GeoBC

PROVINCIAL HUMAN DISTURBANCE DATASET DOCUMENTATION

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INTRODUCTION

The provincial human disturbance dataset (previously known as the Cumulative Effects Framework Human Disturbance) aims to create a consolidated footprint of human activity on British Columbia's landscape. It is intended to support landscape-level (coarse) analysis.

The dataset captures disturbances from the resource industries (mining, oil and gas, forestry), infrastructure (power and railways), urban development, recreation, and agriculture. It does not capture road or natural (wildfire or pests) disturbances. Road disturbance is captured in the complementary dataset (integrated roads), which is available through the DataBC Catalogue.

All methodologies are reproducible and are from publicly accessible data with varying levels of quality, accuracy, and completeness.

METHODOLOGY

The human disturbance analysis is a flattened representation in which disturbance is reported hierarchically by permanence. More permanent and/or current disturbances (forestry only) are given higher ranks than less permanent or older disturbances. When two disturbance types overlap, the more permanent takes priority.

Human disturbance categories and ranks are outlined in the table below.

Rank	Disturbance Type	Disturbance Subtype	Description
1	Mining and Extraction	Vegetation Composite Rank (VRI) Mining	VRI - Gravel pits, mines, rubbly mine spoils, mine tailings (>= 20% cover)
		Baseline Thematic Mapping (BTM)	BTM - Mining - mineral extraction or quarry
		** Regional Mine – Notice to Work	Regional Mines with disturbed land and quarry operations
		**Major Mine – Permit Area	Major Mining permits, excluding "Not Started."
2	Railway and Infrastructure	Railway BC (outside of the Northeast)	GeoBase - Rail lines buffered by 7.5m
		Railway BC Northeast)	GeoBase - Rail lines buffered by 17.5m
		**Open Street Map Aero way	Physical infrastructure supporting aircraft and spacecraft travel.
3	Oil and Gas	Infrastructure	OGC - Oil and Gas pipelines, well facilities, and ancillary features
4	Power	Dams	Water - Linear dams, buffered by 25m

		**Flooded Reservoirs	Known flooded reservoirs Peace-Williston and Columbia-Kootenay (BC Hydro, FWCP source), Nechako (In-house product - digitized from old paper maps), Site C - FWA river, plus estimated fill boundary from 2020 (In-house)
		Transmissions	GeoBase - Transmission lines, buffered to 12.5 m
		**Wind Turbines	Windpower lease tenures
5	Right of Ways	Surveyed Right of Way	Tantalis - Surveyed rights-of-way - including private and some crown
		Crown Right of Way	Tantalis - Surveyed rights-of-way - crown
6	Built-up	**Natural Resource Canada Land Class	Urban class derived from the 2020 NRCAN land cover classification of Canada. It has been cleaned to remove the influence of roads
7	Recreation	**Ski Resort	Included both Ski Resorts reported in the BTM and manually digitized resorts
		**Golf course	Manual digitization of the golf course near Smithers which is missing from the Greenspaces dataset
		**Golf course - Greenspaces	Golf courses reported in the Greenspaces dataset
8	Oil and Gas	Seismic	OGC Geophysical represents seismic survey activity in NE B.C. from the Oil & Gas industry. The disturbance from these surveys type are cutlines in the vegetation cover. Airborne surveys were not considered a disturbance.
9	Cut blocks	Current Cut blocks	Forest Analysis and Inventory Branch (FAIB) Forest harvesting cut blocks within 20 years. Excludes select in-block reserves
		Historic Cut blocks	FAIB - Forest harvesting cut blocks from longer than 20 years ago). Excludes select in cut block reserves
		Historic Cut blocks – Baseline Thematic Map	Historically logged (>20 years old) or selectively logged areas. Does not consider in-cut block reserves
10	Agriculture	VRI Clearing	VRI - Clearings and agricultural areas - clearings are undifferentiated (type may vary)
		**Predictive Ecosystem Mapping	Predictive ecosystem mapping for agriculture
		**Natural Resource Canada Land Class	Croplands class derived from the 2020 NRCAN land cover classification of Canada
		Baseline Thematic Map	BTM Agriculture within the Agriculture Land Reserve
11	**Shoreline	Docks	Dock Tenures
		Aquaculture	Aquaculture Tenures
12	**Built up Mixed	VRI Built up	VRI - Urban and built-up areas (>= 20% cover)

*** indicates new 2025 data sources or new categories*

HISTORY

In 2015, the Cumulative Effects Framework (CEF) completed the first run of a consolidated human disturbance footprint. Since 2019, the analysis has been run every two years (2015, 2019, 2021, 2023, 2025). With each run, the analysis was reviewed for possible improvements.

In 2025, an extensive review of all input data sources was completed. This review led to numerous changes in data sources. When comparing the 2025 run to previous runs, it is essential to note that some changes are primarily due to source updates and do not represent actual disturbance.

In 2025, GeoBC assumed ownership, recognizing that a human disturbance dataset is foundational to a wide range of natural resource analysis and assessments.

2025 SOURCE DATA REVIEW

In 2025, a detailed review of the input datasets to the provincial human disturbance data product was completed. During this progress:

- All input data was reviewed for accuracy and completeness
- Existing definition queries were updated as appropriate
- New dataset sources were incorporated to improve the end-product accuracy

As a result of the review:

- 6 (of the 10 existing) disturbance groups had input improvements applied
    - Mining and Extraction, Rail and Infrastructure, Power, Built up, Recreation & Agriculture
- 1 (of the 10 existing) disturbance groups had subgrouping refinements
    - Oil and Gas Infrastructure
- 2 new disturbance groups were added
    - Shoreline
    - Built-up Mixed
- Overall, there was a reduced reliance on static data from the 1990s (Baseline Thematic Map) from 26% to 16% of the total disturbance
    - Of the 16% still reliant on the BTM, 85% represents historical cut blocks.
- All-natural land base information was removed, and only the disturbance is now represented. Land base information (Forest Reserves, Range Lands, Forest Land, Shrubs, Wetland and Estuaries, Freshwater, Saltwater, Alpine, Sub Alpine, Barren, and Glaciers) should not be the primary source of natural land base information

SOURCE CHANGE IMPACTS

Some of the observed changes between 2023 and 2025 are due to source changes and do not represent real change. The table below outlines the driving force behind the change for each category. Subcategory changes are captured in the appendix.

Grouping	2025 Area (HA)	2023 Area (HA)	Percent Change	Change Driver
Mining and Extraction	132,274	83,445	59	Addition of Major and Regional Mines, which represented 34 and 3 percent, respectively, of the 2025 mining
Rail and Infrastructure	22,965	15,675	47	Airport source change to Open Street Maps (OSM), Aeroway from Baseline thematic. OSM Aero ways representing 40% rail and infrastructure
Oil and Gas Infrastructure	119,531	113,557	5	No source change in 2025
Power	327,992	54,775	499	The addition of the new subcategory, Flooded reservoirs, drives 83% of the reported increase
Right of Ways	88,805	101,988	-13	No source change in 2025
Built -up	266,979	535,003	-50	The main driver of the decrease is moving the VRI built-up from this main Built-up category to a lower-ranked "Built-up Mixed."
Recreation	22,243	21,753	2	Increase due to the addition of two new sub-categories representing golf courses
Oil and Gas Geophysical	208,289	209,392	-1	No source change in 2025
Cut blocks	12,351,147	11,940,381	3	No source change in 2025
Agriculture and Clearing	1,208,255	1,217,309	-1	Change due to the addition of two new sources, Natural Resource Canada Land class cropland category, and Predictive Ecosystem Mapping
Shoreline	6,403	-		New categories in 2025
Mixed Built-up	121,294			New category in 2025, data previously captured in the main Built-up categories. Reducing the rank of this data, allows for more detail in recreation, oil and gas geophysical, cut blocks, agriculture and shoreline to be captured.

DATA CONSIDERATIONS

BC Crown Land Tenure Data – Tenure data reflects an area licensed for a particular activity but does not represent disturbance footprints. For example, mineral tenures may encompass a much larger area than where mining extraction activity occurs. For this reason, the majority of BC Crown Land tenure polygons were purposely excluded from the Human Disturbance dataset. There are some exceptions (rights-of-way, aquaculture, and docks), as these data inputs could result in overestimation or underestimation.

2. Roads – The Human Disturbance dataset does not include roads. Road information is captured in a complementary Integrated roads dataset, which is available via the DataBC Catalogue. This stand-alone road dataset allows roads to be treated uniquely and enables more efficient data processing.

3. Baseline Thematic Mapping (BTM) – Although the BTM data layer has been revised in specific portions of British Columbia, full and consistent coverage of the entire province was only available in BTM version 1 (circa 1995). All BTM data included reflects the 1995 land base.

4. Oil & Gas Seismic Lines – Seismic lines are quite extensive in the Northeast Natural Resource Region of British Columbia. However, in many cases, seismic lines may be less permanent on the landscape than the data represents. A fuller understanding of the permanence and vintage of seismic lines in Northeast B.C. will help advise whether they should be included in future versions of this dataset. The use of digging trenches to put down seismic line equipment is in decline, in favour of less invasive means of measuring subsurface materials. It remains to be seen when seismic lines will no longer contribute to surface disturbance (removal of bushes, trees, etc.).

DISCLAIMER

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This information has been created using available data sources and may not reflect actual existing on the ground conditions. This data is designed to support provincial-scale, coarse GIS analysis. This data is not designed to support site-specific decision-making. This data is merely a starting point for conversations about human activity and has many identified gaps when compared to satellite imagery of current land use

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APPENDIX

APPENDIX 1: 2025 SUBGROUP CHANGES

Disturbance Group	2025 Disturbance Sub Group	2025 Area (ha)	2023 Disturbance Sub Group	2023 Area (ha)	Group % Change	Sub Group % Change	Change Drivers between 2023 and 2025
Mining and Extraction	VRI Mining	46,089	VRI Mining	23,263	59%	98%	** RANK CHANGE. The increase is due to a change in sub rank for VRI mining from 2 to 1. The source dataset did not see a significant change. The VRI mining input data showed a 3% increase
	Baseline Thematic Mapping	38,141	BTM	60,182		-37%	The decrease is due to a change in sub rank for BTM mining from 1 to 2. There was no change to the input data
	Regional Mine - Notice of Work	3,465	****	****		****	***NEW SUB GROUP. Regional mines are the secondary change driver. Regional Mines Notices of Work represents 3% of the total disturbance from mining in the 2025 dataset
	Major Mine - Permit Area	44,578	****	****		****	***NEW SUB GROUP. Major mines are the main change driver. Major Mine Permit Areas represent 34% of the total disturbance from mining in the 2025 dataset
Rail and Infrastructure	Railway BC	11,364	Railway BC	11,380	47%	0%	No changes in the data source
	Railway NEBC	2,312	Railway NEBC	2,312		0%	No changes in the data source
	OSM Aeroway	9,289	VRI Airports	1,983		368%	***NEW SOURCE. Open Street Maps (OSM) Aeroway is the main change driver. OSM Aeroways represents 40% of the total disturbance from infrastructure in 2025
Oil and Gas Infrastructure	ANCILLARY	15,019	Surface Land Use NoGeo	113,557	5%	*****	***NEW SUB GROUP. In 2025, the Infrastructure category was divided into three subcategories. Represents no new data source. Sub-category input showed a 12% increase between 2023 and 2025
	PIPELINE	65,123	*****	*****		*****	***NEW SUB GROUP. In 2025, the Infrastructure category was divided into three subcategories. Represents no new data source. Sub-category input showed a 5% increase between 2023 and 2025
	WELLSITE_FACILITY	39,390	*****	*****		*****	***NEW SUB GROUP. In 2025, the Infrastructure category was divided into three subcategories. Represents no new data source. Sub-category input showed a 4% increase between 2023 and 2025
Power	Dams	1,511	Dams	1,237	499%	22%	No changes in the data source
	Flooded Reservoir	273,739	*****	*****		*****	***NEW SUB GROUP. The addition of Flooded Reservoirs is the main change driver. Flooded Reservoirs represent 83% of the total disturbance from Power in the 2025 dataset
	Transmission	51,774	Transmission	53,539		-3%	No changes in the data source
	Wind Turbines	969	*****	*****		*****	***NEW SUB GROUP. A small portion of the Power category, representing less than 1% of the total disturbance from Power in the 2025 dataset
Right of Ways	Surveyed ROW	75,085	Surveyed ROW	71,356	-13%	5%	No changes in the data source
	Crown ROW	13,712	Crown ROW	30,632		-55%	No changes in the data source
Built Up	NRCAN Landclass	266,979	Baseline Thematic Mapping	416,138	-50%	-36%	***NEW SOURCE. The main built-up subcategory source changed from the Baseline Thematic Map in 2023 to the NRCan Land Class in 2025. In 2023, the built-up category also included a secondary subcategory pulling from the VRI. In 2025, this subgroup was moved to a new overall disturbance category, "Built-up Mixed," lower in the overall disturbance hierarchy

Recreation	Ski Resort	20,950	BTM Recreation	21,753	2%	-4%	**NEW SOURCE. The main recreation subcategory source changed from the Baseline Thematic Map in 2023 to a custom ski resort-specific layer in 2025, which represents 94% of the overall recreation category
	Golf Course	1,247	*****	*****		*****	***NEW SUB GROUP. A small portion of the recreation category, only representing 6% of the total disturbance from recreation in the 2025 dataset
	Golf Course	46	*****	*****		*****	***NEW SUB GROUP. A small portion of the recreation category, representing less than 1% of the total disturbance from recreation in the 2025 dataset
Oil and Gas Seismic	SEISMIC	208,289	Surface Land Use Geophysical	209,392	-1%	-1%	No changes in the data source
Cut blocks	Current FAIB	4,007,878	Current FAIB	3,974,520	3%	1%	No changes in the data source
	Historic FAIB	6,244,180	Historic FAIB	5,775,153		8%	No changes in the data source
	Historic BTM	2,099,093	Historic BTM	2,190,707		-4%	No changes in the data source
Agriculture	VRI Clearing	121,503	VRI Clearing	23,498	-1%	417%	***RANK CHANGE. The increase is due to VRI clearing moving up to rank 1. The source dataset did not see a significant change. The VRI clearing input data showed a less than 1% decrease
	Predictive Ecosystem Mapping_TEI	385,934	*****	*****		*****	**NEW SOURCE. Predictive Ecosystem Mapping represents 32% of the overall agriculture category
	NRCAN Landclass	376,186	*****	*****		*****	**NEW SOURCE. NRCan Land class represents 31% of the overall agriculture category
	Baseline Thematic Mapping	324,634	Baseline Thematic Mapping	1,193,811		-73%	***RANK CHANGE. The decrease is due to the BTM moving down to rank 4 and the BTM being restricted to the current Agriculture Land Reserve. BTM data were spatially restricted to the current ALR to make the BTM more reflective of current agricultural activities
Shoreline	Docks	825	*****	*****	NA	*****	***NEW GROUP/SUBGROUP Docks represents 13% of the newly added Shoreline Category in 2025
	Aquaculture	5,576	*****	*****		*****	***NEW GROUP/SUBGROUP. Aquaculture represents 87% of the newly added Shoreline Category in 2025
Built Up Mixed	VRI Builtup	121,294	VRI Builtup	118,865	NA	2%	** NEW GROUP. VRI Built-up was moved from a sub ranking of Built-up to a new Built-up Mixed Category. This was done because the VRI built-up source is generalized, and by decreasing it in the hierarchy, all lower categories between Built-up, and the new built-up mixed are still visible

APPENDIX 2: DETAILED 2025 DATA REVIEW CHANGES BY GROUP

RANK 1: MINING AND EXTRACTION

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Baseline Thematic Mapping (Query: PRESENT_LAND_USE_LABEL = 'Mining')	Vegetation Resource Inventory Rank 1 ((Query: BCLCS_LEVEL_5 in ('GP','MI','MZ','TZ') or (BCLCS_LEVEL_5 is null and NON_PRODUCTIVE_DESCRIPTOR_CD = 'GR') or ((NON_VEG_COVER_TYPE_1 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_1 >= 20) or (NON_VEG_COVER_TYPE_2 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_2 >= 20) or (NON_VEG_COVER_TYPE_3 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_3 >= 20)) or ((LAND_COVER_CLASS_CD_1 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_1 >= 20) or (LAND_COVER_CLASS_CD_2 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_2 >= 20) or (LAND_COVER_CLASS_CD_3 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_3 >= 20)))	VRI mines moved to sub-rank 1 from sub-rank 2 **Reason for inclusion:** Likely the most accurate of the available data **Data Caveats:** Does not follow the disturbance area well
2	Vegetation Resource Inventory Rank 1 ((Query: BCLCS_LEVEL_5 in ('GP','MI','MZ','TZ') or (BCLCS_LEVEL_5 is null and NON_PRODUCTIVE_DESCRIPTOR_CD = 'GR') or ((NON_VEG_COVER_TYPE_1 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_1 >= 20) or (NON_VEG_COVER_TYPE_2 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_2 >= 20) or (NON_VEG_COVER_TYPE_3 in ('GP','MI','MZ','TZ') and NON_VEG_COVER_PCT_3 >= 20)) or ((LAND_COVER_CLASS_CD_1 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_1 >= 20) or (LAND_COVER_CLASS_CD_2 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_2 >= 20) or (LAND_COVER_CLASS_CD_3 in ('GP','MI','MZ','TZ') and EST_COVERAGE_PCT_3 >= 20)))	Baseline Thematic Mapping (Query: PRESENT_LAND_USE_LABEL = 'Mining')	BTM moved to sub-rank 2 from sub-rank 1 **Reason for inclusion:** Still contains useful data, but less accurate than VRI: degraded rank **Data Caveats:** Low spatial accuracy of the actual disturbance Data from the 1990s
3		Regional Mine - Notice of Work**NEW IN 2025 (Query: NOW_TOTAL_DISTURBED_AREA_HA > 1 And SAG_QUARRY_OPERATION_HA > 0.05)	Regional Mine: Notice of Work Integrated as a new sub rank 3 **Reason for inclusion:** Fills in potential gaps **Data Caveats:** Only includes data from 2013 onwards. The best data exists within the Northwest. Only considers quarries
4		Major Mine - Permit Area**NEW IN 2025 (Query: OP_STATUS_CODE <> 'NS')	Major Mines integrated as a new sub rank 4 **Reason for inclusion:** Fills in potential gaps **Data Caveats:** Only includes data from 2018 onwards Does not precisely follow the real disturbance Some manual reviews and interpretation

RANK 2: RAIL AND INFRASTRUCTURE

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Railway Track Line (divided into two groups: Northeast and the rest of B.C.)	Railway Track Line (divided into two groups: Northeast and the rest of B.C.)	No changes between 2023 and 2025 to sub-rank 1 **Reason for inclusion:** Authoritative dataset, result of a partnership between Natural Resources Canada, Transport Canada (TC), and the Railway Association of Canada (RAC) **Data Caveats:** Known gap in the rail network between Dawson Creek and the Alberta border
2	Airports *REMOVED in 2025 (Vegetation Resource Inventory Rank 1) Query: BCLCS_LEVEL_5 in ('AP') or ((NON_VEG_COVER_TYPE_1 in ('AP') and NON_VEG_COVER_PCT_1 >= 20) or (NON_VEG_COVER_TYPE_2 in ('AP') and NON_VEG_COVER_PCT_2 >= 20) or (NON_VEG_COVER_TYPE_3 in ('AP') and NON_VEG_COVER_PCT_3 >= 20)) or ((LAND_COVER_CLASS_CD_1 in ('AP') and EST_COVERAGE_PCT_1 >= 20) or (LAND_COVER_CLASS_CD_2 in ('AP') and EST_COVERAGE_PCT_2 >= 20) or (LAND_COVER_CLASS_CD_3 in ('AP') and EST_COVERAGE_PCT_3 >= 20))	Airports ***NEW in 2025** OSM Aeroway (Queried all 'aeroway' tag within extent using QuickOSM plugin in QGIS, select by location using ABMS Province of B.C.) Where: line features, buffered by aeroway tag: 15m for runway, taxiway 7.5)	Change in Airport Source **Reason for OSM aero way inclusion:** Showed higher accuracy than the previous source **Reason for VRI Airports removal:** infrequent update schedule. Notable airports are missing Urban areas are not the VRI focus **OSM Aeroway Data Caveats:** Risk in using crowd-sourced, open data, volunteer-verified data Update Frequency is unknown, but volunteer revisit time for given locations is roughly every 5 years

RANK 3: OIL AND GAS INFRASTRUCTURE

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	OGC_Infrastructure (SLU_DESC <> 'ROAD')	Well Sites BCER_Infrastructure (SLU_DESC <> 'ROAD' and SLU_DESC = 'WELLSITE_FACILITY')	Although there are no source changes between 2023 and 2025, the existing data source has been divided into three new subcategories (Facility, Ancillary, Pipeline). All subcategorizations are ranked the same Change in data source name from OGC (Oil and Gas Commission to BC Energy Regulator) **Reason for inclusion:** Composite data by the regulator of Oil and Gas operations **Data Caveats:** The BC Energy Regulator provides this data on an "as is" basis
1		Ancillary BCER_Infrastructure (SLU_DESC <> 'ROAD' and SLU_DESC = 'ANCILLARY')	New subcategory to reflect Oil and Gas Ancillary infrastructure
1		Pipeline BCER_Infrastructure (SLU_DESC <> 'ROAD' and SLU_DESC = 'PIPELINE')	New subcategory to reflect Oil and Gas Pipeline infrastructure

RANK 4: POWER

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	BC Dams	BC Dams	No changes between 2023 and 2025 **Reason for inclusion:** Best representation of Dams currently available **Data Caveats:** Linear dams buffered by 25m Updated on an as-needed basis
2	Transmission	Flood Reservoir *NEW in 2025	Flooded Reservoir integrated as a new sub rank 2 **Reason for inclusion:** To capture disturbance from manmade reservoirs **Data Caveats:** Custom layer developed in-house to capture manmade flooded reservoirs
3		Transmission (no query)	No change in source, but rank downgraded from sub rank 2 to sub rank 3 **Reason for inclusion:** Lines were derived from several data sources representing unique inventories: BC Hydro, FortisBC, Private, Independent Power Producers, and Terrain Resource Information Management (TRIM). **Data Caveats:** Updated on an as-needed basis
4		Wind Turbines *NEW in 2025 Crown tenures (def query: TENURE_STAGE = 'TENURE' AND TENURE_TYPE = 'LEASE' AND TENURE_PURPOSE = 'WINDPOWER' AND TENURE_TYPE <> 'RESERVE/NOTATION')	Wind Turbines integrated as a new sub rank 4 **Reason for inclusion:** Vertical disturbance may be significant **Data Caveats:** Data may overrepresent the footprint

RANK 5: RIGHT OF WAY

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Surveyed ROW no query)	Surveyed ROW no query)	No data source changes between 2023 and 2025 **Reason for inclusion:** Representation of active surveys that are or have been within the purview of the B.C. Crown Land Management program
2	Crown ROW (Query: TENURE_STAGE = 'TENURE')	Crown ROW (Query: TENURE_STAGE = 'TENURE')	No data source changes between 2023 and 2025 **Reason for inclusion:** Representation of Surveyed Right-of-way Parcels represented in this view can be used to support a variety of purposes, including, but not limited to, land use planning processes, statutory processes, and timber supply review processes

RANK 6: BUILT UP

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Baseline Thematic Mapping*REMOVED in 2025 PRESENT_LAND_USE_LABEL IN ('Urban', 'Residential Agriculture Mixtures')	2020 Land Classification **NEW IN 2025 Natural Resources Canada (query: Class = 17)	2020 NRCan Land Class Built-up class replaced BTM as the new sub rank 1 Urban renamed to "Built-up" **Reason for 2020 Land Class inclusion:** Provides a more updated view of urban activity **Reason for BTM removal:** Out-of-date information, more recent data available **Data Caveats:** 2020 NRCan Land Class Urban attribute has an accuracy value of 86.9% Urban is defined as urban and built-up areas that contain at least 30 percent or greater urban The dataset was created using remote sensing, along with supplementary information used to verify and improve accuracy

2	Vegetation Resource Inventory Rank 1 Built up (REMOVED from Built-up, but moved to a new lower-ranked grouping "Built-up Mixed) BCLCS_LEVEL_5 = 'UR' or (BCLCS_LEVEL_5 is null and NON_PRODUCTIVE_DESCRIPTOR_CD = 'U') or ((NON_VEG_COVER_TYPE_1 = 'UR' and NON_VEG_COVER_PCT_1 >= 20) or (NON_VEG_COVER_TYPE_2 = 'UR' and NON_VEG_COVER_PCT_2 >= 20) or(NON_VEG_COVER_TYPE_3 = 'UR' and NON_VEG_COVER_PCT_3 >= 20)) or ((LAND_COVER_CLASS_CD_1 = 'UR' and EST_COVERAGE_PCT_1 >= 20) or (LAND_COVER_CLASS_CD_2 = 'UR' and EST_COVERAGE_PCT_2 >= 20) or (LAND_COVER_CLASS_CD_3 = 'UR' and EST_COVERAGE_PCT_3 >= 20))		VRI Built was removed from the main Built-up category **Reason for the reduction in categorization:** VRI generalizes large built-up areas, decreasing the categorization allows for disturbances (recreation, cut blocks, & agriculture) that are classed between built-up and the new lower Built-up mixed category

RANK 7: RECREATION

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Recreation (*REMOVED in 2025) Baseline Thematic Mapping PRESENT_LAND_USE_LABEL = 'Recreation Activities'	Ski Resorts (*NEW in 2025) (manually developed layer)	Manually digitized Ski resorts integrated as a new sub rank 1 **Reason for inclusion:** To more accurately represent ski resorts **Reason for BTM removal:** Out of date information, more recent data available Underrepresents the actual land used for recreation Major ski resorts are only partially captured **Data Caveats:** Will require manual yearly review and updating
2		Golf Course (*NEW in 2025) (manually developed layer)	Manually digitized golf course integrated as a new sub rank 2 **Reason for inclusion:** To more accurately represent golf courses, not captured in the Greenspaces dataset **Data Caveats:** Will require manual yearly review and updating
3		Greenspaces (*NEW in 2025) PARK_PRIMARY_USE = 'Golf Course'	Greenspaces golf courses integrated as a new sub rank 3 **Reason for inclusion:** to more fully capture golf courses **Data Caveats:** Updated on an as-needed basis

RANK 8: OIL AND GAS GEOPHYSICAL

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	OGC_Geophysical (OGSLUDESC = 'GEOPHYSICAL')	BCER_Geophysical (OGSLUDESC = 'GEOPHYSICAL')	No data source changes between 2023 and 2025 Change in data source name from OGC (Oil and Gas Commission to BC Energy Regulator) **Reason for inclusion** Composite data by the regulator, Oil and Gas operations in B.C. **Data Caveats** Requests for this source data should be made directly to the BCER The BC Energy Regulator provides this data "as is"

RANK 9: CUTBLOCKS

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Current Consolidated Cut blocks HARVEST_MID_YEAR_CALENDAR >= 2003	Current Consolidated Cut blocks HARVEST_MID_YEAR_CALENDAR >= 2005	No data source changes between 2023 and 2025 **Reason for inclusion:** Best available **Data Caveats:** Harvest data from multiple sources to simplify data acquisition. The change detection model also provides potentially more up-to-date data than other means
2	Historical Consolidated Cut blocks HARVEST_MID_YEAR_CALENDAR < 2006	Historical Consolidated Cut blocks HARVEST_MID_YEAR_CALENDAR < 2005	No data source changes between 2023 and 2025 **Reason for inclusion:** Best available **Data Caveats:** Harvest data from multiple sources to simplify data acquisition
3	Baseline Thematic Mapping PRESENT_LAND_USE_LABEL IN ('Recently Logged', 'Selectively Logged')	Baseline Thematic Mapping PRESENT_LAND_USE_LABEL IN ('Recently Logged', 'Selectively Logged')	No data source changes between 2023 and 2025 **Reason for inclusion:** Contains features missing from FAIB historical cut blocks. The BTM “Recently Logged” legacy data will continue to be used until a better solution to tracking historic harvest can be found. As this data is from 1995, “recently logged” refers to the time of 1975-1995. **Data Caveats:** Only represents data from the mid-1990s and older

RANK 10: AGRICULTURE AND CLEARING

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Baseline Thematic Mapping **REMOVED IN 20205 PRESENT_LAND_USE_LABEL = 'Agriculture'	2020 Land Classification **NEW in 2025 (Class = 15)	NEW data integrated as a new sub rank 2 **Reason for inclusion:** More up-to-date data **Data Caveats:** The dataset was created using remote sensing, along with supplementary information used to verify and improve accuracy
2	Vegetation Resource Inventory Rank 1 NON_PRODUCTIVE_DESCRIPTOR_CD = 'C'	Predictive Ecosystem Mapping ** NEW in 2025 (SITEMC_S1 = 'CO' Or SITEMC_S1 = 'CF' Or SITEMC_S1 = 'CV' Or SITEMC_S1 = 'PA') And (SITE_S2 NOT IN ('Wb', 'Wf', 'Ws'))	NEW data integrated as a new sub rank 2 **Reason for inclusion:** Where available, it showed the highest accuracy **Data Caveats:** Not available for all of B.C.
3		Baseline Thematic Mapping PRESENT_LAND_USE_LABEL = 'Agriculture' (restricted to the ALR)	Reduced rank to Rank 3 **Reason for inclusion:** Still provides some Agriculture mainly in mixed urban areas. **Data Caveats:** Restricted to the current Agriculture Land Reserve as a way of modernizing the data
4		Vegetation Resource Inventory Rank 1 NON_PRODUCTIVE_DESCRIPTOR_CD = 'C'	VRI clearing -moved to sub-rank 2 from sub-rank 4 **Reason for inclusion:** Cleared areas are most clearly identified in the VRI layer **Reason for the decrease in the sub rank:** To keep the agriculture subclasses together **Data Caveats:** There is no clear area classification overlapped with other layers

RANK 11: SHORELINE

Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1		Docks **NEW IN 2025 Crown tenures TENURE_STAGE = 'TENURE' AND TENURE_SUBPURPOSE IN ('PRIVATE MOORAGE', 'MARINA', 'STRATA MOORAGE', 'COMMERCIAL WHARF', 'PUBLIC WHARF', 'PRIVATE YACHT CLUB') AND TENURE_TYPE <> 'RESERVE/NOTATION'	NEW data integrated as a new sub rank 1 **Reason for inclusion:** Include the impacts of docks on the shoreline Tenures showed adequate representation of disturbance **Data Caveats:** Data being pulled from tenure data, where the purpose is to show tenure extent, not disturbance
		Aquaculture **NEW IN 2025 Crown tenures (TENURE_STAGE = 'TENURE' AND TENURE_PURPOSE = 'AQUACULTURE' AND TENURE_SUBPURPOSE IN ('FIN FISH', 'SHELL FISH') AND TENURE_TYPE <> 'RESERVE/NOTATION')	NEW data integrated as a new sub rank 2 **Reason for inclusion:** Include the impacts of aquaculture on the shoreline Tenures showed adequate representation of disturbance **Data Caveats:** Data is being pulled from tenure data, where the purpose is to show tenure extent, not disturbance

RANK 12: BUILT-UP MIXED

Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1		Vegetation Resource Inventory Rank 1 Built up (Sub-Rank degraded in 2025) BCLCS_LEVEL_5 = 'UR' or (BCLCS_LEVEL_5 is null and NON_PRODUCTIVE_DESCRIPTOR_CD = 'U') or ((NON_VEG_COVER_TYPE_1 = 'UR' and NON_VEG_COVER_PCT_1 >= 20) or (NON_VEG_COVER_TYPE_2 = 'UR' and NON_VEG_COVER_PCT_2 >= 20) or(NON_VEG_COVER_TYPE_3 = 'UR' and NON_VEG_COVER_PCT_3 >= 20)) or ((LAND_COVER_CLASS_CD_1 = 'UR' and EST_COVERAGE_PCT_1 >= 20) or (LAND_COVER_CLASS_CD_2 = 'UR' and EST_COVERAGE_PCT_2 >= 20) or (LAND_COVER_CLASS_CD_3 = 'UR' and EST_COVERAGE_PCT_3 >= 20))	VRI Built was removed from the main Built-up category **Reason for the reduction in categorization** VRI dataset generalizes large built-up areas, decreasing the categorization allows for disturbances (recreation, cut blocks, & agriculture) that are classed lower to be identified.

LAND BASE LAYERS

Sub Rank	2023 Data Sources	2025 Data Sources	Summary of 2025 Changes
1	Range Lands	All Base data was removed from the dataset that was previously pulled from the Baseline Thematic Mapping	**Reason for removal:** The land base did not represent disturbance, and was removed so that the resultant only includes disturbances There are more appropriate sources for land-based information
1	Forest land		
1	Shrubs		
1	Wetland and Estuaries		
1	Freshwater		
1	Saltwater		
1	Alpine, Sub Alpine, Barren		
1	Glaciers		
1	Forest Reserves	Cut block Reserves ((SILV_RESERVE_CODE IN ('G') and STOCKING_STATUS_CODE = 'MAT' and EXTRACT(YEAR FROM FOREST_COVER_WHEN_UPDATED) >= 2012) or (SILV_RESERVE_CODE IN ('G') and STOCKING_STATUS_CODE = 'MAT' and SILV_RESERVE_OBJECTIVE_CODE = 'WTR') or (SILV_RESERVE_CODE IN ('G') and STOCKING_STATUS_CODE in ('NP', 'MAT','IMM','RES') and STOCKING_TYPE_CODE in ('NAT', 'FOR', 'BR')) or STOCKING_STATUS_CODE in ('L', 'M', 'R', 'S')) and GEOMETRY_EXIST_IND = 'Y'	

ADDITIONAL DATA REVIEWED

Disturbance/Source	Reason for not incorporating
Tenure - Freshwater and Marine	Tenure data did not accurately represent disturbance
Tenure - Industrial	Tenure data did not accurately represent disturbance
Tenure - Lodges and Camps	Tenure data did not accurately represent disturbance
Tenure - Mining and Extraction	Tenure data did not accurately represent disturbance
Tenure - Power and Utility	Tenure data did not accurately represent disturbance
Tenure - Transportation	Tenure data did not accurately represent disturbance
Tenure - Recreation	Tenure data did not accurately represent disturbance
Tenure - Community and Institutional	Tenure data did not accurately represent disturbance
Glaciers	Human Disturbance longer, including base layer data
Base layers 2020 NRCan land class	Human Disturbance longer, including base layer data
Underwater infrastructure	Does not interact with the shoreline
Anchorages	Does not interact with the shoreline
Docks - Government of Canada	Does not accurately represent the disturbance on the shoreline
Marinas - Government of Canada	Does not accurately represent the disturbance on the shoreline
lodges and floating homes - Government of Canada	Does not interact with the shoreline
Log Handling	Does not interact with the shoreline
OGC Roads	Better suited for the integrated roads product
Road Buffers - CEF	Better suited for the integrated roads product
Digital Road Atlas (Trails)	Better suited for the integrated roads product
Recreation Lines	Better suited for the integrated roads product