|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Definition | Summary (1000m buffer) | Features | Feature definition | Feature summary (1000m buffer) |
| Borrowpits | Excavation outside of the road right-of-way, made solely for the purpose of removing or providing borrowed material for the construction of the sub-base for a specific roadway project. It includes any other associated infrastructure such as access roads. | Min = 0.00  Max = 0.31  Mean = 0.00 | Borrowpit-dry | Includes pits dug to build forestry and well-site roads. They are usually associated with a road or another structure. No presence of water. | Min = 0.00  Max = 0.03  Mean = 0.00 |
| Borrowpit-wet | Includes pits dug to build forestry and well-site roads. They are usually associated with a road or another structure. Presence of water confirmed by visual interpretation. | Min = 0.00  Max = 0.02  Mean = 0.00 |
| Borrowpits | Includes pits dug to build forestry and well-site roads. They are usually associated with a road or another structure. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Ris-borrowpits | Identifies any area disturbed for the purpose of extraction of aggregate materials including gravel pits in oil sand mines area only. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Dugout | Small water storage excavations that collect water from runoff from summer rains, a surplus of surface water that occurs during snowmelt in  the spring or from groundwater. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Lagoon | An artificial holding or treatment ponds for agricultural or municipal wastewater. Human made water and sewage lagoons used for municipal purposes. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Sump | An artificial holding or treatment pond for industrial wastewater. | Min = 0.00  Max = 0.03  Mean = 0.00 |
| Clearings | Human footprint features related to various industrial activities. | Min = 0.00  Max = 0.40  Mean = 0.01 | Clearing-unknown | A human-made clearing with unknown purposes and contains no visible buildings, fences or equipment. | Min = 0.00  Max = 0.18  Mean = 0.01 |
| Clearing-wellpad-unconfirmed | Roughly square in shape clearing, roughly 90-120 meters wide (approximately 1 ha). Not confirmed as a well pad by available reference sources. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| res-clearing | Areas cleared for building developments that do not yet have any buildings | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-clearing-unknown | Identifies all areas where vegetation has been removed for the purposes of preparing the land for drainage, soil removal, overburden removal, mining, etc. but where soil has been left mostly intact and relatively undisturbed. May include any or all of: tree removal, shrub removal, and/or grubbing (stump removal). Identifies areas cleared for by other industries and not for the purposes of forest harvesting or for oil sands development. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Runway | Vegetated runway. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| CFO | Confined feeding operations and other high density livestock features. | Min = 0.00  Max = 0.00  Mean = 0.00 | Cfo | Confined feeding operations and other high density livestock features. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Cultivation | Lands where the forest and/or shrubs have been removed for the purposes of planting crops or grass species for livestock grazing. | Min = 0.00  Max = 0.13  Mean = 0.00 | Crop | Cultivated cropland or cropland planted with annual crop species, including farmlands that are in cultivation rotation. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Cultivation-abandoned | Agricultural land that has been formally seeded and tilled, but no evidence of present day production use. Landscape appears to have a heterogeneous mix of vegetation and closely resembles natural cover. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Fruits-vegetables | Agriculture and Agri-Food Canada (AAFC) 2014 Crop Types: Vegetables, Tomatoes, Potatoes, Sugar beets, Other Vegetables, Fruits, Berries, Blueberry, Cranberry, Other Berry, Orchards, Other Fruits, Herbs. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Rough-pasture | Lands where the forest and/or shrubs have been removed so that native or introduced grasses can flourish for the grazing of livestock. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Tame-pasture | Lands where the soil has been disturbed and planted to perennial grass species used primarily for grazing livestock. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Harvest | Areas where forestry operations have occurred (clear-cut, selective harvest, salvage logging, etc.) | Min = 0.00  Max = 0.84  Mean = 0.02 | Harvest-area | Areas in Alberta’s forested Green Zone where forestry operations have occurred (clear-cut, selective harvest, salvage logging, etc.). | Min = 0.00  Max = 0.43  Mean = 0.02 |
| Harvest-area-white-zone | Areas in Alberta’s unforested White Zone where woody vegetation (i.e. shrub, trees, etc..) have been removed and the purpose of the  clearing has not yet been determined | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Industrial facilities | Human footprint features related to various industrial activities. | Min = 0.00  Max = 0.34  Mean = 0.01 | Camp-industrial | Buildings used for temporary residence by employees on or in close proximity to an industrial activity such as mining, forestry, or oil and gas activities. | Min = 0.00  Max = 0.02  Mean = 0.00 |
| Facility-other | Industrial facilities characterized by large nonresidential buildings most often surrounded by concrete for parking purposes. The purpose of the facility is not disclosed. | Min = 0.00  Max = 0.06  Mean = 0.00 |
| Facility-unknown | Industrial facilities characterized by large nonresidential buildings most often surrounded by concrete for parking purposes. The purpose of the facility is unknown. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Mill | Intense industrial and commercial development for the purpose of pulp or paper production. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Misc-oil-gas-facility | Industrial facility used for the purpose of oil and gas. | Min = 0.00  Max = 0.12  Mean = 0.00 |
| Oil-gas-plant | Industrial facility used for oil production. | Min = 0.00  Max = 0.07  Mean = 0.00 |
| Ris-camp-industrial | Identifies areas disturbed for the purposes of housing camp workers. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-facility-operations | Designated for areas which are not part of the plant site, e.g., may include laydown areas not integrated with the main plant site(s), tailings lines, water lines, compressor station, buildings away from the main plant site, flare stack, communications tower. | Min = 0.00  Max = 0.05  Mean = 0.00 |
| Ris-facility-unknown | Identifies areas where the reclamation liability associated for the disturbance is currently held by another industry operator. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-plant | Includes areas associated with extraction, processing, upgrader. Plant sites may have multiple noncontiguous polygons. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-tank-farm | Identifies areas where products of extraction or upgrading are stored. Products stored for on-site use can be identified under plant site or operations. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-utilities | Identifies areas specifically disturbed for the purposes of utilities (power generation). | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Urban-industrial | An industrial facility within the boundary of an urban residence. | Min = 0.00  Max = 0.22  Mean = 0.00 |
| Landfills | Larger area of raised land, indicating buried garbage. Some landfills have evidence of surface revegetation and garbage dispersed throughout designated extent. They may also have large perimeter berms or fences. | Min = 0.00  Max = 0.00  Mean = 0.00 | Landfill | Larger area of raised land, indicating buried garbage. Some landfills have evidence of surface revegetation and garbage dispersed throughout designated extent. They may also have large perimeter berms or fences. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Mines | Human footprint features directly related to mining activities. | Min = 0.00  Max = 0.56  Mean = 0.01 | Grvl-sand-pit | An area of surface disturbance for the purpose of extracting sand and/or gravel consistently open and/or expanding over multiple years, usually close to lakes or rivers. | Min = 0.00  Max = 0.11  Mean = 0.00 |
| Mines-oilsands | Heavy industry use with bare and/or vegetated ground and low human density for the purpose of oil sands mining. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Mines-pitlake | Areas of ground where surface water is collected into the existing mine pit usually after mining activity is finished.. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Open-pit-mine | An area of surface disturbance for the purpose of mining (with the exception of sand and/or gravel), consistently open and/or expanding over multiple years, usually close to lakes or rivers. | Min = 0.00  Max = 0.04  Mean = 0.00 |
| Peat | An area of surface disturbance for the purpose of mining peat, consistently open and/or expanding over multiple years, usually in bogs or fens. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-drainage | Identifies surface disturbance for the purpose of managing surface water features. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-mines-oilsands | Identifies areas where overburden removal has commenced for the purposes of preparing an area for open pit mining and all mine pit features. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-oilsands-rms | Identifies reclamation material stockpiles (RMS). Each RMS may have several material types and corresponding volumes. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-overburden-dump | Includes all areas where overburden and interburden is placed out-of-pit or in-pit for disposal. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-reclaim-ready | Identifies areas where landform construction has been completed and the site is ready for clean cap, subsoil, and surface soil placement. This definition is consistent with that used for annual reporting which identifies land "no longer required for mine or plant purposes and available for reclamation but where reclamation activities have not yet commenced. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-soil-salvaged | Identifies areas where soil salvage is occurring but where overburden removal has not commenced. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-tailing-pond | Identifies all areas associated with tailings including toe berms, dykes, beaches, ponds and drying areas. | Min = 0.00  Max = 0.14  Mean = 0.00 |
| Ris-waste | Identifies all areas associated with waste and by-product storage on-site. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Tailing-pond | Body of water on/in close proximity to an oil sands mine comprising acids, benzene, hydrocarbons, residual bitumen, fine silts, and water. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Pipeline | A line of underground and overground pipes, of substantial length and capacity, used for the conveyance of petrochemicals. The physical clearing that contains underground and above-ground high  pressure pipelines. | Min = 0.00  Max = 0.12  Mean = 0.03 | Pipeline | A line of underground and overground pipes, of substantial length and capacity, used for the conveyance of petrochemicals. The physical clearing that contains underground and above-ground high  pressure pipelines. | Min = 0.00  Max = 0.12  Mean = 0.03 |
| Railways | Hard, steel rail lines designed for train use. | Min = 0.00  Max = 0.01  Mean = 0.00 | Rlwy-dbl-track | A road or track for trains, consisting of parallel steel rails, supported on wooden crossbeams. The Double track consists of two parallel sets of tracks. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Rlwy-mlt-track | A road or track for trains, consisting of parallel steel rails, supported on wooden crossbeams. A multiple track railway consists of many parallel sets of tracks. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Rlwy-sgl-track | A road or track for trains, consisting of parallel steel rails, supported on wooden crossbeams. The single track consists of one parallel sets of tracks. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Rlwy-spur | A short length of railway leading off a main line, to a dead end. Spur lines usually lead to a commercial/industrial site or may be used as a turnaround along a rail line. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Reclaimed | Areas where reclamation activities have commenced or been completed | Min = 0.00  Max = 0.08  Mean = 0.00 | Ris-reclaimed-certified | Identifies polygons of reclaimed areas which have received a reclamation certificate. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-reclaimed-permanent | Identifies polygons which meet the definition of permanent reclamation - land is considered permanently reclaimed when landform construction and contouring, clean material placement (as required), reclamation material placement and revegetation has taken place. | Min = 0.00  Max = 0.04  Mean = 0.00 |
| Ris-reclaimed-tem | Identifies polygons which meet the definition of temporary reclamation – areas being managed where vegetation has been seeded, planted, or ingressed, where there is an expectation that future disturbance may occur at that location. This does not include cleared areas (planned for future disturbance) that have naturally revegetated through ingress. |  |
| Ris-soil-replaced | Identifies areas which have had subsoil or topsoil placed and which have not been revegetated. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-windrow | Includes areas where a line of reclamation material (soil or vegetation) is heaped up by a machine. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Recreation | Human footprint related to vegetated facilities and recreation | Min = 0.00  Max = 0.01  Mean = 0.00 | Campground | Disturbed vegetation with frequently changing facilities of RVs and tents used for overnight stay. Most often consists of several individual clearings surrounded by vegetation and gravel or asphalt roads connecting clearings. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Golfcourse | Large recreational area comprising a series of grass patches surrounded by trees. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Greenspace | Greenspace used for recreation within a residential area including parks, schools, school yards and sport fields. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Recreation | Urban/rural greenspace and recreation that does not fit into other categories (e.g. graveyards, baseball diamonds, parks, shelterbelts, ski hills, clearings from old industrial activity that is now vegetated). This layer was also used to identify green space features that do not fit into other categories such as storage areas and parking lots. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Residential | Residential developments with buildings for human inhabitance. | Min = 0.00  Max = 0.02  Mean = 0.00 | Country-residence | Country-residential developments with density of 10 - 100 buildings per quarter section. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Rural-residence | Rural-residential developments with density of less than 10 buildings per quarter section. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Urban-residence | Residential areas in cities, towns, villages, hamlets, and ribbon developments. Areas that are dominated by dwellings | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Roads | Non-vegetated, impermeable surfaces used for motorized vehicle or aircraft transportation or access. | Min = 0.00  Max = 0.07  Mean = 0.01 | Airp-runway | An active landing facility for aircraft, usually associated with paved and lighted runways, an operating control tower, and services for aircraft and passengers. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Interchange-ramp | A series of roadways (ramps) constructed to permit access to and from intersecting paved roads. These ramps are usually at different levels and form an overpass / underpass. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-airp-runway | Identifies operator owned landing facility for airplanes and related transportation in oil sand mines area only. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Ris-road | Identifies roads that are not specifically part of other disturbed features in oil sand mines area only. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-gravel-1L | A roadway surfaced with gravel constituting a main access route. The road surface is about 6 meters in width, and the road clearing is about 20 meters or greater in width. The surface, ditches, bridges and intersections are in good condition. | Min = 0.00  Max = 0.02  Mean = 0.00 |
| Road-gravel-2L | A roadway surfaced with gravel constituting as a main access. route. The road surface is 7 meters or greater in width, and the road clearing is 30 meters or greater in width. The surface, ditches, bridges, and intersections are in good condition. | Min = 0.00  Max = 0.02  Mean = 0.00 |
| Road-paved-1L | A roadway, paved with asphalt or concrete, consisting of one (1) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-2L | A roadway, paved with asphalt or concrete, consisting of one (2) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-3L | A roadway, paved with asphalt or concrete, consisting of one (3) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-4L | A roadway, paved with asphalt or concrete, consisting of one (4) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-5L | A roadway, paved with asphalt or concrete, consisting of one (5) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-6L | A roadway, paved with asphalt or concrete, consisting of one (6) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-7L | A roadway, paved with asphalt or concrete, consisting of one (7) lane. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-div | A major roadway, which is paved with asphalt or concrete, and consists of two (2) roadbeds separated by a median. Each roadbed usually consists of two (2) or more lanes. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-paved-undiv-1L | A roadway, paved with asphalt or concrete, consisting of one (1) lane, and usually found servicing rural acreages that are close to large urban centers. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Road-paved-undiv-2L | A roadway, paved with asphalt or concrete, consisting of two (2) adjacent lanes with no median to separate them. | Min = 0.00  Max = 0.01  Mean. = 0.00 |
| Road-unclassified | A temporary coding for an unknown class of road, which will be updated after a field check or verification. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-unimproved | A roadway surfaced with dirt, which is constituted as a minor access route. The road surface is up to 7 meters in width, and the road clearing is up to 20 meters in width. The surface and ditches are poorly maintained, and the bridges are narrow. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-unpaved-1L | A roadway surfaced with dirt, which is constituted as a minor access route. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-unpaved-2L | A roadway surfaced with dirt, which is constituted as a minor access route. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Road-winter | A clearing that is vehicular accessible in winter only. | Min = 0.00  Max = 0.00  Mean = 0.00 |
|  |  |  | Transfer station | Smaller area of land, less than one hectare, usually fenced with a U-shaped road and two entry ways. Used primarily for garbage drop-off and located close to municipalities or present in rural areas. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Seismic lines | Cleared corridors created during hydrocarbon exploration. | Min = 0.00  Max = 0.02  Mean = 0.01 | Conventional-seismic | A polygon feature class derived from a 3-meter buffer (6-meter total width) of a pre-low-impact-seismic centerline. | Min = 0.00  Max = 0.02  Mean = 0.01 |
| 3D Seismic lines | Cleared corridors created during hydrocarbon exploration. | Min = 0.00  Max = 0.06  Mean = 0.00 | Low-impact-seismic | A polygon feature class derived from a 1.5-meter buffer (3-meter total width) of a pre-low-impact-seismic centerline. | Min = 0.00  Max = 0.06  Mean = 0.00 |
| Trails | Cleared corridors surfaced with dirt or low vegetation for human/vehicle access. | Min = 0.00  Max = | Trail | A polygon feature class derived from a 2-meter buffer (4-meter total width) of a pre-low-impact-seismic centerline. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Truck-trail | A roadway surfaced with dirt or low vegetation constituting a minor access route. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Transmission lines | Cleared corridors designated for the location of power transmission line infrastructure. | Min = 0.00  Max = 0.17  Mean = 0.01 | Transmission-line | A utility corridor >10 m wide with poles, towers and lines for transmitting high voltage electricity (voltage greater than 69 kV). | Min = 0.00  Max = 0.07  Mean = 0.00 |
| Ris-transmission-line | Include the right of way area designated for the power line. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Vegetated edges | Disturbed vegetation alongside road edges, railway edges including ditches, and other industrial features. | Min = 0.00  Max = 0.15  Mean. = 0.01 | Vegetated-edge-railways | Disturbed vegetation alongside railway edges. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Vegetated-edge-roads | Disturbed vegetation alongside road edges. | Min = 0.00  Max = 0.06  Mean = 0.02 |
| Surrounding-veg | Disturbed vegetation surrounding airport runways, highway ramps and other industrial features. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Water | Human-made water channels or storage ponds. |  | Canal | A human-made watercourse built to convey water for irrigation. An irrigation canal is larger than a ditch, with reinforced banks that are usually well maintained. | Min = 0.00  Max = 0.00  Mean = 0.00 |
|  | Reservoir | An artificial lake or storage pond resulting from human-made dam. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Wells | Ground cleared for an oil/gas well pad where at least one well is currently active. | Min = 0.00  Max = 0.30  Mean = 0.01 | Well-bitumen | Well site - ground cleared for a bitumen well pad. | Min = 0.00  Max = 0.04  Mean = 0.00 |
| Well-cased | Well site - ground cleared and well cased. | Min = 0.00  Max = 0.01  Mean = 0.00 |
| Well-cleared-not-confirmed | Well site - confirmation of the boundary outline is not provided by reference sources. | Min = 0.00  Max = 0.04  Mean = 0.00 |
| Well-cleared-not-drilled | Well site - confirmation of the boundary outline is provided by reference sources. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Well-gas | Well site - ground cleared for a gas well pad. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Well-oil | Well site - ground cleared for an oil well pad. | Min = 0.00  Max = 0.00  Mean = 0.00 |
| Well-other | Well site - clearing, purpose is unknown. | Min = 0.00  Max = 0.03  Mean = 0.00 |
| Well-unknown | Well site - ground cleared, well status unknown or license location | Min = 0.00  Max = 0.00  Mean = 0.00 |