: Incidence of natural and logging related landsliding within the watershed were recorded on 1:20,000 maps. A total of 80 failures were observed of which 22 were proximal to logging. This number does not include channel failures and high elevation slides near the alpine. Table C lists the number of natural and PL failures by map sheet. Those failures that were proximal to logging (PL) are recommended for level II assessment to determine their cause, materials involved, areal extent, and the stability of the failure surface.

Table C Natural and logging proximal failures

Map sheet	# natural failures	# PL failures
93M.006	5	1
93M.015	5	
93M.016	3	2
93M.017	1	
93M.024	5	5
93M.025	9	
93M.026	1	
93M.034	13	8
94M.035	5	5
93M.036	7	
93M.045	4	1
Total	58	22

6. Jumbo Creek: Jumbo Creek is located on mapsheets 93M.025 and 93M.035. This creek is a tributary of the Suskwa River. Flights over the drainage of the creek showed extensive logging of the middle elevations of the creek. Block 9 on mapsheet 93M.035 contains a firebreak in the lower section of the block that appeared from the helicopter to run directly down the channel of the lower tributary to Jumbo Cr. Some post-logging erosion of the channel was visible in this impacted channel. Below this cutblock the creek becomes confined within a gully for the distance to the Suskwa River. The post-logging snowmelt regime in the middle elevation band of this creek may be resulting in destabilization of the channel increasing sediment yield to the Suskwa. Level II assessment of the main and tributary channels of Jumbo Creek should be conducted to determine the extent of disturbance to the system as a result of logging.

Estimated time required for Level II assessment projects not contained in Table 2

This section estimates the field and report time required for the investigation of the above mentioned Level II assessment projects. The time required is presented in Table D and similar projects have been grouped together. The time estimates in the table below do not include the time required or expenses incurred by a contractor in traveling to the site and in preparation of the report. Time estimates are reported in man days as some tasks such as the earthflow, landslide, and several of the remote gully assessments require a two person field crew to properly complete the assessment.

The number of days listed for the gully assessment depends upon the availability of a helicopter to access the eastern tributary of Natlan Cr. The earthflow assessment time estimate is based upon the assessment of all areas known, and suspected, to be influenced by slow mass movements. If only those areas within Iltzul Creek are assessed then the time estimate for this project may be reduced to 3 days in the field and 1.5 days in the office. The landslide time estimate includes the time required in traveling between failures within the watershed.

Table D Time estimates for Level II assessment

Project	Man days	Office days
Table B impact number 1	1	2
Table B impact numbers 2,3,4,5	2	1
Table B impact number 6	1	0.5
Table B impact number 7	1	1
Table B impact number 8	1	1.5
Gully Assessment	8	2
Earthflow assessment	10	2
Landsliding assessment	16	3
Jumbo Creek assessment	4	1.5

Table 2: Level 1 Field Assessment Summary
Contract#

Contractor: S. Davidson Drainage: Suskwa Date: 5-Oct-95

Road, Block# or Gully	km/ha	Hazard	Conseq.	Risk rating	Priority	Level II Prescr. Req'd?	Prescr. Estimate \$	Prof. Prescr. req'd	Prescr. Estimate \$	Kms road needing Deact. or Rehab	Ha.s Hillslope needing Rehab	Total \$
93M.004		L	L	L	L			N				
Blunt F.S.R. 2000RD.	0.12	L	L	L	L	Y		N		0.12	N/A	
2000Rd Br. 1	0.12	L	L	L	L	Y		N		0.12	N/A	
93M.005-001	38.2	L	H	M	M	Y		N		N/A	Unknown	
93M.005-002	45.1	M	H	H	H	Y		N		N/A	Unknown	
93M.005-003	46.2	M	H	H	H	Y		N		N/A	Unknown	
93M.005-004	18.6	M	H	H	H	Y		N		N/A	Unknown	
93M.005-005	33.3	M	L	L	L	Y		N		N/A	Unknown	
93M.005-006	8.7	M	M	M	M	Y		N		N/A	Unknown	
93M.005-008	23	M	L	L	L	Y		N		N/A	Unknown	
93M.005-001X	12.4	M	H	H	H	Y		N		N/A	Unknown	
93M.005-011	29.2	M	H	H	H	Y		N		N/A	Unknown	
93M.005-012	28.4	M	M	M	M	Y		N		N/A	Unknown	
Blunt F.S.R. 2000RD.	7.90	L	1.75H	M	M	Y		N		7.90	N/A	
2000Rd Br. 1	1.16	M	0.2H	H	H	Y		N		1.16	N/A	
2000Rd Br. A	2.50	M	0.5H	H	H	Y		N		2.50	N/A	
2000Rd Br. B	0.90	M	L	L	L	Y		N		0.90	N/A	
2000Rd Br. C	1.26	M	H	H	H	Y		N		1.26	N/A	
2000Rd Br. D	1.28	M	M	M	M	Y		N		1.28	N/A	
2000Rd Br. D1	0.20	M	M	M	M	Y		N		0.20	N/A	

93M.006-2	68	L	L	L	L	Y	N	N/A	Unknown
93M.006-3	109	M	M	M	M	Y	N	N/A	Unknown
93M.006-5	52	L	L	L	L	Y	N	N/A	Unknown
93M.006-6	48	L	L	L	L	Y	N	N/A	Unknown
93M.006-7	22	L	L	L	L	Y	N	N/A	Unknown
93M.006-10	12.6	L	L	L	L	Y	N	N/A	Unknown
93M.006-102 X	8.2	L	L	L	L	Y	N	N/A	Unknown
93M.006-103	10.8	L	L	L	L	Y	N	N/A	Unknown
93M.006-105	12.2	L	L	L	L	Y	N	N/A	Unknown
Upper Fulton F.S.R.	3.12	L	0.2H	M	M	Y	N	3.12	N/A
			2.92L	L	L	Y	N		
Br. 26A	0.74	L	0.2H	M	M	Y	N	0.74	N/A
			0.54L	L	L	Y	N		
Br. 26D	0.62	L	0.2H	M	M	Y	N	0.62	N/A
			0.42L	L	L	Y	N		
Br. 26.3A	0.24	L	L	L	L	Y	N	0.24	N/A
Br. 26.3B	0.27	L	L	L	L	Y	N	0.27	N/A
Br. 26.5A	0.47	L	L	L	L	Y	N	0.47	N/A
Br. 26.5B	0.10	L	L	L	L	Y	N	0.10	N/A
Br. 27.1	0.63	L	H	M	M	Y	N	0.63	N/A
Br. 27.6A	5.66	L	M	L	L	Y	N	5.66	N/A
Br. 27.6B	0.56	L	0.1H	M	M	Y	N	0.56	N/A
			0.46L	L	L	Y	N		
Br. 27.6C	1.46	L	0.6H	M	M	Y	N	1.46	N/A
			0.86L	L	L	Y	N		
Br. 27.6D	0.60	L	H	M	M	Y	N	0.60	N/A
Br. 27.6D1	0.60	L	H	M	M	Y	N	0.60	N/A
Br. 28.4	0.32	L	L	L	L	Y	N	0.32	N/A
Br. 29.0	0.24	L	L	L	L	Y	N	0.24	N/A

93M.007-101	77	L	L	L	L	Y	N	N/A	Unknown
93M.007-102	12	L	L	L	L	Y	N	N/A	Unknown
93M.007-103	22	L	L	L	L	Y	N	N/A	Unknown
93M.007-104	12	L	L	L	L	Y	N	N/A	Unknown
93M.007-105	49	L	L	L	L	Y	N	N/A	Unknown
Nilkitwa F.S.R.	1.82	L	0.7H	M	M	Y	N	1.82	N/A
			1.12L	L	L	Y	N		
Br. 18.0	0.30	L	L	L	L	Y	N	0.30	N/A
Br. 26.3	0.48	L	L	L	L	Y	N	0.48	N/A
Br. 28.4	0.92	L	L	L	L	Y	N	0.92	N/A
93M.015-001	78.6	L	H	M	M	Y	N	N/A	Unknown
93M.015-002	115.6	M	M	M	M	Y	N	N/A	Unknown
93M.015-003	67.5	M	M	M	M	Y	N	N/A	Unknown
93M.015-005	36.4	M	H	H	H	Y	N	N/A	Unknown
93M.015-006	43.1	M	M	M	M	Y	N	N/A	Unknown
93M.015-007	72	M	H	H	H	Y	N	N/A	Unknown
93M.015-008	42	M	M	M	M	Y	N	N/A	Unknown
93M.015-009	48	M	M	M	M	Y	N	N/A	Unknown
93M.015-010	30.2	M	H	H	H	Y	N	N/A	Unknown
93M.015-011	29.2	M	M	M	M	Y	N	N/A	Unknown
93M.015-012	28.4	M	M	M	M	Y	N	N/A	Unknown
Blunt F.S.R. 2000RD.	4.80	L	0.2H	M	M	Y	N	4.80	N/A
			4.6L	L	L	Y	N		
2000Rd Br. D	0.28	L	L	L	L	Y	N	0.28	N/A
2000Rd Br. E		L	L	L	L	Y	N		
2000Rd Br. F		M	L	L	L	Y	N		
2000Rd Br. G		M	L	L	L	Y	N		
2300-20	5.48	L	0.2H	M	M	Y	N	5.48	N/A

			5.28L	L	L	Y		N				
2500-20	1.56	L	0.45H	M	M	Y		N		1.56	N/A	
			1.11L	L	L	Y		N				
2500Br. A	4.24	M	1.6H	H	H	Y		N		4.24	N/A	
			2.64L	L	L	Y		N				
2600	4.34	M	0.8H	H	H	Y		N		4.34	N/A	
			3.54L	L	L	Y		N				
2600 Br. A	0.62	L	L	L	L	Y		N		0.62	N/A	
2600Br. B	0.82	L	L	L	L	Y		N		0.82	N/A	
2700	6.64	M	1.0H	H	H	Y		N		3.36	N/A	
			5.54L	L	L	Y		N				
2700 Br. A	2.74	M	L	L	L	Y		N		2.74		
2700 Br. B		M	L	L	L	Y		N				
93M.016-001	2					Y		N		N/A	Unknown	
93M.016-002X	9.6	L	L	L	L	Y		N		N/A	Unknown	
93M.016-002	141.5	L	H	M	M	Y		N		N/A	Unknown	
93M.016-003	62	M	H	H	H	Y		N		N/A	Unknown	
93M.016-004	137.2	M	M	M	M	Y		N		N/A	Unknown	
93M.016-005	89.9	M	H	H	H	Y		N		N/A	Unknown	
93M.016-006	43.1	M	M	M	M	Y		N		N/A	Unknown	
93M.016-007	155.8	M	M	M	M	Y		N		N/A	Unknown	
93M.016-008	44.9	L	L	L	L	Y		N		N/A	Unknown	
93M.016-010	71.3	L	M	L	L	Y		N		N/A	Unknown	
93M.016-011	29	L	M	L	L	Y		N		N/A	Unknown	
93M.016-012	9	L	M	L	L	Y		N		N/A	Unknown	
93M.016-013	107	M	L	L	L	Y		N		N/A	Unknown	
93M.016-014	65	L	H	M	M	Y		N		N/A	Unknown	
93M.016-015	92	M	M	M	M	Y		N		N/A	Unknown	
93M.016-016	336	L	H	M	M	Y		N		N/A	Unknown	

93M.016-017	⁸⁹ 98	M	M	M	M	Y		N		N/A	Unknown	
93M.016-018	14.2	M	M	M	M	Y		N		N/A	Unknown	
93M.016-019	71	L	M	L	L	Y		N		N/A	Unknown	
93M.016-020	133	M	M	M	M	Y		N		N/A	Unknown	
93M.016-021	90.4	M	M	M	M	Y		N		N/A	Unknown	
93M.016-021X	27.2	M	L	L	L	Y		N		N/A	Unknown	
93M.016-022	30.6	L	M	L	L	Y		N		N/A	Unknown	
93M.016-023	24.8	M	H	H	H	Y		N		N/A	Unknown	
93M.016-023X	44.2	M	L	L	L	Y		N		N/A	Unknown	
93M.016-024	38.2	L	L	L	L	Y		N		N/A	Unknown	
93M.016-026	12	L	L	L	L	Y		N		N/A	Unknown	
93M.016-027	46.6	L	L	L	L	Y		N		N/A	Unknown	
93M.016-028	44.7	L	L	L	L	Y		N		N/A	Unknown	
93M.016-029	32.6	L	L	L	L	Y		N		N/A	Unknown	
93M.016-030	19	M	M	M	M	Y		N		N/A	Unknown	
93M.016-031	8	L	H	M	M	Y		N		N/A	Unknown	
93M.016-031X	27.6	L	L	L	L	Y		N		N/A	Unknown	
93M.016-033	83.1	L	L	L	L	Y		N		N/A	Unknown	
93M.016-034	26.8	L	M	L	L	Y		N		N/A	Unknown	
93M.016-035	100.5	L	M	L	L	Y		N		N/A	Unknown	
93M.016-037	76.9	L	M	L	L	Y		N		N/A	Unknown	
93M.016-038	187	L	M	L	L	Y		N		N/A	Unknown	
93M.016-039	22	M	M	M	M	Y		N		N/A	Unknown	
93M.016-040	13					Y		N		N/A	Unknown	
93M.016-041	19.4	L	M	L	L	Y		N		N/A	Unknown	
93M.016-042	81.9	L	L	L	L	Y		N		N/A	Unknown	
93M.016-043	4	L	L	L	L	Y		N		N/A	Unknown	
93M.016-101X	6.8	L	L	L	L	Y		N		N/A	Unknown	
93M.016-100X	10.2					Y		N		N/A	Unknown	
Upper Fulton F.S.R.	13.86	2.0M	4.0H	H	H	Y		N		13.86	N/A	

		11.86L	9.86L	M	M	Y	N				
Br. 27.6C	0.36	L	L	L	L	Y	N		0.36	N/A	
Br. 27.6C1	0.44	L	L	L	L	Y	N		0.44	N/A	
Br. 30.1	0.22	L	L	L	L	Y	N		0.22	N/A	
Br. 31.8A	1.10	L	L	L	L	Y	N		1.10	N/A	
Br. 31.8B	0.32	L	L	L	L	Y	N		0.32	N/A	
Br. 31.8C	0.34	L	L	L	L	Y	N		0.34	N/A	
Br. 33.5A	1.28	L	L	L	L	Y	N		1.28	N/A	
Br. 33.5B	0.20	L	L	L	L	Y	N		0.20	N/A	
Br. 33.5C	0.52	L	L	L	L	Y	N		0.52	N/A	
KeulshMain											
Br. 34.0A	14.22	L	2.2H	M	M	Y	N		14.22	N/A	
			12.02L	L	L	Y	N				
Br. 34.0B	0.64	L	0.4H	M	M	Y	N		0.64	N/A	
			0.24L	L	L	Y	N				
Br. 34.0B1	0.24	L	0.1H	M	M	Y	N		0.24	N/A	
			0.14L	L	L	Y	N				
Br. 34.0C	0.52	L	0.3H	M	M	Y	N		0.52	N/A	
			0.22L	L	L	Y	N				
Br. 34.0C1	0.22	L	0.1H	M	M	Y	N		0.22	N/A	
			0.12L	L	L	Y	N				
Br. 34.0D	1.36	L	L	L	L	Y	N		1.36	N/A	
Br. 34.0D1	1.04	L	0.3H	M	M	Y	N		1.04	N/A	
			0.74L	L	L	Y	N				
Br. 34.0E	1.32	L	0.2H	M	M	Y	N		1.32	N/A	
			1.12L	L	L	Y	N				
Br. 34.0F	0.46	L	0.1H	M	M	Y	N		0.46	N/A	
			0.36L	L	L	Y	N				
Br. 34.0G	0.44	L	0.1H	M	M	Y	N		0.44	N/A	
			0.34L	L	L	Y	N				

Br. 34.0H	1.92	L	L	L	L	Y		N		1.92	N/A	
Br. 34.0H1	0.44	L	L	L	L	Y		N		0.44	N/A	
Br. 34.0I	0.44	L	0.2H	M	M	Y		N		0.44	N/A	
			0.24L	L	L	Y		N				
Br. 34.0I1	0.30	L	L	L	L	Y		N		0.30	N/A	
Br. 34.0J	1.16	M	0.2H	H	H	Y		N		1.16	N/A	
			0.96L	L	L	Y		N				
Br.35.6	0.32	L	L	L	L	Y		N		0.32	N/A	
Br.35.9	0.44	L	L	L	L	Y		N		0.44	N/A	
Br. 36.6	1.34	L	L	L	L	Y		N		1.34	N/A	
Br. 37.4	0.32	L	L	L	L	Y		N		0.32	N/A	
Br. 39.2A	2.92	L	0.2H	M	M	Y		N		2.92	N/A	
Br. 39.2B	0.54	L	L	L	L	Y		N		0.54	N/A	
Br. 39.2C	0.82	L	L	L	L	Y		N		0.82	N/A	
Br. 39.2C1	0.34	L	L	L	L	Y		N		0.34	N/A	
Br. 39.3	0.86	L	L	L	L	Y		N		0.86	N/A	
Br. 39.8A	8.76	2.6M	1.7H	H	H	Y		N		8.76	N/A	
		6.16L	7.06L	L	L	Y		N				
Br. 39.8B	1.58	L	0.4H	M	M	Y		N		1.58	N/A	
			1.18L	L	L	Y		N				
Br. 39.8B1	1.50	L	0.4H	M	M	Y		N		1.50	N/A	
			1.1L	L	L	Y		N				
Br. 39.2B2	0.80	L	0.2H	M	M	Y		N		0.80	N/A	
			0.6L	L	L	Y		N				
Br. 39.8 AX	0.24	L	L	L	L	Y		N		0.24	N/A	
Br. 39.8AY	0.26	L	L	L	L	Y		N		0.26	N/A	
Br. 39.8C	1.02	L	0.3H	M	M	Y		N		1.02	N/A	
			0.72L	L	L	Y		N				
Br. 39.8C1	0.10	L	L	L	L	Y		N		0.10	N/A	
Br. 39.8C2	0.76	L	0.1H	M	M	Y		N		0.76	N/A	

			0.66L	L	L	Y		N				
Br. 39.8C3	0.10	L	H	M	M	Y		N		0.10	N/A	
Br. 39.8D	3.00	M	0.6H	H	H	Y		N		3.00	N/A	
			2.4L	L	L	Y		N				
Br. 39.8E	0.94	L	0.6H	M	M	Y		N		0.94	N/A	
			0.34L	L	L	Y		N				
Br. 39.8E1	0.16	L	0.1H	M	M	Y		N		0.16	N/A	
			0.06L	L	L	Y		N				
Br. 39.8F	1.68	L	0.1H	M	M	Y		N		1.68	N/A	
			1.58L	L	L	Y		N				
Br. 39.8F1	0.64	L	0.2H	M	M	Y		N		0.64	N/A	
			0.44L	L	L	Y		N				
Br. 39.8F2	0.42	L	L	L	L	Y		N		0.42	N/A	
Br. 39.8G	0.48	L	L	L	L	Y		N		0.48	N/A	
Br. 39.8H	0.56	L	0.1H	M	M	Y		N		0.56	N/A	
			0.46L	L	L	Y		N				
Br. 40.7A	0.84	L	L	L	L	Y		N		0.84	N/A	
Br. 40.7B	0.34	L	0.2H	M	M	Y		N		0.34	N/A	
			0.14L	L	L	Y		N				
Br. 41.3A	1.04	L	L	L	L	Y		N		1.04	N/A	
Br. 41.3B	0.62	L	L	L	L	Y		N		0.62	N/A	
Br. 41.3C	0.72	L	L	L	L	Y		N		0.72	N/A	
Br. 42.0A	2.28	M	0.5H	H	H	Y		N		2.28	N/A	
			1.78L	L	L	Y		N				
Br. 42.0B	0.34	M	H	H	H	Y		N		0.34	N/A	
Br. 43.0A	5.28	M	0.2H	H	H	Y		N		5.28	N/A	
			5.08L	L	L	Y		N				
Br. 43.0B	1.42	L	0.2H	M	M	Y		N		1.42	N/A	
			1.22L	L	L	Y		N				
Br. 43.0B1	0.22	L	L	L	L	Y		N		0.22	N/A	

Br. 43.0C	0.86	L	0.4H	M	M	Y		N		0.86	N/A	
			0.46L	L	L	Y		N				
Br. 43.9A	0.22	M	L	L	L	Y		N		0.22	N/A	
Br. 53.1G	0.74	M	0.1H	H	H	Y		N		0.74	N/A	
			0.64L	L	L	Y		N				
Harold Price Main East	3.92	L	1.0H	M	M	Y		N		3.92	N/A	
			2.92L	L	L	Y		N				
H.P. Main E Br. B	0.52	L	0.1H	M	M	Y		N		0.52	N/A	
			0.42L	L	L	Y		N				
H.P. Main E Br. C	0.66	L	0.2H	M	M	Y		N		0.66	N/A	
			0.46L	L	L	Y		N				
H.P. Main E Br. D	0.58	L	L	L	L	Y		N		0.58	N/A	
H.P. Main E Br. D1	0.32	L	L	L	L	Y		N		0.32	N/A	
H.P. Main E Br. E	0.82	M	L	L	L	Y		N		0.82	N/A	
93M.017-1	46	M	M	M	M	Y		N		N/A	Unknown	
93M.017-7	37.4	L	M	L	L	Y		N		N/A	Unknown	
93M.017-12	222.1	M	M	M	M	Y		N		N/A	Unknown	
93M.017-14	40.4	L	L	L	L	Y		N		N/A	Unknown	
93M.017-15	26.1	L	L	L	L	Y		N		N/A	Unknown	
93M.017-16	90	L	M	L	L	Y		N		N/A	Unknown	
93M.017-17	36	L	L	L	L	Y		N		N/A	Unknown	
93M.017-18	30.3	L	L	L	L	Y		N		N/A	Unknown	
93M.017-19	37.1	L	H	M	M	Y		N		N/A	Unknown	
93M.017-24	211	L	L	L	L	Y		N		N/A	Unknown	
93M.017-25	131	L	L	L	L	Y		N		5.52	N/A	
93M.017-26	52	L	L	L	L	Y		N		0.30	N/A	
93M.017-31	18.2	L	L	L	L	Y		N		0.94	N/A	
93M.017-34	90.5	L	L	L	L	Y		N		0.28	N/A	
93M.017-8X	35.6	L	L	L	L	Y		N		0.80	N/A	

93M.017-101X	17.1	L	L	L	L	Y		N		0.94	N/A	
Upper Fulton F.S.R.												
Br. 30.1A	7.32	L	0.6H	M	M	Y		N		7.32	N/A	
			6.72L	L	L	Y		N				
Br. 30.1Ax	0.46	L	L	L	L	Y		N		0.46	N/A	
Br. 30.1C	0.56	L	L	L	L	Y		N		0.56	N/A	
Br. 30.1C1	0.18	L	L	L	L	Y		N		0.18	N/A	
Br. 30.1D	1.84	L	0.3H	M	M	Y		N		1.84	N/A	
			1.54L	L	L	Y		N				
Br. 30.1D1	0.40	L	L	L	L	Y		N		0.40	N/A	
Br. 30.1D2	0.54	L	L	L	L	Y		N		0.54	N/A	
Br. 30.1E	0.26	L	L	L	L	Y		N		0.26	N/A	
Br. 30.1F	0.34	L	0.15H	M	M	Y		N		0.34	N/A	
			0.19L	L	L	Y		N				
Br. 30.1G	0.22	L	L	L	L	Y		N		0.22	N/A	
Br. 30.1 H.P. East	2.98	L	0.6H	M	M	Y		N		2.98	N/A	
			2.38L	L	L	Y		N				
Br. 30.1 H.P. East A	1.64	L	0.2H	M	M	Y		N		1.64	N/A	
			1.44L	L	L	Y		N				
Br. 30.1 H.P. East A1	0.16	L	L	L	L	Y		N		0.16	N/A	
Br. 30.1 H.P. East B	0.72	L	L	L	L	Y		N		0.72	N/A	
Br. 30.1 H.P. East C	1.08	L	0.2H	M	M	Y		N		1.08	N/A	
			0.88L	L	L	Y		N				
Br. 30.1 H.P. East C1	0.64	L	L	L	L	Y		N		0.64	N/A	
Nilkitwa F.S.R.	5.52	L	0.2H	M	M	Y		N		5.52	N/A	
			5.32L	L	L	Y		N				
Br. 18.0	0.94	L	0.6H	M	M	Y		N		0.94	N/A	
			0.34L	L	L	Y		N				
Br. 18.0	3.82	L	0.2H	M	M	Y		N		3.82	N/A	
			3.82L	L	L	Y		N				

Br. 20.08A	0.28	L	L	L	L	Y		N		0.28	N/A	
Br. 20.08B	0.80	L	0.5H	M	M	Y		N		0.80	N/A	
			0.3L	L	L	Y		N				
Br. 20.08C	0.94	L	0.4H	M	M	Y		N		0.94	N/A	
			0.54L	L	L	Y		N				
Br. 20.08D	1.12	M	L	L	L	Y		N		1.12	N/A	
Br. 20.08E	0.40	M	L	L	L	Y		N		0.40	N/A	
93M.023-001X	24					Y		N		N/A	unknown	
Suskwa F.S.R	2.20	L	L	L	L	Y		N		2.20	N/A	
Stege's Rd.								N				
Br. 1A	2.62	L	0.3H	M	M	Y		N		2.62	N/A	
			2.32L	L	L	Y		N				
Br.A	2.26	L	L	L	L	Y		N		2.26	N/A	
93M.024-1	132	M	H	H	H	Y		N		N/A	unknown	
93M.024-2	49	M	M	M	M	Y		N		N/A	unknown	
93M.024-3	66	M	H	H	H	Y		N		N/A	unknown	
93M.024-4	38	M	M	M	M	Y		N		N/A	unknown	
93M.024-5	43	M	H	H	H	Y		N		N/A	unknown	
93M.024-6	65	M	H	H	H	Y		N		N/A	unknown	
93M.024-7	85	M	H	H	H	Y		N		N/A	unknown	
93M.024-8	48	M	M	M	M	Y		N		N/A	unknown	
93M.024-9	56	M	H	H	H	Y		N		N/A	unknown	
93M.024-10	35	M	H	H	H	Y		N		N/A	unknown	
93M.024-11	210	M	M	M	M	Y		N		N/A	unknown	
93M.024-12	80	L	H	M	M	Y		N		N/A	unknown	
93M.024-13	48.9	M	M	M	M	Y		N		N/A	unknown	
93M.024-14	84	M	M	M	M	Y		N		N/A	unknown	
93M.024-15	83	H	M	H	H	Y		N		N/A	unknown	

93M.024-16	91	M	H	H	H	Y		N		N/A	unknown	
93M.024-17	81	M	M	M	M	Y		N		N/A	unknown	
93M.024-18	44	M	H	H	H	Y		N		N/A	unknown	
93M.024-19	46	M	M	M	M	Y		N		N/A	unknown	
93M.024-20	80	M	H	H	H	Y		N		N/A	unknown	
93M.024-21	32.9	H	H	H	H	Y		N		N/A	unknown	
93M.024-22	56.6	H	M	H	H	Y		N		N/A	unknown	
93M.024-24	31	H	L	M	M	Y		N		N/A	unknown	
93M.024-38	20	H	M	H	H	Y		N		N/A	unknown	
93M.024-39	12.6	H	L	M	M	Y		N		N/A	unknown	
93M.024-40	24	M	M	M	M	Y		N		N/A	unknown	
93M.024-42	9.6	M	M	M	M	Y		N		N/A	unknown	
93M.024-008X	50	M	M	M	M	Y		N		N/A	unknown	
93M.024-009X	69	M	M	M	M	Y		N		N/A	unknown	
Suskwa F.S.R.	13.62	M	2.2H	H	H	Y		N		13.62	N/A	
			11.42L	L	L	Y		N				
Skilokis Rd.	10.78	M	1.8H	H	H	Y		N		10.78	N/A	
			8.98L	L	L	Y		N				
Stege's Rd.								N				
Br. A	0.74	M	L	L	L	Y		N		0.74	N/A	
Iltzul West Main F.S.R.	7.14	M	0.6H	H	H	Y		N		7.14	N/A	
			6.54L	L	L	Y		N				
Iltzul West Br.	2.66	M	0.4H	H	H	Y		N		2.66	N/A	
			2.26L	L	L	Y		N				
Iltzul Br. J	2.86	M	L	L	L	Y		N		2.86	N/A	
Iltzul Br. J-A	0.26	M	L	L	L	Y		N		0.26	N/A	
Iltzul Br. J-B	0.20	M	L	L	L	Y		N		0.20	N/A	
Iltzul Br. J-C	0.14	M	L	L	L	Y		N		0.14	N/A	
Iltzul Br. B	1.32	M	0.3H	H	H	Y		N		1.32	N/A	
			1.02L	L	L	Y		N				

Iltzul Br. C	2.40	M	L	L	L	Y		N		2.40	N/A	
Iltzul Br. D	1.38	M	L	L	L	Y		N		1.38	N/A	
Iltzul Br. E	1.16	M	0.5H	H	H	Y		N		1.16	N/A	
			0.66L	L	L	Y		N				
Iltzul Br. F	0.20	M	L	L	L	Y		N		0.20	N/A	
Iltzul Br. G	0.46	M	L	L	L	Y		N		0.46	N/A	
Natlan Br. A	6.28	L	0.4H	M	M	Y		N		6.28R	N/A	
			5.88L	L	L	Y		N				
Natlan Br. A1	2.54	M	L	L	L	Y		N		2.54	N/A	
Skilokis West	3.08	M	0.4H	H	H	Y		N		3.08	N/A	
			2.68L	L	L	Y		N				
Hamblin Main	5.88	H	2.2H	H	H	Y		Y		5.88	N/A	
			3.68L	M	M	Y		N				
Br. 10	1.30	M	0.2H	H	H	Y		N		1.30	N/A	
			1.1L	L	L	Y		N				
Br. 10 spur A	0.42	M	L	L	L	Y		N		0.42	N/A	
Br. 10 spur B	0.43	M	H	H	H	Y		N		0.43	N/A	
Br. 20	4.70	M	0.9H	H	H	Y		N		4.70	N/A	
			3.8L	L	L	Y		N				
Br. 20 spur A	0.98	H	0.4H	H	H	Y		N		0.98	N/A	
			0.58L	M	M	Y		N				
Br. 20 spur B	0.37	H	L	M	M	Y		N		0.37	N/A	
Br. 20 spur C	0.38	M	L	L	L	Y		N		0.38	N/A	
Br. 20 spur D	0.53	M	L	L	L	Y		N		0.53	N/A	
Br. 20 spur E	0.25	M	L	L	L	Y		N		0.25	N/A	
Br. 40	5.22	H	1.1H	H	H	Y		N		5.22	N/A	
			4.12L	M	M	Y		N				
Br. 40 spur E	0.35	H	L	M	M	Y		N		0.35	N/A	
Br. 40 spur F	0.50	M	0.3H	H	H	Y		N		0.50	N/A	
			0.2L	L	L	Y		N				

93M.025-001	43.7	L	L	L	L	Y		N		N/A	unknown	
93M.025-002	33	L	M	L	L	Y		N		N/A	unknown	
93M.025-003	28	M	L	L	L	Y		N		N/A	unknown	
93M.025-004	60	L	M	L	L	Y		N		N/A	unknown	
93M.025-001X	67	L	L	L	L	Y		N		N/A	unknown	
93M.025-002X	45.2	L	L	L	L	Y		N		N/A	unknown	
93M.025-013X	46	M	M	M	M	Y		N		N/A	unknown	
Hamblyn Main												
Summer	0.34	L	L	L	L	Y		N		0.34	N/A	
Winter	1.08	L	L	L	L	Y		N		1.08	N/A	
Natlan Br. A	3.86	M	1.0H	H	H	Y		N		3.86R	N/A	
			2.86L	L	L	Y		N				
Natlan Br. A2	0.92	L	0.2H	M	M	Y		N		0.92	N/A	
			0.72L	L	L	Y		N				
Natlan Br. A3	1.42	M	0.2H	H	H	Y		N		1.42	N/A	
			1.22L	L	L	Y		N				
Natlan Br. A4	1.46	L	0.6H	M	M	Y		N		1.46	N/A	
			0.86L	L	L	Y		N				
Babine Trail	4.20	L	L	L	L	Y		N		4.20	N/A	
Upper Fulton F.S.R.												
Br. 53.1A	0.76	L	0.2H	M	M	Y		N		0.76	N/A	
			0.56L	L	L	Y		N				
Br. 53.1A1	0.36	L	L	L	L	Y		N		0.36	N/A	
Br. 53.45C	1.36	L	L	L	L	Y		N		1.36	N/A	
Br. 53.45D	0.28	L	L	L	L	Y		N		0.28	N/A	
93M.026-001	94.7	L	L	L	L	Y		N		N/A	unknown	
93M.026-002	2.8	L	L	L	L	Y		N		N/A	unknown	
93M.026-003	27	L	L	L	L	Y		N		N/A	unknown	

93M.026-004	21.5	M	L	L	L	Y		N		N/A	unknown	
93M.026-005	275	M	L	L	L	Y		N		N/A	unknown	
93M.026-006	64.5	L	L	L	L	Y		N		N/A	unknown	
93M.026-007	108	M	L	L	L	Y		N		N/A	unknown	
93M.026-008	166.1	M	M	M	M	Y		N		N/A	unknown	
93M.026-018	91.8	M	M	M	M	Y		N		N/A	unknown	
93M.026-021	123	M	L	L	L	Y		N		N/A	unknown	
93M.026-022	36.3	M	M	M	M	Y		N		N/A	unknown	
93M.026-023	27.2	M	L	L	L	Y		N		N/A	unknown	
93M.026-024	23	L	M	L	L	Y		N		N/A	unknown	
93M.026-030	18.5	L	M	L	L	Y		N		N/A	unknown	
93M.026-031	144	L	L	L	L	Y		N		N/A	unknown	
93M.026-020X	16	M	M	M	M	Y		N		N/A	unknown	
Upper Fulton F.S.R.	9.48	L	2.6H	M	M	Y		N		9.48	N/A	
			6.88L	L	L	Y		N				
Br. 43.0A	3.00	L	1.5H	M	M	Y		N		3.00	N/A	
			1.5L	L	L	Y		N				
Br. 43.0B	0.68	L	L	L	L	Y		N		0.68	N/A	
Br. 43.0C	0.82	L	0.3H	M	M	Y		N		0.82	N/A	
			0.52L	L	L	Y		N				
Br. 43.0D	1.74	L	0.3H	M	M	Y		N		1.74	N/A	
			1.44L	L	L	Y		N				
Br. 43.9	1.94	M	L	L	L	Y		N		1.94	N/A	
Br. 43.9A	0.24	M	L	L	L	Y		N		0.24	N/A	
Br. 45.6	2.08	M	0.6H	H	H	Y		N		2.08	N/A	
			1.48L	L	L	Y		N				
Br. 45.6A	0.56	M	0.1H	H	H	Y		N		0.56	N/A	
			0.46L	L	L	Y		N				
Br.46.15	0.64	M	L	L	L	Y		N		0.64	N/A	
Br. 53.1	0.32	L	L	L	L	Y		N		0.32	N/A	

Br. 53.1A	6.82	L	1.3H	M	M	Y		N		6.82	N/A	
			5.52L	L	L	Y		N				
Br. 53.1B	2.32	M	1.8H	H	H	Y		N		2.32	N/A	
			0.52L	L	L	Y		N				
Br. 53.1B1	0.68	M	0.2H	H	H	Y		N		0.68	N/A	
			0.48L	L	L	Y		N				
Br. 53.1 C	1.56	L	L	L	L	Y		N		1.56	N/A	
Br. 53.1 D	0.98	L	0.3H	M	M	Y		N		0.98	N/A	
			0.68L	L	L	Y		N				
Br. 53.1 D1	1.04	M	0.2H	H	H	Y		N		1.04	N/A	
			0.84L	L	L	Y		N				
Br. 53.1 E	0.54	L	L	L	L	Y		N		0.54	N/A	
Br. 53.1 F	0.50	L	L	L	L	Y		N		0.50	N/A	
Br. 53.1G	0.42	L	L	L	L	Y		N		0.42	N/A	
Br.,53.1 H	0.32	L	L	L	L	Y		N		0.32	N/A	
Br. 53.45A	0.44	L	L	L	L	Y		N		0.44	N/A	
Br. 53.45B	2.06	L	L	L	L	Y		N		2.06	N/A	
Br. 53.45B1	1.20	M	L	L	L	Y		N		1.20	N/A	
Br. 53.45B2	0.32	M	L	L	L	N		N		0.32	N/A	
93M.033-024	5.6					Y		N		N/A	unknown	
Iltzul West Main F.S.R.	0.32	M	0.2H	H	H	Y		N		0.32	N/A	
			0.12L	L	L	Y		N				
93M.034-001	51	M	H	H	H	Y		N		N/A	unknown	
93M.034-002	44	H	H	H	H	Y		N		N/A	unknown	
93M.034-003	160	M	H	H	H	Y		N		N/A	unknown	
93M.034-004	116	M	H	H	H	Y		N		N/A	unknown	
93M.034-005	79	M	H	H	H	Y		N		N/A	unknown	
93M.034-006	78	M	H	H	H	Y		N		N/A	unknown	

93M.034-007	76	M	H	H	H	Y		N		N/A	unknown	
93M.034-008	72	M	H	H	H	Y		N		N/A	unknown	
93M.034-009	31	M	H	H	H	Y		N		N/A	unknown	
93M.034-010	41	H	L	M	M	Y		N		N/A	unknown	
93M.034-011	51	H	L	M	M	Y		N		N/A	unknown	
93M.034-014	85.5	H	L	M	M	Y		N		N/A	unknown	
93M.034-016	57.4	M	M	M	M	Y		N		N/A	unknown	
93M.034-017	71.6	H	M	H	H	Y		N		N/A	unknown	
93M.034-018	37.6	H	L	M	M	Y		N		N/A	unknown	
93M.034-021	46.5	M	M	M	M	Y		N		N/A	unknown	
93M.034-022	9	H	L	M	M	Y		N		N/A	unknown	
93M.034-023	18.2	L	H	M	M	Y		N		N/A	unknown	
93M.034-026	27.4	M	H	H	H	Y		N		N/A	unknown	
93M.034-027	52.7	M	M	M	M	Y		N		N/A	unknown	
93M.034-028	38.2	M	M	M	M			N		N/A	unknown	
93M.034-029	44.2	M	M	M	M	Y		N		N/A	unknown	
93M.034-024X	6.2	M	M	M	M	Y		N		N/A	unknown	
Iltzul West Main F.S.R.	9.46	M	2.4H	H	H	Y		N		9.46	N/A	
			7.06L	L	L	Y		N				
Spur 11	1.78	M	L	L	L	Y		N		1.78	N/A	
Spur 18	1.24	M	L	L	L	Y		N		1.24	N/A	
Spur 10	0.88	M	L	L	L	Y		N		0.88	N/A	
Spur 3	3.48	M	0.3H	H	H	Y		N		3.48	N/A	
			3.18L	L	L	Y		N				
Spur 3A	0.20	M	H	H	H	Y		N		0.20	N/A	
Spur 3B	0.26	M	L	L	L	Y		N		0.26	N/A	
Spur 2	1.56	M	L	L	L	Y		N		1.56	N/A	
Spur 1	0.86	M	L	L	L	Y		N		0.86	N/A	
Iltzul East Main												
Br. 2000	6.50	M	0.9H	H	H	Y		N		6.50	N/A	

			5.6L	L	L	Y		N				
Br. 2001	0.42	M	L	L	L	Y		N		0.42	N/A	
Br. 2100	1.87	M	L	L	L	Y		N		1.87	N/A	
Br. 2100-211	0.16	M	L	L	L	Y		N		0.16	N/A	
✓ Br. 2200	2.28	M	0.2H	H	H	Y		N		2.28	N/A	
			2.08L	L	L	Y		N				
Br. 2201	0.42	M	L	L	L	Y		N		0.42	N/A	
✓ Br. 2500	2.76	M	0.5H	H	H	Y		N		2.76	N/A	
			2.26L	L	L	Y		N				
✓ Br. 2520	0.91	M	0.2H	H	H	Y		N		0.91	N/A	
			0.71L	L	L	Y		N				
Br. 2520 SP 2521	0.30	M	H	H	H	Y		N		0.30	N/A	
Br. 2530	0.54	M	0.2H	H	H	Y		N		0.54	N/A	
			0.34L	L	L	Y		N				
Br. 2540	1.50	M	0.2H	H	H	Y		N		1.50	N/A	
			1.3L	L	L	Y		N				
Br. 2540 SP 2521	0.26	M	L	L	L	Y		N		0.26	N/A	
Br. 2550	0.77	M	0.2H	H	H	Y		N		0.77	N/A	
			0.57L	L	L	Y		N				
Br. 2600	0.98	M	0.2H	H	H	Y		N		0.98	N/A	
			0.78L	L	L	Y		N				
Br. 2700	3.74	M	0.6H	H	H	Y		N		3.74	N/A	
			3.17L	L	L	Y		N				
Br. 6000	0.97	M	L	L	L	Y		N		0.97	N/A	
✓ Suskwa F.S.R	13.96	H	3.0H	H	H	Y		N		13.96	N/A	
			10.96L	M	M	Y		N				
Denison Main	3.14	H	1.6H	H	H	Y		N		3.14	N/A	
			1.54L	M	M	Y		N				
Br. 13	4.92	M	0.5H	H	H	Y		N		4.92	N/A	
			4.42L	L	L	Y		N				

Br. 13-A	0.88	M	0.4H	H	H	Y		N		0.88	N/A	
			0.48L	L	L	Y		N				
Br. 13-B	0.44	M	0.2H	H	H	Y		N		0.44	N/A	
			0.24L	L	L	Y		N				
Br. 13A	0.42	M	L	L	L	Y		N		0.42	N/A	
Br. 2	1.44	M	L	L	L	Y		N		1.44	N/A	
Br. 2-A	0.46	M	L	L	L	Y		N		0.46	N/A	
Br. 2-B	0.66	M	0.2H	H	H	Y		N		0.66	N/A	
			0.46L	L	L	Y		N				
Br.3-14	3.26	M	0.8H	H	H	Y		N		3.26	N/A	
			2.46L	L	L	Y		N				
Br.3-14-A	0.36	M	L	L	L	Y		N		0.36	N/A	
Br.3-14-B	0.46	M	L	L	L	Y		N		0.46	N/A	
Br.3-14-C	0.26	M	H	H	H	Y		N		0.26	N/A	
Br.3	1.04	M	L	L	L	Y		N		1.04	N/A	
93M.035-001	92	M	M	M	M	Y		N		N/A	unknown	
93M.035-002	77.7	L	M	L	L	Y		N		N/A	unknown	
93M.035-003	64	L	M	L	L	Y		N		N/A	unknown	
93M.035-004	62	L	M	L	L	Y		N		N/A	unknown	
93M.035-005	20					Y		N		N/A	unknown	
93M.035-006	78	L	M	L	L	Y		N		N/A	unknown	
93M.035-007	90	M	M	M	M	Y		N		N/A	unknown	
93M.035-008	59.9	M	M	M	M	Y		N		N/A	unknown	
93M.035-009	78	L	M	L	L	Y		N		N/A	unknown	
93M.035-010	98	L	M	L	L	Y		N		N/A	unknown	
93M.035-011	48.7	H	M	H	H	Y		N		N/A	unknown	
93M.035-012	119	M	M	M	M	Y		N		N/A	unknown	
93M.035-013	86	M	M	M	M	Y		N		N/A	unknown	
93M.035-014	88	M	M	M	M	Y		N		N/A	unknown	

BR-6-7c

93M.035-015	73	M	M	M	M	Y		N		N/A	unknown	
93M.035-016	51	M	M	M	M	Y		N		N/A	unknown	
93M.035-017X	18	M	M	M	M	Y		N		N/A	unknown	
93M.035-018	68.7	M	M	M	M	Y		N		N/A	unknown	
93M.035-003X	14	M	M	M	M	Y		N		N/A	unknown	
Babine Trail	10.26					N		N		N/A	unknown	
Denison Main	3.10	M	0.8H	H	H	Y		N		3.10	N/A	
			2.3L	L	L	Y		N				
Br. 6-7A	2.38	M	0.2H	H	H	Y		N		2.38	N/A	
			2.18L	L	L	Y		N				
Br. 6-7B	1.22	M	0.2H	H	H	Y		N		1.22	N/A	
			1.02L	L	L	Y		N				
Br. 6-7C	0.28	M	L	L	L	Y		N		0.28	N/A	
Br. 6-16A	2.62	L	0.2H	H	H	Y		N		2.62	N/A	
			2.42L	L	L	Y		N				
Br. 6-16B	0.82	L	L	L	L	Y		N		0.82	N/A	
Thoen Main	13.56	L	3.1H	M	M	Y		N		13.56	N/A	
			10.46L	L	L	Y		N				
Br. 1A	0.98	L	L	L	L	Y		N		0.98	N/A	
Br. 1B	0.26	M	H	H	H	Y		N		0.26	N/A	
Br. 1C	0.78	M	L	L	L	Y		N		0.78	N/A	
Br. 2A	0.16	M	L	L	L	Y		N		0.16	N/A	
Br. 2B	0.84	M	L	L	L	Y		N		0.84	N/A	
Br. 2C	0.14	M	L	L	L	Y		N		0.14	N/A	
Br. 2D	0.22	M	L	L	L	Y		N		0.22	N/A	
Br. 2E	0.46	M	L	L	L	Y		N		0.46	N/A	
Br. 3A	0.78	M	L	L	L	Y		N		0.78	N/A	
Br. 3B	0.24	M	L	L	L	Y		N		0.24	N/A	
Br. 3C	0.22	M	L	L	L	Y		N		0.22	N/A	
Br. 3D	0.14	M	L	L	L	Y		N		0.14	N/A	

Br. 4 A	1.04	M	L	L	L	Y		N		1.04	N/A	
Br. 4B	0.36	M	L	L	L	Y		N		0.36	N/A	
Br. 4C	0.08	M	L	L	L	Y		N		0.08	N/A	
Br. 5	1.02	L	0.3H	M	M	Y		N		1.02	N/A	
			0.72L	L	L	Y		N				
Br. 12	2.78	L	0.6H	M	M	Y		N		2.78	N/A	
			2.18L	L	L	Y		N				
Br. 12-A	0.12	L	L	L	L	Y		N		0.12	N/A	
Br. 12-B	0.58	L	0.2H	M	M	Y		N		0.58	N/A	
			0.38L	L	L	Y		N				
Br. 8-9	3.10	L	0.3H	M	M	Y		N		3.10	N/A	
			2.8L	L	L	Y		N				
Br. 8-9-A	0.22	L	L	L	L	Y		N		0.22	N/A	
Br. 8-9-B	0.48	L	L	L	L	Y		N		0.48	N/A	
Br. 8A	0.48	L	L	L	L	Y		N		0.48	N/A	
Br. 8B	0.10	L	L	L	L	Y		N		0.10	N/A	
Br. 10	2.66	L	0.5H	M	M	Y		N		2.66	N/A	
			2.16L	L	L	Y		N				
Br. 10-A	0.18	L	L	L	L	Y		N		0.18	N/A	
Thoen Main								N				
Spur 11A	0.24	L	L	L	L	Y		N		0.24	N/A	
Spur 11B	0.48	L	L	L	L	Y		N		0.48	N/A	
Spur 11C	0.36	L	L	L	L	Y		N		0.36	N/A	
Spur 11D	0.38	L	L	L	L	Y		N		0.38	N/A	
Grizzly Main	2.78	M	0.3H	H	H	Y		N		2.78	N/A	
			2.48L	L	L	Y		N				
Grizzly Main spur A	0.14	M	L	L	L	Y		N		0.14	N/A	
Netalzul Main	3.98	M	1.0H	H	H	Y		N		3.98	N/A	
			2.98L	L	L	Y		N				
Netalzul Main spur A	0.16	M	L	L	L	Y		N		0.16	N/A	

93M.036-003	26	M	M	M	M	Y	N	N/A	unknown
93M.036-017	39	M	M	M	M	Y	N	N/A	unknown
Babine Trail	8.92					N	N	N/A	unknown
Thoen Main	0.50	M	L	L	L	Y	N	0.50	N/A
Br. 8	0.72	M	L	L	L	Y	N	0.72	N/A
Grizzly Main	0.88	M	L	L	L	Y	N	0.88	N/A
Grizzly Main spur A	0.12	M	L	L	L	Y	N	0.12	N/A
93M.044							N		
Suskwa F.S.R	1.28	M	0.2H	H	H	Y	N	1.28	N/A
			1.08L	L	L	Y	N		
93M.045-006	31	M	M	M	M	Y	N	N/A	unknown
93M.045-007	42	M	M	M	M	Y	N	N/A	unknown
93M.045-008	60	M	M	M	M	Y	N	N/A	unknown
93M.045-009	41	M	M	M	M	Y	N	N/A	unknown
93M.045-010	37	M	H	H	H	Y	N	N/A	unknown
Suskwa F.S.R	5.80	M	0.9H	H	H	Y	N	36.86	N/A
			4.9L	L	L	Y	N		
Br. 8A	1.64	M	0.2H	H	H	Y	N	1.64	N/A
			1.44L	L	L	Y	N		
Br. 6B	1.86	M	0.2H	H	H	Y	N	1.86	N/A
			1.66L	L	L	Y	N		
Br. 6B1	0.50	M	M	M	M	Y	N	0.50	N/A



Photo 1. Bridge stringers collapsed into Natlan Creek.
93M045-Opening 9.

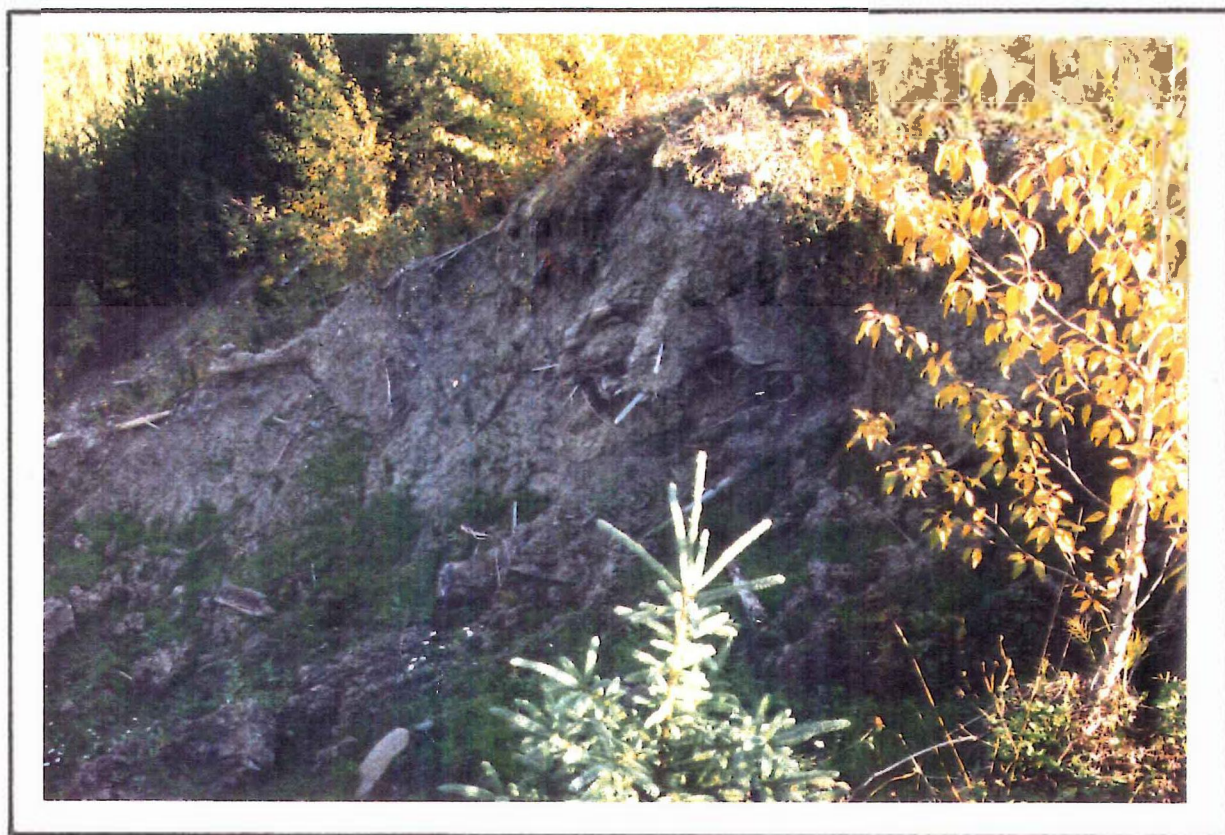


Photo 2. Earthflow downslope Hamblin Main, 0.68 km. 93M024-18.



Photo 3. Stream side vegetation was removed causing channel destabilization resulting in creek avulsion.
93M 035, Opening 1, Impact 9.



Photo 4. Failure into Natlan Creek related to logging.
93M 034 Opening 5

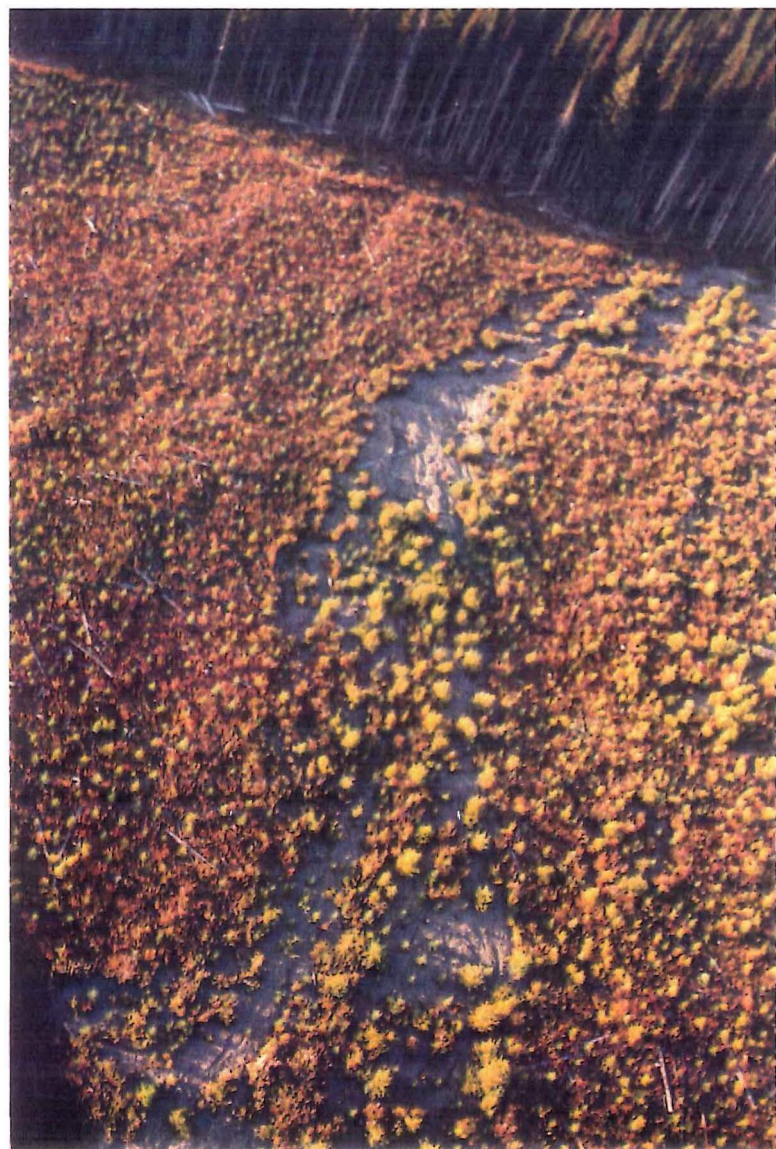


Photo 5. Sediment and debris in cutblock 600
meters below avulsion mentioned in photo 3.



Photo 6. Cut and fillslope erosion into
tributary of Natlan Cr. 93M 034.



Photo 7. Natlan Creek, East Fork. Note the high level of failures and instability. 93M 035 & 045.



Photo 8. Fan system on the west side of Natlan Creek.

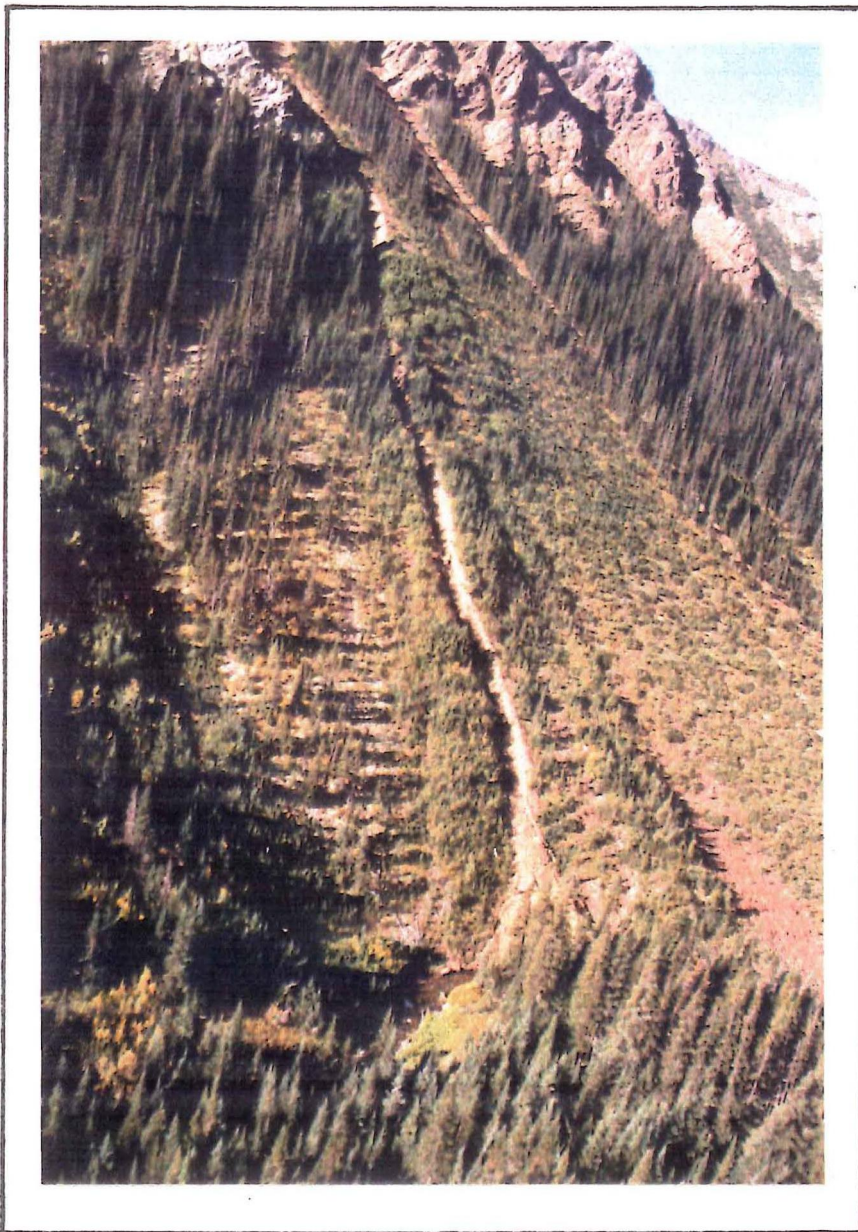


Photo 9. Debris flow down avalanche path.
East Fork of Natlan Creek.

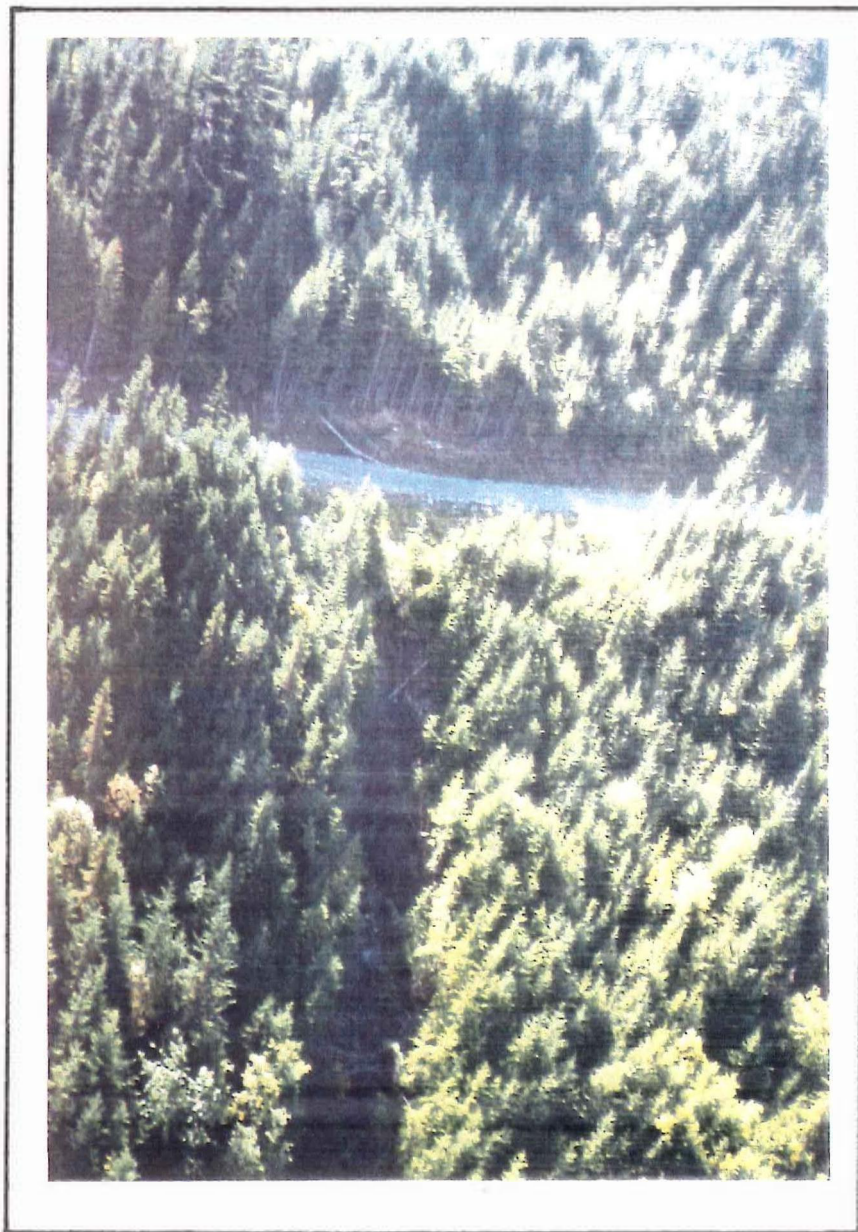


Photo 10. Road related failure. Suskwa
FSR, approximately 10 Km.



Photo 11. Block cut to Denison Creek, and which contains two avalanche tracks. 93M 035, Opening 11.

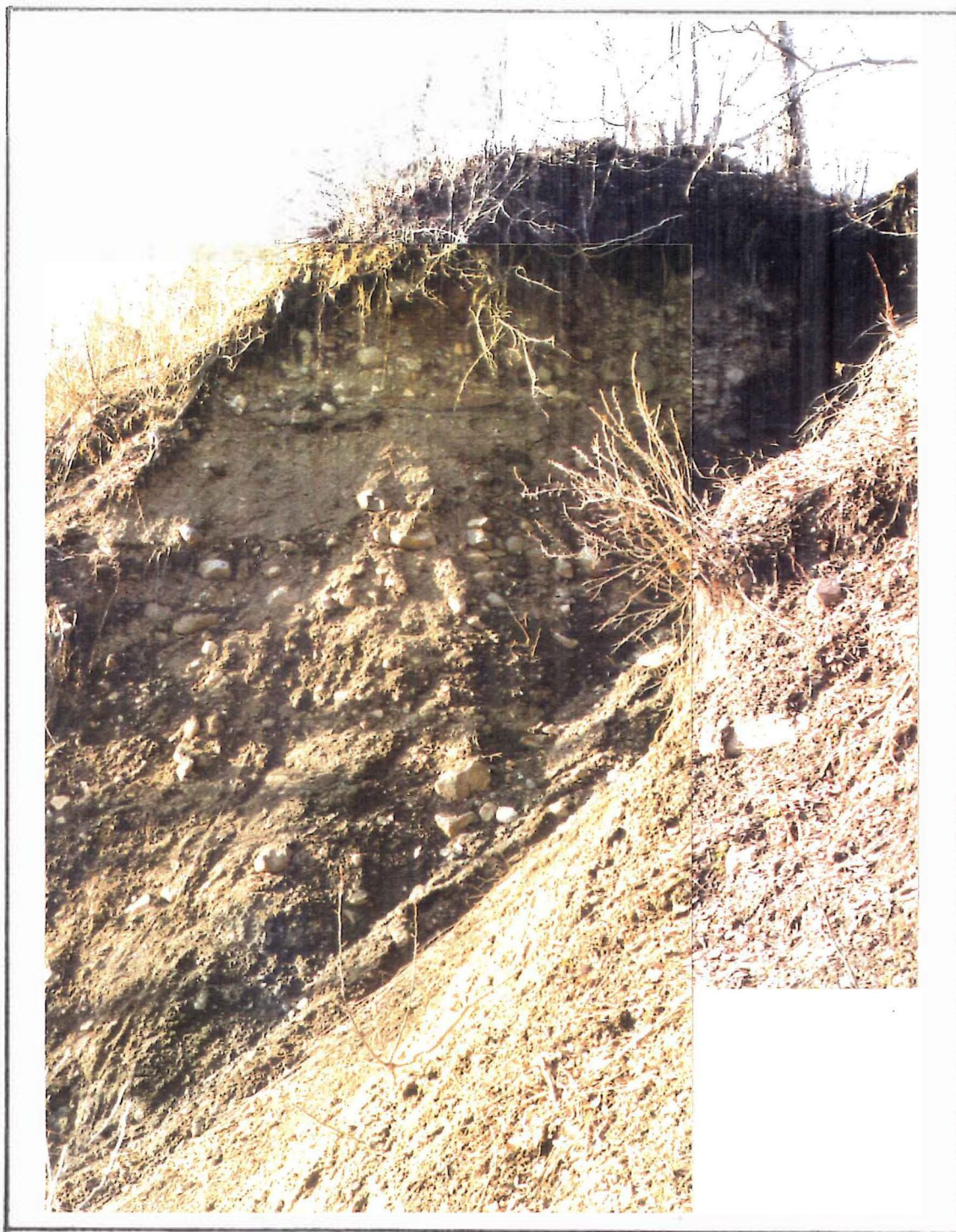


Photo 12. Deranged drainage initiated this failure of terrace bank. 93M 024-11.

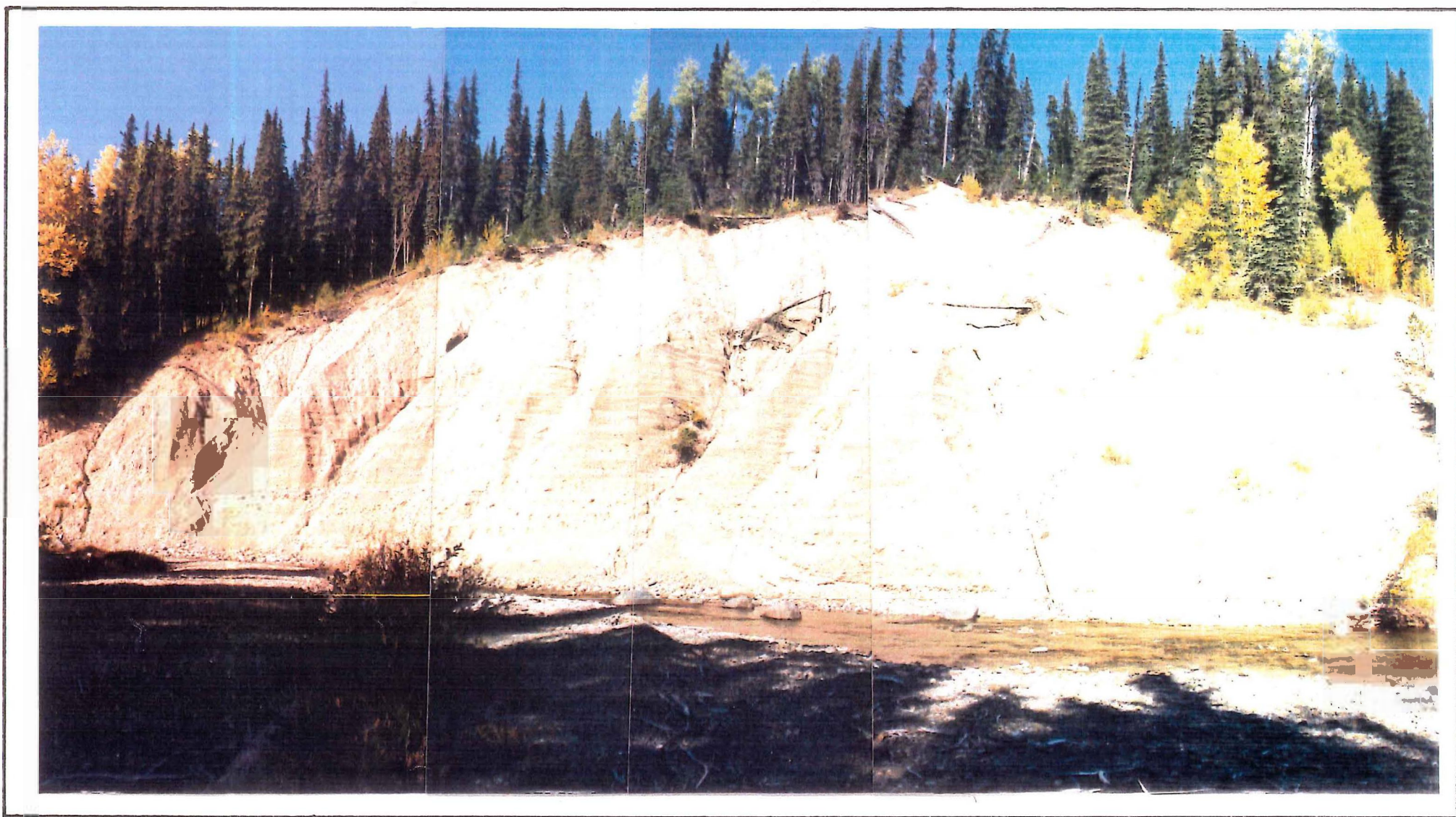


Photo 13. Mosaic showing natural instability in Blunt Creek.



Photo 14. Close-up of sediments in photo 13. Glacial fluvial gravels are underlying basal till.

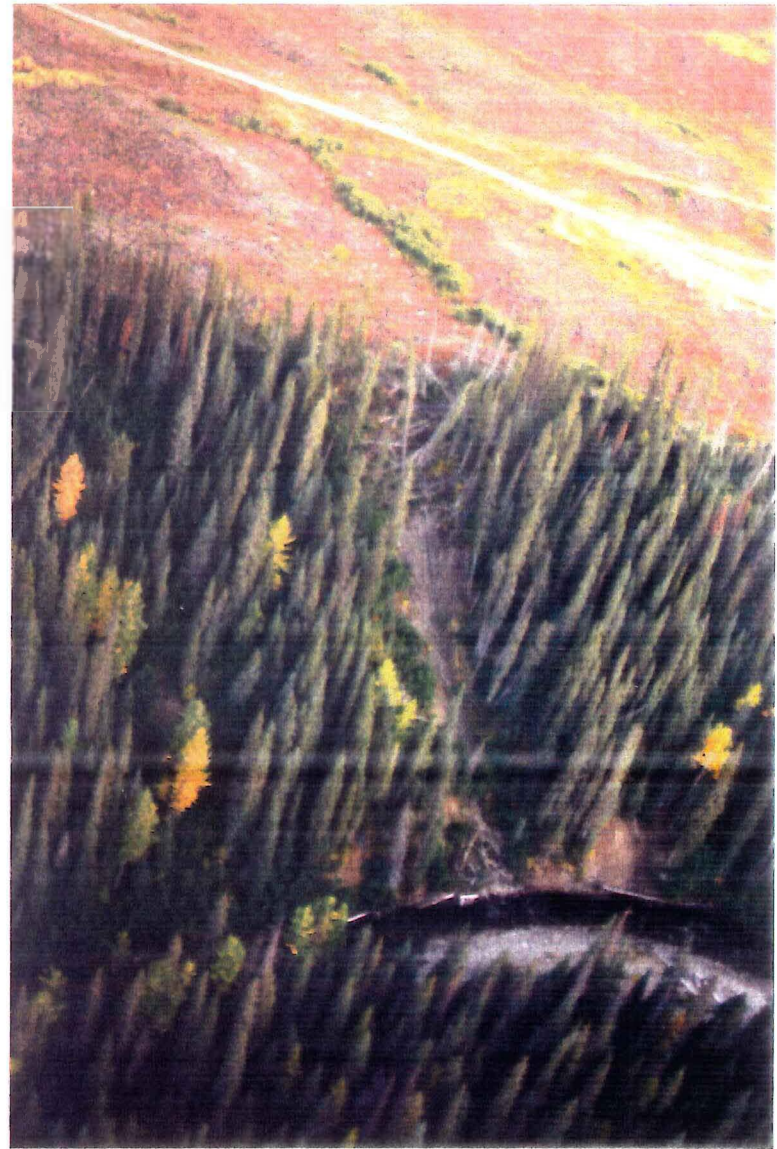


Photo 15. Logging related slide into Blunt Creek.

Watershed Hydrology and Stream Stability of the Susqua River:

A first approximation

Allen S. Gottesfeld, Ph.D., P.Geo

Introduction

The Susqua River is drainage of approximately 1338 km². It is a major tributary of the Bulkley River and enters it approximately 15 km east of Hazelton, British Columbia.

The watershed was visited on September 8, 1995 for a helicopter overflight. On this flight notes were entered onto 1:50 000 base maps and GPS data and video records were collected of important features. This field work was supplemented by examination of airphotos from 1960, 1968, 1975 and 1992, logging development maps, terrain maps, 1:20 000 TRIM maps, and bedrock geology maps.

Comments on Stream Hydrology

The precipitation pattern of the upper Susqua river and Harold Price Creek is transitional from the coastal pattern to the interior pattern. Precipitation maxima occur in the summer, as in the interior of British Columbia, and in the fall, as on the coast (Figure 1). The precipitation pattern of Natlan Creek is likely closer to the coastal pattern, with storm input from the Nass and Skeena Valleys through the relatively low divides with Shegunia Creek.

The peak precipitation pattern is similar to that of interior B.C. stations. The peak daily precipitation amounts from 1982 to 1988 range from 22 to 64 mm, with only one value greater than 28 mm. This precipitation pattern results in a moderate stormflow distribution and accounts for the lack of non-snowmelt events in the annual peak flow series.

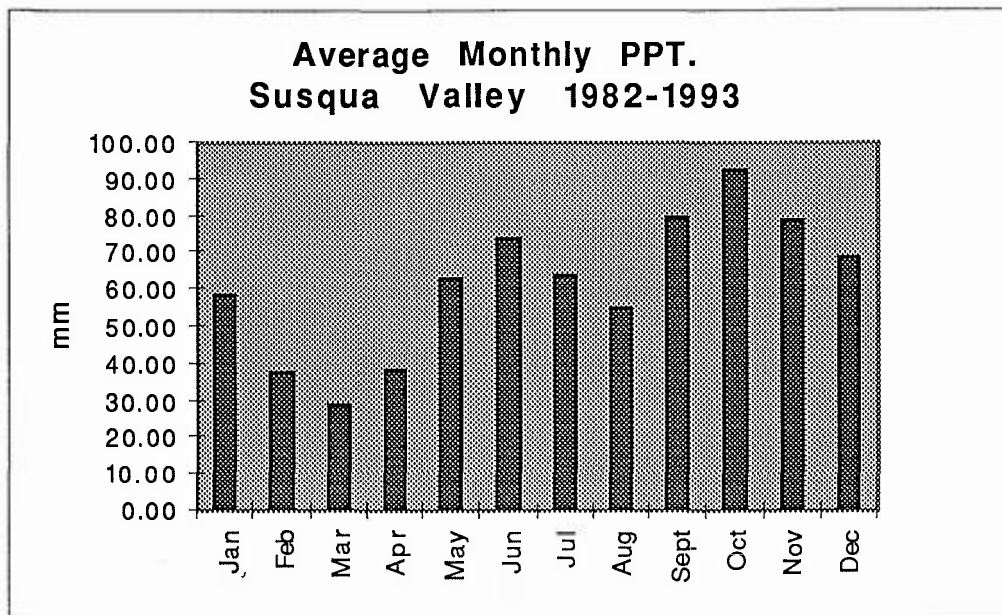


Figure 1. Monthly precipitation amounts at the weather station in the Susqua Valley near the Susqua-Harold Price confluence. Data source: Environment Canada, Climate Services, Vancouver, British Columbia.

In the gauged drainages immediately adjacent to the Susqua River, the flood flows which are geomorphologically effective are almost entirely late spring nival (snowmelt) floods. All annual peak flows in the Fulton River and Babine River series are nival events. Natlan Creek, which is the westernmost and major tributary may have significant fall floods as well.

The spring snowpack record is a useful proxy annual snowmelt derived runoff. The snowcourse at Chapman Lake immediately south of Harold Price Creek provides useful data. (Figure 2). This graph shows a decrease in high snowpack years and a trend toward lower snow accumulation after 1978.

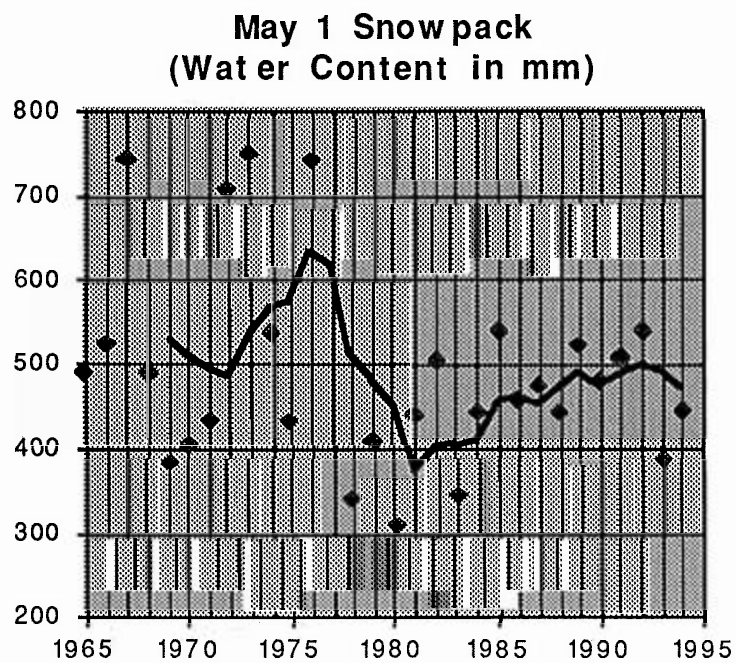


Figure 2. Five year running average of May 1 snow depths at Chapman Lake. Data source: Water Management Branch, Ministry of Environment, province of British Columbia.

General comments on stream channel stability and surface process

The Susqua river watershed as a transition Coastal-Interior Watershed is transitional in the watershed response to natural and anthropogenic disturbance.

In general there are few dramatic changes in this watershed in comparison to coastal watersheds. It is likely however that detailed examination will disclose changes in channel morphology due to climate variability and logging disturbance. In the more sensitive subwatersheds discussed below such effects are noticeable. Quantitative examination likely will demonstrate similar effects on other parts of the drainage.

Logging related mass wasting is relatively uncommon and usually produces sediment which does not reach the stream channels directly. In the overflight of September 8 approximately 50 landslides were observed which contributed sediment directly to the stream channels. Of these only two appear to have resulted directly from logging disturbance. The other landslides are along stream banks, undercut bluffs and steep slopes in confined stream reaches.

The impression I get from examining these slides is that there has been an increase in mass movement contribution of sediment to the Susqua watershed in the past 20 years, coincident with large scale forest harvest development and road construction.

Notes on geomorphologically active stream reaches

Natlan Creek

The channel of Natlan Creek has apparently been undergoing modification in the past decade or two. There is evidence of moderate widening, moderate increase in coarse sediment within the channel and significant increase in landslide activity. The channel disturbance begins about 1 km above the confluence with the East Fork of Natlan Creek and increases in intensity for about 7 km downstream. Stream-bank failures involve floodplain deposits and bluffs of fluvio-glacial terraces overlying thick till deposits.

The intensity of channel disturbance decreases from 7 kilometers below the start of the disturbed channel to about 2 km above the confluence with Denison Creek.

Blunt Creek

Blunt Creek has an area of increased activity which begins about 1 km above the outlet of Wan Lake. There is a marked increase in landslides on bluffs adjacent to the river and increased size of gravel bars and log jams extending to within 1 km of the mouth of Blunt Creek. The intensity of the disturbance increases downstream and is especially noticeable downstream of 2 km below the Touhy Creek confluence. There is an extraordinarily large area of sediment and log accumulation from 1 to 2.5 km above the mouth of the stream.

The increase in activity on Blunt Creek has taken place in the past decade or two.

Iltzul Creek

Within the Susqua drainage, the existing but quiescent slumps on Iltzul Creek have the greatest potential for serious long-term damage to the watershed.

There is a potential for large scale mass wasting along Iltzul Creek resulting from logging development. Air photo interpretation of the two large slump zones on the north side of Iltzul creek suggest that they have a cumulative volume of 6 ± 4 million cubic meters. The slumps are in thick till in an area of drainage concentration on the south side of Natlan Peak. These slumps are relatively stable and show little change in the past 25 years, except for some indication of increased activity along the tributary of Iltzul Creek whose mouth is at UTM 0733. If these slumps were to be reactivated or new ones formed in the unstable terrain, there would be serious long term consequences for Iltzul Creek, Natlan River and Susqua River, all of which contain anadromous salmonids.

Jumbo Creek

Jumbo Creek is a second order creek that reaches the Susqua River below the confluence of Harold Price creek. It serves as a domestic water supply. The upper part of the Jumbo Creek watershed has a large area of mid elevation clear cuts. Channel widening and excavation is apparent along 300 to 400 m of the stream within the cutblocks. This channel incision probably led to an increase in fine sediment transport to the mouth of the creek.

Harold Price Creek above and below the falls

In 1977 to 1979 the falls in the canyon of Harold Price Creek were decreased by blasting to promote anadromous fish passage. At the same time a large log jam above the falls was removed. A large area of sediment storage exists above the former log jam. It is possible that this material may be mobilized and affect the sediment storage zone 2.5 to 4.5 km above the mouth of Harold Price creek. Brief examination of 1960, 1968, 1975, and 1990 airphotos indicates that there has been a trend to stabilization of sediment deposits both above and below the falls. However there has not been a deep winter snow accumulation in the upper Harold Price Creek

drainage since the channel modification. A large nival flood event might result in removal of the sediment wedge above the former log jam.

The Susqua River between Natlan Creek and Harold Price Creek

The Susqua River from about 1.5 km above Natlan Creek to the Harold Price confluence has a wandering river configuration. Wandering rivers are easily changed by alteration of water and/or sediment discharge (Desloges and Church 1987; Gottesfeld and Gottesfeld, 1990). Typical changes are shifts to new channel positions (avulsions) and changes in the number of channels carrying water.

The reach of the Susqua River from 4 to 6 km above Natlan Creek is relatively active and has changed channel position since 1975. Spruce trees on floodplain islands within this reach provide opportunities for determination of past flood stages on the Susqua River (Gottesfeld 1995). Quantitative analysis of the series of existing air photos could provide a record of channel activity for the past 35 years.

An hypothesis of activity in the Susqua River watershed

The two large tributaries with significant areas of subalpine clearcuts, Natlan Creek and Blunt Creek, both have evidence of increased activity in recent years. This observation is unexpected since the past 20 years have seen a decrease in nival flow volumes. Both of these drainages have large areas at mid-elevation and may have more fall and winter precipitation in their headwaters because of proximity to passes which permit movement of storms from the west.

In both streams bank stability, as represented by bank cutting and landslides on adjacent slopes has decreased. This is probably due to stream aggradation from increased coarse sediment loads resulting in channel widening.

The channel instability begins in these two creeks immediately below their high elevation cutblocks. However in there is little evidence of large scale landslide input directly from the cutblocks. On Natlan creek there is a logging related landslide above the confluence of the East Fork. This landslide is 1 km below the most upstream indication of channel widening, but still within the area of initiation of channel change.

It is possible that the source of the channel widening is hydrologic changes in the most sensitive elevation zone.

In B.C. there is a tendency for streams within the size range of 10 Km² to 3,000 km² to increase in their specific sediment yield as one goes downstream (Church & Slaymaker 1989, Church et al. 1989). In other words the sediment produced per unit area of the watershed increases as one goes down the drainage. Thus the sediment production of the whole watershed is greater than the sum of the sediment production of the tributary streams. This pattern is unusual in the world. In nearly all drainages studied, the specific sediment yield decreases downstream in watersheds.

The likely explanation for this pattern is the incorporation of materials from the banks and streamside slopes into the stream channel by bank cutting and mass movement. The incorporated materials come from long-term bank storage. The deposits were formed at the end of the last glaciation and shortly after deglaciation 9000 to 10000 years ago.

Given this natural tendency for streams to amplify their geomorphic response to disturbance as one progresses downstream, it is possible that the sedimentologic effects of relatively small changes in peak runoff are amplified downstream. There are little data in this region which would enable evaluation of the magnitude of changes in peak runoff, but efforts are now underway in the Stuart-Takla Experimental Watersheds, approximately 150 km east of the Suskwa Watershed, to measure this parameter.

Black 1990 p.110. writes:

Typical of many studies on the impact of forest cutting on stream behavior is that reported by Verry, Lewis, and Brooks (1983). Clear-cutting aspen on upland portions of watersheds in Northern Minnesota caused snowmelt peaks to increase from 11 percent to 143 percent. Rainfall, which will reach the watershed outlet much more rapidly than snowmelt, produced peaks up to 250 percent higher. The volume of storm flow increased as much as 170 percent. Increased volumes decreased to pre-harvest levels by the third year, while increased peak flows persisted for nine years...

If one had, as is possible, a 100% increase in snowmelt flows in clearcuts, this increase would normally be counteracted by the small proportion of the drainage that is clearcut. However one must consider the melt pattern is snow-covered high relief drainage basins such as the Susqua River. Clearcuts at low elevation (perhaps the lower 40% of the drainage) are snow-free or nearly snow-free before the peak of nival flows (late May and early June in the Susqua watershed) and therefore contribute

little to the annual peak flow. Cutblocks at mid-elevation, however are ideally situated to make the most effective contribution. At these sites maximum melt rates coincide with the peak flow from the watershed.

Future studies for level 2 Watershed Assessment:

Productive research for the level 2 stream assessment could include detailed studies of the following areas and problems:

- Streams with evidence of bank instability and mass wasting such as: Blunt Creek, Natlan Creek, and Iltzul Creek.
- Studies of the sensitive wandering river reach of the Susqua mainstem, from the Natlan River confluence to Harold Price Creek.
- Work on Hydrologic modeling of watersheds with subalpine harvest areas
- Field studies and work on sediment budgeting in tributaries with existing and proposed subalpine harvest areas.
- Preparation of an inventory of stream-side mass movement number and volume.

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Access Management Plan

Suskwa Level 1 Watershed Assessment - Access Management Plan for the Watershed Restoration Program

Table #2A of Level 1 Assessment Contract # _____

Forest District:

Kispiox

Watershed Name:

Suskwa

Block I.D.	Tenure	Year logged or built	Area or length	WRP eligible	Access		Road use			Level of deactivation
					Current	Proposed	Current	Planned	Next	
93M.004										
Blunt F.S.R. 2000RD.	942-6144		0.12	N	2 WD	2WD	L/S	S/L	95	Maintain
2000Rd Br. 1	R1431		0.12	N	2WD	2WD	L/S	L/S	97	Maintain
93M.005-001	A16830 561-1	93	38.2	N	2WD	2WD	L/S/R	L/S/R/F	95	M
93M.005-002	A16830 561-2	94	45.1	N	2 WD	2WD	L/S/R	L/S/R/F	95	M
93M.005-003	A16830 561-3	94	46.2	N	2 WD	2WD	L/S/R	L/S/R/F	95	M
93M.005-004	A16830 373-1	94	18.6	N	2 WD	2WD	L/S/R	L/S/R/F	95	M
93M.005-005	A16830 372-2	93	33.3	Y	2 WD	4WD	S/R	S/R	2004*	SP
93M.005-006	A16830 561-4	94	8.7	N	2WD	4WD	S/R	S/R	2004*	SP
93M.005-008	A16830 374-6	94	23	N	2WD	2WD	S	S/L	96	M
93M.005-001X	A16830 508-2	92	12.4	Y	2WD	4 WD	S	S	2004*	SP
93M.005-011	A17916 164-1	94	29.2	N	2WD	2WD	L/S/R/F	L/S/R/F	95	M
93M.005-012	A17916 164-2	95	28.4*	N	2WD	2WD	L	L/S	95	M
Blunt F.S.R. 2000RD.	942-6144		7.90	N	2WD	2WD	L/S	L/S/F	95	M
2000Rd Br. 1	R1431		1.16	N	2WD	2WD	S	S/L	96	M
2000Rd Br. A	1431-13		2.50	N	2WD	4WD	S/R	S/R	2004	SP
2000Rd Br. B	1431		0.90	N	2WD	2WD	L/S/R/F	L/S/R/F	95	M
2000Rd Br. C	1431 sec. 16		1.26	N	2WD	2WD	L/S	L/S	96	M
2000Rd Br. D	1431 sec. 14		1.28	N	2WD	2WD	L	L/S	95	M
2000Rd Br. D1	1431 sec. 14		0.20	N	2WD	2WD	L	L/S	95	M
93M.006-2	A06556 10-3	80-81	68	Y	2WD	2WD	L/S	L/S	97/98	M
93M.006-3	A16829 10-4	80-81	109	Y	4WD	4WD	S	S	2005	SP

93M.006-5	A06556 84-2	79	52	Y	4x4	4x4	S	S	2000	SP
93M.006-6	A06556 10-1	85	48	Y	2WD	2WD	S	L/S	97	MAINTAIN
93M.006-7	A06556 10-5	84	22	Y	2WD	2WD	S	L/S	97	MAINTAIN
93M.006-10	A06556 18-28		12.6	Y	2WD	2WD	L/S/R	L/S/R	95	MAINTAIN
93M.006-102X	A06556 6-9	80	8.2	Y	2WD	2WD	L/S/R	L/S/R/F	95	MAINTAIN
93M.006-103		78-80	10.8	Y	2WD	2WD	L/S/R	L/S/R/F	95	MAINTAIN
93M.006-105	A06556 6-7	79-80	12.2	Y	2WD	2WD	L/S/R	L/S/R/F	95	MAINTAIN
Upper Fulton F.S.R.	R1426		3.12	N	2WD	2WD	L/S/R	L/S/R/F	95	MAINTAIN
Br. 26A	R1426		0.74	Y	UNKNOWN		S	S		SP
Br. 26D	R1426		0.62	Y	UNKNOWN					SP
Br. 26.3A	R1426		0.24	Y	UNKNOWN					SP
Br. 26.3B	R1426		0.27	Y	UNKNOWN					SP
Br. 26.5A	R1426		0.47	Y	4x4	4x4	S	S		SP
Br. 26.5B	R1426		0.10	Y	4x4	4x4	S	S		SP
Br. 27.1	R1426		0.63	Y	4x4	4x4	S	S		SP
Br. 27.6A	R1426		5.66	Y	2WD	2WD	S	L/S/R	97	MAINTAIN
Br. 27.6B	R1426		0.56	Y	UNKNOWN		S	S		SP
Br. 27.6C	R1426		1.46	Y	2WD	2WD	S	L/S/R	97	MAINTAIN
Br. 27.6D	R1426		0.60	Y	4WD	4WD	S	S		SP
Br. 27.6D1	R1426		0.60	Y	4WD	4WD	S	S		SP
Br. 28.4	R1426		0.32	Y	2/4WD	4WD	S	S	2007	SP
Br. 29.0	R1426		0.24	Y	UNKNOWN		SPUR.			
93M.007-101	A06556 18-2	84,85	77	Y	NO	ACCESS SHOWN				
93M.007-102	A06556 6-9	80	12	Y	2WD	2WD	L/S/R	L/S/R/F	95	MAINTAIN
93M.007-103	A06556 6-8	80	22	Y	4WD	4WD	S	S		SP
93M.007-104	A06556 14-6	82	12	Y	UNKNOWN					
93M.007-105	A06556 6-7	79-80	49	Y	UNKNOWN					
Nilkitwa F.S.R.	942-5897-00		1.82	N	2WD	2WD	L/S/R	L/S/R	95	MAINTAIN
Br. 18.0	942-5897-03		0.30	N	2WD	2WD	R	L/R	95	MAINTAIN
Br. 26.3	R1426		0.48	Y	UNKNOWN					
Br. 28.4	R1426		0.92	Y	4x4	4x4	S	S	2007	SP

93M.015-001	A16830 508-2	91	78.6	Y	2WD	4x4	S	S	2004 ⁺	SP
93M.015-002	A16830 508-3	93	115.6	Y	2WD	4x4	S	S	2004 ⁺	SP
93M.015-003	A16830 546-1	92	67.5	Y	2WD	4x4	S	S	2004 ⁺	SP
93M.015-005	A16830 528-1	94	36.4	N	2WD	4x4	L/S	L/S	2000-2004	T
93M.015-006	A16830 528-2	INC.	43.1	N	2WD	4x4	L/S	L/S	2000-2004	T
93M.015-007	A16830 528-3	95	72	N	ATV	ATV	S	L/S	2004	T
93M.015-008	A16830 555-1	95	42	N	2WD	4x4	S	S	2004 ⁺	SP
93M.015-009	A16830 555-2	94	48	N	ATV	ATV	S	S	2004 ⁺	SP
93M.015-010	A16830 555-3	94	30.2	N	ATV	ATV	S	S	2004 ⁺	SP
93M.015-011	A17916 164-1	94	29.2	N	2WD	2WD	L/S/R/F	L/S/R/F	95	M
93M.015-012	A17916 164-2	94-95	28.4*	N	2WD	2WD	L	L/S	95	M
Blunt F.S.R. 2000RD.	942-6144		4.80	N	2WD	2WD	L/S	L/S/R/F	95	M
2000Rd Br. A	1431 sec. 14		0.28	N	2WD	4x4	L/S	S/L	2004	T
2300-20	1431 sec. 5,6		5.48	N	2WD	4x4	S/R	S/R	2004 ⁺	SP
2500-20	1431 sec. 9		1.56	N	2WD	4x4	S/R	S/R	2004 ⁺	SP
2500 Br. A	1431 sec. 8		4.24	N	2WD	4x4	S/R	S/R	2004 ⁺	SP
2600	1431 sec. 10		4.34	N	2WD	4x4	L/S	S/L	2000-2004	T
2600 Br. A	1431 sec. 10		0.62	N	2WD	4x4	S	S	2010	SP
2600 Br. B	1431 sec. 10		0.82	N	2WD	4x4	S	S	2010	SP
2700	1431 sec. 11		3.36	N	2WD	2WD	L/S	L/S/R/F	95	M
93M.016-001	A06446 7-9	84	2	Y	2WD	2WD	S	S		M
93M.016-002X	A06556 10-3	81-83	9.6	Y	2WD	2WD	L/S	S/L	97-98	M.
93M.016-002	A16829 33-1	88	141.5	Y	2WD	2WD	L/S	L/S	95	M
93M.016-003	A16829 51-1	89	62	Y	4x4	4x4	S	S		SP
93M.016-004	A16829 51-2	90	137.2	Y	4x4	2WD	S	L	96	T
93M.016-005	A16829 51-3	91-92	89.9	Y	4x4	4x4	S	S		SP
93M.016-006	A16829 51-4	91-92	43.1	Y	4x4	4x4	S	S		SP
93M.016-007	A16829 42-1	90-91	155.8	Y	ATV	ATV	S	S	2008	SP
93M.016-008	A16829 27-9	82	44.9	Y	2WD	2WD	S	S	2002	M
93M.016-010	A16829 27-1	83-88	71.3	Y	4WD	4WD	S	S	2007	SP
93M.016-011	A16829 7-12	82	29	Y	2WD	4WD	S	S	2004	SP

93M.016-012	A16829 7-13	82	9	Y	4WD	4x4	S/R	S/R	2010	SP
93M.016-013	A16829 7-3	77,82	107	Y	4x4	4x4	S	S	2004	SP
93M.016-014	A16829 7-2	77	65	Y	2WD	4x4	S	S	2025	SP
93M.016-015	A16829 7-4	76	92	Y	2WD	2WD	L/S/R	L/S/R/F	95	M
93M.016-016	A16829 7-4	77	in above	Y	2WD	4x4	S	S	2010	SP
93M.016-016	A16830 514	85-87	336	Y	4WD	2WD	S	L/S	'97	T
93M.016-017	A16829 7-1	77,82	98	Y	2WD 4WD	2WD 4WD	L/S/R/F S	L/S/R/F S	95 2040	M SP
93M.016-018	A16829 23-2	83-84	14.2	Y	4WD	4WD	S	S	2025	SP
93M.016-019	A16829 27-2	86	71	Y	4x4	4x4	S	S	2012	SP
93M.016-020	A16829 22-10	85-86	133	Y	4x4	4x4	S	S	2028	SP
93M.016-021	A16829 23-5	87-89	90.4	Y	ATV	ATV	S	S	2043	SP
93M.016-021X	A16830 16-1	81-82	27.2	Y	4x4	ATV	S	S	2035	SP
93M.016-022	A16829 91-1	93	30.6	Y	2WD	4x4	S	S	2014	SP
93M.016-023	A16829 22-3	85	24.8	Y	4x4	4x4	S	S	2040	SP
93M.016-023X	A16829 61-1	91	44.2	Y	4x4	4x4	S	S	2035	SP.
93M.016-024	A16829 91-2	94	38.2	N	4x4	4x4	S	S	2050	SP
93M.016-026	A16829 12-2	86	12	Y	4x4	4x4	S	S	2008	SP
93M.016-027	A16829 90-1	92	46.6	Y	4x4	4x4	S	S	2010	SP
93M.016-028	A16829 90-2	94	44.7	N	2WD	4x4	S	S/L	2012	SP
93M.016-029	A16829 92-1	93	32.6	Y	4x4	4x4	S	S/L	2015	SP
93M.016-030	A16829 23-3	84	19	Y	4x4	4x4	S	S/R	2050	SP
93M.016-031	A16829 27-12	86	8	Y	4x4	4x4	S	S	2024	SP
93M.016-031X	A16829 18-15	86	27.6	Y	4x4	4x4	S	S/L	2002	SP
93M.016-033	A16829 31-3	93	83.1	Y	2WD	4x4	S	S/L	2003	SP
93M.016-034	A16829 31-2	88-89	26.8	Y	2WD	2WD	S/L/R	S/L/R/F	95	MAIN FUEL
93M.016-035	A16829 31-1	88-89	100.5	Y	2WD	4x4	S	S		SP
93M.016-037	A16829 31-5	87-89	76.9	Y	4x4	4x4	S	S	2050	SP
93M.016-038	A16829 30-1	86-88	187	Y	2WD	2WD	S/L	L/S/R	95	M
93M.016-039	A16829 30-2	87	22	Y	4x4	4x4	S	S	2002	SP
93M.016-040	A16829 27	86	13	Y	4x4	4x4	S	S	2043	SP
93M.016-041	A16829 27	88	19.4	Y	2WD	2WD	S/L/R	S/L/R/F	95	M
93M.016-042	A16829 41-1	90-91	81.9	Y	4WD	4WD	S	S	2028	SP
93M.016-043	A16829 60-1	86	4	Y	4x4	4x4	S	S	2035	SP.

93M.016-101X	A16829 18-2	84-85	6.8	Y	4x4	4x4	S	S	2050	SP
93M.016-100X	A16829 18-2	84-85	10.2	Y	4x4	4x4	S	S	2050	SP
Upper Fulton F.S.R.	R1426		13.86		2WD	2WD	L/S/R	L/S/R/F	95	MAINT.
Br. 27.6C	R1426		0.36	Y	2WD	2WD	S/R	L/S/R	97	T
Br. 27.6C1	R1426		0.44	Y	2WD	2WD	S/R	L/S/R	97	T.
Br. 30.1	R1426		0.22	Y	4x4	4x4	S	S	2055	SP
Br. 31.8A	R1426		1.10	Y	2WD	4x4	S	S		SP
Br. 31.8B	R1426		0.32	Y	2WD	4x4	S	S		SP
Br. 31.8C	R1426		0.34	Y	2WD	4x4	S	S		SP
Br. 33.5A	R1426		1.28	Y	2WD	4x4	S	S	2000 ⁺	SP
Br. 33.5B	R1426		0.20	Y	"	"	"	"	"	"
Br. 33.5C	R1426		0.52	Y	"	"	"	"	"	"
KeulshMain										
Br. 34.0A	R1426 sec. 2		14.22	N	2WD	2WD	L/S/R	L/S/R	95	MAINT.
Br. 34.0B	R1426 sec. 2		0.64	N	ATV	ATV	S	S	2004	SP.
Br. 34.0B1	R1426 sec. 2		0.24	N	"	"	"	"	"	"
Br. 34.0C	R1426 sec. 2		0.52	N	ATV	ATV	S	S	2008	SP
Br. 34.0C1	R1426 sec. 2		0.22	N	"	"	"	"	"	"
Br. 34.0D	R1426 sec. 2		1.36	N	4x4	4x4	S	S	2008	SP
Br. 34.0D1	R1426 sec. 2		1.04	N	"	"	"	"	"	"
Br. 34.0E	R1426 sec. 2		1.32	N	"	"	"	"	2045	"
Br. 34.0F	R1426 sec. 2		0.46	N	"	"	"	"	98	SP
Br. 34.0G	R1426 sec. 2		0.44	N	ATV	ATV	S	S	2050	SP
Br. 34.0H	R1426 sec. 20,21		1.92	N	4x4	4x4	S	S	2035	SP
Br. 34.0H1	R1426 sec. 22		0.44	N	4x4	4x4	S	S	2045	SP
Br. 34.0I	R1426 sec. 19		0.44	N	4x4	4x4	S	S/L	2002	SP
Br. 34.0I1	R1426 sec. 19		0.30	N	4x4	4x4	S	S	2050	SP
Br. 34.0J	R1426 sec. 19		1.16	N	4x4	4x4	S	S	2000	SP
Br.35.6	R1426		0.32	Y	4x4	4x4	S	S	2012 ⁺	SP
Br.35.9	R1426		0.44	Y	4x4	4x4	S	S	2050	SP
Br. 36.6	R1426		1.34	Y	2WD	4WD	S	S	2004	SP
Br. 37.4	1426 sec. 11		0.32	Y	4WD	4WD	S	S/L	2008	SP
Br. 39.2A	1426 sec. 1		2.92	Y	4x4	4x4	S	S/L	2000 ⁺	SP

Br. 39.2B	1426 sec. 1		0.54	Y	4x4	4x4	S/R	S/R/L	2002	SP
Br. 39.2C	1426 sec. 1		0.82	Y	4x4	4x4	S	S	2050 ⁺	SP
Br. 39.2C1	1426 sec. 1		0.34	Y	4x4	4x4	S	S	2050 ⁺	SP
Br. 39.3	1426 sec. 1		0.86	Y	2WD	4x4	S/R	S/R	2000 ⁺	SP
Br. 39.8A	1426 sec. 2		8.76	N	2WD	2WD	S	S/L	96	MAINT.
Br. 39.8B	1426 sec. 2		1.58	Y	4x4	4x4	S	S/L	99	T
Br. 39.8B1	1426 sec. 2		1.50	Y	4x4	4x4	S	S/L	97	T
Br. 39.2B2	1426 sec. 2		0.80	Y	4x4	4x4	S	S	2050	SP
Br. 39.8 AX	1426 sec. 1		0.24	Y	2WD	4x4	S	S	2040	SP
Br. 39.8AY	1426 sec. 1		0.26	Y	"	"	"	"	"	"
Br. 39.8C	1426 sec. 4		1.02	Y	2WD	4x4	S	S	2050	SP
Br. 39.8C1	1426 sec. 4		0.10	Y	"	"	"	"	"	"
Br. 39.8C2	1426 sec. 5		0.76	Y	"	"	"	"	"	"
Br. 39.8C3	1426 sec. 5		0.10	Y	"	"	"	"	"	"
Br. 39.8D	1426 sec. 2		3.00	N	2WD	2WD	L/R	L/R/S	95	MAINT.
Br. 39.8E	1426 sec. 5		0.94	Y	4x4	4x4	S	S	2050	SP
Br. 39.8E1	1426 sec. 5		0.16	Y	"	"	"	"	"	"
Br. 39.8F	1426 sec. 6		1.68	Y	4x4	4x4	S/R	S/R	2050	SP
Br. 39.8F1	1426 sec. 6		0.64	Y	ATV	ATV	S	S	2050	SP
Br. 39.8F2	1426 sec. 6		0.42	Y	"	"	"	"	"	"
Br. 39.8G	1426 sec. 7		0.48	Y	4x4	4x4	S	S	2040	SP
Br. 39.8H	1426 sec. 7		0.56	Y	4x4	4x4	S	S	2040	SP
Br. 40.7A	1426		0.84	Y	2WD	4x4	S	S	2010	SP
Br. 40.7B	1426 sec. 1		0.34	Y	2WD	4x4	S	S	2050	SP
Br. 41.3A	1426 sec. 1		1.04	Y	2WD	4x4	S	S	2050	SP
Br. 41.3B	1426		0.62	Y	"	"	"	"	"	"
Br. 41.3C	1426		0.72	Y	"	"	"	"	"	"
Br. 42.0A	1426		2.28	Y	4x4	4x4	S/R	S/R	2010	SP
Br. 42.0B	1426 sec. 10		0.34	Y	"	"	"	"	"	"
Br. 43.0A	1426 sec. 10		5.28	Y	4x4	4x4	S	S	2025	SP
Br. 43.0B	1426 sec. 3		1.42	Y	2WD	4x4	S	S	2060	SP
Br. 43.0B1	1426 sec. 3		0.22	Y	2WD	4x4	S	S	2060	SP
Br. 43.0C	1426 sec. 3		0.86	Y	2WD	4x4	S	S	2060	SP

Br. 43.9A	1426 sec. 3		0.22	Y	2WD	4x4	S	S	2005	SP
Br. 53.1G	1432		0.74	Y	4x4	4x4	S	S	2050	SP
Harold Price Main East	1426 sec. 11		3.92	Y	4x4	4x4	S/R	S/L/R	2005	SP
H.P. MainEBr. B	1426 sec. 11		0.52	Y	4x4	4x4	S	S/L	2005	SP
H.P. MainEBr. C	1426 sec. 11		0.66	Y	4x4	4x4	S	S/L	2005	SP
H.P. MainEBr. D	1426 sec. 11		0.58	Y	4x4	4x4	S	S/L	2005	SP
H.P. Main E Br. D1	1426 sec. 11		0.32	Y	4x4	4x4	S	S/L	2005	SP
H.P. MainEBr. E	1426 sec. 11		0.82	Y	4x4	4x4	S	S/L	2005	SP
93M.017-1	A16829 44-1	93	46	Y	2WD	4x4	S	S/L	2005	SP
93M.017-7	A16829 43-1	90	37.4	Y	4x4	4x4	S	S/L	2005	SP
93M.017-12	A14168/A21463	81	222.1	Y	SPURS UNLAW	4x4	S	S	2000	SP
93M.017-14	A21462	83-85	40.4	Y	UNL.	4x4	S	S	2080	SP
93M.017-15	A16829 18-8	85	26.1	Y	4x4	4x4	S	S	2010	SP
93M.017-16	A16829 18-1	84-87	90	Y	4x4	4x4	S	S	2005	SP
93M.017-17	A16829 18-7	85	36	Y	4x4	4x4	S/R	S/R/L	2010	SP
93M.017-18	A16829 18-11	86,90	30.3	Y	2WD	4x4	S	S	2050	SP
93M.017-19	A16829 18-5	85	37.1	Y	2WD	4x4	S	S	2020	SP
93M.017-24	A16829 18-4	85	211	Y	4x4	4x4	S	S	2020	SP
93M.017-25	A16829 18-2	85	131	Y	4x4	4x4	S	S	2010	SP
93M.017-26	A16829 18-12	85	52	Y	2WD	4x4	S	S	2005	SP
93M.017-31	A16829 18-15	86	18.2	Y	4x4	4x4	S/R	S/R	2002	SP
93M.017-34	A16829 84-3	90	90.5	Y	4x4	4x4	S	S	2002	SP
93M.017-8X	A16829 27-9	82	35.6	Y	2WD	4x4	S	S	2050	SP
93M.017-101X	A16829 18-2	84,85	17.1	Y	4x4	4x4	S/R	S/R	2030	SP
Upper Fulton F.S.R.										
Br. 30.1A	1426 sec. 9		7.32	Y	2WD 4x4	4x4	S/R/L	S/R/L	2010	SP
Br. 30.1Ax	1426 sec. 9		0.46	Y	4x4	4x4	S/R	S/R	2030	SP
Br. 30.1C	1426 sec. 9		0.56	Y	4x4	4x4	S	S	2028	SP
Br. 30.1C1	1426 sec. 9		0.18	Y	"	"	"	"	"	"
Br. 30.1D	1426 sec. 9		1.84	Y	4x4	4x4	S/R	S/R/L	2010	SP
Br. 30.1D1	1426 sec. 9		0.40	Y	"	"	"	"	"	"

Br. 30.1D2	1426 sec. 9		0.54	Y	4x4	4x4	S/R	S/R/L	2010	S.P.
Br. 30.1E	1426 sec. 9		0.26	Y	4x4	4x4	S	S	2020	S.P.
Br. 30.1F	1426 sec. 9		0.34	Y	"	"	"	"	"	"
Br. 30.1G	1426 sec. 9		0.22	Y	4x4	4x4	S/R	S/R	2000	SP
Br. 30.1 H.P. East	1426 sec. 9		2.98	Y	4x4	4x4	S/R	S/R/L	2000	SP
Br. 30.1 H.P. East A	1426 sec. 9		1.64	Y	2WD	4x4	S/R	S/R	2005	SP
Br. 30.1 H.P. East A1	1426 sec. 9		0.16	Y	4x4	4x4	S	S	2040	SP
Br. 30.1 H.P. East B	1426 sec. 9		0.72	Y	4x4	4x4	S	S	2020	SP
Br. 30.1 H.P. East C	1426 sec. 9		1.08	Y	4x4	4x4	S	S	2040	SP
Br. 30.1 H.P. East C1	1426 sec. 9		0.64	Y	"	"	"	"	"	"
Nikitwa F.S.R.	942-5897-00		5.52	N	2WD	2WD	L/R/S/L	L/R/S/L	95	MAINTAIN
Br. 18.0	942-5897-2		0.94	N	2WD	2WD	R	L/R/S	95%	MAINTAIN
Br. 18.0	942-5897-03		3.82	N	2WD	2WD	R	L/R/S	95%	"
Br. 20.08A	942-5897		0.28	Y	UNK	4WD	S/R	S/R	2000 ⁺	S.P.
Br. 20.08B	942-5897		0.80	Y	UNK	4WD	S/R	S/R	2000 ⁺	S.P.
Br. 20.08C	942-5897		0.94	Y	UNK	4WD	S/R	S/R	2000 ⁺	SP
Br. 20.08D	942-5897		1.12	Y	UNK	4WD	S/R	S/R	2000 ⁺	SP
Br. 20.08E	942-5897		0.40	Y	UNK	4WD	S/R	S/R	2000 ⁺	SP
93M.023-001X	A16818 301-A	85	24	Y	UNK	4WD	S/R/L	S/R/L	2000	SP.
Suskwa F.S.R.	942-4985 sec. 01		2.20	N	2WD	2WD	L/S/R/L	L/S/R/L	95	MAINT.
Steg's Rd.										
Br. 1A	1935 sec. 142		2.62	N	2WD	4WD	S/R/L	S/R/L	2000 ⁺	SP
Br. A	1935 sec. 1		2.26	Y	UNK.	4WD	S/R/L	S/R/L	2000 ⁺	SP
BR.										
93M.024-1	A16818 30-A	85	132	Y	UNK	4x4	S/R/L	S/R/L	2000 ⁺	SP
93M.024-2	A08415 B	76	49	Y	ATV	ATV	S/R	S/R	2020	SP
93M.024-3	A08415 H	78	66	Y	UNK	4x4	S	S	2000 ⁺	SP.
93M.024-4	A16831 207-17	83	38	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-5	A08415 D	76	43	Y	2WD	2WD	S/L/R	S/L/R	95	MAINT.
93M.024-6	A16831 202-J	83	65	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-7	A04995	74,76	85	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-8	A16831 208-18	84	48	Y	2WD	2WD	S/L/R	S/L/R	95	MAINT.

93M.024-9	A06557 1	75	56	Y	ATV	ATV	S/R	S/R	2000 ⁺	S.P.
93M.024-10	A16831 208-19	85	35	Y	ATV	ATV	S/R	S/R	2000 ⁺	S.P.
93M.024-11	A01486 vol 1	73	210	Y	4x4	4x4	S/R/C	S/R/C	2000 ⁺	S.P.
93M.024-12	A04925	73	80	Y	4x4	4x4	S/R/C	S/R/C	2000 ⁺	S.P.
93M.024-13	A16831 86-7	88,90	48.9	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-14	A16831 8-5	80	84	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-15	A16831 8-6	82	83	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.024-16	A16831 41-3	82,85	91	Y	4x4	4x4	S/R	S/R/L	1996	T
93M.024-17	A00890 28-2	79	81	Y	4x4	4x4	S/R	S/R/L	96	T
93M.024-18	A03554	71	44	Y	2WD	2WD	S/R	S/R/L	96	T
93M.024-19	A00890 28-1	76	46	Y	4x4	4x4	S	S	2000 ⁺	SP
93M.024-20	A16831 141-4	89	80	Y	4x4	4x4	S/R	S/R/L	2000 ⁺	T
93M.024-21	A16831 213-13	89	32.9	Y	ATV	ATV	S	S	2000 ⁺	SP
93M.024-22	A16831 213-12	89	56.6	Y	ATV	ATV	S	S	2000	SP
93M.024-24	A16678	82	31	Y	ATV	ATV	S/C	S/C	2000 ⁺	SP.
93M.024-38	A36496	92	20	Y	ATV	ATV	S	S	2000 ⁺	SP.
93M.024-39	A36497	94	12.6	N	2WD	2WD	S/R	S/R	2000 ⁺	MAINT.
93M.024-40	A36498	94	24	N	ATV	ATV	S	S	2000 ⁺	MAINT.
93M.024-42	A40426	93	9.6	Y	4x4	4x4	S	S	2000 ⁺	SP
93M.024-008X	A16831 26-1	81,84	50	Y	4x4	4x4	S	S	2000 ⁺	S.P.
93M.024-009X	A08416	69	69	Y	4x4	4x4	S	S	2000 ⁺	SP.
Suskwa F.S.R.	942-4985 sec. 01		13.62	N	2WD	2WD	S/R/L	S/R/L	'95	MAINT.
Skilokis Rd.	942-4985 sec. 15		10.78	N	2WD	2WD	S/R	S/R/L	'95	MAINT.
Stege's Rd.										
Br.A	1935 sec. 1		0.74	Y	4WD	4WD	S/R/C	S/R/C	2000 ⁺	S.P.
Iltzul West Main F.S.R.	942-8960-1		7.14		2WD	2WD	S/R/L	S/R/L	95	MAINT.
Iltzul West Br.	900-0521		2.66	Y	ATV	ATV	S/R	S/R	2000 ⁺	S.P.
Iltzul Br. J	900-0521		2.86	Y	ATV	ATV	S/R	S/R	2000 ⁺	S.P.
Iltzul Br. J-A	900-0521		0.26	Y	ATV	ATV	S	S	2000 ⁺	S.P. or P.
Iltzul Br. J-B	900-0521		0.20	Y	"	"	"	"	"	"
Iltzul Br. J-C	900-0521		0.14	Y	"	"	"	"	"	"
Iltzul Br. B	900-0521		1.32	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Iltzul Br. C	900-0521		2.40	Y	UNIL.	4x4	S/R	S/R	2000 ⁺	S.P.

Iltzul Br. D	900-0521		1.38	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Iltzul Br. E	900-0521		1.16	Y	ATV	ATV	S	S	2000 ⁺	S.P.
Iltzul Br. F	900-0521		0.20	Y	ATV	ATV	S	S	2000 ⁺	S.P.
Iltzul Br. G	900-0521		0.46	Y	ATV	ATV	S	S	2000 ⁺	S.P.
Natlan Br. A	A01486 & Non-status		6.28	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Natlan Br. A1	A01486 & Non-status		2.54	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Skilokis West	3702		3.08	Y	ATV	ATV	S	S	2000 ⁺	S.P.
Hamblin Main	3702	4.65	5.88	Y	4x4	4x4	S/R	S/R/L	96	BT
Br. 10	3702		1.30	Y	4x4	4x4	S	S	2000 ⁺	S.P.
Br. 10 spur A	3702		0.42	Y	ATV	ATV	S	S	2000 ⁺	S.P.
Br. 10 spur B	3702		0.43	Y	"	"	"	"	"	"
Br. 20	3702		4.70	Y	4x4	4x4	S/R	S/R/L	96	T
Br. 20 spur A	3702		0.98	Y	ATV	ATV	S	S	2000 ⁺	P.
Br. 20 spur B	3702		0.37	Y	"	"	"	"	"	"
Br. 20 spur C	3702		0.38	Y	"	"	"	"	"	"
Br. 20 spur D	3702		0.53	Y	"	"	"	"	"	"
Br. 20 spur E	3702		0.25	Y	"	"	"	"	"	"
Br. 40	3702		5.22	Y	ATV 4x4	4x4	S/R	S/R	98	S.P. & P.
Br. 40 spur E	3702		0.35	Y	ATV	ATV	S	S	2000 ⁺	P
Br. 40 spur F	3702		0.50	Y	4x4	ATV	R	R	"	P
93M.025-001	A04973 1	75	43.7	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.025-002	A04973 2	75	33	Y	ATV 4x4	ATV 4x4	S/R	S/R	2000 ⁺	S.P.
93M.025-003	F47 86-8	81	28	Y	WALK	2WD	S/R	S/R/L	96	R
93M.025-004	A04973 3	75,80	60	Y	ATV	ATV	S/R	S/R	2000 ⁺	P
93M.025-001X	A16830 5-1	81,83	67	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.025-002X	A16830 93-1	84	45.2	Y	4x4	4x4	S/R/L	S/R/L	2000 ⁺	S.P.
93M.025-013X	A16831 86-7	88,90	46	Y	4x4	4x4	S/R	S/R/L	96	T
Hamblin Main	3702			Y & N						
Summer	3702		0.34	Y	4x4	4x4	S/R	S/R/L	96	T
Winter	3702		1.08	Y	WALK	2WD	S/R	S/R/L	96	T
Natlan Br. A	A01486 & Non-status		3.86	Y	4x4	4x4	S/R/L	S/R/L	2000 ⁺	S.P.

Natlan Br. A2	Non-status		0.92	N	4x4	4x4	RESIDENCE	RZS.		S.P.
Natlan Br. A3	Non-status		1.42	Y	ATV	ATV	S/R	S/R		P
Natlan Br. A4	Non-status		1.46	Y	ATV	ATV	S/R	S/R	2005	P
Babine Trail	Non-status		4.20	N	WALK ATV	WALK ATV	R/C	R/C		P
Upper Fulton F.S.R.										
Br. 53.1A	1432		0.76	Y	4x4	ATV	R./C.	R./C.	2000+	P
Br. 53.1A1	1426		0.36	Y	"	"	"	"	"	"
Br. 53.45C	1426		1.36	Y	4x4	4x4	S/R.	S/R	2005	SP
Br. 53.45D	1426		0.28	Y	"	"	"	"	"	"
93M.026-001	A16830 5-1	83	94.7	Y	4x4	4x4	S/R	S/R	2000+	SP
93M.026-002	A16830 93-2	84	2.8	Y	ATV	ATV	S/R/C	S/R/C	2000+	P
93M.026-003	A16830 93-1	83	27	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-004	A16830 93-3	83	21.5	Y	4x4	4x4	S/	S	2005	SP
93M.026-005	A16830 27	82	275	Y	4x4	4x4	S/R	S/R	2000	SP
93M.026-006	A16830 93-4	84	64.5	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-007	A16830 72-1	82	108	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-008	A16829 23-1	88	166.1	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-018	A16829 23-2	84	91.8	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-021	A16830 16-1	83	123	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-022	A16829 23-4	85	36.3	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-023	A16829 22-3	86	27.2	Y	4x4	4x4	S/R	S/R	2005	S.P.
93M.026-024	A16830 93-5	84	23	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-030	A16829 23-6	87	18.5	Y	4x4	4x4	S/R	S/R	2005	SP
93M.026-031	A16829 25-1	87,90	144	Y	4x4	4x4	S/R	S/R	2000+	SP
93M.026-020X	A16829 22-10	86	16	Y	4x4	4x4	S/R	S/R	2005	SP
Upper Fulton F.S.R.	R1426		9.48	Y	4x4	4x4	S/R	S/R/L	97	B I
Br. 43.0A	1426 sec. 10		3.00	Y	4x4	4x4	S/R	S/R	2000+	SP
Br. 43.0B	1426 sec. 3		0.68	Y	"	"	"	"	"	"
Br. 43.0C	1426 sec. 3		0.82	Y	"	"	"	"	"	"
Br. 43.0D	1426 sec. 3		1.74	Y	"	"	"	"	"	"
Br. 43.9	1426 sec. 3		1.94	Y	"	"	"	"	"	"

Br. 43.9A	1426 sec. 3		0.24	N	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Br. 45.6	1426		2.08	Y	"	"	"	"	"	"
Br. 45.6A	1426		0.56	Y	"	"	"	"	"	"
Br. 46.15	1426		0.64	Y	"	"	"	"	"	"
Br. 53.1	1432		0.32	Y	ATV	ATV	S/R/C	S/R/C	2000 ⁺	S.P.
Br. 53.1A	1432		6.82	Y	"	"	"	"	"	"
Br. 53.1 B	1432		2.32	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Br. 53.1 B1	1432		0.68	Y						
Br. 53.1 C	1432		1.56	Y						
Br. 53.1 D	1432		0.98	Y						
Br. 53.1 D1	1432		1.04	Y						
Br. 53.1 E	1432		0.54	Y						
Br. 53.1 F	1432		0.50	Y						
Br. 53.1 G	1432		0.42	Y						
Br. 53.1 H	1432		0.32	Y						
Br. 53.45A	1426		0.44	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Br. 53.45B	1426		2.06	Y	"	"	"	"	"	"
Br. 53.45B1	1426		1.20	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
Br. 53.45B2	1426		0.32	Y	"	"	"	"	"	"
93M.033-024	A37723	94	5.6	N	UNK	4x4	UNKNOWN.			S.P.
Iltzul West Main F.S.R.	942-8960-1 sec. 3		0.32	N	UNK	4x4	"	"		S.P.
93M.034-001	A08415 20-1	79	51	Y	4x4	4x4	S	S	2000 ⁺	S.P.
93M.034-002	A08415 1-1	78	44	Y	4x4	ATV	S	S	2000 ⁺	P
93M.034-003	A08415 F-2	77	160	Y	4x4	ATV	S	S	2000 ⁺	P
93M.034-004	A16832 200-1	87	116	Y	2WD	2WD	S/R/L	S/R/L	95	MAINT.
93M.034-005	A09907	78	79	Y	2WD	2WD	S/L/R	S/L/R	95	MAINT.
93M.034-006	A00890	79	78	Y	BR. 4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.034-007	A00890	77	76	Y	BR. 4x4	4x4	S/R	S/R	2000 ⁺	P
93M.034-008	A16831 26-1	81,84	72	Y	4x4	ATV	S/R	S/R	2000 ⁺	P

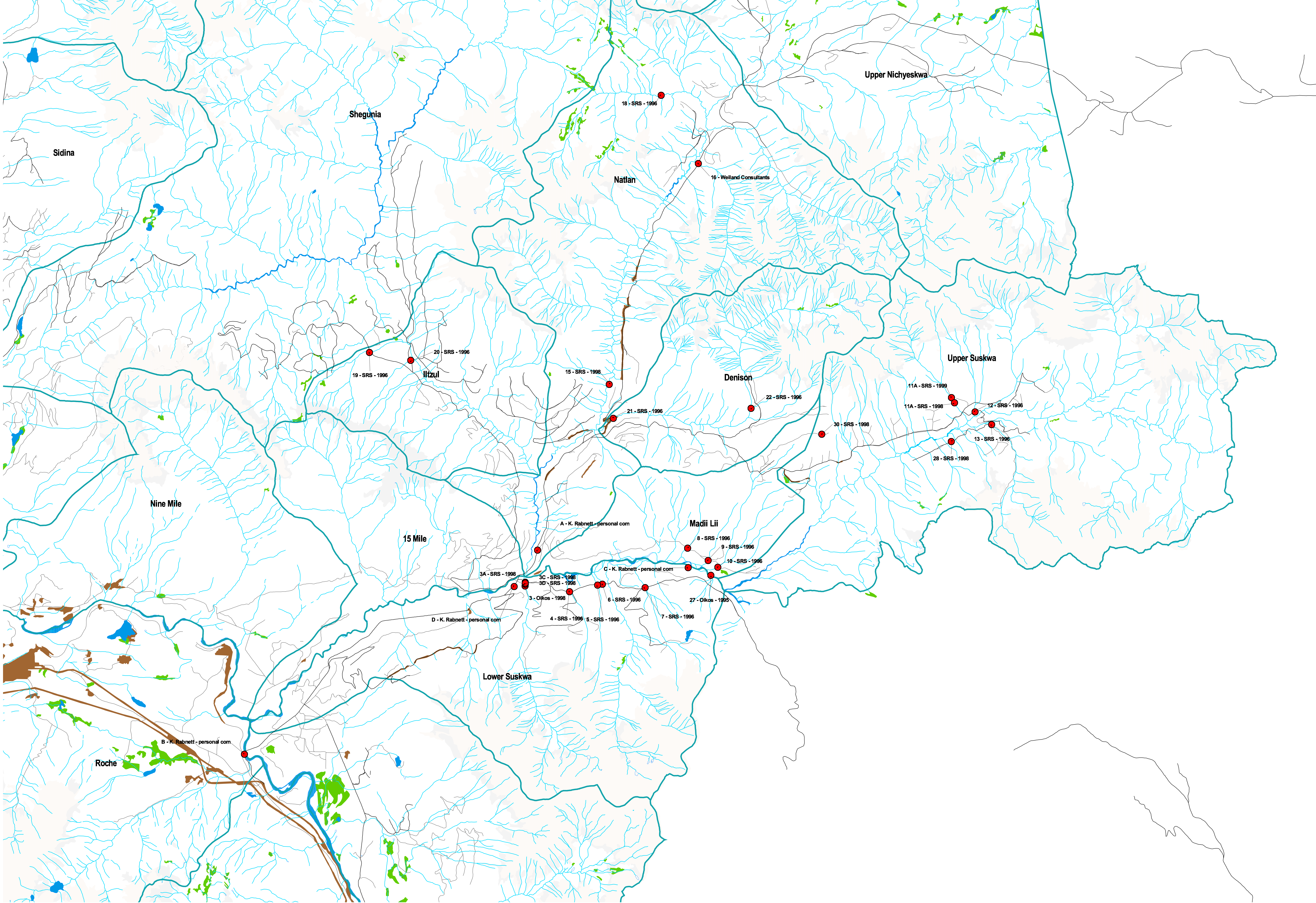
93M.034-009	A08416	69	31	Y	4x4	4x4	S/R	S/R	2000 ⁺	P
93M.034-010	A08415 F	76	41	Y	4x4	ATV	S/R	S/R	2000 ⁺	P
93M.034-011	A06557 1-B	75	51	Y	4x4	ATV	S/R	S/R	2000 ⁺	P
93M.034-012	A13057	81	9	Y	UNIC	ATV	S	S	2000 ⁺	P
93M.034-014	A16832 200-2	89	85.5	Y	4x4	4x4	S	S	2000 ⁺	S.P.
93M.034-016	A16831 217-14	90	57.4	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.034-017	A16831 217-15	93	71.6	Y	4x4	4x4	S/R	S/R	2000 ⁺	S.P.
93M.034-018	A16831 216-20	90	37.6	Y	4x4	ATV	S	S	2000 ⁺	P
93M.034-021	A376811	93	46.5	Y	ATV	ATV	S	S	2000 ⁺	P
93M.034-023	A37719 1	92	18.2	Y	ATV	ATV	S	S	2000 ⁺	P
93M.034-026	A16832 201-1	94	27.4	N	ATV	ATV	S	S	2000 ⁺	P
93M.034-027	A16832 201-2	94	52.7	N	ATV	ATV	S	S	2000 ⁺	P
93M.034-028	A16832 201-3	94	38.2	N	ATV	ATV	S	S	2000 ⁺	P
93M.034-029	A16832 201-4	94	44.2	N	ATV	ATV	S	S	2000 ⁺	P
93M.034-002X	A16831 53-4	81	6.3	Y	WALK ATV	WALK ATV	S	S	2000 ⁺	P
93M.034-024X	A37723 1	94	6.2	N	LNK	4x4	S	S	2000 ⁺	S.P.
Iltzul West Main F.S.R.	942-8960-1 sec. 1		9.46	N	2WD	2WD	L/S/R	S/L/R	95	MAINT.
Spur 11	942-8960-1 sec. 1		1.78	Y	4WD	ATV	S	S	2000 ⁺	P
Spur 18	942-8960-1 sec. 1		1.24	Y	4WD	ATV	S	S	2000 ⁺	P
Spur 10	942-8960-1 sec. 1		0.88	Y	4x4	ATV	S	S	2000 ⁺	P
Spur3	942-8960-1 sec. 1		3.48	Y	4x4	ATV	S	S	2000 ⁺	P
Spur3A	942-8960-1 sec. 1		0.20	Y	"	"	"	"	"	"
Spur 3B	942-8960-1 sec. 1		0.26	Y	"	"	"	"	"	"
Spur2	942-8960-1 sec. 1		1.56	Y	"	"	"	"	"	"
Spur 1	942-8960-1 sec. 1		0.86	Y	"	"	"	"	"	"
Iltzul East Main										
Br. 2000	2990 sec. 1		6.50	N	2WD	2WD	L/S/R	L/S/R	95	MAINT.
Br. 2001	2990 sec. 4		0.42	Y	2WD	2WD	S	S	2003	MAINT.
Br. 2100	2990 sec. 6		1.87	N	1WD	1WD	S	S	96	M
Br. 2100-211	2990 sec. 6		0.16	N	NONE	NONE	NONE	NONE	-	SP
Br. 2200	2990 sec. 1		2.28	Y	"	"	"	"		"
Br. 2201	2990 sec. 1		0.42	Y	"	"	"	"		"
Br. 2500	2990 sec. 2		2.76	N	2WD	2WD	L/S	L/S	96	M

Br. 2520	2990 sec. 7		0.91	N	JWD	JWD	S	S	96	M
Br. 2520 SP 2521	2990 sec. 7		0.30	N	NONE	NONE	NONE	NONE	-	SP
Br. 2530	2990 sec. 5		0.54	N	JWD	JWD	S	S	96	-
Br. 2540	2990 sec. 2		1.50	N	JWD	JWD	S	S	96	-
Br. 2540 SP 2521	2990 sec. 2		0.26	N	NONE	NONE	NONE	NONE	-	SP
Br. 2550	2990 sec. 5		0.77	N	JWD	JWD	L	L	96	-
Br. 2600	2990 sec. 3		0.98	Y	NONE	JWD	NONE	L	2003	T
Br. 2700	2990 sec. 1		3.74	N	JWD	JWD	L	L	96	M
Br. 6000	6942 sec. 1		0.97	N	JWD	JWD	L	L	96	M
Suskwa F.S.R	942-4985 sec. 01		13.96	N	2-WD L/S/R	2-WD L/S/R	L/S/R	L/S/R	95	M
Denison Main	2413		3.14	N	2-WD	2-WD	S	S	96	M
Br. 13	2413 sec. C		4.92	Y	4x4	ATV	S	S	2000 ⁺	SP
Br. 13-A	2413 sec. C		0.88	Y	4x4	ATV	S	S	2000 ⁺	SP
Br. 13-B	2413 sec. C		0.44	Y	4x4	ATV	S	S	2000 ⁺	SP
Br. 13A	2413 sec. C		0.42	Y	4x4	"	"	"	"	"
Br. 2	2413		1.44	Y	4x4	ATV	S	S	2000 ⁺	P
Br. 2-A	2413		0.46	Y	"	"	"	"	"	"
Br. 2-B	2413		0.66	Y	"	"	"	"	"	"
Br.3-14	2413		3.26	Y	4x4	ATV	S	S	2000 ⁺	SP
Br.3-14-A	2413		0.36	Y	"	"	"	"	"	"
Br.3-14-B	2413		0.46	Y	"	"	"	"	"	"
Br.3-14-C	2413		0.26	Y	"	"	"	"	"	"
Br. 3	2413		1.04	Y	4x4	WALK ATV	S	S	2000 ⁺	P WALK
93M.035-001	A16831 204-16	87	92	Y	4x4	4x4	S/R	S/R	2000 ⁺	P
93M.035-002	A16831 53-4	81	77.7	Y	4x4	WALK	S	S	2000 ⁺	P
93M.035-003	A16831 200-6	86	64	Y	4x4	4x4	S	S	2000 ⁺	P
93M.035-004	A16831 204-9	87	62	Y	4x4	4x4	S	S	2000 ⁺	SP
93M.035-005	A17932 1	83,86	20	Y	NONE	NONE	NONE	NONE	2000 ⁺	P
93M.035-006	A17932 2	85,86	78	Y	4WD	4WD	S	S	2000 ⁺	P
93M.035-007	A16831 210-12	81	90	Y	4x4	4WD	S/R	S/R	200 ⁺	P
93M.035-008	A16831 53-5	83	59.9	Y	4x4	4x4	S/R	S/R	2000 ⁺	P

93M.035-009	A16831 201-8	86	78	Y	4WD	WALK	S/R	S/R	2000 ⁺	P
93M.035-010	A16831 201-11	85	98	Y	4WD	WALK	S	S	2000 ⁺	P
93M.035-011	A16831 200-7	90	48.7	Y	4x4	4x4	S	S	2000 ⁺	P
93M.035-012	A16831 221-1	88-89	119	Y	4x4	4x4	S	S	2000 ⁺	P
93M.035-013	A16831 221-2	90-91	86	Y	4x4	4x4	S	S	2000 ⁺	P
93M.035-014	A16831 222-3	90-91	88	Y	4x4	4x4	S	S	2000 ⁺	P
93M.035-015	A16831 222-4	92	73	Y	ATV	WALK	S/R	S/R	2000 ⁺	SP
93M.035-016	A16831 223-7	94	51	N	4WD	ATV WALK	S	S	2000 ⁺	P
93M.035-017X	A16831 223-8	94	18	N	4x4	WALK	S	S/R	2000 ⁺	SP
93M.035-018	A16831 218-10	93	68.7	Y	ATV	WALK	S	S/R	2000 ⁺	P
93M.035-003X	A16831 224-5	94	14	N	4x4	WALK	S	S	2000 ⁺	P
Babine Trail	Non-status		10.26	N	WALK	WALK	R	R	-	P
Denison Main	2413		3.10	N & Y	2WD	2WD	S	S	96	M
Br. 6-7A	2413 sec. A		2.38	Y	4x4	4x4	S	S	2000 ⁺	P
Br. 6-7B	2413 sec. A		1.22	Y	"	"	"	"	"	"
Br. 6-7C	2413 sec. A		0.28	Y	"	"	"	"	"	"
Br. 6-16A	2413		2.62	Y	4x4	4x4	S	S	2000 ⁺	SP
Br. 6-16B	2413		0.82	Y	"	"	"	"	"	"
Thoen Main	2413		13.56	N	2WD	2WD	S	S	97	T
Br. 1A	2413		0.98	Y	4x4	4x4	S	S	2000 ⁺	P
Br. 1B	2413		0.26	Y	"	"	"	"	"	"
Br. 1C	2413		0.78	Y	"	"	"	"	"	"
Br. 2A	2413		0.16	Y	4x4	4x4	S	S	2000 ⁺	P
Br. 2B	2413		0.84	Y	"	"	"	"	"	"
Br. 2C	2413		0.14	Y	"	"	"	"	"	"
Br. 2D	2413		0.22	Y	"	"	"	"	"	"
Br. 2E	2413		0.46	Y	"	"	"	"	"	"
Br. 3A	2413		0.78	Y	4x4	4x4	S/R	S/R	2000 ⁺	P
Br. 3B	2413		0.24	Y	"	"	"	"	"	"
Br. 3C	2413		0.22	Y	"	"	"	"	"	"
Br. 3D	2413		0.14	Y	"	"	"	"	"	"
Br. 4A	2413		1.04	Y	ATV	WALK	S/R	S/R	2000 ⁺	SP
Br. 4B	2413		0.36	Y	"	"	"	"	"	"

Br.4C	2413		0.08	Y	ATV	WALK	S/R	S/R	2000 ⁺	SP
Br. 5	2413		1.02	Y	4x4	4x4	S/R	S/R	2000 ⁺	P
Br. 12	2413		2.78	Y	4x4	4x4	S/R	S/R	2000 ⁺	P
Br. 12-A	2413		0.12	Y	"	"	"	"	"	"
Br. 12-B	2413		0.58	Y	"	"	"	"	"	"
Br. 8-9	2413 sec. B		3.10	Y	4x4	4x4	S	S	2000 ⁺	SP
Br. 8-9-A	2413 sec. B		0.22	Y	"	"	"	"	"	"
Br. 8-9-B	2413 sec. B		0.48	Y	"	"	"	"	"	"
Br. 8A	2413 sec. B		0.48	Y	4x4	WALK	S	S	2000 ⁺	P
Br. 8B	2413 sec. B		0.10	Y	4x4	WALK	S	S	2000 ⁺	P
Br. 10	2413 sec. D		2.66	Y	ATV	WALK	S	S	2000 ⁺	P
Br. 10-A	2413 sec. D		0.18	Y	ATV	WALK	S	S	2000 ⁺	P
Thoen Main										
Spur 11A	2413		0.24	Y	ATV	WALK	S	S	2000 ⁺	P
Spur 11B	2413		0.48	Y	"	"	"	"	"	"
Spur 11C	2413		0.36	Y	"	"	"	"	"	"
Spur 11D	2413		0.38	Y	"	"	"	"	"	"
Grizzly Main	unknown		2.78	N	4WD	4WD	S	S	2000 ⁺	P
Grizzly Main spur A	unknown		0.14	N	4x4	WALK	S	S	2000 ⁺	P
Netalzul Main	unknown		3.98	N	ATV	ATV	S	S	2000 ⁺	P
Netalzul Main spur A	unknown		0.16	N	WALK	WALK	S	S	2000 ⁺	P
93M.036-003	A16831 224-5	94	26	N	4x4	WALK	S	S	2000 ⁺	P
93M.036-017	A16831 223-8	94-95	39	N	4x4	WALK	S	S/L	97	SP
Babine Trail	Non-status		8.92	N	WALK	WALK	R	R	—	M
Thoen Main	2413		0.50	N	4x4	4x4	S	S/L/R	97	SP
Br. 8	2413		0.72	N	4x4	4x4	S	S/L/R	97	SP
Grizzly Main	unknown		0.88	N	4x4	4x4	S	S	2000 ⁺	SP
Grizzly Main spur A	unknown		0.12	N	4x4	WALK	S	S	2000 ⁺	P
93M.044										

Suskwa F.S.R	942-4985 sec. 01		1.28	N	ZWD	ZWD	L/S/R	L/S/R	95	MAINT.
93M.045-006	A09938 C-3	80	31	Y	NONE	ZWD	NONE	NONE	2000 ⁺	→
93M.045-007	A09938 A-2	78	42	Y	ZWD	ZWD	NONE	S	2000 ⁺	P
93M.045-008	A09938 C-4	80	60	Y	ZWD	ZWD	NONE	L/S	97	T.
93M.045-009	A09938 A-1	80	41	Y	NONE	ZWD	S	L/S	97	T
93M.045-010	A09938 C-5	80	37	Y	NONE	NONE	NONE	NONE	2000 ⁺	—
Suskwa F.S.R	942-4985 sec. 01		36.86	N	ZWD	ZWD	L/S/R	L/S/R	95	MAINT.
Br. 8A	unknown		1.64	Y	NONE	ZWD	S	L/S	97	M
Br. 6B	unknown		1.86	Y	NONE	NONE	NONE	NONE	2000 ⁺	P
Br. 6B1	unknown		0.50	Y	NONE	NONE	NONE	NONE	2000 ⁺	P



SUSKWA RIVER WATERSHED

HIGH PRIORITY WRP RESTORATION ACTIVITY SITES

Activity Sites



1 - SRS - 1996

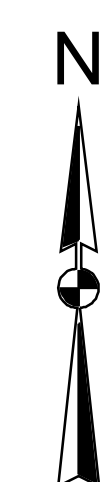
Site Number

Source and Date



Kipsiox 4th Order Watersheds - Feb 16, 2006

- 4th Order Watersheds - Kipsiox - Feb 16,2006
- Alpine
- Alpine Forest
- Lakes
- Rivers
- Swamp
- Urban
- Roads - including Highways
- Streams



1:50 000