WSP Indicator Analysis for the Kispiox TSA:

Riparian Disturbance

Freshwater Atlas (FWA) Assessment Watersheds

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Note to reader:

These Wild Salmon Policy (WSP) habitat indicator assessment reports are intended as a coarse filter approach to identify watersheds that are potentially at risk of exceeding thresholds for the four WSP habitat indicators (Road Density, Stream Crossing Density, Total Land Cover Alteration, and Riparian Disturbance). These reports present the results of GIS-based (Tier 1) methods for assessing the status of a particular freshwater aquatic habitat pressure indicator and determining the watershed indicator "risk" status by comparing the measured values to indicator benchmarks. Pressure indicators are identified by Canada's WSP as proactive measures of identifying potential impacts to salmon habitat within a watershed. Additional information on the WSP is available at https://www.pac.dfo-mpo.gc.ca/fm-gp/salmon-saumon/wsp-pss/ip-pmo/ip-smm-pmo-eng.html#assessment.

The analysis presented in this report was carried out using standardized provincial datasets and did not integrate field-based (Tier 2) information or industry datasets. The results are presented for informational purposes and are not intended to replace operational watershed assessments.

Acknowledgements

We would like to thank Sarah Railton, Greg Knox, and Julia Hill Sorochan for their contributions and feedback, and to Glen Buhr for his assistance and guidance.

WSP Indicator Analysis for the Kispiox TSA

Pressure Indicator: Riparian Disturbance

Assessment Units: FWA Assessment Watersheds

Description of Pressure Indicator

Riparian disturbance is used to describe streamside changes which may affect stream shade and water temperature, wood and organic matter inputs, bank stability, and many other riparian processes, and is considered an important pressure indicator by the Wild Salmon Policy (WSP) Habitat Working Group (Stalberg et al., 2009). Riparian disturbance is defined as the percentage of the riparian zone (30 m buffer around all water bodies) that has been altered by land use activities (Porter et al., 2014; Stalberg et al., 2009). Riparian disturbance is related to total land cover alteration and road development.

Study Area

The Kispiox timber supply area (TSA) is situated in the interior of northwest BC and encompasses the District of New Hazelton and the communities of Hazelton, South Hazelton, Kitwanga, Cedarvale, Kispiox, Gitsegukla, Gitwangak, Gitanyow, Hagwilget, Glen Vowell and Gitanmaax (Figure 1). The Kispiox TSA is part of the Skeena Natural Resource Region and is administered by the Skeena Stikine Natural Resource District office in Smithers.

The Kispiox TSA is comprised of seven TSA supply blocks (12A to 12G), with the Cranberry TSA consolidated with the Kispiox TSA on March 31, 2009 as Block 12G. The current allowable annual cut for the Kispiox TSA is 1,087,000 cubic metres (Province of BC, 2019).

This report presents results for BC Freshwater Atlas (FWA) assessment watersheds within the Kispiox TSA and the neighbouring upper Kispiox River and Swan Lake watersheds. The FWA assessment watersheds are mesoscale groupings of fundamental watersheds with a target size of between 2,000 ha and 10,000 ha (Province of BC, 2020). A reference key for the identification of assessment units was developed based on groupings by major watershed, and reference maps of the study area with Kispiox TSA and FWA assessment watersheds are included as Appendix A.

Figure 1: The study area is indicated in red. The grey polygon indicates the outline of the Skeena River watershed.

Methodology

Data layers used to perform the spatial analysis include:

- Kispiox Road Inventory (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development [BC MFLNRORD], 2017)
- Digital Road Atlas (BC MFLNRORD, 2020a)
- Forest Tenure Road Section Lines (BC MFLNRORD, 2020b)
- BC Transmission Lines (BC MFLNRORD, 2020c)
- Harvested Areas of BC (Consolidated Cutblocks) (BC MFLNRORD, 2020d)
- TANTALIS – Crown Tenures (BC MFLNRORD, 2020e)
- Railway Track Line (BC MFLNRORD, 2019a)
- Municipalities - Legally Defined Administrative Areas of BC (BC Ministry of Municipal Affairs and Housing, 2019)
- Reserves & Band Names - Administrative Boundaries (BC MFLNRORD, 2019b)
- Permitted Mine Areas - Major Mine (BC MEMPR, 2020)
- Fire Perimeters - Historical (BC FLNRORD, 2020f)
- Fish Habitat and Road Crossings Model (BC MECCS, 2019)
- Freshwater Atlas (FWA) Rivers (BC MFLNRORD, 2019c)
- FWA Lakes (BC MFLNRORD, 2019d)
- FWA Wetlands (BC MFLNRORD, 2019e)
- FWA Assessment Watersheds (BC MFLNRORD, 2019f)

Riparian Area Identification

Riparian areas within the study area were calculated using the methodology developed by the Pacific Salmon Foundation ([PSF], 2020):

- A buffer of 30 m (60 m corridor width) was applied to all features in the fish habitat and road crossings model (BC MECCS, 2019) classified as stream/river, ditch or canal. Ditch and canal features (if present) were inspected visually to confirm intersection with the stream network. Isolated ditch and canal features were removed if present.

- Features within the fish habitat and road crossings model with a FWA stream network feature code of WA24111170 (construction line – flow inferred) were visually inspected for intersection with the stream network. Isolated stream segments were removed from the dataset if present. Interconnected lake and wetland features were identified through intersection with the inspected fish habitat and road crossings model, and the selected lakes and wetlands were merged into one layer. The resultant layer was buffered by 30 m, the areas covered by lakes and wetlands were removed, and island or donut features were also removed.

- River polygons were buffered by 30 m, the areas covered by river features were removed, and buffer features around islands or donuts were also removed.
- The stream, lake/wetland, and river riparian layers were merged, overlaid with the assessment unit boundaries, and dissolved to produce the total riparian area within each assessment unit.

Disturbance Characterization

For the purposes of this study, anthropogenic alterations to the land base were calculated as well as natural disturbance from wildfires. Principal sources of human disturbance identified within the study area include settlements, forest harvesting (cutblocks), and road, railway, and electric powerline corridors.

Linear Disturbance Characterization

The Kispiox Road Inventory data layer was developed by BC MFLNRORD Skeena-Stikine District staff using information sourced from provincial TRIM base mapping, the Digital Road Atlas (DRA), Forest Tenure Road Section Lines (FTEN), and major licensee digital road files. The dataset was refined using best available orthophoto and satellite imagery and non-existent roads were removed (e.g. phantom duplicate or parallel road sections and planned roads that were never constructed) while deactivated roads were left in the dataset (G. Buhr, personal communication, October 15, 2020).

An updated roads layer was developed for the purposes of this analysis by adding new (post-2017) road segments from the DRA and FTEN data layers that do not appear in the Kispiox Road Inventory as well as all DRA and FTEN roads within the study area but outside of the extent of the Kispiox Road Inventory dataset. These additional segments were extracted from the 2020 DRA and FTEN datasets by applying a buffer of 30 m to the Kispiox Road Inventory and selecting DRA and FTEN roads outside of this buffer added since 2017. Overlapping roads within the DRA and FTEN subsets were removed by applying a 30 m buffer to the DRA subset and selecting FTEN roads outside of the buffer. The extracted DRA and FTEN roads were then merged with the Kispiox Road Inventory to produce the input roads dataset.

Calculated road, railway, and transmission line right-of-way buffer widths were applied to the respective disturbance layers as set out below, where buffer width refers to the total width of each right-of-way:

Description	Modelled Buffer Width (m)
Trail	0
Overgrown Road	5
Unimproved Road	10
Resource Road	15
Main Resource Road	20
Local Road	25
Highways Road	50
Railway	15
Transmission Line	30

The KRI roads layer is published with modelled buffer width as an attribute in the dataset according to the characterization above. Modelled buffer width was derived for DRA and FTEN road features with characterization estimated based on road class, road surface, and number of lanes in the case of the DRA and file type for the FTEN road segments. Refer to Appendix B for details on the method applied.

Land cover alteration along pipeline rights-of-way and other utility corridors was estimated from the TANTALIS – Crown Tenures dataset selected for utility and transportation with a tenure stage of "tenure" (i.e. active tenures). The utility category does not include the Prince Rupert Gas Transmission Project, which has been permitted but to our knowledge not constructed.

Forestry Disturbance Characterization

The Consolidated Cutblocks layer was used to identify disturbance from forest harvesting within the last 60 years (i.e. harvested since 1959). This is consistent with the approach used by the Pacific Salmon Foundation (2020).

Other Anthropogenic Disturbance Characterization

Municipal and reserve boundaries were used to estimate disturbance from settlements in the study area. Additional sources of land cover alteration were estimated from the TANTALIS – Crown Tenures dataset selected for agriculture, industrial, commercial, quarrying, residential, and community tenure purposes with a tenure stage of "tenure" (i.e. active tenures). Mine footprints were estimated from the Permitted Mine Areas - Major Mine layer.

For the purposes of this analysis, 'other' disturbance includes disturbance from settlements, agriculture, industrial and commercial areas, mines, pipelines, transmission lines, and railways.

Natural Disturbance Characterization

The Fire Perimeters layer was used to estimate fire disturbance within the last 25 years (i.e. fires post 1994), consistent with the approach used by the Pacific Salmon Foundation (2020).

Riparian Disturbance Calculation

In order to report estimated total disturbed areas by disturbance type without overlaps, a hierarchy based on predicted degree of disturbance was applied: overlapping 'other' disturbances (railways, transmission lines, mines, settlements, and tenures) were removed from harvested areas, 'other' disturbances and harvested areas were removed from road areas, and 'other' disturbances, harvested areas, and road areas were removed from fire disturbance areas.

Riparian disturbance was calculated by merging all the disturbance layers into a total disturbance layer which was divided by the riparian area within each assessment unit using FWA assessment watersheds as assessment units. Figure 2 shows the location and types of land cover alteration with respect to the assessment units.

This analysis follows the methodology set out by PSF (2020) for Riparian Disturbance with the following adaptions:

- Substitution of the updated Kispiox Road Inventory for the DRA and FTEN datasets as it is considered to be the more accurate road layer for the study area;
- Application of the linear disturbance buffer widths provided by G. Buhr as they were considered more accurate for roads and more conservative for rail and transmission line disturbance;
- Use of agricultural Crown tenures to estimate agricultural land area instead of the outdated Baseline Thematic Mapping dataset; and
- Use of the municipality and reserves layers in order to estimate urban areas and settlements instead of the Vegetation Resource Index dataset.

Fish Habitat Characterization

The fish habitat and road crossings model (version 2.3.1) developed by Mount et al. (2011) and revised by Norris and Mount (2016) was used to identify and characterize streambank riparian habitat by fish presence. The model uses input data extracted from the BC Geographic Data Warehouse including the Freshwater Atlas Stream Network and Known Fish Observations among others to classify FWA stream features as fish habitat or non-fish habitat. Output from the fish habitat model classifies fish habitat as fish presence observed, fish presence inferred, or no fish presence inferred. For the purpose of this assessment, inferred fish presence includes habitat up to a 15% grade, the threshold for salmon habitat.

Riparian zones for streams and rivers were identified through the application of a 30 m buffer to stream/river features in the fish habitat and road crossings model and to river polygons, for which fish presence attributes were extrapolated through intersection with the fish habitat and road crossings model. The areas covered by river polygon features and buffer features around islands or donuts were removed. Stream riparian area was calculated and summed for each assessment unit by fish habitat.

Stream riparian area and fish habitat characterization is provided for context only and is not used to assess or qualify riparian habitat disturbance in this analysis.

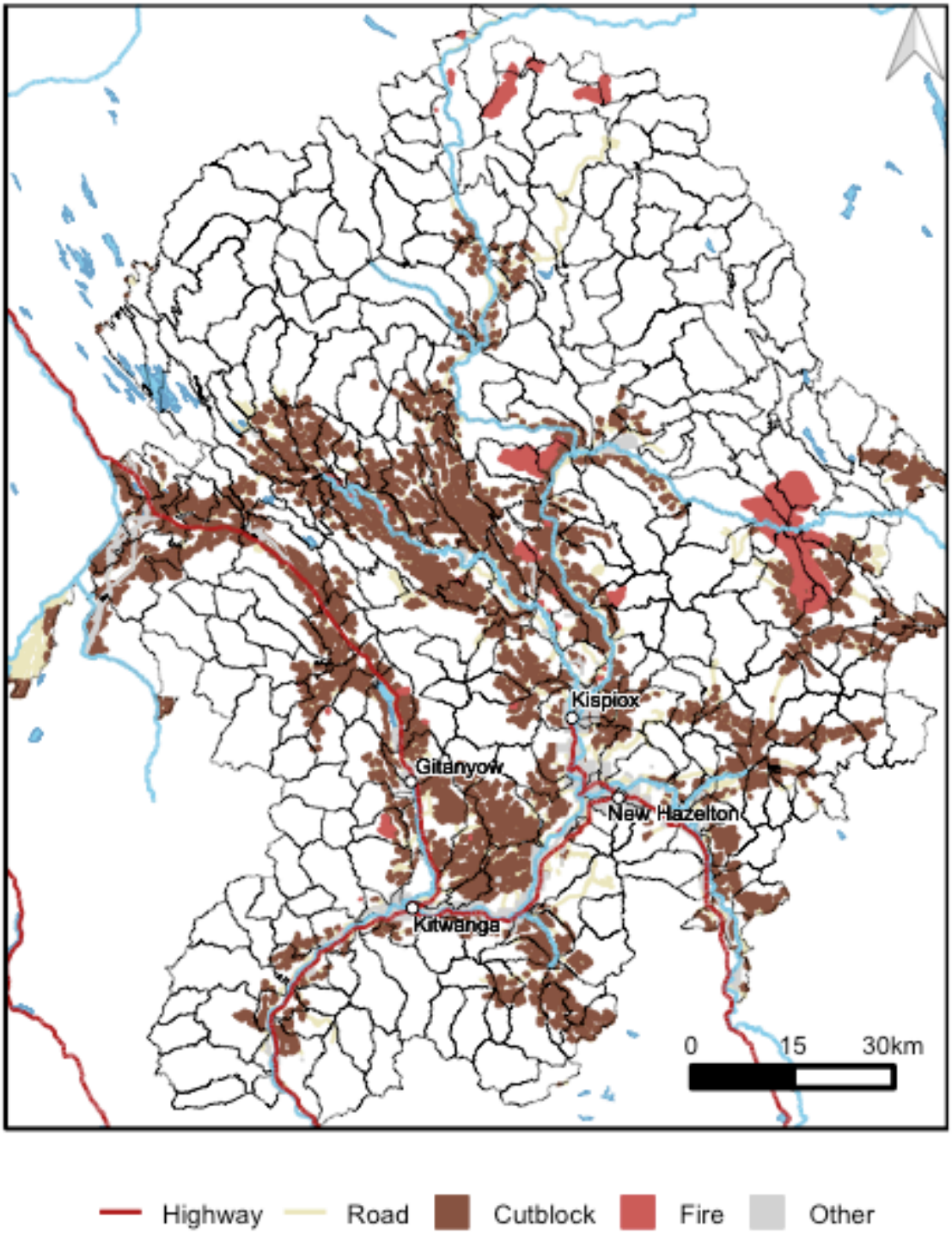

Figure 2: Assessment units and disturbance type located within the study area, including roads; forest harvesting; wildfire; and agricultural, industrial, utility, transportation, commercial, quarrying, residential and community land tenures, railways, powerlines, and settlements, shown collectively as other disturbance.

Risk Thresholds

Categorical risk thresholds applied were generated by the Pacific Salmon Foundation based on recommendations from the Wild Salmon Policy Habitat Working Group (Porter et al., 2014; Stalberg et al., 2009) and are tabulated below:

Threshold Rating	Percent of Riparian Area Disturbed (%)
Low	< 5 %
Moderate	5 - 15 %
High	> 15 %

Results of Analysis

A summary of the results of the riparian disturbance analysis with categorical risk thresholds for each assessment unit are shown as Figure 3; Figure 4 provides an overview of the results distribution. Detailed results for each assessment unit are tabulated in Appendix C, and the distribution of the assessment results are shown as a series of figures in Appendix D. Riparian habitat characterization for each assessment unit is included as Appendix E.

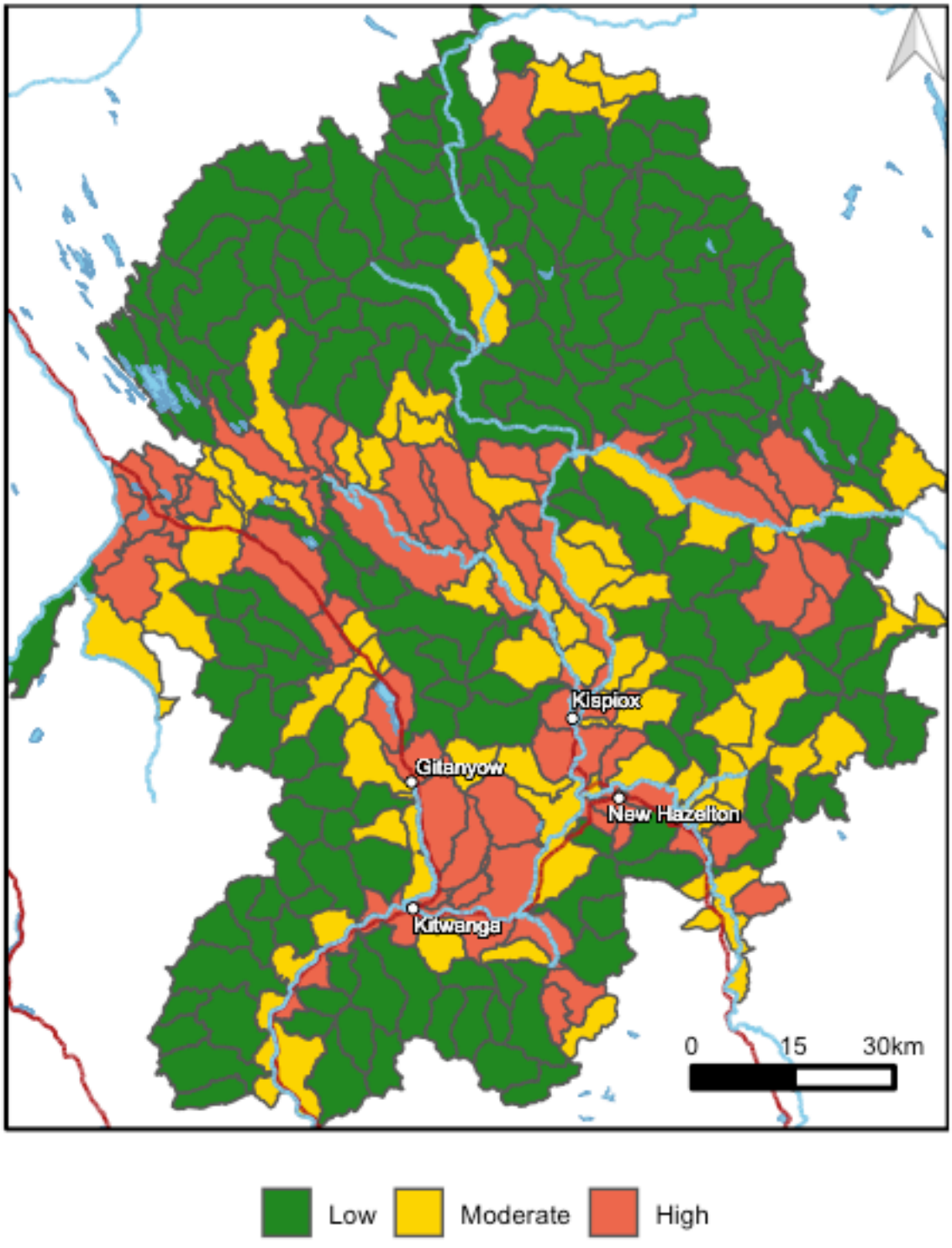

Figure 3: Riparian disturbance for each boundary in the study area is shown on a study area map. The results are colourized by risk threshold (low risk <5% disturbed, moderate risk 5-15% disturbed, and high risk >15% disturbed).

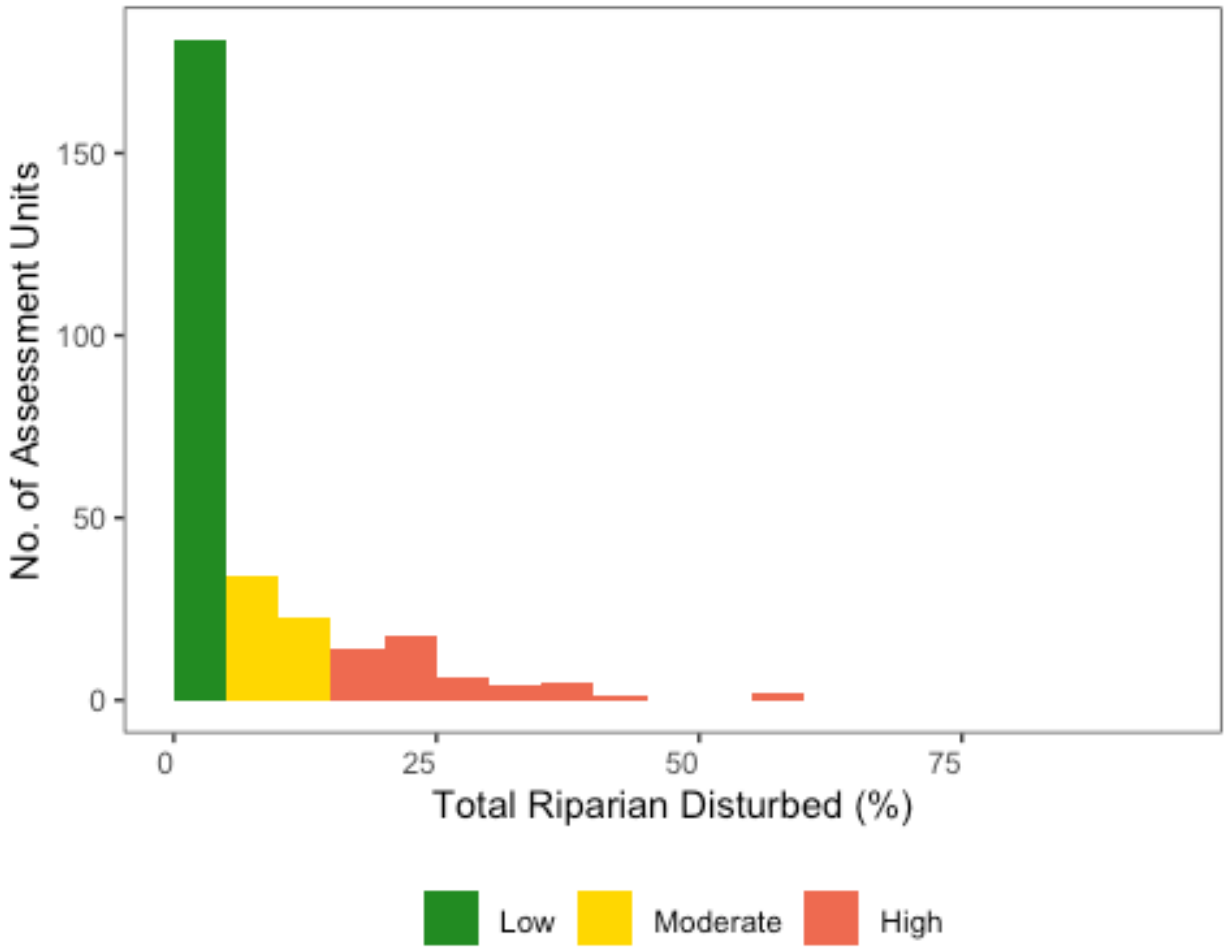

Figure 4: Distribution of results showing the number (count) of assessment units by riparian disturbance. The results are colorized by risk threshold (low risk <5% disturbed, moderate risk 5-15% disturbed, and high risk >15% disturbed).

Riparian disturbance was calculated for a total of 288 FWA assessment watersheds. Values ranged from 0 to a maximum of 56.3% (Figure 4; Appendix C and Appendix D). Fifty assessment units had riparian disturbance values above the threshold for high risk and 57 assessment units were above the moderate risk threshold range with the majority situated within the central portion of the study area (Figure 2; Appendix C and Appendix D).

Total streambank riparian habitat for each assessment unit was characterized by modelled fish presence and is provided as Appendix E. Characterized habitat type is provided for context only and is not related to riparian disturbance in this analysis.

Interactive visualizations of the indicator analysis results calculated as part of the Kispiox TSA WSP Indicator Analysis are available at https://data.skeenasalmon.info/dataset/wild-salmon-policy-indicator-analysis-for-the-kispiox-tsa.

Summary

Riparian habitat was characterized and riparian disturbance estimations from forestry activities, roads, utility and railway corridors, and settlements were calculated for 288 FWA assessment watersheds within the Kispiox TSA and adjacent Swan Lake and upper Kispiox River sub-watersheds using datasets sourced from the Province of BC. Risk categories derived by the Pacific Salmon Foundation based on recommendations from the Wild Salmon Policy Habitat Working Group were used to assess risk to freshwater habitat as a result of riparian disturbance.

Results of the analysis indicated riparian disturbance ranged from 0 to 56.3 % of riparian area disturbed, with FWA assessment watersheds within the central portion of the study area at moderate and high risk from riparian disturbance-related impacts to fish habitat.

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Appendix A: Reference Maps

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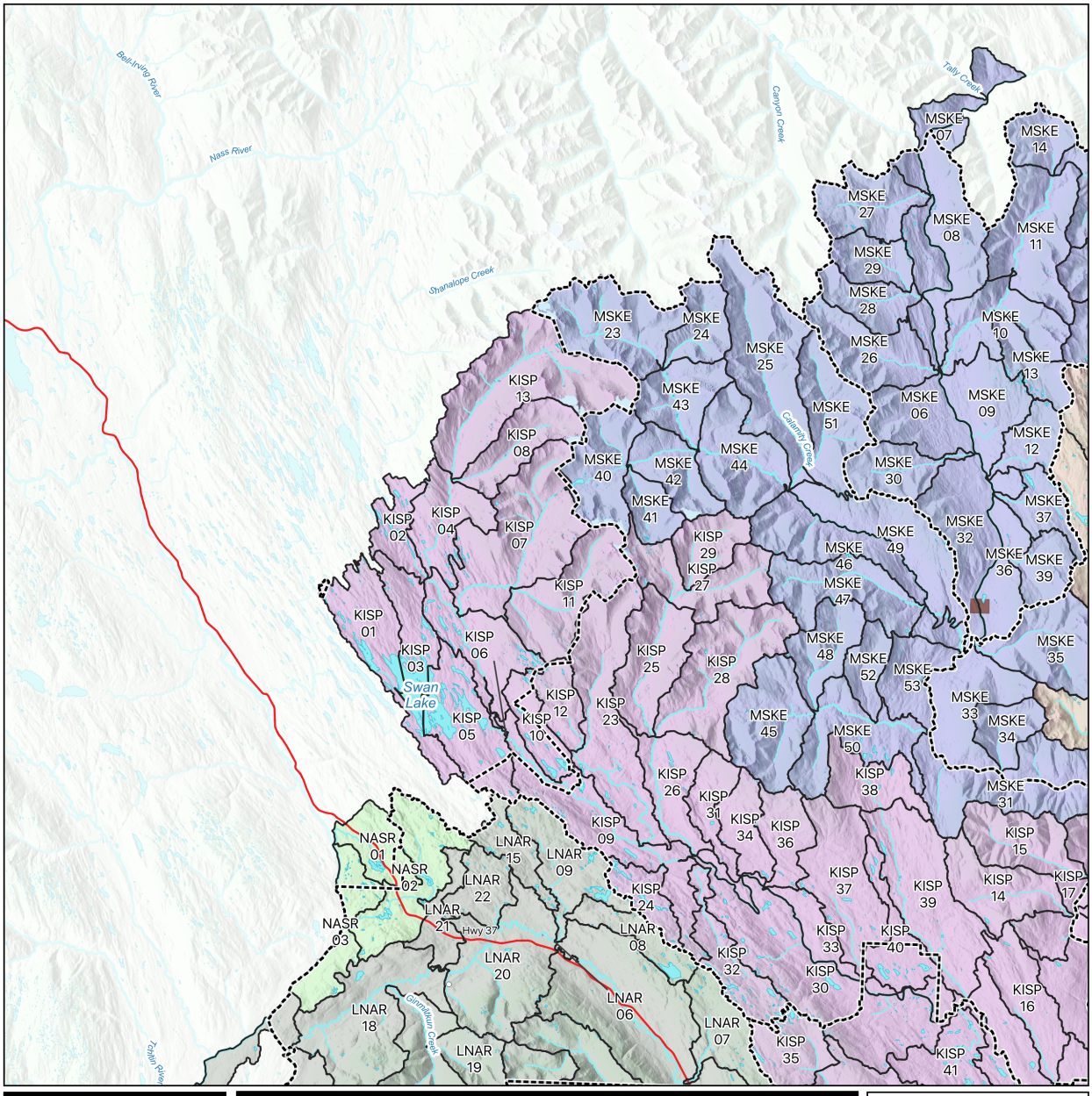
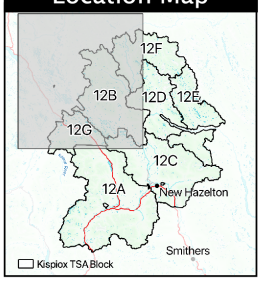
Kispiox Study Area Reference Map - Northwest



Location Map



Legend

Boundary

- Fresh Water Atlas Assessment Watershed
- Kispiox TSA Block
- Reserve Boundary

Major Watershed Group

- BABR
- BULK
- KISP
- KLUM
- LNAR
- MSKE
- NASR

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June 2020

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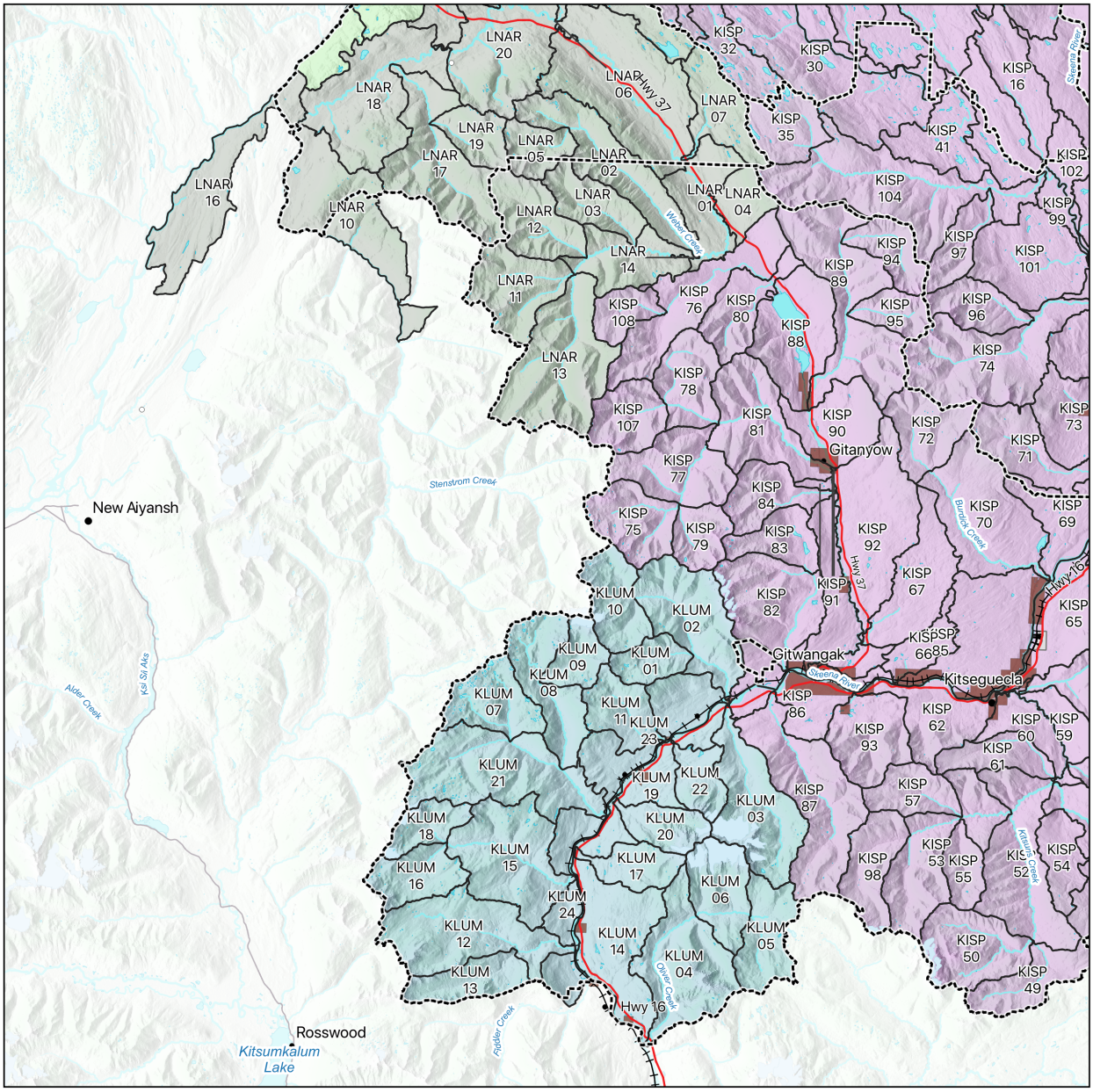
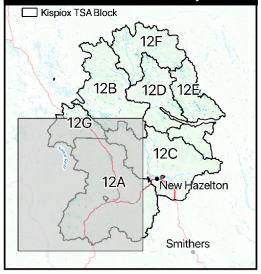
Kispiox Study Area Reference Map - Southwest



Location Map



Legend

Boundary

- Fresh Water Atlas Assessment Watershed
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- Reserve Boundary

Major Watershed Group

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- LNAR
- MSKE
- NASR

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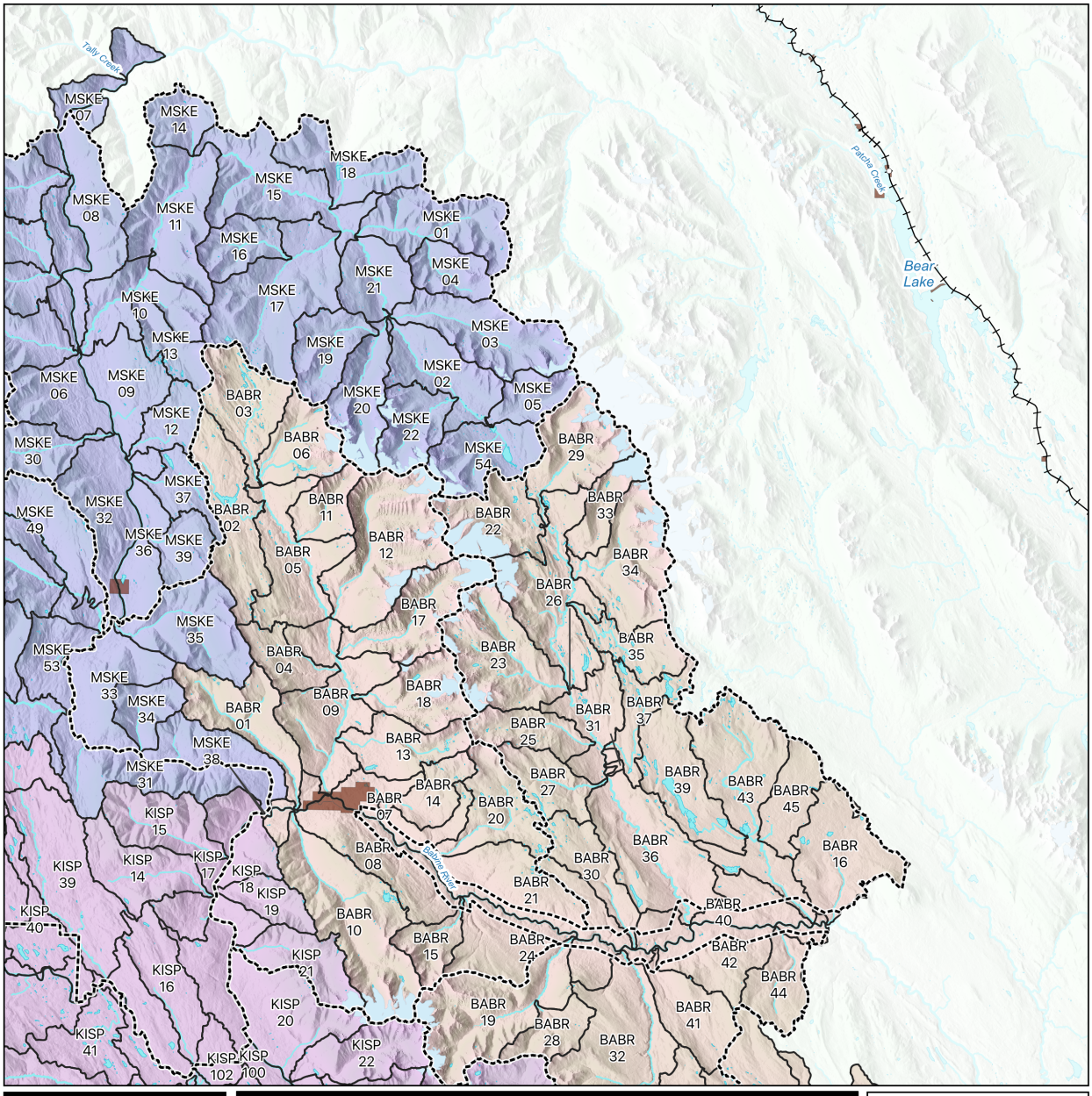
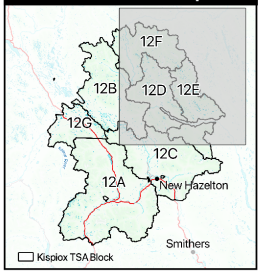
Kispiox Study Area Reference Map - Northeast



Location Map



Legend

Boundary

- Fresh Water Atlas Assessment Watershed
- Kispiox TSA Block
- Reserve Boundary

Major Watershed Group

- BABR
- BULK
- KISP
- KLUM
- LNAR
- MSKE
- NASR

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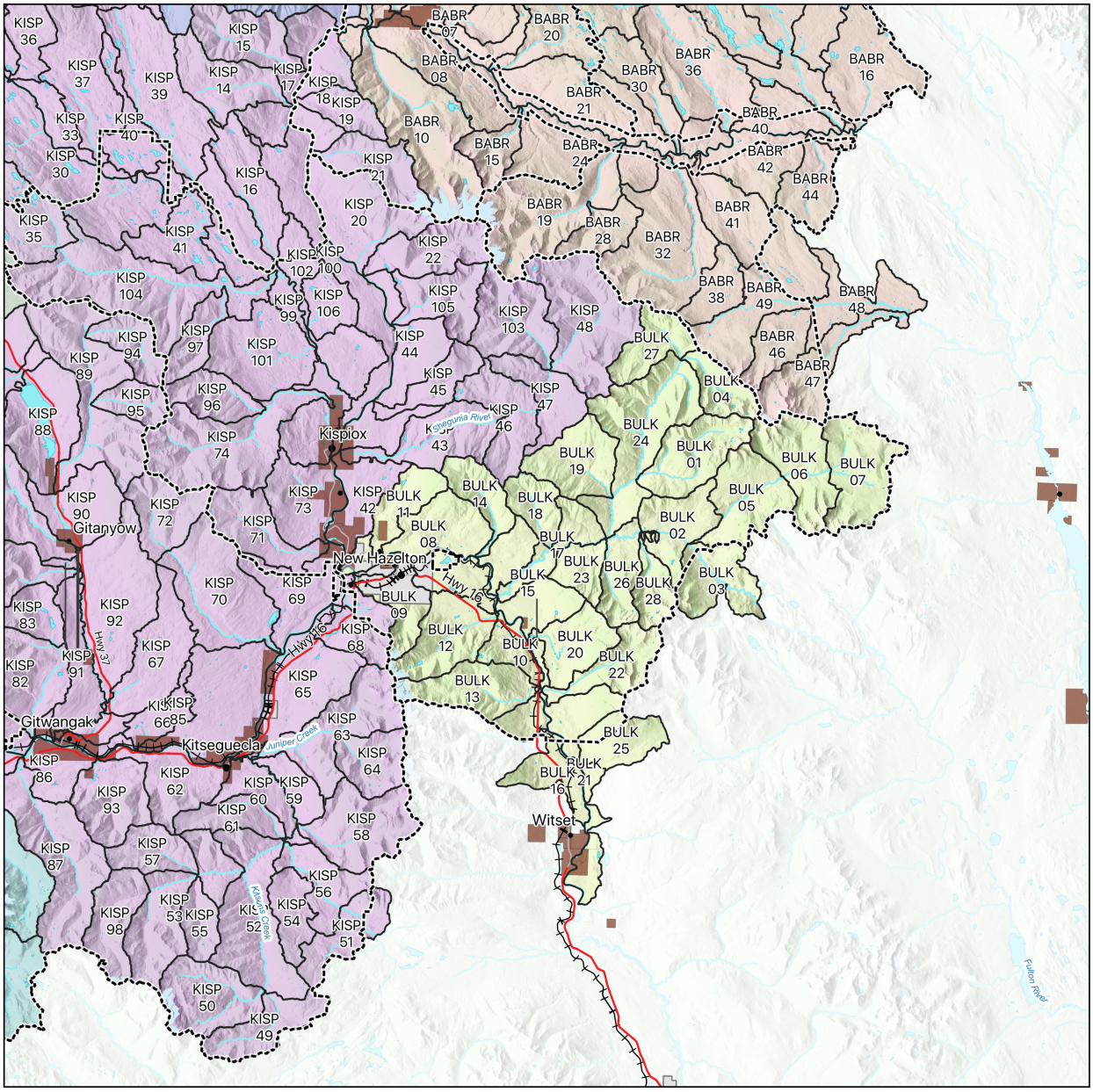
Kispiox Study Area Reference Map - Southeast



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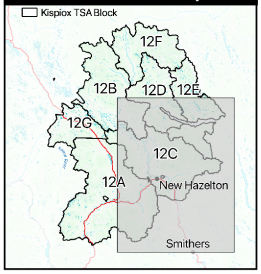

Legend

Boundary

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Appendix B: Modelled Road Buffer Width Methodology

Description	Modelled Buffer Width (m)	FTEN Attributes	DRA Attributes
Trail	0	-	ROAD_CLASS = trail, driveway or proposed
Overgrown Road	5	-	RDSURFACE = overgrown or seasonal
Unimproved Road	10	-	ROAD_CLASS = resource or unclassified, RDSURFACE ≠ paved or overgrown, AND NUMLANES = 1
Resource Road	15	FIL_TP_DSC = Road Permit	ROAD_CLASS = resource, recreation or unclassified, RDSURFACE ≠ rough, paved, overgrown or seasonal, AND NUMLANES = 2
Main Resource Road	20	FIL_TP_DSC = Forest Service Road	ROAD_CLASS = resource or unclassified, AND RDSURFACE = rough, AND NUMLANES = 2
MOT/Local Road	25	-	ROAD_CLASS = local, arterial, service, or strata, OR RDSURFACE = paved, AND ROAD_CLASS ≠ trail or highway
Highways	50	-	ROAD_CLASS = highway

Notes:

FIL_TP_DSC = file type description

RDSURFACE = road surface

NUMLANE = number of lanes

Appendix C: Results Tables

The following table presents results of riparian disturbance analysis by reference assessment unit (AU). Sub-watershed name (if available) and freshwater atlas assessment watershed feature identifier (FWA FID) are included for reference. Calculated fields include total riparian area, disturbed riparian area by type with overlaps removed, total riparian area disturbed, percent of riparian area disturbed, and risk for each assessment unit as determined by Pacific Salmon Foundation thresholds.

Reference AU	Sub-watershed Name	FWA FID	Total Riparian (km^2)	Disturbed Riparian (km^2)				Total Riparian Disturbed (km^2)	Percent Disturbed (%)	Risk
				Roads	Harvested (Post 1959)	Other	Fire Disturbance (Post 1994)			
BABR-01	Sam Green Creek	424	8.54	0.00	0.00	0.00	0.00	0.00	0.01	Low
BABR-02	Damsumlo Creek	433	12.83	0.03	0.07	0.00	0.00	0.09	0.74	Low
BABR-03	Shedin Creek	436	10.69	0.04	0.00	0.00	0.00	0.04	0.39	Low
BABR-04		429	3.73	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-05	Shedin Creek	435	9.80	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-06		434	7.32	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-07	Babine River	423	4.91	0.01	0.03	0.84	0.00	0.89	18.02	High
BABR-08	Babine River	492	6.51	0.04	0.22	0.36	0.00	0.61	9.42	Moderate
BABR-09	Shedin Creek	426	10.97	0.02	0.18	0.03	0.00	0.22	2.04	Low
BABR-10	Shegisic Creek	425	12.15	0.00	0.01	0.00	0.00	0.02	0.13	Low
BABR-11		432	4.75	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-12	Rosenthal Creek	431	14.85	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-13	Goathead Creek	427	5.72	0.01	0.17	0.00	0.00	0.18	3.23	Low
BABR-14		437	3.42	0.00	0.00	0.00	0.00	0.00	0.13	Low
BABR-15		439	2.86	0.00	0.01	0.00	0.00	0.01	0.27	Low
BABR-16	Shahnagh Creek	461	8.40	0.01	0.93	0.00	0.00	0.94	11.18	Moderate
BABR-17	Sperry Creek	430	8.25	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-18		428	6.06	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-19	Thomlinson Creek	440	7.73	0.01	0.00	0.00	0.00	0.01	0.13	Low
BABR-20	Shenismike Creek	438	7.67	0.00	0.00	0.00	0.00	0.00	0.00	Low

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BABR-21	Babine River	493	11.31	0.00	0.00	0.00	2.43	2.43	21.50	High
BABR-22	Shelagyote River	456	6.31	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-23		449	11.32	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-24	Babine River	494	7.60	0.01	0.00	0.00	0.51	0.52	6.85	Moderate
BABR-25	Cayuse Jack Creek	448	4.82	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-26	Shelagyote River	455	16.74	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-27		446	6.10	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-28		441	2.23	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-29		453	7.56	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-30	Le Clair Creek	443	6.50	0.00	0.00	0.00	1.67	1.67	25.65	High
BABR-31	Shelagyote River	454	7.77	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-32	Gail Creek	442	9.84	0.02	0.55	0.00	2.51	3.08	31.31	High
BABR-33		452	3.27	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-34	Barger Creek	451	10.32	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-35		450	5.76	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-36	Shelagyote River	445	10.09	0.00	0.00	0.00	1.86	1.86	18.45	High
BABR-37		447	5.11	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-38		486	3.32	0.00	0.36	0.00	1.01	1.38	41.49	High
BABR-39		460	7.87	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-40	Babine River	495	4.70	0.00	0.00	0.00	0.31	0.31	6.62	Moderate
BABR-41	Cataline Creek	444	3.28	0.02	0.33	0.00	0.85	1.19	36.48	High
BABR-42	Babine River	496	5.18	0.01	0.11	0.00	0.13	0.25	4.78	Low
BABR-43	Hanawald Creek	458	12.33	0.00	0.00	0.00	0.00	0.00	0.00	Low
BABR-44		457	4.05	0.03	0.10	0.00	0.00	0.13	3.26	Low
BABR-45		459	3.75	0.00	0.05	0.00	0.00	0.06	1.47	Low
BABR-46		485	3.40	0.01	0.06	0.00	0.00	0.07	2.15	Low

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BABR-47		482	5.91	0.01	0.09	0.00	0.00	0.09	1.56	Low
BABR-48	Nichyeskwa Creek	487	4.47	0.02	0.45	0.00	0.00	0.47	10.62	Moderate
BABR-49	Nichyeskwa Creek	488	9.69	0.02	0.44	0.00	0.00	0.46	4.71	Low
BULK-01	Denison Creek	1275	9.53	0.00	0.21	0.00	0.00	0.22	2.29	Low
BULK-02	Suskwa River	1298	4.20	0.01	0.33	0.00	0.00	0.34	8.18	Moderate
BULK-03	Harold Price Creek	1279	5.73	0.02	0.09	0.00	0.00	0.10	1.80	Low
BULK-04		1276	5.84	0.00	0.16	0.00	0.00	0.16	2.76	Low
BULK-05	Suskwa River	1299	6.47	0.01	0.44	0.00	0.00	0.45	6.90	Moderate
BULK-06	Suskwa River	1300	6.85	0.00	0.28	0.00	0.00	0.29	4.22	Low
BULK-07	Suskwa River	1301	6.75	0.00	0.00	0.00	0.00	0.00	0.00	Low
BULK-08	Bulkley River	1267	4.53	0.03	0.01	0.47	0.00	0.51	11.27	Moderate
BULK-09	Station Creek	1268	3.25	0.00	0.00	1.80	0.00	1.80	55.34	High
BULK-10	Bulkley River	1413	4.62	0.06	0.00	0.93	0.00	0.99	21.47	High
BULK-11	Two Mile Creek	1269	2.46	0.09	0.18	0.17	0.00	0.44	17.90	High
BULK-12	Mudflat Creek	1302	5.69	0.03	0.11	0.01	0.00	0.15	2.70	Low
BULK-13	Porphyry Creek	1304	6.55	0.01	0.00	0.01	0.00	0.02	0.32	Low
BULK-14	Nine Mile Creek	1270	4.22	0.00	0.00	0.00	0.00	0.00	0.05	Low
BULK-15	Bulkley River	1414	3.02	0.01	0.23	0.08	0.00	0.32	10.72	Moderate
BULK-16	Bulkley River	1415	2.74	0.02	0.14	0.14	0.00	0.30	10.99	Moderate
BULK-17	Suskwa River	1271	2.08	0.03	0.20	0.00	0.00	0.23	11.23	Moderate
BULK-18	Fifteen Mile Creek	1272	2.85	0.00	0.03	0.00	0.00	0.03	1.05	Low
BULK-19	Iltzul Creek	1274	5.86	0.03	0.36	0.00	0.00	0.39	6.73	Moderate
BULK-20	Corduroy Creek	1303	3.93	0.01	1.16	0.00	0.00	1.17	29.78	High

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BULK-21	Bulkley River	1416	3.78	0.01	0.26	0.21	0.00	0.49	12.87	Moderate
BULK-22	Luno Creek	1305	4.75	0.00	0.04	0.00	0.00	0.04	0.94	Low
BULK-23	Suskwa River	1296	1.95	0.01	0.12	0.00	0.00	0.13	6.90	Moderate
BULK-24	Natlan Creek	1273	13.74	0.03	0.85	0.00	0.00	0.89	6.45	Moderate
BULK-25	Kwun Creek	1307	2.88	0.01	0.43	0.00	0.00	0.44	15.23	High
BULK-26	Suskwa River	1297	4.26	0.00	0.19	0.00	0.00	0.20	4.63	Low
BULK-27	Natlan Creek	1277	4.81	0.00	0.02	0.00	0.00	0.02	0.45	Low
BULK-28		1278	3.03	0.01	0.00	0.00	0.00	0.01	0.17	Low
KISP-01		6252	7.85	0.00	0.06	0.00	0.00	0.06	0.83	Low
KISP-02		6255	3.89	0.00	0.01	0.00	0.00	0.02	0.39	Low
KISP-03		6251	6.59	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-04	Kispiox River	6262	6.92	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-05	Stephens Creek	6250	6.67	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-06	Kispiox River	6261	8.27	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-07	East Kispiox River	6253	18.60	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-08		6256	8.49	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-09	Kispiox River	6260	8.83	0.03	1.24	0.06	0.00	1.34	15.16	High
KISP-10		6249	2.94	0.00	0.00	0.00	0.00	0.00	0.03	Low
KISP-100	Skeena River	6283	5.49	0.04	1.10	0.16	0.11	1.41	25.79	High
KISP-101	Hevenor Creek	6226	7.41	0.04	0.88	0.00	0.00	0.92	12.43	Moderate
KISP-102	Kispiox River	6257	5.82	0.04	0.65	0.12	0.04	0.86	14.71	Moderate
KISP-103		6265	7.67	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-104	McCully Creek	6228	13.99	0.04	0.36	0.00	0.00	0.40	2.82	Low
KISP-105	Utsun Creek	6270	6.48	0.00	0.07	0.01	0.00	0.08	1.20	Low

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KISP-106		6227	2.22	0.01	0.21	0.01	0.00	0.23	10.56	Moderate
KISP-107		6186	4.57	0.00	0.00	0.00	0.00	0.00	0.05	Low
KISP-108		6193	2.91	0.00	0.12	0.00	0.00	0.12	4.10	Low
KISP-11		6254	10.80	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-12		6248	3.45	0.01	0.00	0.00	0.00	0.01	0.17	Low
KISP-13	Kispiox River	6263	18.61	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-14	Carrigan Creek	6273	6.57	0.03	0.79	0.00	0.00	0.81	12.37	Moderate
KISP-15	Blackstock Creek	6275	6.67	0.00	0.05	0.00	2.11	2.15	32.31	High
KISP-16	Murder Creek	6231	4.64	0.02	0.52	0.00	0.51	1.05	22.70	High
KISP-17	Skeena River	6287	4.42	0.01	1.09	0.00	0.43	1.54	34.72	High
KISP-18	Skeena River	6286	3.36	0.02	0.11	0.00	0.00	0.13	3.85	Low
KISP-19	Bretson Creek	6274	3.57	0.02	0.07	0.00	0.00	0.09	2.60	Low
KISP-20	Skeena River	6285	7.11	0.02	0.69	0.00	0.00	0.71	9.92	Moderate
KISP-21	Shewililba Creek	6272	4.55	0.01	0.34	0.00	0.00	0.35	7.59	Moderate
KISP-22	Sediesh Creek	6271	4.84	0.00	0.22	0.00	0.22	0.44	9.14	Moderate
KISP-23	Nangeese River	6247	11.25	0.02	0.76	0.01	0.00	0.79	7.03	Moderate
KISP-24	Brown Paint Creek	6246	2.85	0.01	0.20	0.00	0.00	0.21	7.24	Moderate
KISP-25	Sweetin River	6244	5.87	0.00	0.04	0.00	0.00	0.04	0.69	Low
KISP-26	Sweetin River	6241	4.72	0.03	1.00	0.00	0.00	1.03	21.82	High
KISP-27	Sweetin River	6245	8.06	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-28		6242	11.92	0.00	0.03	0.00	0.00	0.03	0.27	Low
KISP-29		6243	4.67	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-30	Kispiox River	6259	15.39	0.08	2.95	0.06	0.06	3.15	20.45	High
KISP-31	Clifford Creek	6239	2.97	0.01	0.51	0.02	0.00	0.53	17.96	High

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KISP-32	Steep Canyon Creek	6240	5.87	0.01	0.28	0.00	0.00	0.29	4.93	Low
KISP-33	Kispiox River	6258	3.40	0.03	0.68	0.06	0.08	0.85	24.94	High
KISP-34	Skunsnat Creek	6238	3.26	0.01	0.31	0.01	0.00	0.32	9.89	Moderate
KISP-35	McCully Creek	6230	5.95	0.02	0.00	0.00	0.00	0.02	0.29	Low
KISP-36	Corral Creek	6237	3.72	0.01	0.51	0.00	0.00	0.52	14.07	Moderate
KISP-37	Ironside Creek	6236	7.58	0.02	1.69	0.00	0.00	1.71	22.56	High
KISP-38	Cullon Creek	6233	4.05	0.01	0.55	0.00	0.00	0.55	13.63	Moderate
KISP-39	Cullon Creek	6232	10.38	0.03	3.90	0.00	0.00	3.93	37.83	High
KISP-40		6235	3.81	0.02	0.78	0.00	0.00	0.79	20.85	High
KISP-41		6234	3.52	0.03	0.31	0.00	0.00	0.34	9.63	Moderate
KISP-42	Skeena River	6281	5.70	0.04	0.55	1.26	0.00	1.85	32.48	High
KISP-43	Shegunia River	6264	5.11	0.01	0.48	0.10	0.00	0.59	11.58	Moderate
KISP-44	Skeena River	6284	3.43	0.01	0.19	0.04	0.00	0.24	6.86	Moderate
KISP-45	Pinenut Creek	6269	2.53	0.00	0.16	0.00	0.00	0.16	6.48	Moderate
KISP-46	Shegunia River	6266	5.86	0.03	0.15	0.00	0.00	0.17	2.95	Low
KISP-47	Shegunia River	6267	3.37	0.02	0.08	0.00	0.00	0.10	2.94	Low
KISP-48	Shegunia River	6268	10.98	0.00	0.00	0.00	0.00	0.00	0.01	Low
KISP-49	Kitsuns Creek	6212	6.05	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-50		6211	7.42	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-51	Kitseguecla River	6217	4.81	0.00	0.64	0.00	0.00	0.65	13.45	Moderate
KISP-52	Kitsuns Creek	6206	10.37	0.01	0.48	0.00	0.00	0.49	4.71	Low
KISP-53		6207	8.56	0.01	0.31	0.00	0.00	0.32	3.77	Low
KISP-54		6213	2.69	0.00	0.95	0.00	0.00	0.96	35.52	High

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KISP-55		6209	3.07	0.00	0.08	0.00	0.00	0.08	2.60	Low
KISP-56	Kitseguecla River	6216	3.67	0.01	0.66	0.00	0.00	0.67	18.17	High
KISP-57		6208	3.73	0.00	0.01	0.00	0.00	0.02	0.44	Low
KISP-58		6204	7.74	0.01	0.15	0.00	0.00	0.16	2.01	Low
KISP-59	Kitseguecla River	6201	1.25	0.01	0.18	0.04	0.00	0.24	18.88	High
KISP-60	Kitseguecla River	6215	1.93	0.02	0.54	0.15	0.00	0.71	36.84	High
KISP-61	Deep Canyon Creek	6205	3.05	0.00	0.28	0.00	0.00	0.29	9.40	Moderate
KISP-62	Skeena River	6278	5.68	0.03	1.14	0.53	0.00	1.70	29.92	High
KISP-63	Juniper Creek	6202	6.94	0.04	0.03	0.03	0.00	0.10	1.49	Low
KISP-64	Brian Boru Creek	6203	3.72	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-65	Skeena River	6279	6.35	0.07	0.01	0.44	0.00	0.53	8.33	Moderate
KISP-66	Andi Creek	6200	2.65	0.02	1.26	0.22	0.00	1.49	56.27	High
KISP-67		6182	6.29	0.05	1.31	0.00	0.00	1.36	21.55	High
KISP-68	Chicago Creek	6221	1.98	0.03	0.03	0.01	0.00	0.06	3.28	Low
KISP-69	Skeena River	6280	4.34	0.10	0.48	0.04	0.00	0.61	14.14	Moderate
KISP-70	Burdick Creek	6219	8.67	0.03	2.41	0.02	0.00	2.45	28.27	High
KISP-71	Hazelton Creek	6222	5.14	0.01	0.36	0.08	0.00	0.45	8.75	Moderate
KISP-72	Burdick Creek	6220	4.64	0.01	0.25	0.00	0.00	0.26	5.64	Moderate
KISP-73	Skeena River	6282	4.67	0.01	0.43	0.67	0.00	1.11	23.86	High
KISP-74	Date Creek	6224	13.06	0.02	0.33	0.06	0.00	0.42	3.19	Low
KISP-75	Kitwancool Creek	6189	5.96	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-76	Kitwanga River	6198	7.21	0.03	0.74	0.00	0.00	0.77	10.72	Moderate
KISP-77	Kitwancool Creek	6188	5.96	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-78		6185	5.09	0.00	0.08	0.00	0.01	0.09	1.75	Low

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KISP-79		6187	3.21	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-80	Kitwanga River	6197	3.93	0.01	0.30	0.00	0.00	0.31	7.93	Moderate
KISP-81	Kitwancool Creek	6184	7.44	0.01	0.24	0.21	0.00	0.46	6.15	Moderate
KISP-82	Mill Creek	6179	7.21	0.01	0.22	0.02	0.00	0.25	3.48	Low
KISP-83		6180	3.36	0.01	0.20	0.00	0.24	0.45	13.47	Moderate
KISP-84	Deuce Creek	6183	3.75	0.00	0.02	0.00	0.00	0.03	0.67	Low
KISP-85	Skeena River	6277	8.70	0.03	2.07	1.10	0.00	3.20	36.80	High
KISP-86	Skeena River	6276	2.63	0.02	0.05	0.50	0.00	0.58	22.04	High
KISP-87		6178	8.65	0.01	0.09	0.00	0.00	0.09	1.10	Low
KISP-88	Kitwanga River	6196	4.59	0.12	0.55	0.28	0.02	0.96	20.92	High
KISP-89	Moonlit Creek	6190	12.49	0.03	0.11	0.09	0.00	0.24	1.90	Low
KISP-90	Kitwanga River	6195	4.16	0.06	0.39	0.40	0.00	0.85	20.50	High
KISP-91	Kitwanga River	6181	2.88	0.00	0.09	0.20	0.00	0.29	10.06	Moderate
KISP-92	Kitwanga River	6194	9.23	0.19	1.60	0.34	0.00	2.14	23.15	High
KISP-93	Shandilla Creek	6199	5.43	0.01	0.34	0.07	0.00	0.42	7.80	Moderate
KISP-94		6192	4.21	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-95		6191	3.71	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-96		6225	4.06	0.01	0.04	0.00	0.00	0.05	1.29	Low
KISP-97		6229	3.39	0.00	0.09	0.00	0.00	0.09	2.72	Low
KISP-98		6210	3.68	0.00	0.00	0.00	0.00	0.00	0.00	Low
KISP-99	Kispiox River	6223	5.25	0.03	0.26	0.67	0.01	0.96	18.31	High
KLUM-01		6741	3.24	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-02	Sedan Creek	6740	9.07	0.00	0.00	0.01	0.00	0.01	0.12	Low
KLUM-03		6743	5.91	0.00	0.00	0.00	0.00	0.00	0.08	Low
KLUM-04	Oliver Creek	6721	8.31	0.01	0.01	0.00	0.00	0.02	0.26	Low

eclipse GEOMATICS

Reference AU	Sub-watershed Name	FWA FID	Total Riparian (km^2)	Disturbed Riparian (km^2)				Total Riparian Disturbed (km^2)	Percent Disturbed (%)	Risk
				Roads	Harvested (Post 1959)	Other	Fire Disturbance (Post 1994)			
KLUM-05	Oliver Creek	6723	5.37	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-06	Oliver Creek	6722	2.16	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-07		6736	7.19	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-08		6734	6.20	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-09		6735	2.21	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-10		6742	4.76	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-11	Wilson Creek	6738	3.32	0.01	0.02	0.00	0.00	0.03	0.99	Low
KLUM-12	Lorne Creek	6727	8.00	0.00	0.00	0.00	0.00	0.00	0.02	Low
KLUM-13	South Lorne Creek	6728	4.11	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-14	Skeena River	6752	5.66	0.16	0.27	0.08	0.00	0.51	8.95	Moderate
KLUM-15	Quill Creek	6729	6.12	0.00	0.06	0.00	0.00	0.06	1.00	Low
KLUM-16	Quill Creek	6731	2.50	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-17	Flint Creek	6732	1.73	0.01	0.04	0.00	0.00	0.05	2.60	Low
KLUM-18		6730	1.96	0.00	0.00	0.00	0.00	0.00	0.00	Low
KLUM-19	Skeena River	6754	2.11	0.16	0.13	0.09	0.00	0.38	18.05	High
KLUM-20	CoyoteCreek	6737	1.63	0.00	0.00	0.00	0.00	0.00	0.24	Low
KLUM-21	Insect Creek	6733	9.32	0.00	0.00	0.00	0.00	0.01	0.08	Low
KLUM-22		6739	2.00	0.00	0.01	0.00	0.00	0.02	0.87	Low
KLUM-23	Skeena River	6755	3.65	0.02	0.21	0.13	0.03	0.39	10.73	Moderate
KLUM-24	Skeena River	6753	2.16	0.00	0.04	0.12	0.00	0.16	7.29	Moderate
LNAR-01	Cranberry River	9034	3.07	0.02	0.71	0.00	0.00	0.72	23.53	High
LNAR-02	Weber Creek	9025	8.96	0.00	0.09	0.00	0.00	0.10	1.11	Low
LNAR-03		9027	4.70	0.00	0.00	0.00	0.00	0.00	0.00	Low
LNAR-04		9024	1.71	0.02	0.11	0.00	0.00	0.13	7.49	Moderate
LNAR-05		9026	3.49	0.00	0.00	0.00	0.00	0.00	0.00	Low

eclipse GEOMATICS

Reference AU	Sub-watershed Name	FWA FID	Total Riparian (km^2)	Disturbed Riparian (km^2)				Total Riparian Disturbed (km^2)	Percent Disturbed (%)	Risk
				Roads	Harvested (Post 1959)	Other	Fire Disturbance (Post 1994)			
LNAR-06	Cranberry River	9033	15.27	0.11	2.05	0.15	0.00	2.32	15.18	High
LNAR-07	Tsugwinselda Creek	9023	5.30	0.01	0.21	0.01	0.00	0.23	4.31	Low
LNAR-08		9021	3.60	0.00	0.05	0.00	0.00	0.05	1.48	Low
LNAR-09	Aluk Creek	9020	6.33	0.02	0.33	0.00	0.00	0.35	5.50	Moderate
LNAR-10	Kiteen River	8998	8.27	0.02	0.59	0.04	0.00	0.65	7.83	Moderate
LNAR-11		9029	8.20	0.00	0.00	0.00	0.00	0.00	0.00	Low
LNAR-12		9028	5.12	0.00	0.00	0.00	0.00	0.00	0.00	Low
LNAR-13	Cranberry River	9036	12.05	0.00	0.00	0.00	0.00	0.00	0.00	Low
LNAR-14	Cranberry River	9035	4.81	0.01	0.11	0.00	0.00	0.12	2.54	Low
LNAR-15	Weegett Creek	9022	2.78	0.01	0.30	0.00	0.00	0.30	10.88	Moderate
LNAR-16	Nass River	9047	4.68	0.07	0.09	0.00	0.00	0.16	3.49	Low
LNAR-17	Ginmiltkun Creek	9016	10.29	0.00	0.52	0.00	0.00	0.52	5.08	Moderate
LNAR-18	Cranberry River	9031	10.59	0.03	1.48	0.09	0.00	1.60	15.13	High
LNAR-19		9017	4.42	0.00	0.00	0.00	0.00	0.00	0.00	Low
LNAR-20	Cranberry River	9032	13.85	0.07	1.84	0.00	0.00	1.92	13.84	Moderate
LNAR-21		9018	2.40	0.03	0.41	0.00	0.00	0.44	18.28	High
LNAR-22	Calmin Creek	9019	3.33	0.01	0.71	0.00	0.00	0.72	21.59	High
MSKE-01	Endless Creek	11076	11.20	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-02	Sicintine River	11086	4.24	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-03		11078	7.11	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-04		11077	5.39	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-05		11082	2.87	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-06	Skeena River	11146	5.25	0.01	0.04	0.00	0.00	0.04	0.78	Low
MSKE-07	Skeena River	11148	4.24	0.02	0.00	0.00	0.09	0.11	2.48	Low
MSKE-08	Skeena River	11147	5.81	0.00	0.00	0.00	0.01	0.01	0.09	Low

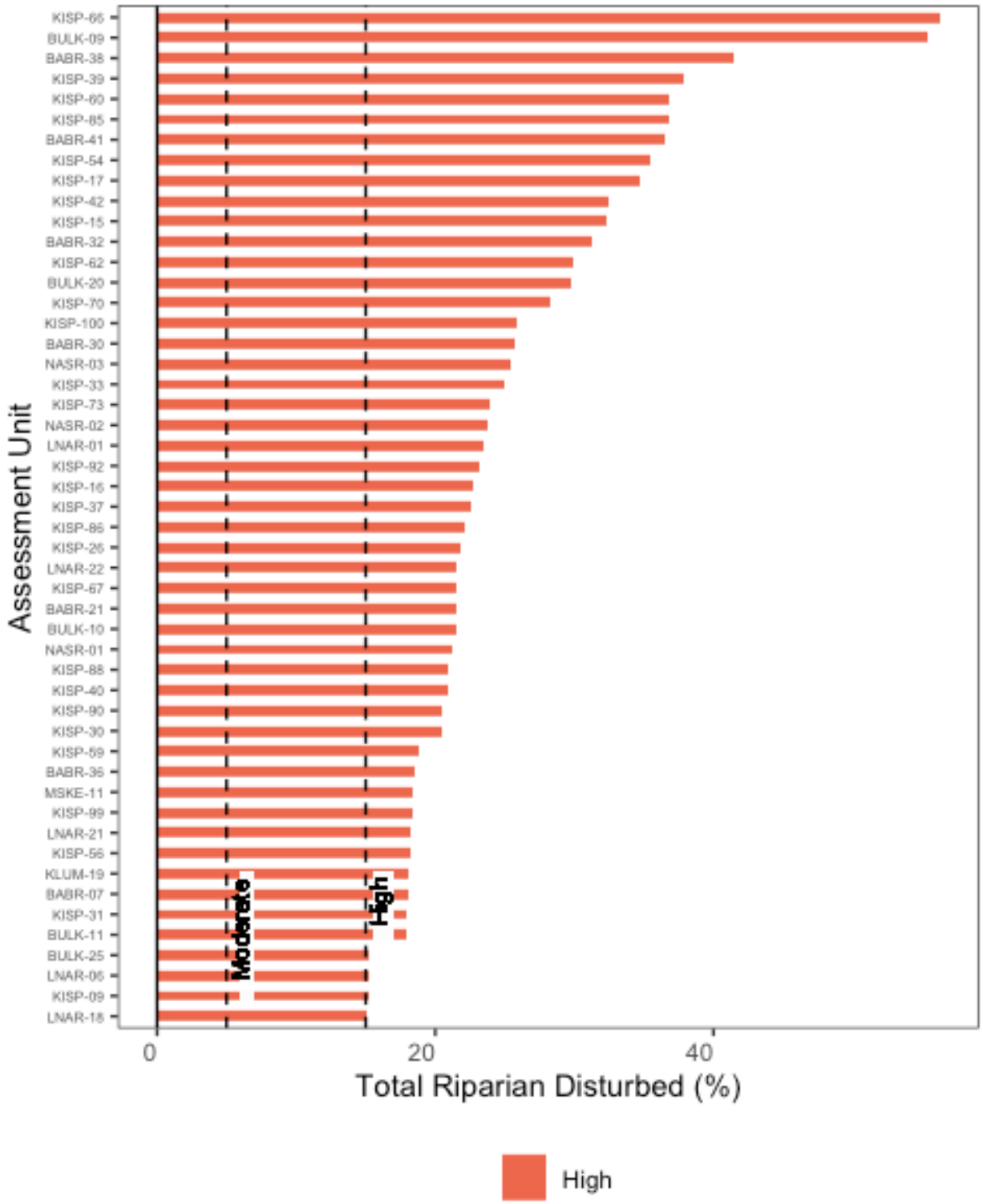
eclipse GEOMATICS

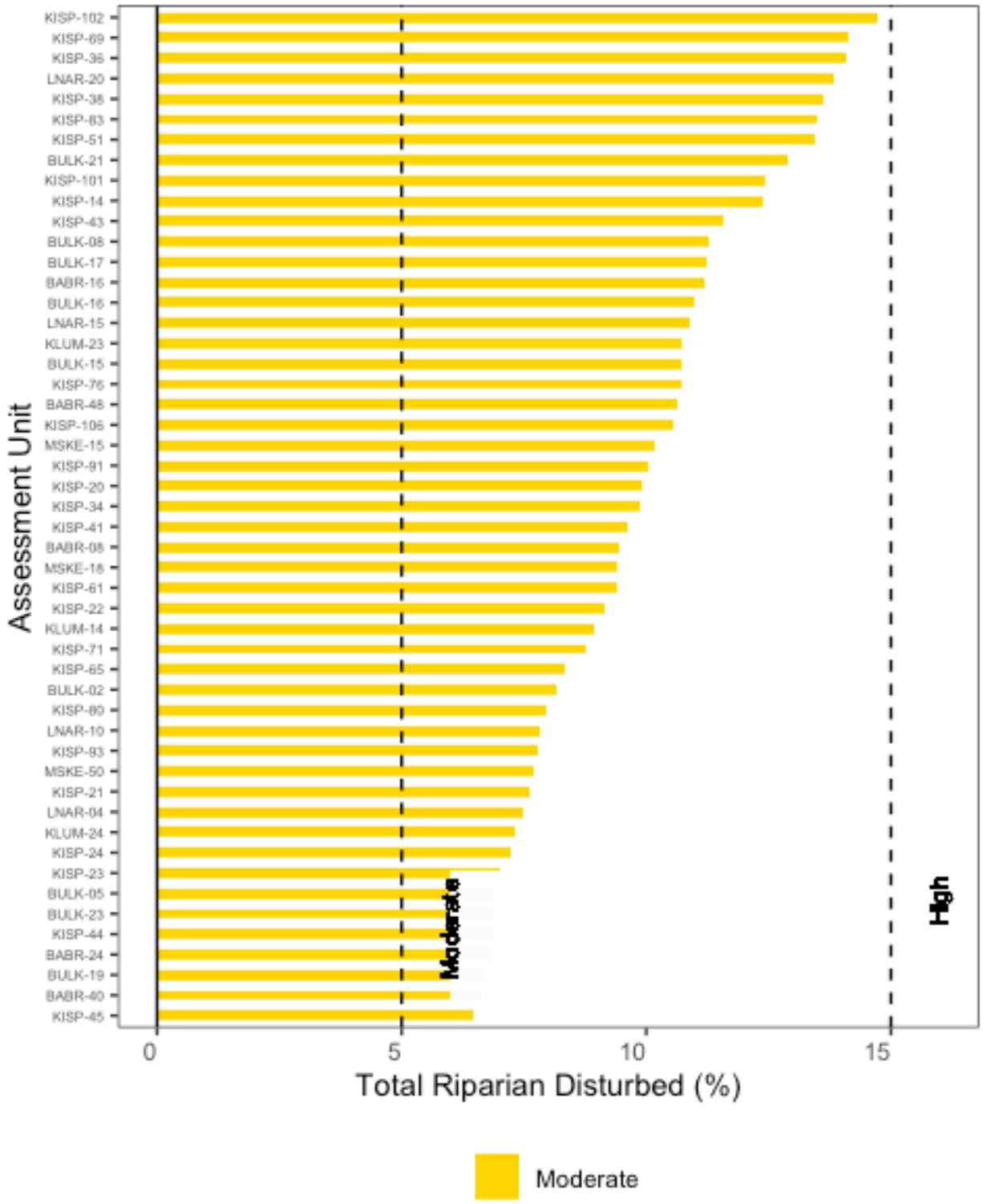
Reference AU	Sub-watershed Name	FWA FID	Total Riparian (km^2)	Disturbed Riparian (km^2)				Total Riparian Disturbed (km^2)	Percent Disturbed (%)	Risk
				Roads	Harvested (Post 1959)	Other	Fire Disturbance (Post 1994)			
MSKE-09	Skeena River	11145	5.22	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-10	Sicintine River	11070	5.23	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-11	Sicintine River	11083	9.63	0.00	0.00	0.00	1.77	1.77	18.39	High
MSKE-12		11068	4.03	0.00	0.06	0.00	0.00	0.06	1.38	Low
MSKE-13		11071	3.47	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-14		11072	2.50	0.00	0.00	0.00	0.06	0.06	2.52	Low
MSKE-15	Sicintine River	11084	11.28	0.00	0.00	0.00	1.15	1.15	10.16	Moderate
MSKE-16		11075	3.94	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-17	Tommy Jack Creek	11074	11.24	0.02	0.00	0.00	0.00	0.02	0.21	Low
MSKE-18		11073	6.26	0.00	0.00	0.00	0.59	0.59	9.40	Moderate
MSKE-19		11080	4.92	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-20		11079	5.08	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-21	Sicintine River	11085	3.63	0.00	0.00	0.00	0.00	0.00	0.12	Low
MSKE-22		11081	3.43	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-23		11059	14.33	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-24		11058	5.53	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-25	Calamity Creek	11055	15.24	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-26	Sheladamus Creek	11088	7.38	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-27	O'Dwyer Creek	11091	6.16	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-28	Poison Creek	11089	4.32	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-29		11090	3.81	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-30		11069	5.78	0.00	0.01	0.00	0.00	0.02	0.29	Low
MSKE-31	Skeena River	11139	10.05	0.03	0.42	0.00	0.03	0.48	4.73	Low
MSKE-32	Skeena River	11143	5.94	0.04	0.19	0.09	0.00	0.32	5.36	Moderate
MSKE-33	Skeena River	11141	7.07	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-34		11048	4.31	0.00	0.00	0.00	0.00	0.00	0.00	Low

Reference AU	Sub-watershed Name	FWA FID	Total Riparian (km^2)	Disturbed Riparian (km^2)				Total Riparian Disturbed (km^2)	Percent Disturbed (%)	Risk
				Roads	Harvested (Post 1959)	Other	Fire Disturbance (Post 1994)			
MSKE-35	Larkworthy Creek	11065	8.35	0.00	0.03	0.00	0.00	0.03	0.34	Low
MSKE-36	Skeena River	11144	3.99	0.04	0.14	0.04	0.00	0.22	5.43	Moderate
MSKE-37		11067	4.22	0.02	0.16	0.00	0.00	0.18	4.37	Low
MSKE-38	Skeena River	11140	5.28	0.02	0.16	0.00	0.00	0.18	3.47	Low
MSKE-39		11066	3.58	0.00	0.02	0.00	0.00	0.02	0.48	Low
MSKE-40	Kuldo Creek	11064	8.76	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-41		11060	3.29	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-42	Kuldo Creek	11063	5.02	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-43		11057	7.59	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-44	Kuldo Creek	11062	8.38	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-45		11052	8.12	0.00	0.10	0.00	0.00	0.10	1.20	Low
MSKE-46	Kuldo Creek	11053	7.64	0.00	0.09	0.00	0.00	0.09	1.16	Low
MSKE-47		11054	10.80	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-48		11051	5.69	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-49	Kuldo Creek	11061	9.86	0.00	0.16	0.00	0.00	0.17	1.71	Low
MSKE-50	Deep Canoe Creek	11049	7.39	0.04	0.53	0.00	0.00	0.57	7.68	Moderate
MSKE-51		11056	10.01	0.00	0.00	0.00	0.00	0.00	0.00	Low
MSKE-52		11050	2.47	0.00	0.00	0.00	0.00	0.00	0.07	Low
MSKE-53	Skeena River	11142	4.03	0.03	0.15	0.00	0.00	0.18	4.38	Low
MSKE-54	Sicintine River	11087	6.88	0.00	0.00	0.00	0.00	0.00	0.00	Low
NASR-01		11840	2.76	0.01	0.54	0.03	0.00	0.59	21.24	High
NASR-02	Derrick Creek	11839	6.30	0.03	1.22	0.25	0.00	1.49	23.70	High
NASR-03	Nass River	11879	4.37	0.00	1.03	0.07	0.00	1.11	25.38	High

Appendix D: Results Distribution

Results are colourized by risk threshold (low risk < 0.40 km/km^2, moderate risk 0.40-1.2 km/km^2, high risk >1.2 km/km^2).

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BULK-08
BULK-17
BABR-16
BULK-16
LNAR-15
KLUM-23
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BABR-08
MSKE-18
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KISP-22
KLUM-14
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KISP-65
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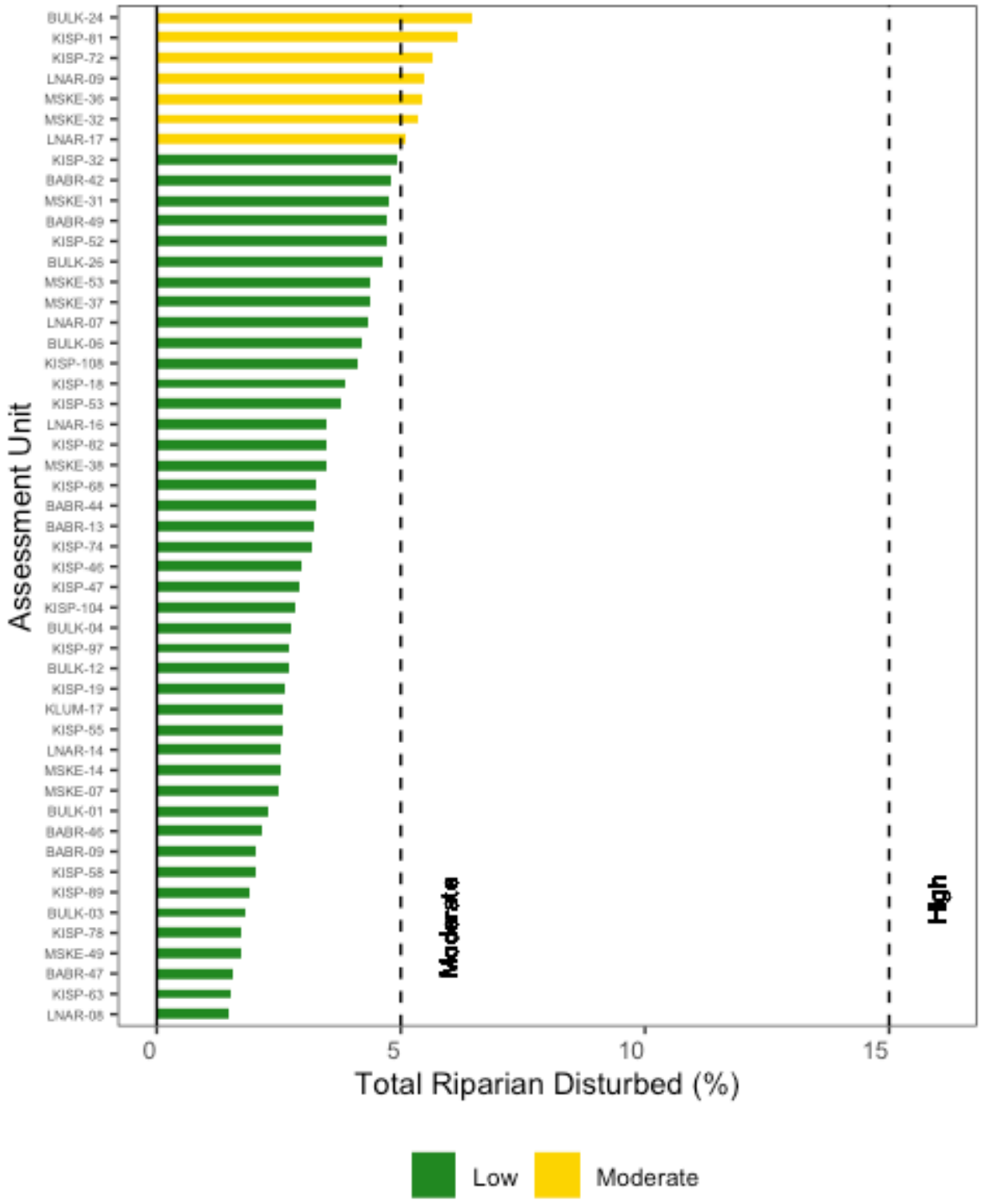
LNAR-10
KISP-93
MSKE-50
KISP-21
LNAR-04
KLUM-24
KISP-24
KISP-23
BULK-05
BULK-23
KISP-44
BABR-24
BULK-19
BABR-40
KISP-45
Assessment Unit
Moderate
High
0
5
10
15
Total Riparian Disturbed (%)
Moderate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BULK-12
KISP-19
KLUM-17
KISP-55
LNAR-14
MSKE-14
MSKE-07
BULK-01
BABR-46
BABR-09
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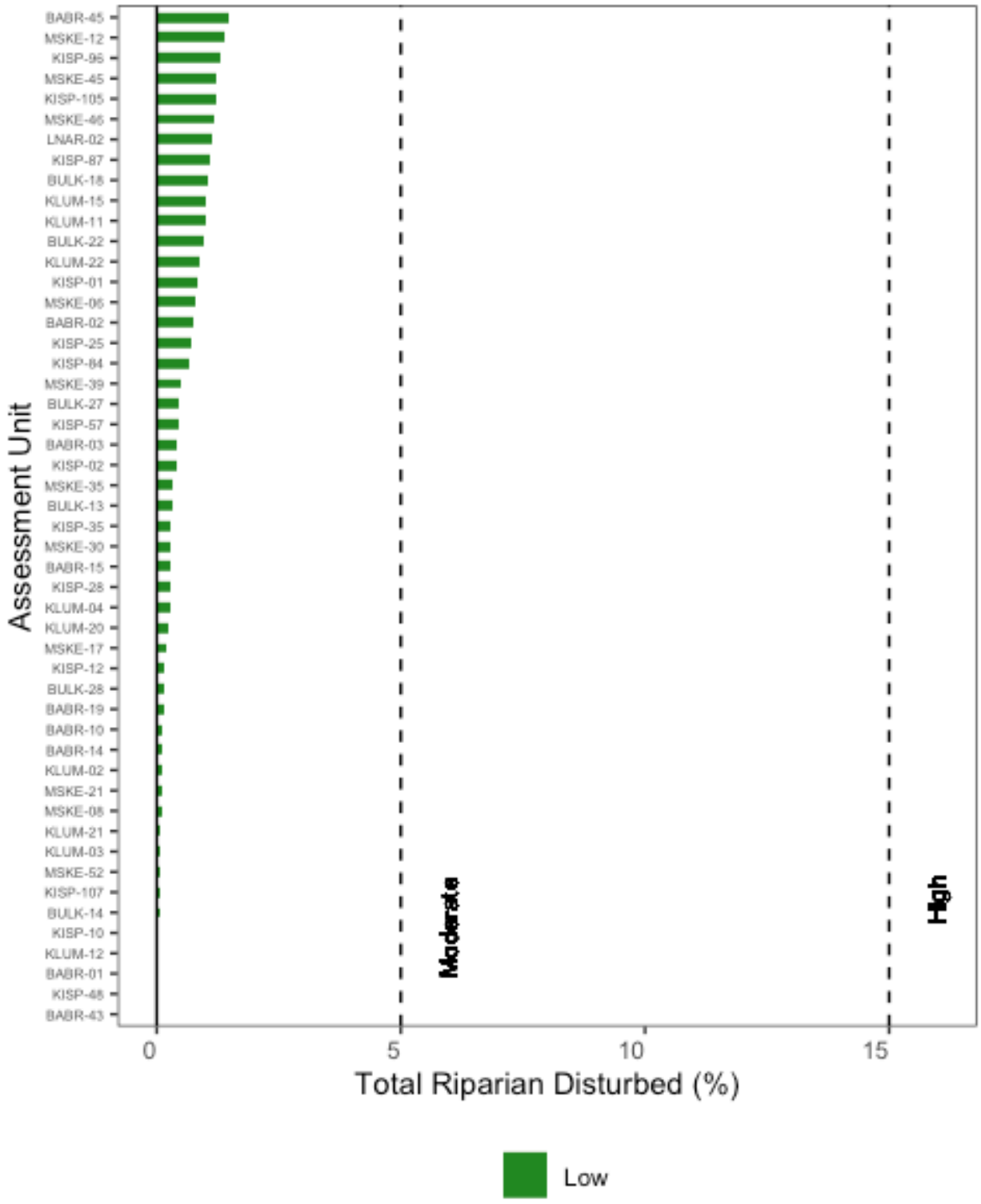
BULK-03
KISP-78
MSKE-49
BABR-47
KISP-63
LNAR-08
Assessment Unit
0
5
10
15
Total Riparian Disturbed (%)
Moderate
High
Low
Moderate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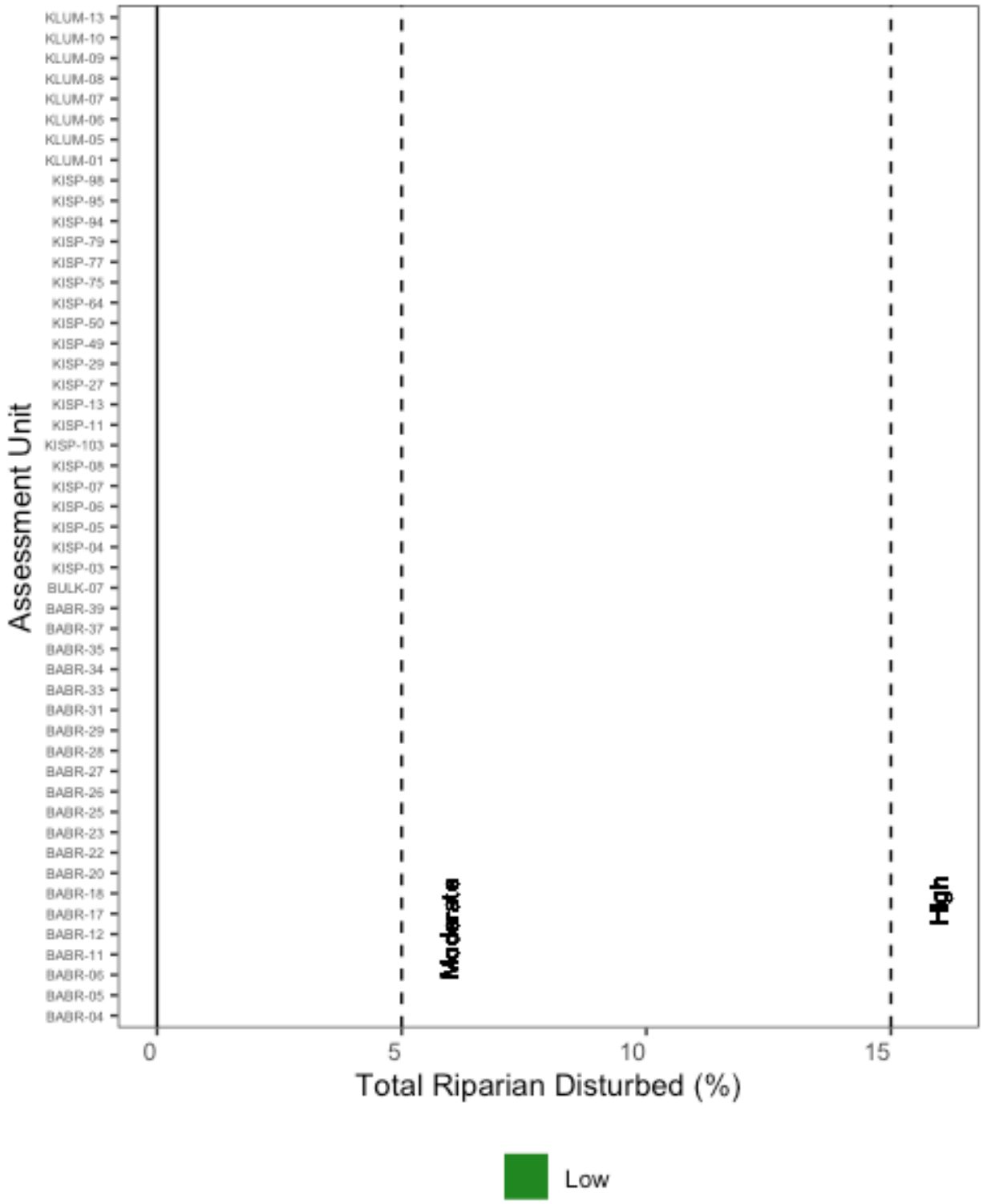
Assessment Unit
0
5
10
15
Total Riparian Disturbed (%)
Moderate
High
Low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BABR-11
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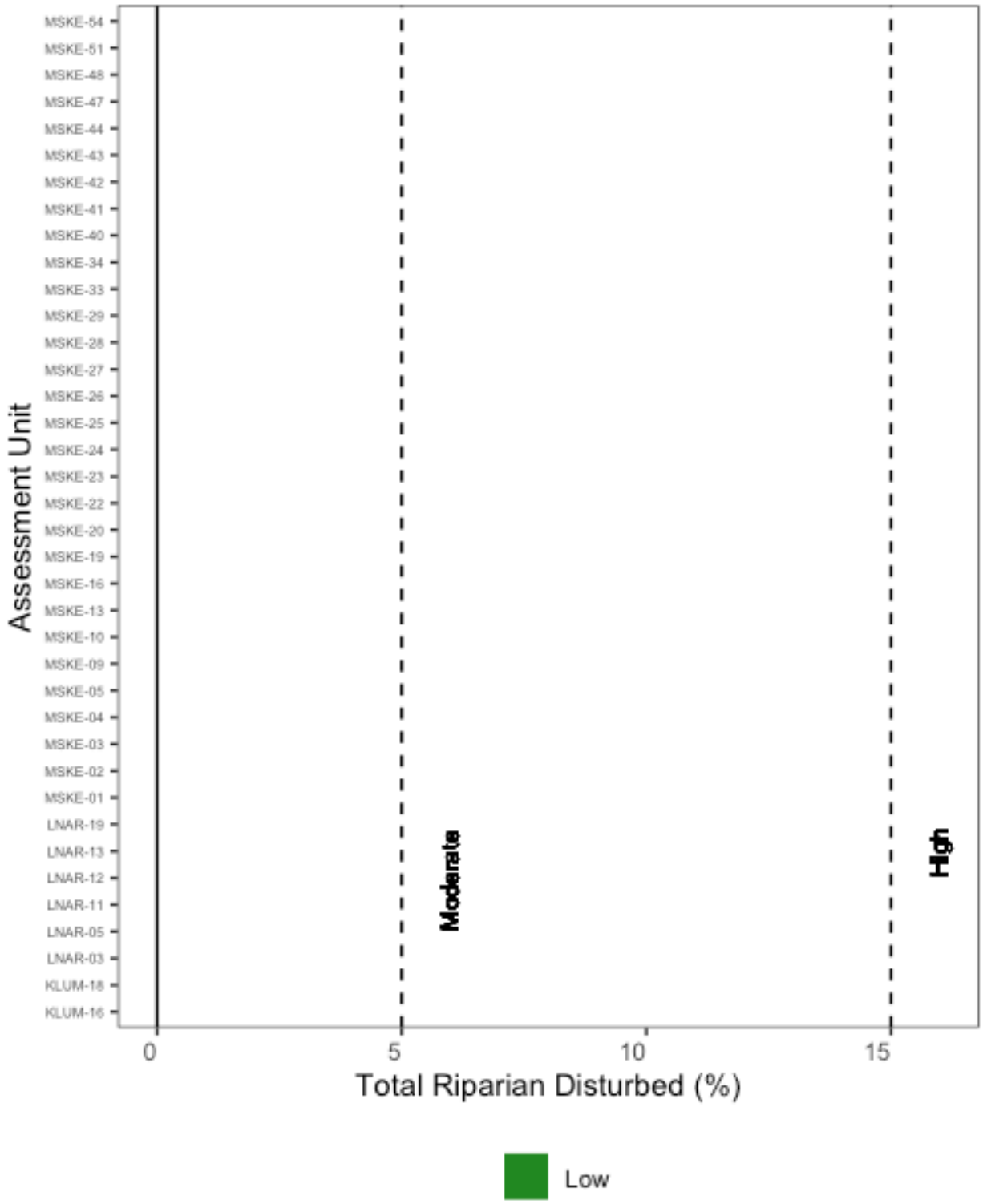
Assessment Unit
Moderate
High
0
5
10
15
Total Riparian Disturbed (%)
Low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LNAR-11
LNAR-05
LNAR-03
KLUM-18
KLUM-16
Assessment Unit
0
5
10
15
Total Riparian Disturbed (%)
Moderate
High
Low

Appendix E: Riparian Habitat Characterization

Results of stream and river riparian characterization based on the Fish Habitat and Road Crossings Model (BC MECCS, 2019). Characterized habitat type is provided for context only and is not related to riparian disturbance in this analysis.

Reference AU	Sub-watershed Name	FWA FID	Total Area (km^2)	Riparian Area by Type (km^2)			Total Stream Riparian (km^2)	Stream Riparian as % of Total Area
				Fish Presence Observed	Fish Presence Inferred	No Fish Presence Inferred		
BABR-01	Sam Green Creek	424	51.41	0.17	0.22	7.79	8.18	15.92
BABR-02	Damsumlo Creek	433	59.43	0.35	2.53	8.07	10.94	18.41
BABR-03	Shedin Creek	436	48.48	0.05	0.33	9.16	9.54	19.68
BABR-04		429	25.00	0.10	0.39	3.09	3.59	14.34
BABR-05	Shedin Creek	435	61.63	1.01	0.23	8.03	9.28	15.06
BABR-06		434	38.12	0.00	0.36	6.59	6.95	18.23
BABR-07	Babine River	423	40.04	1.22	0.01	4.07	5.30	13.24
BABR-08	Babine River	492	62.22	0.38	0.03	5.38	5.78	9.30
BABR-09	Shedin Creek	426	73.86	1.12	0.70	8.83	10.66	14.43
BABR-10	Shegisic Creek	425	98.45	0.08	1.13	10.23	11.44	11.62
BABR-11		432	25.74	0.01	0.03	4.56	4.61	17.89
BABR-12	Rosenthal Creek	431	91.95	0.13	1.03	13.29	14.45	15.72
BABR-13	Goathead Creek	427	37.83	0.00	1.24	4.11	5.35	14.15
BABR-14		437	25.91	0.00	0.00	3.24	3.24	12.51
BABR-15		439	22.06	0.00	0.02	2.76	2.78	12.60
BABR-16	Shahnagh Creek	461	63.26	0.00	1.86	5.35	7.22	11.41
BABR-17	Sperry Creek	430	54.23	0.07	0.66	7.30	8.04	14.82
BABR-18		428	40.13	0.15	0.14	5.52	5.81	14.47
BABR-19	Thomlinson Creek	440	82.86	0.86	0.46	6.33	7.65	9.23
BABR-20	Shenismike Creek	438	45.51	0.18	0.05	6.32	6.55	14.39
BABR-21	Babine River	493	73.51	1.24	0.28	9.74	11.27	15.33
BABR-22	Shelagyote River	456	48.30	0.67	1.37	3.75	5.79	11.98

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BABR-23		449	71.44	0.43	1.09	9.27	10.79	15.10
BABR-24	Babine River	494	60.65	0.25	0.16	6.64	7.05	11.63
BABR-25	Cayuse Jack Creek	448	30.36	0.50	0.18	3.99	4.66	15.36
BABR-26	Shelagyote River	455	77.32	1.84	3.08	10.18	15.10	19.53
BABR-27		446	31.02	0.17	0.29	5.07	5.53	17.81
BABR-28		441	23.39	0.00	0.15	1.87	2.01	8.61
BABR-29		453	53.77	0.30	1.19	5.80	7.29	13.55
BABR-30	Le Clair Creek	443	33.99	0.08	0.39	5.09	5.56	16.37
BABR-31	Shelagyote River	454	35.97	0.73	1.63	4.92	7.28	20.24
BABR-32	Gail Creek	442	92.08	0.00	1.20	8.13	9.33	10.13
BABR-33		452	25.69	0.03	0.86	2.42	3.31	12.90
BABR-34	Barger Creek	451	64.93	0.87	1.37	7.38	9.62	14.82
BABR-35		450	29.62	0.04	1.39	3.15	4.57	15.44
BABR-36	Shelagyote River	445	81.34	1.20	1.93	6.19	9.33	11.47
BABR-37		447	27.67	0.05	1.54	2.32	3.92	14.16
BABR-38		486	24.75	0.04	2.45	0.43	2.92	11.81
BABR-39		460	54.97	0.00	3.95	2.45	6.40	11.65
BABR-40	Babine River	495	41.81	1.25	0.90	2.80	4.95	11.83
BABR-41	Cataline Creek	444	39.81	0.30	1.40	1.33	3.04	7.63
BABR-42	Babine River	496	47.39	0.16	0.45	3.93	4.54	9.58
BABR-43	Hanawald Creek	458	87.27	0.29	7.19	3.37	10.85	12.43
BABR-44		457	32.07	0.00	1.01	2.77	3.78	11.78
BABR-45		459	32.14	0.00	3.11	0.09	3.19	9.94
BABR-46		485	27.92	0.21	0.65	2.27	3.12	11.18
BABR-47		482	46.24	0.85	0.94	3.78	5.57	12.05
BABR-48	Nichyeskwa Creek	487	37.47	1.08	1.99	0.86	3.93	10.48

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BABR-49	Nichyeskwa Creek	488	75.82	1.85	4.45	2.24	8.55	11.27
BULK-01	Denison Creek	1275	48.43	0.12	0.74	8.43	9.29	19.19
BULK-02	Suskwa River	1298	37.64	0.69	0.57	3.07	4.33	11.50
BULK-03	Harold Price Creek	1279	40.73	0.95	0.39	4.37	5.71	14.03
BULK-04		1276	23.95	0.08	0.47	5.13	5.67	23.67
BULK-05	Suskwa River	1299	49.78	0.48	0.31	5.38	6.17	12.39
BULK-06	Suskwa River	1300	50.81	0.07	0.64	5.96	6.67	13.12
BULK-07	Suskwa River	1301	54.65	0.00	1.60	4.79	6.39	11.70
BULK-08	Bulkley River	1267	48.69	1.01	0.00	3.86	4.87	10.00
BULK-09	Station Creek	1268	29.63	0.56	0.92	1.61	3.08	10.40
BULK-10	Bulkley River	1413	50.03	1.43	0.51	2.42	4.36	8.72
BULK-11	Two Mile Creek	1269	26.93	0.00	0.58	1.81	2.39	8.89
BULK-12	Mudflat Creek	1302	47.41	0.15	0.70	4.53	5.37	11.34
BULK-13	Porphyry Creek	1304	44.11	0.12	0.76	5.48	6.37	14.44
BULK-14	Nine Mile Creek	1270	26.52	0.00	0.22	3.87	4.09	15.42
BULK-15	Bulkley River	1414	49.43	0.13	0.49	1.60	2.22	4.50
BULK-16	Bulkley River	1415	39.18	1.24	0.69	1.22	3.15	8.03
BULK-17	Suskwa River	1271	26.13	0.99	0.01	1.32	2.31	8.86
BULK-18	Fifteen Mile Creek	1272	23.38	0.00	0.10	2.68	2.77	11.86
BULK-19	Iltzul Creek	1274	43.66	0.55	0.24	5.03	5.82	13.32
BULK-20	Corduroy Creek	1303	34.91	0.19	0.71	2.72	3.62	10.36
BULK-21	Bulkley River	1416	46.12	0.77	0.38	2.34	3.49	7.58
BULK-22	Luno Creek	1305	33.95	0.13	0.15	4.30	4.58	13.50

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BULK-23	Suskwa River	1296	20.30	0.03	0.00	1.74	1.78	8.77
BULK-24	Natlan Creek	1273	84.75	1.27	0.17	11.96	13.39	15.80
BULK-25	Kwun Creek	1307	30.73	0.00	0.36	2.43	2.79	9.08
BULK-26	Suskwa River	1297	30.26	0.31	0.01	3.74	4.06	13.43
BULK-27	Natlan Creek	1277	30.22	0.00	0.93	3.77	4.70	15.54
BULK-28		1278	21.06	0.00	0.11	2.80	2.91	13.82
KISP-01		6252	43.80	0.04	3.71	2.58	6.33	14.46
KISP-02		6255	23.32	0.12	1.62	1.04	2.78	11.94
KISP-03		6251	43.88	0.11	2.83	2.32	5.26	11.99
KISP-04	Kispiox River	6262	40.23	0.21	1.37	4.51	6.09	15.15
KISP-05	Stephens Creek	6250	56.57	0.23	2.47	2.08	4.78	8.45
KISP-06	Kispiox River	6261	48.91	1.30	2.19	3.54	7.03	14.37
KISP-07	East Kispiox River	6253	96.94	0.00	1.20	16.27	17.47	18.02
KISP-08		6256	38.99	0.00	0.70	7.57	8.27	21.21
KISP-09	Kispiox River	6260	72.48	2.11	1.97	3.96	8.04	11.09
KISP-10		6249	24.27	0.22	0.85	1.07	2.14	8.82
KISP-100	Skeena River	6283	69.00	0.27	0.00	4.07	4.34	6.29
KISP-101	Hevenor Creek	6226	62.79	1.03	4.19	1.55	6.78	10.80
KISP-102	Kispiox River	6257	75.33	0.53	3.42	0.58	4.53	6.02
KISP-103		6265	51.63	0.00	1.33	6.27	7.60	14.72
KISP-104	McCully Creek	6228	111.17	0.63	2.04	10.39	13.06	11.75
KISP-105	Utsun Creek	6270	39.41	0.00	0.18	6.08	6.26	15.88
KISP-106		6227	23.00	0.17	1.42	0.26	1.85	8.04
KISP-107		6186	33.46	0.00	0.42	3.99	4.41	13.19

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KISP-108		6193	20.27	0.00	0.26	2.56	2.82	13.89
KISP-11		6254	60.45	0.00	0.00	10.02	10.02	16.58
KISP-12		6248	22.25	0.05	0.42	2.62	3.09	13.87
KISP-13	Kispiox River	6263	106.02	0.00	2.77	15.13	17.90	16.88
KISP-14	Carrigan Creek	6273	44.91	0.14	0.72	5.51	6.37	14.18
KISP-15	Blackstock Creek	6275	43.50	0.00	0.03	6.42	6.45	14.83
KISP-16	Murder Creek	6231	40.63	0.72	2.25	1.45	4.42	10.89
KISP-17	Skeena River	6287	35.54	0.58	0.00	3.96	4.54	12.77
KISP-18	Skeena River	6286	30.87	0.61	0.02	2.78	3.41	11.03
KISP-19	Bretson Creek	6274	21.97	0.00	0.00	3.44	3.44	15.64
KISP-20	Skeena River	6285	61.32	0.93	0.15	6.19	7.26	11.85
KISP-21	Shewililba Creek	6272	36.63	0.00	0.00	4.34	4.34	11.84
KISP-22	Sediesh Creek	6271	42.46	0.00	0.18	4.53	4.71	11.09
KISP-23	Nangeese River	6247	87.17	1.94	2.11	6.59	10.63	12.20
KISP-24	Brown Paint Creek	6246	21.64	0.00	0.32	1.88	2.20	10.18
KISP-25	Sweetin River	6244	51.88	0.89	0.12	4.74	5.75	11.08
KISP-26	Sweetin River	6241	39.23	0.86	1.53	2.13	4.52	11.52
KISP-27	Sweetin River	6245	48.42	0.14	0.51	6.98	7.64	15.78
KISP-28		6242	77.46	0.00	1.98	9.51	11.48	14.83
KISP-29		6243	27.89	0.16	0.54	3.87	4.57	16.39
KISP-30	Kispiox River	6259	117.93	3.73	3.12	8.08	14.93	12.66
KISP-31	Clifford Creek	6239	24.21	0.45	0.99	1.45	2.89	11.95

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KISP-32	Steep Canyon Creek	6240	36.61	0.25	0.71	3.46	4.42	12.07
KISP-33	Kispiox River	6258	35.86	0.32	1.71	0.15	2.18	6.08
KISP-34	Skunsnat Creek	6238	26.47	0.62	1.04	1.41	3.07	11.61
KISP-35	McCully Creek	6230	33.29	0.00	0.00	5.14	5.14	15.44
KISP-36	Corral Creek	6237	28.69	0.47	0.60	2.53	3.60	12.54
KISP-37	Ironside Creek	6236	66.26	2.11	3.37	1.71	7.18	10.83
KISP-38	Cullon Creek	6233	33.56	0.25	1.59	2.03	3.87	11.54
KISP-39	Cullon Creek	6232	81.61	1.55	4.07	4.39	10.02	12.28
KISP-40		6235	30.70	0.60	2.43	0.05	3.08	10.03
KISP-41		6234	37.94	0.42	1.88	0.54	2.85	7.50
KISP-42	Skeena River	6281	69.60	1.61	2.00	2.64	6.24	8.96
KISP-43	Shegunia River	6264	48.20	1.13	0.10	3.80	5.03	10.44
KISP-44	Skeena River	6284	38.61	0.80	0.00	2.92	3.72	9.63
KISP-45	Pinenut Creek	6269	24.84	0.00	0.52	1.99	2.50	10.07
KISP-46	Shegunia River	6266	43.44	0.22	0.12	5.29	5.63	12.96
KISP-47	Shegunia River	6267	34.82	0.00	0.53	2.79	3.32	9.53
KISP-48	Shegunia River	6268	83.75	0.00	2.21	8.54	10.75	12.83
KISP-49	Kitsuns Creek	6212	35.39	0.54	0.57	4.87	5.98	16.91
KISP-50		6211	51.59	0.47	0.30	6.47	7.23	14.02
KISP-51	Kitseguecla River	6217	33.88	0.32	0.30	4.07	4.68	13.82
KISP-52	Kitsuns Creek	6206	76.76	1.23	0.08	8.96	10.26	13.37
KISP-53		6207	64.75	0.36	0.45	7.64	8.45	13.04
KISP-54		6213	26.07	0.70	0.64	1.15	2.49	9.54

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KISP-55		6209	20.17	0.02	0.07	2.88	2.97	14.73
KISP-56	Kitseguecla River	6216	34.35	0.65	0.06	2.94	3.65	10.62
KISP-57		6208	27.82	0.00	0.02	3.62	3.64	13.08
KISP-58		6204	57.80	0.08	0.16	7.26	7.51	12.99
KISP-59	Kitseguecla River	6201	22.15	0.95	0.01	0.77	1.72	7.78
KISP-60	Kitseguecla River	6215	22.58	0.00	0.29	1.19	1.48	6.57
KISP-61	Deep Canyon Creek	6205	25.58	0.03	0.50	2.44	2.97	11.60
KISP-62	Skeena River	6278	42.24	1.05	0.08	4.94	6.07	14.38
KISP-63	Juniper Creek	6202	60.50	0.55	0.30	5.95	6.81	11.25
KISP-64	Brian Boru Creek	6203	32.22	0.00	0.21	3.39	3.60	11.18
KISP-65	Skeena River	6279	64.72	1.35	0.93	4.40	6.68	10.32
KISP-66	Andi Creek	6200	20.44	0.00	2.29	0.24	2.53	12.36
KISP-67		6182	52.71	0.15	5.63	0.19	5.98	11.35
KISP-68	Chicago Creek	6221	21.01	0.22	0.39	1.24	1.85	8.83
KISP-69	Skeena River	6280	44.15	0.08	0.43	3.30	3.80	8.61
KISP-70	Burdick Creek	6219	78.51	0.14	1.56	6.54	8.24	10.49
KISP-71	Hazelton Creek	6222	41.68	0.12	1.15	3.73	5.00	12.00
KISP-72	Burdick Creek	6220	37.89	0.00	0.95	3.59	4.54	11.98
KISP-73	Skeena River	6282	45.79	0.01	0.43	3.73	4.17	9.10
KISP-74	Date Creek	6224	87.75	0.47	1.10	11.21	12.79	14.57
KISP-75	Kitwancool Creek	6189	40.26	0.00	0.34	5.37	5.71	14.18
KISP-76	Kitwanga River	6198	66.48	0.96	0.82	5.39	7.17	10.78
KISP-77	Kitwancool Creek	6188	50.99	0.26	0.62	5.23	6.11	11.99
KISP-78		6185	37.18	0.22	0.62	4.13	4.97	13.37

eclipse GEOMATICS

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KISP-79		6187	24.07	0.00	0.24	2.82	3.06	12.72
KISP-80	Kitwanga River	6197	33.78	0.03	0.98	2.96	3.96	11.72
KISP-81	Kitwancool Creek	6184	60.58	0.98	0.31	5.94	7.23	11.93
KISP-82	Mill Creek	6179	63.11	1.18	0.62	5.18	6.98	11.06
KISP-83		6180	27.47	0.40	0.40	2.29	3.08	11.22
KISP-84	Deuce Creek	6183	31.89	0.49	0.28	2.89	3.66	11.49
KISP-85	Skeena River	6277	100.62	0.38	1.06	6.12	7.56	7.51
KISP-86	Skeena River	6276	32.07	0.33	0.36	1.67	2.36	7.35
KISP-87		6178	85.42	0.03	0.54	7.82	8.39	9.83
KISP-88	Kitwanga River	6196	61.90	0.26	0.46	3.00	3.72	6.02
KISP-89	Moonlit Creek	6190	91.77	0.45	1.37	10.38	12.19	13.29
KISP-90	Kitwanga River	6195	42.28	0.43	0.39	3.17	3.99	9.43
KISP-91	Kitwanga River	6181	38.89	1.09	0.26	1.74	3.09	7.93
KISP-92	Kitwanga River	6194	94.23	0.66	1.02	7.03	8.70	9.24
KISP-93	Shandilla Creek	6199	45.24	0.01	1.04	4.29	5.35	11.83
KISP-94		6192	26.00	0.00	0.00	4.08	4.08	15.68
KISP-95		6191	20.07	0.00	0.34	3.25	3.59	17.89
KISP-96		6225	28.52	0.00	0.20	3.76	3.96	13.88
KISP-97		6229	23.72	0.24	0.35	2.73	3.33	14.03
KISP-98		6210	37.64	0.00	0.73	2.83	3.56	9.46
KISP-99	Kispiox River	6223	62.80	2.67	1.41	1.70	5.78	9.20
KLUM-01		6741	20.82	0.21	0.02	2.90	3.14	15.07
KLUM-02	Sedan Creek	6740	63.64	1.00	0.08	7.83	8.91	13.99
KLUM-03		6743	66.62	0.04	0.70	5.01	5.76	8.64
KLUM-04	Oliver Creek	6721	71.92	0.08	0.98	7.07	8.13	11.31

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KLUM-05	Oliver Creek	6723	38.80	0.00	0.25	4.89	5.14	13.24
KLUM-06	Oliver Creek	6722	40.47	0.00	0.47	1.64	2.11	5.22
KLUM-07		6736	39.29	0.01	0.12	6.09	6.22	15.83
KLUM-08		6734	49.34	0.07	0.21	5.55	5.83	11.81
KLUM-09		6735	22.14	0.00	0.06	2.05	2.10	9.51
KLUM-10		6742	36.67	0.00	0.06	4.54	4.60	12.55
KLUM-11	Wilson Creek	6738	30.88	0.30	0.32	2.57	3.19	10.32
KLUM-12	Lorne Creek	6727	76.37	0.43	0.02	7.23	7.67	10.05
KLUM-13	South Lorne Creek	6728	30.80	0.00	0.01	3.96	3.97	12.87
KLUM-14	Skeena River	6752	67.50	1.02	0.30	4.19	5.51	8.17
KLUM-15	Quill Creek	6729	74.47	0.11	0.00	5.88	5.99	8.05
KLUM-16	Quill Creek	6731	32.41	0.00	0.00	2.20	2.20	6.79
KLUM-17	Flint Creek	6732	24.90	0.04	0.00	1.53	1.57	6.29
KLUM-18		6730	22.13	0.00	0.00	1.86	1.86	8.39
KLUM-19	Skeena River	6754	38.26	1.16	0.10	1.22	2.49	6.50
KLUM-20	CoyoteCreek	6737	25.14	0.05	0.04	1.50	1.60	6.36
KLUM-21	Insect Creek	6733	89.68	0.82	0.03	7.87	8.72	9.73
KLUM-22		6739	22.46	0.00	0.06	1.84	1.90	8.46
KLUM-23	Skeena River	6755	50.29	0.07	0.41	2.59	3.08	6.12
KLUM-24	Skeena River	6753	40.39	0.44	0.24	1.28	1.96	4.85
LNAR-01	Cranberry River	9034	40.16	1.27	0.47	1.40	3.13	7.80
LNAR-02	Weber Creek	9025	63.18	0.56	0.67	7.42	8.65	13.69
LNAR-03		9027	31.75	0.00	0.08	4.50	4.58	14.41
LNAR-04		9024	20.68	0.36	0.06	1.20	1.61	7.80
LNAR-05		9026	22.83	0.00	0.10	3.24	3.33	14.61

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LNAR-06	Cranberry River	9033	117.46	1.57	1.98	10.77	14.32	12.19
LNAR-07	Tsugwinsel da Creek	9023	37.66	0.03	0.03	4.65	4.70	12.48
LNAR-08		9021	25.28	0.00	0.57	2.49	3.06	12.10
LNAR-09	Aluk Creek	9020	46.51	0.05	1.41	3.90	5.37	11.54
LNAR-10	Kiteen River	8998	83.65	2.55	0.45	6.25	9.26	11.07
LNAR-11		9029	46.97	0.00	0.48	7.44	7.91	16.85
LNAR-12		9028	41.90	0.00	0.11	4.89	5.00	11.92
LNAR-13	Cranberry River	9036	87.01	0.54	0.74	10.40	11.68	13.43
LNAR-14	Cranberry River	9035	39.72	0.77	0.02	3.73	4.52	11.37
LNAR-15	Weegett Creek	9022	22.38	0.00	1.19	1.21	2.41	10.75
LNAR-16	Nass River	9047	67.51	2.26	0.73	2.68	5.67	8.40
LNAR-17	Ginmiltkun Creek	9016	76.18	0.13	1.32	8.65	10.09	13.25
LNAR-18	Cranberry River	9031	90.18	1.39	1.67	7.20	10.26	11.37
LNAR-19		9017	23.62	0.00	0.09	4.14	4.22	17.88
LNAR-20	Cranberry River	9032	85.23	1.38	2.15	9.67	13.19	15.48
LNAR-21		9018	20.70	0.52	1.13	0.61	2.26	10.93
LNAR-22	Calmin Creek	9019	26.00	0.05	0.65	2.43	3.12	12.01
MSKE-01	Endless Creek	11076	57.26	0.00	1.16	9.69	10.85	18.94
MSKE-02	Sicintine River	11086	48.48	1.08	0.41	2.82	4.31	8.88
MSKE-03		11078	62.72	0.00	1.08	5.92	7.00	11.16
MSKE-04		11077	26.32	0.00	0.37	4.90	5.27	20.01
MSKE-05		11082	23.56	0.00	0.15	2.68	2.83	12.01
MSKE-06	Skeena River	11146	48.99	0.96	0.41	4.27	5.64	11.52
MSKE-07	Skeena River	11148	47.41	1.77	0.02	3.09	4.88	10.30
MSKE-08	Skeena River	11147	58.16	0.11	0.00	4.79	4.90	8.43

Reference AU	Sub-watershed Name	FWA FID	Total Area (km^2)	Riparian Area by Type (km^2)			Total Stream Riparian (km^2)	Stream Riparian as % of Total Area
				Fish Presence Observed	Fish Presence Inferred	No Fish Presence Inferred		
MSKE-09	Skeena River	11145	43.23	0.47	0.39	4.05	4.91	11.35
MSKE-10	Sicintine River	11070	46.74	0.87	0.15	4.24	5.26	11.26
MSKE-11	Sicintine River	11083	68.27	0.85	0.79	7.76	9.41	13.78
MSKE-12		11068	23.12	0.00	0.01	3.73	3.74	16.17
MSKE-13		11071	24.40	0.00	0.24	2.92	3.16	12.93
MSKE-14		11072	23.32	0.00	0.72	1.69	2.41	10.32
MSKE-15	Sicintine River	11084	72.07	1.07	0.51	9.46	11.04	15.31
MSKE-16		11075	28.05	0.00	0.54	3.27	3.81	13.58
MSKE-17	Tommy Jack Creek	11074	91.17	0.78	1.12	8.89	10.79	11.84
MSKE-18		11073	44.85	0.00	1.20	4.74	5.94	13.24
MSKE-19		11080	35.90	0.00	0.03	4.65	4.69	13.06
MSKE-20		11079	43.25	0.00	0.52	4.38	4.90	11.33
MSKE-21	Sicintine River	11085	36.10	0.63	0.11	2.76	3.50	9.69
MSKE-22		11081	35.59	0.00	0.80	2.57	3.37	9.46
MSKE-23		11059	65.73	0.00	1.09	12.80	13.89	21.13
MSKE-24		11058	27.97	0.00	0.72	4.69	5.42	19.36
MSKE-25	Calamity Creek	11055	91.55	0.00	1.67	13.31	14.98	16.37
MSKE-26	Sheladamus Creek	11088	48.70	0.00	0.05	7.18	7.23	14.85
MSKE-27	O'Dwyer Creek	11091	41.60	0.00	0.33	5.59	5.92	14.23
MSKE-28	Poison Creek	11089	27.53	0.00	0.38	3.77	4.15	15.08
MSKE-29		11090	25.21	0.00	0.07	3.51	3.58	14.19
MSKE-30		11069	32.01	0.01	0.10	5.39	5.50	17.19
MSKE-31	Skeena River	11139	60.04	1.56	0.02	9.07	10.65	17.74
MSKE-32	Skeena River	11143	55.70	1.09	0.02	5.16	6.28	11.27
MSKE-33	Skeena River	11141	52.48	0.66	0.37	5.92	6.94	13.23

Reference AU	Sub-watershed Name	FWA FID	Total Area (km^2)	Riparian Area by Type (km^2)			Total Stream Riparian (km^2)	Stream Riparian as % of Total Area
				Fish Presence Observed	Fish Presence Inferred	No Fish Presence Inferred		
MSKE-34		11048	23.98	0.00	0.03	4.16	4.19	17.48
MSKE-35	Larkworthy Creek	11065	60.87	0.16	0.25	7.65	8.06	13.25
MSKE-36	Skeena River	11144	35.99	0.11	0.05	3.32	3.48	9.67
MSKE-37		11067	23.41	0.01	0.00	3.64	3.65	15.58
MSKE-38	Skeena River	11140	35.09	0.14	0.03	4.68	4.86	13.84
MSKE-39		11066	24.04	0.00	0.00	3.39	3.39	14.10
MSKE-40	Kuldo Creek	11064	46.77	0.30	0.91	7.11	8.33	17.81
MSKE-41		11060	20.32	0.00	0.16	3.03	3.19	15.71
MSKE-42	Kuldo Creek	11063	33.79	0.49	0.34	4.19	5.02	14.86
MSKE-43		11057	37.52	0.00	1.11	6.35	7.47	19.90
MSKE-44	Kuldo Creek	11062	56.41	0.65	0.49	7.09	8.23	14.59
MSKE-45		11052	58.36	0.00	0.45	7.36	7.81	13.39
MSKE-46	Kuldo Creek	11053	57.62	1.38	0.45	6.21	8.05	13.96
MSKE-47		11054	54.36	0.00	0.13	10.13	10.26	18.88
MSKE-48		11051	34.68	0.00	0.41	5.07	5.49	15.82
MSKE-49	Kuldo Creek	11061	58.40	0.36	0.10	8.69	9.16	15.68
MSKE-50	Deep Canoe Creek	11049	53.85	0.73	0.42	5.81	6.95	12.92
MSKE-51		11056	51.81	0.00	0.85	8.88	9.73	18.77
MSKE-52		11050	20.56	0.01	0.22	2.18	2.41	11.74
MSKE-53	Skeena River	11142	31.31	0.02	0.03	3.54	3.60	11.48
MSKE-54	Sicintine River	11087	44.91	0.19	2.07	4.14	6.41	14.26
NASR-01		11840	28.26	0.00	0.66	1.64	2.30	8.14
NASR-02	Derrick Creek	11839	56.34	0.00	1.53	4.04	5.58	9.90
NASR-03	Nass River	11879	35.43	0.72	0.02	3.14	3.88	10.96