

## New Zealand Land Cover Database (LCDB) classes at version 4.1

Class Code	Class Name	Class Description
1	Built-up Area (settlement)	Commercial, industrial or residential buildings, including associated infrastructure and amenities, not resolvable as other classes. Low density 'lifestyle' residential areas are included where hard surfaces, landscaping and gardens dominate other land covers.
2	Urban Parkland/Open Space	Open, mainly grassed or sparsely-treed, amenity, utility and recreation areas. The class includes parks and playing fields, public gardens, cemeteries, golf courses, berms and other vegetated areas usually within or associated with built-up areas.
5	Transport Infrastructure	Artificial surfaces associated with transport such as arterial roads, rail-yards and airport runways. Skid sites and landings associated with forest logging are sometimes also included.
6	Surface Mine or Dump	Bare surfaces arising from open-cast and other surface mining activities, quarries, gravel-pits and areas of solid waste disposal such as refuse dumps, clean-fill dumps and active reclamation sites.
10	Sand or Gravel	Bare surfaces dominated by unconsolidated materials generally finer than coarse gravel (60mm). Typically mapped along sandy seashores and the margins of lagoons and estuaries, lakes and rivers and some areas subject to surficial erosion, soil toxicity and extreme exposure.
12	Landslide	Bare surfaces arising from mass-movement erosion generally in mountain-lands and steep hill-country.
14	Permanent Snow and Ice	Areas where ice and snow persists through late summer. Typically occurring above 1800m but also at lower elevations as glaciers.
16	Gravel or Rock	Bare surfaces dominated by unconsolidated or consolidated materials generally coarser than coarse gravel (60mm). Typically mapped along rocky seashores and rivers, sub-alpine and alpine areas, scree slopes and erosion pavements.
15	Alpine Grass/Herbfield	Typically sparse communities above the actual or theoretical treeline dominated by herbaceous cushion, mat, turf, and rosette plants and lichens. Grasses are a minor or infrequent component, whereas stones, boulders and bare rock are usually conspicuous.
20	Lake or Pond	Essentially-permanent, open, fresh-water without emerging vegetation including artificial features such as oxidation ponds, amenity, farm and fire ponds and reservoirs as well as natural lakes, ponds and tarns.
21	River	Flowing open fresh-water generally more than 30m wide and without emerging vegetation. It includes artificial features such as canals and channels as well as natural rivers and streams.
22	Estuarine Open Water	Standing or flowing saline water without emerging vegetation including estuaries, lagoons, and occasionally lakes occurring in saline situations such as inter-dune hollows and coastal depressions.
30	Short-rotation Cropland	Land regularly cultivated for the production of cereal, root, and seed crops, hops, vegetables, strawberries and field nurseries, often including intervening grassland, fallow land, and other covers not delineated separately.
33	Orchards, Vineyards or Other Perennial Crops	Land managed for the production of grapes, pip, citrus and stone fruit, nuts, olives, berries, kiwifruit, and other perennial crops. Cultivation for crop renewal is infrequent and irregular but is sometimes practiced for weed control.
40	High Producing Exotic Grassland	Exotic sward grassland of good pastoral quality and vigour reflecting relatively high soil fertility and intensive grazing management. Clover species, ryegrass and cocksfoot dominate with lucerne and plantain locally important, but also including lower-producing grasses exhibiting vigour in areas of good soil moisture and fertility.
41	Low Producing Grassland	Exotic sward grassland and indigenous short tussock grassland of poor pastoral quality reflecting lower soil fertility and extensive grazing management or non-agricultural use. Browntop, sweet vernal, danthonia, fescue and Yorkshire fog dominate, with indigenous short tussocks (hard tussock, blue tussock and silver tussock) common in the eastern South Island and locally elsewhere.
43	Tall Tussock Grassland	Indigenous snow tussocks in mainly alpine mountain-lands and red tussock in the central North Island and locally in poorly-drained valley floors, terraces and basins of both islands.

44	Depleted Grassland	Areas, of mainly former short tussock grassland in the drier eastern South Island high country, degraded by over-grazing, fire, rabbits and weed invasion among which <i>Hieracium</i> species are conspicuous. Short tussocks usually occur, as do exotic grasses, but bare ground is more prominent.
45	Herbaceous Freshwater Vegetation	Herbaceous wetland communities occurring in freshwater habitats where the water table is above or just below the substrate surface for most of the year. The class includes rush, sedge, restiad, and sphagnum communities and other wetland species, but not flax nor willows which are mapped as Flaxland and Deciduous Hardwoods respectively.
46	Herbaceous Saline Vegetation	Herbaceous wetland communities occurring in saline habitats subject to tidal inundation or saltwater intrusion. Commonly includes club rush, wire rush and glasswort, but not mangrove which is mapped separately.
47	Flaxland	Areas dominated by New Zealand flax usually swamp flax (harakeke) in damp sites but occasionally mountain flax (wharariki) on cliffs and mountain slopes.
50	Fernland	Bracken fern, umbrella fern, or ring fern, commonly on sites with low fertility and a history of burning. Manuka, gorse, and/or other shrubs are often a component of these communities and will succeed Fernland if left undisturbed.
51	Gorse and/or Broom	Scrub communities dominated by gorse or Scotch broom generally occurring on sites of low fertility, often with a history of fire, and insufficient grazing pressure to control spread. Left undisturbed, this class can be transitional to Broadleaved Indigenous Hardwoods.
52	Manuka and/or Kanuka	Scrub dominated by mānuka and/or kānuka, typically as a successional community in a reversion toward forest. Mānuka has a wider ecological tolerance and distribution than kānuka with the latter somewhat concentrated in the north with particular prominence on the volcanic soils of the central volcanic plateau.
54	Broadleaved Indigenous Hardwoods	Lowland scrub communities dominated by indigenous mixed broadleaved shrubs such as wineberry, mahoe, five-finger, <i>Pittosporum</i> spp, fuchsia, tutu, titoki and tree ferns. This class is usually indicative of advanced succession toward indigenous forest.
55	Sub Alpine Shrubland	Highland scrub dominated by indigenous low-growing shrubs including species of <i>Hebe</i> , <i>Dracophyllum</i> , <i>Olearia</i> , and <i>Cassinia</i> . Predominantly occurring above the actual or theoretical treeline, this class is also recorded where temperature inversions have created cooler micro-climates at lower elevations e.g. the 'frost flats' of the central North Island.
56	Mixed Exotic Shrubland	Communities of introduced shrubs and climbers such as boxthorn, hawthorn, elderberry, blackberry, sweet brier, buddleja, and old man's beard.
58	Matagouri or Grey Scrub	Scrub and shrubland comprising small-leaved, often divaricating shrubs such as matagouri, <i>Coprosma</i> spp, <i>Muehlenbeckia</i> spp., <i>Cassinia</i> spp., and <i>Parsonsia</i> spp. These, from a distance, often have a grey appearance.
80	Peat Shrubland (Chatham Is)	Low-growing shrubland communities usually dominated by <i>Dracophyllum</i> spp. in association with <i>Cyathodes</i> spp. and ground ferns. Mapped only on the Chatham Islands.
81	Dune Shrubland (Chatham Is)	Low-growing shrubland communities dominated by <i>Leucopogon</i> spp., <i>Pimelia arenaria</i> and <i>Coprosma</i> spp., in association with sedges and scattered herbs and grasses. Mapped only on the Chatham Islands.
70	Mangrove	Shrubs or small trees of the New Zealand mangrove ( <i>Avicennia marina</i> subspecies <i>australascia</i> ) growing in harbours, estuaries, tidal creeks and rivers north of Kawhia on the west coast and Ohiwa on the east coast.
64	Forest - Harvested	Predominantly bare ground arising from the harvesting of exotic forest or, less commonly, the clearing of indigenous forest. Replanting of exotic forest (or conversion to a new land use) is not evident and nor is the future use of land cleared of indigenous forest.
68	Deciduous Hardwoods	Exotic deciduous woodlands, predominantly of willows or poplars but also of oak, elm, ash or other species. Commonly alongside inland water (or as part of wetlands), or as erosion-control, shelter and amenity plantings.
69	Indigenous Forest	Tall forest dominated by indigenous conifer, broadleaved or beech species.
71	Exotic Forest	Planted or naturalised forest predominantly of radiata pine but including other pine species, Douglas fir, cypress, larch, acacia and eucalypts. Production forestry is the main land use in this class with minor areas devoted to mass-movement erosion-control and other areas of naturalised (wildling) establishment.