A STANDARD GEOGRAPHIC FEATURE CATALOGUE FOR TOPONYMIC RESEARCH

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1 INTRODUCTION

1.1 The Task.

Previous publications in this series have outlined the need for a standardised set of designations for all types of geographic features (Blair and Henderson-Brooks, 2002; Blair, 2003). Placename researchers (such as those working with the Australian National Placenames Survey) and those concerned with the assigning and standardisation of toponyms (such as representatives to the Committee for Geographical Names in Australasia) would both gain considerable advantage from the provision of a controlled vocabulary or agreed thesaurus.

The task has been to produce a standardised *feature catalogue* of about the same level of generality as the set of existing National Gazetteer codes. The task has entailed three distinct subsidiary requirements: to identify a set of intuitive *semantic components* relevant to topographic features; to produce each of the *feature sets* within the catalogue by a logical sequence of those components; and to establish which *feature terms* are included within each feature set.

1.2 Terminology

The process of creating an effective taxonomy for topographic features uses (or produces) several layers of terminology.

- Feature Terms: The treatment of FEATURE TERMS (or, "included terms") used in compiling this report has been informed by material in various glossaries, in particular that produced by the Intergovernmental Committee on Surveying and Mapping. (See *Data Sources* below.)
- Feature Sets: Feature terms fall into FEATURE SETS. Each set is a theoretical construct existing at a certain level of generality within the semantic classification system. Each feature set is given a code title represented by up to four alphabetic characters within angle brackets; although the code is arbitrary, it has been devised to resemble one of the archetypal feature terms within the set.
- *Semantic Components:* Each feature set can be seen to be made up of, or be defined by, a number of SEMANTIC COMPONENTS. A set such as <PEAK>, for instance, has the semantic components [-HORIZONTAL], [+PROJECTED] and [+APICAL], among others. The semantic components are themselves defined within the system, and are the subject of discussion below.
- Themes: The topographic feature sets of Australia fall into six major categories or THEMES:
 - o marine features
 - o water features
 - o relief features
 - o vegetation and desert features
 - o constructed features
 - o civic features

The first four themes consist of natural features, while the remaining two may be said to be cultural features. The themes operate at a high level of generality, and are defined by a small combination of high-level semantic components.

1.3 Data Sources

The base data for the catalogue are the feature terms currently in use by each of the Australian State and Territory nomenclature authorities and in the Gazetteer of Australia. The definitions provided by some of those authorities and the draft ICSM glossary of generic terms supply additional data. (It should be noted that the ICSM glossary is not concerned directly with feature terms, but with those generic elements bestowed at the time of naming which may indicate the type of feature.) Feature terms used by the Geographic Names Board of New Zealand, the Australian Antarctic Division and the Australian Hydrographic Service have not been analysed at this stage of the process.

The data sources used include:

- 1 (a) The Gazetteer of Australia. Canberra: Geoscience Australia, 2004
 - (b) The Gazetteer of Australia. Key to Feature Codes. http://www.ga.gov.au/map/names/featurecodes.jsp
- The Glossary of Generic Terms. Prepared by the Committee for Geographical Place Names in Australasia. (ICSM. Version 1.0, 1996); from http://www.icsm.gov.au/cgna/glossary_pnames.pdf
- 3 Standardization of Undersea Feature Names: Terminology. 3rd edition. Monaco: International Hydrographic Bureau, April 2001.
- 4 Australian State and Territory lists, as supplied, 2006

2 THE FEATURE TERMS

The feature terms recorded in this paper are those which are in current use in at least one of the nomenclature authorities noted above. A small number of terms that are in occasional use have been omitted, including 23 which have an existing Gazetteer code; these exceptions are listed in Table 1. In total, 525 terms are included.

Of the included terms, 85 are additions to the terms recorded by the Gazetteer of Australia. A further 104 terms have been reassigned to a different feature set. The full list is given in Appendix 1, with standard definitions and an indication of which feature set each term belongs to. Homonyms/polysemes have been distinguished by the use of superscript numbers on headwords. In other words, each entry in the glossary consists of a single sense: no entry contains multiple numbered senses, as conventional dictionaries do.

The definitions are those which are appropriate to a standardised glossary. The glossary defines only those senses which are relevant to the toponymic process, and does so by specifying the meanings as they are used by Australia's naming authorities. That is, it makes no attempt to record general usage of the terms by the wider community of English speakers, nor does it take account of terms and senses required by toponymists in other countries.

Term	Gazetteer Code
agricultural area	DI
asylum	BLDG
bank (but see BATH)	BANK
basin (but see DEPR, DOCK)	BATH
bonnet	~
breaker	BRK
brushwood	FRST
bump	~
butte (but see TOR)	PEAK
cap	~
car park	~
castle	~
coast	~
coastline	~
commune	COMM
community centre	COMM
continent	CONT
county (but see CNTY)	DI
crossroad	~
glade	FRST
S	ΓΚ31 ~
ground	~
hedge hummock	~
intermittent lake	IN PUT
	INTL
junction	LOCD.
local government town	LOCB
meteorological station	LOCU
neighbourhood	~
ocean place name	LOCU
parish (but see PRSH)	DI
parking bay	~
parkland	~
place name	LOCU
pocket	~
reef (but see BATH)	REEF
rest house	BLDG
road circle	~
shoreline	ВСН
telegraph office	BLDG
telephone office	BLDG
watershed	~
water tower	~
wayside stop	~

Table 1: Feature terms omitted from the catalogue

3 THE FEATURE SETS

The feature sets in the catalogue are, for the most part, set at an arbitrary level of generality suggested by the existing categorisation within the Gazetteer of Australia. There are 114 feature sets in all, a small decrease from the 117 listed in the Gazetteer. Twenty one of the Gazetteer codes have been omitted or remapped, replaced by eighteen new sets in the catalogue.

The Gazetteer codes omitted or otherwise represented in the catalogue are:

ARCH	GASF	REEF
BANK	GRDN	RH
BRK	INTL	SOAK
CLAY	LH	SPAN
COMM	OCEN	SPIT
CONT	PEN	TANK
CRTR	QUAR	TREE

The catalogue has introduced the following codes:

LCOV	SPRT
LIS	SPUR
LPT	TOR
PAN	VCRT
RLWY	WELL
RLYX	WOOD
	LIS LPT PAN RLWY

The feature sets are specified in the Feature Set Glossary (Appendix 2). Each set is defined and its included feature terms are listed.

It should be emphasised that the current level of generality in categorising the features has been determined in order to maintain acceptable compatibility with the existing feature sets of the Gazetteer of Australia and with most of the naming authorities. The categorisation of features could be implemented at a greater or lesser level of generality, to meet the requirements of individual authorities, by varying the set of semantic components which produce the final layer in the taxonomy.

4 THE SEMANTIC COMPONENTS

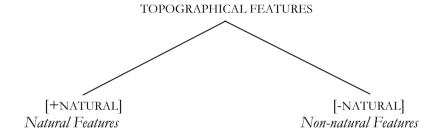
The 73 semantic components which produce the catalogue of 114 feature sets and 525 terms are listed and defined in Appendix 3. An earlier sample of the semantic components and their definitions was introduced and discussed in *APIT Technical Report* No 1 (Blair and Henderson-Brooks, 2002).

These semantic elements have not been chosen from an *a priori* list. They are intuitively produced as part of the step-by-step process of distinguishing the feature terms from each other. They are therefore arbitrary and subjective, to some degree. They are also heuristic, in that the application of these components is directed towards a particular output: a layer of feature sets which incorporate a number of feature terms. If the output is found to be useful, then the structure of the semantic analysis which led to it may be

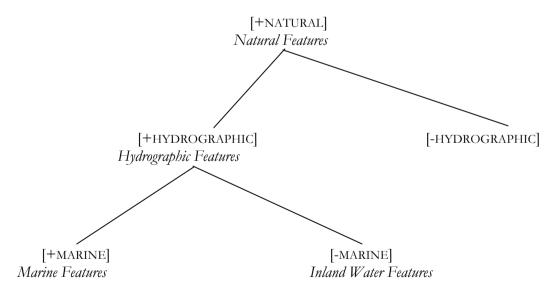
subsequently disregarded. On the other hand, a catalogue which groups features non-intuitively or which omits significant feature sets would indicate a necessary revision of the semantic components or of the taxonomic structure.

The taxonomy is represented by a tree structure (Appendix 4) in which the semantic components are progressively applied, to proceed from an initial level of abstraction (or generality) to a more highly-specified level of toponymic features.

The nodes (that is, the points of distinguishment) in the taxonomic tree are binary in nature, although in theory a taxonomy tree which contains nodes with three or more splits is not prohibited. One advantage of the binary splitting process lies in its intuitive force, since the ability to contrast sets of terms by the presence or absence of some feature is part of our linguistic competence. Another advantage is more pragmatic: binary features provide potential labels for each node or point of distinguishment. For example, the application of the binary component [±NATURAL] provides the obvious labels *Natural Features* and *Non-natural Features*:



The further application of the components [+HYDROGRAPHIC] and [+MARINE] produces *Marine Features* and *[Other] Water Features*:



An "audit trail" of the process is thus produced, in a way which is much more difficult in a non-binary method.

5 THE THEMES

The six themes into which the topographic features fall are intuitive groupings which are identified by major subsets of the semantic components.

5.1 Natural themes

- *Marine features* include both bathymetric and seascape features. The theme is defined as including all feature sets that are produced by the combination of semantic components [+NATURAL, +HYDROGRAPHIC, +MARINE].
- *Inland Water features* include land-based features of ice, lakes, rivers and streams. The theme is defined as including all feature sets that are produced by the combination of semantic components [+NATURAL, +HYDROGRAPHIC, -MARINE].

These two themes together comprise all hydrographic features.

- Relief features include all hypsographic features, both elevated and non-elevated. The theme is defined as including all feature sets that are produced by the combination of semantic components [+NATURAL, -HYDROGRAPHIC].
- Vegetation & Desert features include all non-relief features which are defined by the presence or absence of vegetation. The theme is defined as including all feature sets that are produced by the combination of semantic components [+NATURAL, -HYDROGRAPHIC, -HYPSOGRAPHIC].

5.2 Cultural themes

- *Constructed features* include all those features which are the result of human artifice on the topography. The theme is defined as including all feature sets that are produced by the combination of semantic components [-NATURAL, +CONSTRUCTED].
- *Civic features* are those which are administrative and conceptual in nature; they are not strictly topographic features at all, but ways of dividing the topography into administrative units. The theme is defined as including all feature sets that are produced by the combination of semantic components [-NATURAL, -CONSTRUCTED].

The relationship between the themes is displayed in Figure 1 below.

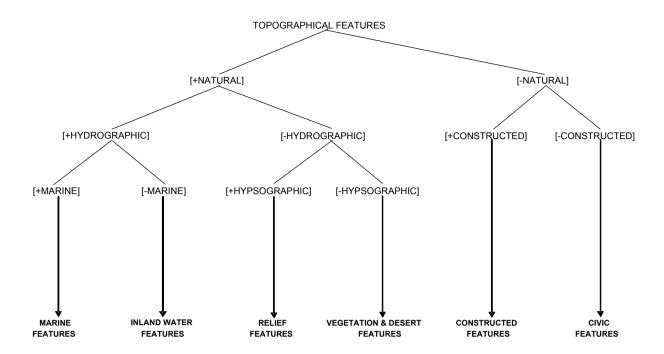


Figure 1: The six themes of topographical features

The themes, along with the feature terms, the feature sets and the semantic components, appear in taxonomic form in the charts of Appendix 4.

6 DISCUSSION

One of the benefits of a highly explicit taxonomy and catalogue is the reduction of ambiguity within the toponymic system. A feature referred to as a *point*, for instance, may be either a mountain summit or a protrusion of the land into a water feature; the latter may be a protrusion into the sea or into an inland body of water. An explicit catalogue will clearly distinguish these homonyms from each other. It will also distinguish those islands which are within lakes and rivers from those off-shore, and therefore overcome the difficulty experienced by at least one of the naming authorities which labels an island in the Murray River as a *Coastal Feature*.

Homonymy is a perceptual trap for users of the generic descriptors for natural features, but can easily be handled by an explicit taxonomy and catalogue. The display format of the taxonomy distinguishes the homonyms by use of superscript numerals.

A "crater", for instance, may be either an elevated relief feature (a depression formed at or near the peak of a volcanic structure), or a depressed relief feature (as a depression, say, formed on a plain by meteor strike). The former appears as *crater*¹ in this taxonomy under the feature code <VCRT>, closely associated on the chart with the feature set <PEAK>; the latter appears as *crater*² in a different subset, that of non-elevated relief features, under feature code <DEPR>.

Similarly, a "rock" may be several things in the registers of naming authorities. It may refer to a rocky formation surrounded by and even partly submerged by water. If an

ocean rock, the feature appears as $rock^{1}$, joined by other island-type feature in the set <IS>; if within a lake or river, it appears as $rock^{2}$ in the set <LIS>. If the feature is land-based, it may be an isolated major feature such as Uluru, or it may be a formation which is part of a hill or mountain. The former appears as $rock^{3}$ under [+INDEPENDENT] <TOR> in this taxonomy, the latter as $rock^{4}$ under [-INDEPENDENT] <ROCK>.

As mentioned above, the taxonomy has a large degree of inbuilt flexibility. The number of feature sets can be reduced by increasing the level of generalisation (thereby increasing the number of included terms within each set). Conversely, the number of feature sets can be increased and further distinctions made (thereby decreasing the number of included terms within each set).

For example, the set which currently includes all offshore islands, <IS>, is defined by the semantic components [+NATURAL, +HYDROGRAPHIC, +MARINE, -BATHYMETRIC, +LANDFORM, +INDEPENDENT]. It contains nine included terms ranging from *archipelago* to *cay*. It would be possible to reduce the size of the set by using any of several further levels of distinction. The component [±MAJOR], for instance, could be used to separate smaller features such as *cay* and *islet* from the rest; or a new component could serve to distinguish grouped or multiple features such as *archipelago*, *island group* or *rocks* from the remainder.

On the other hand, sea passages are represented by four terms currently split into two distinct feature sets. The component [±NARROW] is used to separate *channel*, *passage* and *strait* in set <STR> from *sound* in set <SND>. The two sets can easily be consolidated by removing the [±NARROW] semantic component, and having all four terms dominated directly by the component [+PASSAGE].

7 CONCLUSIONS

A feature catalogue has been devised to give a standard and explicit semantic description to 525 of the feature terms currently in use by the naming authorities of Australia. The catalogue does not at this stage include analysis of features specific to the Australian Antarctic Division, nor does it analyse undersea features under the purview of the Australian Hydrographic Service (other than to list them in the style of the Australian Gazetteer under the set <BATH>).

The majority of the terms match those listed by the Gazetteer of Australia, and fall into feature sets used by the Gazetteer. The 114 sets are defined and produced by 73 binary semantic components.

The catalogue, consisting of the terms, the sets and the components together with a taxonomic representation of the defining process, represents a standardised revision of the current toponymic feature sets of the national Gazetteer and the various statutory authorities in Australia. It also represents the formal classification system used by the Australian National Placenames Survey in its database.

Extension of the catalogue to include toponyms of Land Information New Zealand, the Australian Antarctic Division and the Australian Hydrographic Service is possible.

REFERENCES:

- Blair, David. 2003. 'Towards a standard geographic feature set: vegetation features within a broad taxonomy.' *APIT Technical Report No 2*. Sydney: Asia-Pacific Institute for Toponomy.
- Blair, David and Caroline Henderson-Brooks. 2002. 'Towards a standard geographic feature set: elevated relief features.' *APIT Technical Report 1*. Sydney: Asia-Pacific Institute for Toponymy.

APPENDIX 1

Glossary of Included Feature Terms

- **abattoir** A building in which animals are slaughtered for their meat and by-products. *Feature set:* <BLDG>
- **abbey** A building or buildings occupied by monks or nuns under an abbot or abbess. *Feature set:* <BLDG>
- **aboriginal outstation** An area of land on which a small community of Aboriginal people lives away from larger settlements. = **outcamp**, **outstation**. Feature set: <HMSD>
- **aerodrome** Any licensed airfield or government airfield maintained by the Federal Airports Corporation, other than those designated **airports**. Feature set: <AF>
- aircraft wreckage The remnants of a crashed aircraft such as a plane or helicopter. Feature set: <WRCK>
- **airfield** A level tract of land, possibly equipped with hard-surfaced runways, buildings etc., for the operation and maintenance of mainly light aircraft. Feature set: <AF>
- **airport** An aerodrome that handles regular schedules of passengers and freight. *Feature set:* <AF>
- airstrip A level tract of land, usually without a hard-surfaced runway or maintenance facilities, but otherwise suitable for landing and take-off by light aircraft. = landing ground. Feature set: <AF>
- **amphitheatre** A basin-shaped hollow, particularly one having steep sides. Feature set: <DEPR>
- **anabranch** A distributary of an anastomosing river which links up with other distributaries and sometimes with the parent stream. *Feature set:* <STRM>
- anchorage¹ An area for ships to anchor, sufficiently sheltered by reefs, sandbanks or islands to give protection from seas. = roads, roadstead. Feature set: <ANCH>
- anchorage² An area in port set aside for vessels to anchor. Feature set: <DOCK>
- **aqueduct** A conduit or artificial channel for conducting water from place to place. Feature set: <DRN>
- **arboretum** A plot of land where different trees or shrubs are grown for study or popular interest. *Feature set:* <PLAN>

- **arena** An area for sports contests, enclosed by grandstands and tiered seating. = **stadium**. *Feature set:* <SPRT>
- arm¹ A comparatively long, narrow and natural body of water extending from a sea or harbour into the neighbouring landscape. *Feature set:* <COVE>
- **arm**² A comparatively long, narrow and natural body of water extending from a lake into the neighbouring landscape. *Feature set:* <LCOV>
- arsenal A repository for military arms and stores. Feature set: <BLDG>
- **artesian bore** A hole bored perpendicularly into strata, producing a constant supply of water at the surface without pumping. *Feature set:* <BORE>
- artificial lake A lake constructed for the containment of water. Feature set: <RES>
- **athletic centre**A sports facility devoted to track and field events. Feature set:
- **backwash** Still or stagnant water beside a stream which is fed by its own back flow. = **backwater**. Feature set: <STRM>
- **backwater** Still or stagnant water beside a stream which is fed by its own back flow. = **backwash**. *Feature set:* <STRM>
- bank¹ An elevation of the sea floor, over which the depth of water is relatively shallow, but sufficient for safe surface navigation. Feature set: <BATH>
- bank² An elevation of the bed of a river or lake, over which the depth of water is relatively shallow, but sufficient for safe surface navigation. Feature set: <LBATH>
- bar¹ A ridge or succession of ridges of sand or other material across the mouth of a river or harbour or offshore, which may obstruct navigation. Feature set: <BATH>
- **bar**² A ridge or succession of ridges of sand or other material across the course of a stream, which may obstruct navigation. *Feature set:* <LBATH>
- **barn** A farm building for storing hay or grain or for stabling livestock. Feature set: <BLDG>
- **barracks** A military building for housing armed services personnel. *Feature set:* <BLDG>
- **barrage** A structure built to constrain the limit of tidal influence in a river or estuary, or to retain water for irrigation purposes. *Feature set:* <DAM>

- **basin** A depression or hollow in the earth's surface, wholly or partly surrounded by higher land, particularly one which is drained by a river and its tributaries. *Feature set*: < DEPR>
- **basin**² An artificial hollow place containing water, in which ships are docked. *Feature set:* < DOCK>
- **baths** A constructed public swimming pool. Feature set: <SPRT>
- **battery** A fortification equipped, or formerly equipped, with artillery. *Feature* set: <BLDG>
- bay¹ A well-marked indentation made by the sea into a coastline, larger than a cove, whose penetration is in such proportion to the width of its mouth as to partly surround its waters, and which thus constitutes more than a mere curvature of the coast. Feature set: <BAY>
- bay² A well-marked indentation made by a lake into its shoreline, larger than a cove, whose penetration is in such proportion to the width of its mouth as to partly surround its waters, and which thus constitutes more than a mere curvature of the shore. Feature set: <LBAY>
- **beach**¹ A sloping seashore that is periodically washed by waves or tides and is usually covered with sand or gravel. *Feature set*: <BCH>
- **beach**² A sloping shore of a lake or a low stretch of river's edge, usually covered with sand or gravel. *Feature set*: <LBCH>
- **beacon** A navigational signal light on a tower or hill. Feature set: <NAVB>
- **beck** A small mountain stream. *Feature set*: <STRM>
- **bell tower** A tower constructed to house a set of bells. Feature set: <BLDG>
- **bench mark** A location where the elevation above the height datum has been measured. *Feature set*: <TRIG>
- bend A curve in the course of a stream. = elbow, river bend. Feature set: <BEND>
- **bight** A crescent-shaped indentation in the coastline usually of large extent and not more than a 90 degree sector of a circle. *Feature set*: <BGHT>
- **bill** A small narrow beak-like projection of land into the sea. *Feature set:* <PT>
- **billabong** A waterhole in a stream or in an anabranch, which dries up outside the rainy season. *Feature set:* <WTRH>
- **blowhole** A vent in a cliff connecting with a cave below through which spray is forced. *Feature set*: <CAVE>

- **bluff** A high steep bank or cliff, especially one with a broad face. *Feature* set: <CLIF>
- **bombing range** A tract of land set aside for military bombing practice. *Feature* set: <FRNG>
- **bore** A deep vertical hole of a small diameter drilled to obtain water. Feature set: <BORE>
- **bore drain** A drain carrying water from an artesian bore to wherever it may be needed for sheep, cattle, irrigation, etc. *Feature set:* <DRN>
- **bottom** Low-lying alluvial land adjacent to a river. Feature set: <PLN>
- **boulder** A large detached rock, rounded or worn. Feature set: <TOR>
- **boundary** A border or defined line which delineates or divides an area or areas. *Feature set:* <LOCU>
- **breakaway** A steep cliff connecting the old and new plateaus formed by the collapse of a tabletop, mesa or the like. *Feature set:* <CLIF>
- **brewery** A commercial facility in which beer and similar beverages are brewed. Feature set: <BLDG>
- **bridge** A structure that spans and provides a passage over a road, railway, river or some other obstacle. *Feature set:* <BRDG>
- **broadcasting station** A facility for the production of both radio and TV broadcast material. *Feature set:* <BCST>
- **brook** A natural watercourse, greater than a gully but of lesser size and length relative to a river and ultimately flowing into another creek or a river. = **burn**, **creek**, **rivulet**, **run**. *Feature set*: <STRM>
- **brush** A tract of country, not large in extent, which is uncultivated and which bears a dense growth of low-growing bushes or shrubs. = **scrub**, **thicket**. *Feature set:* <WOOD>
- **buoy** A distinctively shaped and coloured float, anchored to the bottom, for designating moorings, navigable channels, or obstructions in a body of water. *Feature set:* <NAVB>
- burn A natural watercourse, greater than a gully but of lesser size and length relative to a river and ultimately flowing into another creek or a river. = brook, creek, rivulet, run. Feature set: <STRM>

- **bush** A tract of country, not large in extent, which is uncultivated and covered with bushes or trees. *Feature set:* <WOOD>.
- butte A small residual of a mesa, the level top being the upper surface of the hard stratum but little lowered by erosion; the slopes on all sides are escarpments and its maximum horizontal dimension in any one direction is about 400 metres. Feature set: <TOR>
- **buttress** A very steep spur projecting from a hill, mountain, plateau, range etc., having the appearance of supporting it. *Feature set:* <SPUR>
- **cairn**¹ A small tower of stones, indicating a point on the ground the geographic position of which has been determined by geodetic survey. *Feature set:* <TRIG>
- **cairn**² A heaped pile of stones set up as a monument or tombstone. *Feature* set: <MONU>
- **camp** A place where tourists and holidaymakers can stay, in tents, cabins or vans. = **campsite**. Feature set: <CP>
- **campsite** A place where tourists and holidaymakers can stay, in tents, cabins or vans. = **camp**. Feature set: <CP>
- **canal** A large artificial channel used by vessels as a route over land. = **waterway**. Feature set: <CNAL>
- **canyon**¹ A relatively narrow, deep undersea depression with steep sides, the bottom of which generally deepens continuously, developed characteristically on some continental slopes. *Feature set:* <BATH>
- canyon² A deep valley, relatively narrow but of considerable size, bounded by steep slopes, and formed by a river. = gorge, ravine. Feature set: <GORG>
- cape An elevated protrusion of land into the sea. = ness, promontory¹.

 Feature set: <CAPE>
- **cascade** A waterfall over a set of steep rocks, or a series of small waterfalls. Feature set: <WRFL>
- **cataract** A waterfall of considerable size, in both flow and height. *Feature set:* <WRFL>
- **catchment** A large depression from which the rainwater that falls on it, apart from that removed by evaporation, is drained into a river or stream, which then carries the water into the sea or a lake; its boundary is defined by the ridge (or watershed) beyond which water flows in the opposite direction. *Feature set:* <DEPR>

- **causeway** A raised roadway of solid structure built across low or wet ground or across a stretch of water. *Feature set:* <BRDG>
- **cave** A hollowed-out natural cavity in the earth with an opening to the surface. Feature set: <CAVE>
- **cavern** A very large natural hollow cavity in the earth with an opening to the surface. Feature set: <CAVE>
- **cay** A small sand or coral-fragment island with scant vegetation, formed by transient wind and sea action. *Feature set:* <IS>
- **cemetery** A large burial ground. *Feature set:* <CEM>
- **chalet** A type of cottage, low and with wide eaves, common in alpine regions and often used as a ski lodge. *Feature set:* <BLDG
- **channel**¹ A comparatively deep and narrow marine route for vessels through shallower waters. *Feature set:* <CHAN>
- **channel**² A navigable stretch of water between two landmasses, wider than a strait. *Feature set:* <STR>
- **channel**³ An artificial watercourse used for drainage or irrigation purposes. Feature set: <DRN>
- **chasm** A particularly narrow portion of a gorge or ravine where the width is notably exceeded by the depth and the sides are vertical or nearly so. *Feature set:* <GORG>
- **church** A building for Christian public worship. *Feature set:* <BLDG>
- **cirque** A deep rounded hollow or amphitheatre on a mountain side formed by glacial action. *Feature set:* GORG>
- city A centre of population, commerce, and culture with all essential services; a town of significant size and importance, generally accorded the legal right to call itself a city under either the Local Government Act, the Crown Lands Act or other instruments put in place by Government. Feature set: <URBN>
- **city exit** A major road junction marked as a significant entry and exit point for traffic in an urban area. *Feature set:* <GATE>
- **clay flat** A wide area of hardened impervious clay which retains water but resists the growth of vegetation. *Feature set:* <PAN>
- **clayhole** A depression in the ground of hardened impervious clay which retains water. = **claypan**. *Feature set:* <PAN>

- **claypan** A depression in the ground of hardened impervious clay which retains water. **= clayhole**. *Feature set:* <PAN>
- **clay pit** A small but relatively deep depression in the ground of hardened impervious clay which retains water. *Feature set:* <PAN>
- **clearing** An area of ground within a forest area, where a degree of cultivation has resulted in less than 15% of the ground being covered by trees or scrub. *Feature set:* <FLD>
- **cliff** A perpendicular or steep face of rock considerable in height, either inland or along the coast. **= wall**. *Feature set:* <CLIF>
- **clumps** A group of small islands, clustered closely together. Feature set: <IS>
- **coalfield** An area with subterranean supplies of coal, where coal mines are established. *Feature set:* <MINE>
- **col** A low point on a ridge between two higher-standing parts of a mountain range. = **saddle**². Feature set: <PASS>
- **college** An establishment for learning at post-secondary level, usually for vocational or technical education. *Feature set:* <SCHL>
- **column¹** An large detached rock, taller than it is wide and roughly cylindrical in shape. *Feature set:* <TOR>
- column² A large rock which is part of an elevated relief feature but which is prominent for its tall and cylindrical aspect. = pillar, rock column. Feature set: <ROCK>
- **column³** An upright structure shaped like a long cylinder, constructed as a memorial. *Feature set:* <MONU>
- **common** A tract of land which belongs to the local community as a whole, and is open to common use, particularly for recreation. *Feature set:* <RESV>
- **community** A small settlement in a rural area, especially one in which Aboriginal people reside. *Feature set:* <LOCB>
- **cone** A hill shaped such that it has a circular base and tapers to a point at the top. = **sugarloaf**. Feature set: <HILL>
- **conservation park** An area set aside for the conservation of fauna and flora, usually with restricted access. *Feature set:* <RESV>
- **control point** A location where the geodetic coordinates have been measured. Feature set: <TRIG>

- **convent** A residence for nuns. *Feature set:* <BLDG>
- **copse** A small wood or group of trees. = **grove**. Feature set: <WOOD>
- **corner**¹ An unbounded locality centred on a place where two roads meet. = **road corner.** Feature set: <LOCU>
- **corner**² An unbounded locality centred on a point where a State or Territory border diverges or where two or more border lines meet. *Feature set:* <LOCU>
- **county** A large territorial division of the State for administrative purposes. *Feature set:* <CNTY>
- **courts** A sports facility consisting of constructed courts for tennis, netball etc. Feature set: <SPRT>
- **cove**¹ An indention made by the sea in the coastline, smaller than a bay, but with sufficient curvature to provide shelter. *Feature set:* <COVE>
- cove² An indention made by the waters of a lake in its shoreline, smaller than a bay, but with sufficient curvature to provide shelter. Feature set: <LCOV>
- **cowal** A small swampy hollow in red-soil country. *Feature set:* <SWMP>
- **crag** A prominent rocky outcrop on an elevated relief feature. = **rock**⁴.

 Feature set: <ROCK>
- **crater**¹ A cup-shaped depression in a hill or mountain, produced by volcanic eruption. *Feature set:* <VCRT>
- **crater**² A bowl-shaped depression formed by the impact of a meteorite. Feature set: <DEPR>
- **creek** A natural watercourse, greater than a gully but of lesser size and length relative to a river and ultimately flowing into another creek or a river. = **brook**, **burn**, **rivulet**, **run**. *Feature set:* <STRM>
- **crossing** A shallow part of a stream, approached by a roadway, where it may be crossed. **= ford**. *Feature set*: <FORD>
- **culvert** A tunnel-drain for water crossing underneath a road, canal or similar feature. *Feature set:* <DRN>
- **cutting** An open excavation through high ground to enable road, rail or canal to pass with minimal gradient. *Feature set:* <FORD>

- dam¹ A wall or barrier constructed of earth, masonry etc., to impound water. Feature set: <DAM>
- dam² A body of water, impounded by a constructed wall or barrier, and stored for domestic or other uses. *Feature set:* <RES>
- **defence establishment** A facility constructed and established by the Australian Defence Force. *Feature set:* <BLDG>
- **dell** A small wooded valley. Feature set: <VAL>
- depression A hollow or relatively sunken area of land. Feature set: <DEPR>
- **desert** An almost barren large tract of land in which the precipitation is so scanty or spasmodic that it will not adequately support vegetation. *Feature* set: <DSRT>
- **discordance** An underwater location which displays a lack of parallelism between contiguous strata. *Feature set:* <BATH>
- district¹ A regional division of a State or Territory administered by local government. = local government area, municipality, province, shire. Feature set: <DI>
- **district**² A tract of country, up to about 1600 km² in area, distinguished by certain common characteristics, natural or cultural. *Feature set:* <LOCB>
- **divide** A line of hills or mountains which acts as a watershed. *Feature set:* <RNGE>
- **dock** An artificially enclosed body of water in which ships may be built, repaired or loaded. *Feature set:* <DOCK>
- **donga** A shallow circular depression in the surface of a limestone plain. Feature set: <DEPR>
- **downs** Open rolling grassland, usually in the high country with fairly smooth slopes. = **fells**. Feature set: <PLN>
- **drain** A channel constructed so that water is drained or gradually carried away. *Feature set:* <DRN>
- dry dock An artificial basin fitted with a gate, into which a vessel can be floated and the water pumped out to facilitate repairs on the vessel. Feature set: <DOCK>
- **elbow** A curve in the course of a stream. **= bend, river bend**. *Feature set:* **<BEND>**

- enclosure A tract of land surrounded by a fence. Feature set: <FLD>
- entrance An opening or passage into a harbour or lake. Feature set: <ENTR>
- escarpment¹ An elongated, characteristically linear, steep slope separating horizontal or gently sloping sectors of the sea floor in non-shelf areas. Feature set: <BATH>
- **escarpment**² A continuous line of cliffs or steep slopes, formed by faulting or erosion. *Feature set:* <CLIF>
- **estuary** The mouth of a river where tidal effects are evident and where mixing of salt and fresh water occurs. *Feature set:* <ESTY>
- **factory** A building or group of buildings where goods are manufactured. Feature set: <BLDG>
- falls A sudden steep descent of water over a natural step in the bed of a stream. = waterfall. Feature set: <WRFL>
- fault A fracture in the earth's crust along which movement has taken place and where the rock strata on the two sides do not match. Feature set: <RDGE>
- **fells** Open rolling grassland, usually in the high country with fairly smooth slopes. **= downs**. *Feature set:* <PLN>
- **ferry** A vessel, usually cable-drawn and –directed, used to transport vehicles and pedestrians across a stream. *Feature set:* <FORD>
- field A piece of open or cleared agricultural land suitable for grazing or for growing hay. = meadow, pasture. Feature set: <FLD>
- **fire station** A building or set of buildings used as a base for a fire brigade and its equipment. *Feature set:* <BLDG>
- **fishing spot** A location off-shore or in a stream or lake, suitable for fishing because of its permanent underwater characteristics, and recognised as such by anglers. *Feature set:* <LOCU>
- flat A relatively level piece of ground, smaller in extent than a plain, within an area of greater relief. Feature set: <PLN>
- **flora reserve** Crown land set aside for the protection of flora, with access controlled by State or Federal authorities. *Feature set:* <RESV>
- **ford** A shallow part of a stream, approached by a roadway, where it may be crossed. **= crossing**. *Feature set:* <FORD>

- **forest** Uncultivated tree-covered land of considerable extent. *Feature set:* <FRST>
- **fracture zone** An extensive linear zone of irregular undersea topography, mountainous or faulted, characterised by steep-sided or asymmetrical ridges, clefts, troughs or escarpments. *Feature set:* <BATH>
- gap¹ A narrow break in an undersea ridge or rise. Feature set: <BATH>
- **garden** An area of land used for the cultivation of ornamental plants, herbs, fruit, vegetables etc. *Feature set:* <FLD>
- **gasfield** An area where natural gas occurs and is extracted. *Feature set:* <MINE>
- **gate** A movable barrier for controlling access to property. *Feature set:* <GATE>
- **glacier** An extended mass of ice which is moving slowly in a definite direction, and which originates from the compacting of snow by pressure. Feature set: <GLCR>
- **glen** A narrow wooded valley with steep sides, often with a <STRM> feature flowing through it. *Feature set:* <GORG>
- **gnamma hole** A natural hole in a rock in which rainwater collects. *Feature set:* <DEPR>
- **goldfield** A region in which gold deposits have been found and where mines have been established. *Feature set:* <MINE>
- golf course An area of ground laid out for the playing of golf. Feature set: <SPRT>
- gorge A deep valley, relatively narrow but of considerable size, bounded by steep slopes, and formed by a river. = canyon², ravine. Feature set: <GORG>
- **gradient** A significant inclination of the surface of the ground on the side or end of an elevated relief feature. = **slope**. Feature set: <SLP>
- **grassland** An area in which the natural vegetation consists primarily of perennial grasses. = **prairie**. Feature set: <PLN>
- **graveyard** A small burial ground, especially one in a churchyard. *Feature set:* <CEM>
- **grotto** A small picturesque cave. Feature set: <CAVE>
- **grove** A small wood or group of trees. = **copse**. Feature set: <WOOD>

- **groyne** A low wall or other barrier built out from a beach to prevent erosion or drifting of sand. *Feature set:* <BRKW>
- **guard house** A building constructed to accommodate military personnel performing guard duties. *Feature set:* <BLDG>
- **gulf** An area of sea partly enclosed by land, taking the form of a long narrow stretch of water larger than a loop. *Feature set:* <GULF>
- **gully** A natural watercourse, of lesser size and length relative to a creek, and which carries water only after rain. *Feature set:* <STRM>
- **guyot** A seamount having a comparatively smooth flat top. Feature set: <BATH>
- **harbour** A large, naturally enclosed and sheltered area of water where vessels can anchor or berth. *Feature set:* <HBR>
- **haven** A small, naturally enclosed and sheltered area of water where vessels can anchor or berth. *Feature set:* <HBR>
- head¹ A comparatively high protrusion of land into the sea, with a steep face. = headland¹. Feature set: <CAPE>
- head² A comparatively high protrusion of land into a lake or other inland body of water, with a steep face. = headland². Feature set: <LCAP>
- **headland**¹ A comparatively high protrusion of land into the sea, with a steep face. = **head**¹. *Feature set:* <CAPE>
- **headland**² A comparatively high protrusion of land into a lake or other inland body of water, with a steep face. = **head**². *Feature set:* <LCAP>
- **heath** Open, uncultivated land with vegetation typically consisting of low small-leaved shrubs and coarse grasses. = **moor**. Feature set: <PLN>
- **heights** The highest part of a range, especially the peaks of a set of hills or mountains. **= tops**. Feature set: <RNGE>
- **helipad** A landing place for helicopters. *Feature set:* <AF>
- **heliport** An airport specifically designed for helicopters. *Feature set:* <AF>
- heritage place A specific place or site which has at one time been the site of an event or activity which is remembered. = historic site. Feature set: <SITE>
- **highway** A major vehicular route, usually multi-laned and sealed, and with national or State designation. *Feature set:* <HWY>
- hill A conspicuous natural elevation of the earth's surface, rising to a peak

less than 300m above its surrounding terrain. Feature set: <HILL>

hillock A small hill or mound. Feature set: <HILL>

hills A range of naturally elevated landforms, with a general elevation of less than 300m above their surrounds. Feature set: <RNGE>

hillside The side or slope of a hill. Feature set: <SLP>

hilltop The top or summit of a hill. Feature set: <PEAK>

historic area An area or precinct showing little or no current activity but which was at one time an area with recognised name and purpose. = **historical locality**. Feature set: <SITE>

historic site A specific place or site which has at one time been the site of an event or activity which is remembered. = **heritage place**. *Feature set:* <SITE>

historical locality An area or precinct showing little or no current activity but which was at one time an area with recognised name and purpose. = historic area. Feature set: <SITE>

historical reconstruction An area or precinct which was at one time an area with recognised name and purpose and which has now been redeveloped to recognise its past. *Feature set:* <SITE>

hole¹ A small local depression, often steep sided, in the sea floor. Feature set: <BATH>

hole² A small local depression, often steep sided, in the bed of a lake or stream. Feature set: <LBATH>

hole³ A natural hole or hollow containing water, especially one in the dry bed of an intermittent river. = waterhole. Feature set: <WTRH>

homestead A house with outbuildings, on a farm or station. Feature set: <HMSD>

hospital Accommodation for the care and treatment of medical or psychiatric patients. *Feature set:* <BLDG>

hot spring(s) A naturally heated mineral spring. Feature set: <SPRG>

hotel A building constructed and maintained for the accommodation of travellers. *Feature set:* <BLDG>

hundred A lands administrative division used in some Australian States. Feature set: <PRSH>

hut A simple, usually small, building which may be used for temporary accommodation, as for bushwalkers or skiers. *Feature set:* <BLDG>

inlet¹ A narrow stretch of water reaching inland from a sea. Feature set:

<COVE>

- inlet² A narrow stretch of water reaching inland from a lake or other body of water. Feature set: <LCOV>
- inn A small hotel that provides lodging and food for travellers. *Feature set:* <BLDG>
- **institute** A building in which work of a literary, scientific or educational character is carried out. *Feature set:* <SCHL>
- island¹ An area of land completely surrounded by the sea, and not large enough to be called a continent. = isle¹. Feature set: <IS>
- island² An area of land completely surrounded by the waters of a lake or other inland body of water. = isle². Feature set: <LIS>
- **island group** A group or chain of islands in the sea. = **archipelago**. Feature set: <|S>
- An area of land completely surrounded by the sea, and not large enough to be called a continent. = **island**¹. Feature set: <IS>
- isle² An area of land completely surrounded by the waters of a lake or other inland body of water. = island². Feature set: <LIS>
- islet¹ An area of land surrounded by the sea, smaller than an island but larger than a cay. Feature set: <IS>
- islet² A small island in a lake or other inland body of water. Feature set: <LIS>
- **isthmus** A narrow strip of land, bordered on both sides by water, that connects two larger bodies of land. = **neck**¹. *Feature set:* <ISTH>
- jumpup A sudden steep rise or escarpment, especially presenting as an elevated, step-like obstacle on an ascending road or track. Feature set: <CLIF>
- **kiln** A building constructed for the purpose of firing bricks. *Feature set:* <BLDG>
- **knob** A prominent rounded hill. Feature set: <HILL>
- **knoll**¹ An elevation somewhat smaller than a seamount and of rounded profile, characteristically isolated or appearing as a cluster on the sea floor. *Feature set:* <BATH>
- **knoll²** A rounded hill, smaller than a knob, rising to less than 30m above the surrounding terrain. *Feature set:* <HILL>
- **kopje** A small isolated hill, presenting as a residual rock mass after desert

denudation. Feature set: <TOR>

- lagoon¹ A relatively small enclosed area of water separated from the open sea by some more or less effective, but not complete, obstacle such as a reef or low sandbanks. *Feature set:* <LAGN>
- lagoon² A small body of open fresh water, smaller than a lake, possibly appearing only seasonally. *Feature set:* <WTRH>
- lake¹ A relatively large enclosed area of water separated from the open sea by some more or less effective, but not complete, obstacle such as low sandbanks. Feature set: <LAGN>
- lake² An area of fresh water surrounded by land. = loch, lough. Feature set: <LAKE>
- **landing ground** A level tract of land, usually without a hard-surfaced runway or maintenance facilities, but otherwise suitable for landing and take-off by light aircraft. = airstrip. Feature set: <AF>
- landing place A place where boats receive or discharge passengers or freight. =
 landing. Feature set: <PIER>
- **landmark** A notable place, recognised and named by a civic authority, but not primarily constructed for the purpose of commemoration. *Feature set:* <LOCU>
- **ledge** A narrow shelf-like projection on a cliff or on the side of a hill or mountain. *Feature set:* <LDGE>
- levee An embankment built to confine a stream to its bed. Feature set: <DAM>
- **light** An aid to navigation, as a buoy or minor structure, incorporating an illuminating source. *Feature set:* <NAVB>
- **lighthouse** A large coastal tower exhibiting a major light source serving as an aid to navigation. *Feature set:* <NAVB>
- local government area A regional division of a State or Territory administered by local government. = district¹, municipality, province, shire. Feature set: <DI>
- **locality (bounded)** A bounded area of a non-urban nature within a local government area, recognised by local usage. Feature set: <LOCB>
- **locality (unbounded)** An unbounded area of a non-urban nature within a local government area, recognised by local usage. *Feature set:* <LOCU>

- **loch** An area of fresh water surrounded by land. = lake², lough. Feature set: <LAKE>
- An enclosure of water in a river or canal, with sluice gates which enable the water level to be raised and lowered for the passage of craft.

 Feature set: <LOCK>
- **lookout**¹ An area on the side of a hill or mountain, which provides a view of the surrounding terrain. *Feature set:* <LDGE>
- **lookout²** A viewing point on the side of a hill or mountain, maintained to provide a view of the surrounding terrain. *Feature set:* <RESV>
- An incursion into the coastline, smaller than a gulf, and taking the form of a long narrow stretch of water, rounded or loop-shaped at its extremity.

 Feature set: <GULF>
- **lough** An area of fresh water surrounded by land. = lake², loch. Feature set: <LAKE>
- marina A docking facility for yachts and other pleasure boats. Feature set: <DOCK>
- **marker** A small structure marking the site of a historical event. *Feature set:* <MONU>
- **market** An open space or a covered building where buyers and sellers of goods and provisions can meet and trade. *Feature set:* <BLDG>
- marsh A tract of land normally saturated with water, having little or no drainage and characterised by a growth of grass or reeds. = morass, swamp. Feature set: <SWMP>
- **massif** A compact portion of a mountain range, containing one or more summits. *Feature set:* <RNGE>
- **meadow** A piece of open or cleared agricultural land suitable for grazing or for growing hay. = **field**, **pasture**. Feature set: <FLD>
- **meander** A curve in the course of a stream, which because of the flat terrain, continually swings in wide loops as it progresses. *Feature set:* <BEND>
- mesa A flat table-like upland, which falls away steeply on all sides as escarpments; it is larger in area than a butte but smaller than a plateau. Feature set: <PL>
- mill A building fitted with machinery for an industrial purpose such as grinding, spinning, cutting or sawing. Feature set: <BLDG>
- **mine** A place or area from which ores, precious stones or minerals are or were extracted from the earth. *Feature set:* <MINE>

- **mineral spring** A spring of water which has in it a high proportion of naturally occurring mineral salts. *Feature set:* <SPRG>
- mining centre A facility built to support a mine or other area from which ores, precious stones or minerals are or were extracted from the earth. *Feature set:* <MINE>
- **mission** An establishment administered by a religious community for the spiritual and social welfare of others, especially an outback community for Aboriginal people. *Feature set:* <BLDG>
- **mole** A massive structure of masonry or large rocks, built to protect a coastal beach from the force of the waves, or to provide additional protection for vessels in a harbour. *Feature set:* <BRKW>
- **monastery** A place of residence occupied by a community of monks. *Feature set:* <BLDG>
- monolith(s) An extremely large isolated rock. Feature set: <TOR>
- **monument** An obelisk, statue or building erected to commemorate a person or event. *Feature set:* <MONU>
- **moor** Open, uncultivated land with vegetation typically consisting of low small-leaved shrubs and coarse grasses. = **heath**. *Feature set*: <PLN>
- morass A tract of land normally saturated with water, having little or no drainage and characterised by a growth of grass or reeds. = marsh, swamp. Feature set: <SWMP>
- **mountain** A natural elevation of the earth's surface rising more or less abruptly at least 300m from the surrounding level. *Feature set:* <MT>
- **mountain lake(s)** A lake (lake²) formed in the crater of an extinct volcano. Feature set: <LAKE>
- mountain peak The top or obvious summit of a mountain. = peak¹, point³, summit. Feature set: <PEAK>
- **mountain range** A series or line of mountains with or without obvious peaks, in which the crests are relatively narrow, at least 16km in length. = **mountains**. Feature set: <RNGE>
- **mountains** A series or line of mountains with or without obvious peaks, in which the crests are relatively narrow, at least 16km in length. = **mountain range**. Feature set: <RNGE>
- municipality A regional division of a State or Territory administered by local government. = district¹, local government area, province, shire. Feature set: <DI>
- **museum** A building for keeping and exhibiting objects of historical, scientific or

- artistic interest. Feature set: <BLDG>
- **national park** A tract of land set apart by a Federal, State or Territory authority to be preserved in its natural state for the benefit of the public. *Feature set:* <RESV>
- **native well** A natural receptacle for water, fed from a spring or soak, and possibly improved by Aborigines. *Feature set:* <WTRH>
- **neck**¹ A narrow strip of land, bordered on both sides by water, that connects two larger bodies of land. = **isthmus**. *Feature set:* <ISTH>
- **neck**² A long and narrow stretch of elevated ground, generally with a length of less than 16km. = **ridge**². Feature set: <RDGE>
- **needle** A tall perpendicular sharp-pointed rock. = **pinnacle**². *Feature set:* <ROCK>
- ness An elevated protrusion of land into the sea. = cape, promontory¹.

 Feature set: <CAPE>
- **netball centre**A sports facility providing courts and other amenities for the playing of netball. *Feature set:* <SPRT>
- **obelisk** A tall tapering four-sided shaft of stone, erected to commemorate a person or an event. *Feature set:* <MONU>
- **observatory** An institution or building specially designed and equipped for observing meteorological and astronomical phenomena. *Feature set:* <BLDG>
- **ocean** One of the five major geographical divisions of the salt waters that cover the majority of the earth's surface. *Feature set:* <SEA>
- oilfield An area of land or sea where oil is found and extracted. Feature set: <MINE>
- **opalfield** An area where opals are mined. *Feature set:* <MINE>
- **opening** A narrow route across a relatively low notch or depression in a mountain barrier. = pass, passage². Feature set: <PASS>
- outcamp An area of land on which a small community of Aboriginal people lives away from larger settlements. = aboriginal outstation, outstation. Feature set: <HMSD>
- outstation An area of land on which a small community of Aboriginal people lives away from larger settlements. = aboriginal outstation, outcamp. Feature set: <HMSD>
- **oval** A level area of ground, usually enclosed in a circular or ellipsoid shape and designated for sporting activities. *Feature set:* <SPRT>

- oxbow A small bow-shaped lake, as a remnant of a former meander of a river after the river has straightened its course by cutting through the neck of the meander. Feature set: <WTRH>
- paddock A tract of land, fenced or otherwise marked off, used for rural production. Feature set: <FLD>
- **pagoda** A tower-like temple or sacred building for Hindu or Buddhist worship, pyramidal with many storeys. *Feature set:* <BLDG>
- **park** An area of land, either in its natural state or improved, set aside for recreational use by the public. *Feature set:* <RESV>
- pass A narrow route across a relatively low notch or depression in a mountain barrier. = opening, passage². Feature set: <PASS>
- passage¹ A comparatively deep and narrow route affording a passage for a vessel, as through a reef or between two landmasses. Feature set: <STR>
- passage² A narrow route across a relatively low notch or depression in a mountain barrier. = opening, pass. Feature set: <PASS>
- pasture A piece of open or cleared agricultural land suitable for grazing or for growing hay. = field, meadow. Feature set: <FLD>
- patch A shoal (shoal²) which constitutes a danger to vessels. = patches. Feature set: <SHOL>
- **patches** A shoal (**shoal**²) which constitutes a danger to vessels. = **patch**. Feature set: <SHOL>
- path A way, paved or unpaved, for walking. Feature set: <TRK>
- peak¹ The top or obvious culmination of a mountain. = mountain peak, point³, summit. Feature set: <PEAK>
- **peak**² A mountain with a pointed summit. *Feature set:* <MT>
- **peninsula** A land feature which projects into the sea, and which is connected to the mainland by a narrow isthmus. *Feature set:* <CAPE>
- **picnic area** A tract of ground maintained with amenities suitable for people to bring food for outdoor eating. *Feature set:* <CP>
- **pier** A structure built out in to the water to serve as a landing place for ships. *Feature set:* <PIER>
- pillar A large rock which is part of an elevated relief feature but which is prominent for its tall and cylindrical aspect. = **column**², **rock column**. Feature

- set: <ROCK>
- pinnacle² A tall perpendicular sharp-pointed rock. = needle. Feature set: <ROCK>
- plain¹ A large area of the sea floor which is relatively flat. Feature set: <BATH>
- plain² A tract of country, at least 2500 hectares in extent, the general surface of which is comparatively flat and which is sparsely, if at all, timbered. *Feature set:* <PLN>
- **plant** The buildings and equipment of an industrial business. *Feature set:* <BLDG>
- **plantation** A plot in which trees are planted and cultivated, usually for commercial purposes. *Feature set:* <PLAN>
- plateau An elevated tract of comparatively flat land with an extent of at least 2500 hectares. = tableland. Feature set: <PL>
- **point**¹ A small protrusion of land into the sea. *Feature set:* <PT>
- **point**² A small protrusion of land into a lake or other inland body of water. Feature set: <LPT>
- point³ The top or obvious summit of a mountain. = mountain peak, peak¹, summit. Feature set: <PEAK>
- **pond**¹ A small body of still water in a natural hollow. = **pool**. Feature set: <WTRH>
- **pond²** A relatively small body of water retained by a barrier, usually for drinking or irrigation purposes. *Feature set:* <RES>
- pondage Water in excess of normal levels temporarily trapped by an embankment. Feature set: <RES>
- **pool** A small body of still water in a natural hollow. = **pond**¹. Feature set: <WTRH>
- **pool spring** A pool which is naturally replenished by a flow of water from a subterranean spring. *Feature set:* <SPRG>
- **populated place** A bounded locality in a rural area with a relatively small population. *Feature set:* <LOCB>

- **port** A major commercial and industrial area alongside navigable water with facilities for the loading and unloading of ships. *Feature set:* <PORT>
- **post office** A local office for receiving, distributing and transmitting mail, providing telecommunication services etc. *Feature set:* <BLDG>
- **prairie** An area in which the natural vegetation consists primarily of perennial grasses. = **grassland**. *Feature set:* <PLN>
- **prison** A public building for the confinement and safe custody of those committed there by law. *Feature set:* <BLDG>
- **promontory**¹ An elevated protrusion of land into the sea. = **cape**, **ness**. *Feature set:* <CAPE>
- promontory² An elevated protrusion of land into a lake or other inland body of water. Feature set: <LCAP>
- province A regional division of a State or Territory administered by local
 government. = district¹, local government area, municipality, shire.
 Feature set: <DI>
- **public watering place** An artificial waterhole for the watering of stock. *Feature* set: <RES>

- **pyramid** A high mountain peak formed by three or more adjacent steep-sided glacial basins. *Feature set:* <MT>
- **quarry** An open surface excavation or pit for the extraction of building stone, slate, marble etc. *Feature set:* <MINE>
- **quay** An artificial landing place, built of masonry etc., for vessels to receive or discharge passengers or freight. *Feature set:* <PIER>
- **racecourse** A place with a track which has been licensed by government for the holding of horse races. *Feature set:* <RTRK>

- **radio station** A facility for the production of radio broadcast material. *Feature set:* <BCST>
- radio tower A transmission tower for radio broadcasts. Feature set: <TOWR>
- rail loop A short branch off a railway track, often connected at both ends to the main track, where trains can pass on a single line stretch of railway. = railway siding. Feature set: <RLWY>
- railway line A permanent track composed of a line of parallel metal rails fixed to sleepers for transport of passengers and goods in trains. Feature set: <RLWY>
- railway crossing A place where a railway line crosses a road. Feature set: <RLYX>
- railway siding A short branch off a railway track, often connected at both ends to the main track, where trains can pass on a single line stretch of railway. = rail loop. Feature set: <RLWY>
- railway station A structure beside a railway line with facilities for receiving and discharging passengers and freight. = station. Feature set: <RSTA>
- rainforest Dense evergreen forest found in tropical and temperate areas with heavy and constant rainfall. Feature set: <FRST>
- **ramp** A slope, usually paved, set aside for the launching of small water craft. Feature set: <PIER>
- range A series or line of mountain or hill ridges with or without obvious peaks, in which the crests are relatively narrow, at least 16km in length. Feature set: <RNGE>
- **rapids** A portion of a stream where it descends rapidly, without a break in the slope of the bed sufficient to form a waterfall. *Feature set:* <WRFL>
- ravine A deep valley, relatively narrow but of considerable size, bounded by steep slopes, and formed by a river. = canyon², gorge. Feature set: <GORG>
- **reach** A comparatively straight part of a river or channel between two bends. Feature set: <RCH>
- reef A mass of rock or other indurated material lying at or near the sea surface that may constitute a hazard to surface navigation. Feature set: <BATH>
- region A relatively large area, usually within the bounds of a State or Territory, which is distinguished by certain common characteristics, natural or cultural, and recognised as such for various administrative or cultural purposes. Feature set: <DI>

- region² A relatively large area with boundaries determined by a State or Territory, which is distinguished by certain common characteristics, natural or cultural, and recognised as such for various administrative or cultural purposes. Feature set: <LOCB>
- research establishment An agricultural research station. = farm (specialised). Feature set: <FARM>
- **reserve** A area proclaimed to be a public park by government legislation. Feature set: <RESV>
- **reservoir** An artificial lake or structure storing water for domestic or other uses. Feature set: <RES>
- ridge¹ An elongated narrow undersea elevation of varying complexity, having steep sides, and which may be of sufficient extent to separate ocean basins. Feature set: <BATH>
- ridge² A long and narrow stretch of elevated ground, generally with a length of less than 16km. = neck². Feature set: <RDGE>
- **rifle range** An area designated for target practice with rifles. *Feature set:* <FRNG>
- rise A broad elevation that rises gently and generally smoothly from the sea floor. Feature set: <BATH>
- **river** A major natural stream, usually perennial, in a large catchment basin, which carries water to another river, a lake or the sea. *Feature set:* <STRM>
- river bend A curve in the course of a stream. = bend, elbow. Feature set: <BEND>
- **river crossing** A shallow part of a river, approached by a roadway, where it may be crossed. *Feature set:* <FORD>
- river flat A relatively level tract of country without hills and smaller than a plain, caused by the laying down of sediment by a river. Feature set: <PLN>
- **river mouth** The area at which a river makes contact with the sea. *Feature set:* <ESTY>
- rivulet A natural watercourse, greater than a gully but of lesser size and length relative to a river and ultimately flowing into another creek or a river. = brook, burn, creek, run. Feature set: <STRM>
- **road** A way, usually open to the public and sometimes surfaced, providing passage for vehicles from one place to another. *Feature set:* <ROAD>
- **road bend** An unbounded locality centred on a bend in a road. *Feature set:* <LOCU>

- road corner An unbounded locality centred on a place where two roads meet. =
 corner¹. Feature set: <LOCU>
- **roadhouse** An establishment alongside a major rural road, such as a café or restaurant, where food and other supplies may be bought. *Feature set:* <BLDG>
- roads An area for ships to anchor, sufficiently sheltered by reefs, sandbanks or islands to give protection from seas. = anchorage¹, roadstead. Feature set: <ANCH>
- **roadstead** An area for ships to anchor, sufficiently sheltered by reefs, sandbanks or islands to give protection from seas. = **anchorage**¹, **roads**. *Feature set:* <ANCH>
- **rock**¹ An isolated rocky formation submerged or partly submerged in the sea, which constitutes a danger to navigation. *Feature set:* <IS>
- **rock**² A large rocky formation surrounded by the waters of an inland body of water. *Feature set:* <LIS>
- **rock**³ An isolated rocky outcrop rising sharply from level terrain. *Feature set:* <TOR>
- rock⁴ A prominent rocky outcrop on an elevated relief feature. = crag. Feature set: <ROCK>
- rocket range An area designated for the launching of rockets. Feature set: <FRNG>
- **rock face** An area of exposed rock, generally in a vertical position on an elevated relief feature. *Feature set:* <CLIF>
- rock formation¹ An isolated group of large rocky outcrops, rising sharply from level terrain. = rocks³. Feature set: <TOR>
- **rock formation**² A prominent outcrop consisting of several rocky crags on an elevated relief feature. = **rocks**⁴. *Feature set:* <ROCK>
- **rockhole** A hole excavated in solid rock by water action. *Feature set:* <DEPR>
- rocks¹ An large and isolated formation of rocky outcrops submerged or partly submerged in the sea, which constitutes a danger to navigation. *Feature set:* <IS>
- rocks² A large formation consisting of rocky outcrops surrounded by the waters of an inland body of water. Feature set: <LIS>

- rocks³ An isolated group of large rocky outcrops, rising sharply from level terrain. = rock formation¹. Feature set: <TOR>
- rocks⁴ A prominent outcrop consisting of several rocky crags on an elevated relief feature. = rock formation². Feature set: <ROCK>
- ruin A fallen and derelict building. Feature set: <RUIN>
- run A natural watercourse, greater than a gully but of lesser size and length relative to a river and ultimately flowing into another creek or a river. = brook, burn, creek, rivulet. Feature set: <STRM>
- **rural place** A place, site or precinct in a rural landscape, generally of small extent, the name of which is in current use. *Feature set:* <LOCU>
- **saddle**¹ A broad pass or col, resembling in shape a riding saddle, in an undersea ridge or between contiguous elevations. *Feature set:* <BATH>
- saddle² A low point on a ridge between two higher-standing parts of a
 mountain range. = col. Feature set: <PASS>
- **saltmarsh** A marsh which is sometimes flooded by the sea or which for some other reason has water with a high saline content. *Feature set:* <SWMP>
- salt pan A small non-vegetated hollow, formerly containing water, in which a deposit of salt is left behind owing to evaporation of the water. Feature set: <PAN>
- sanatorium An establishment for the treating of invalids or convalescents. Feature
 set: <BLDG>
- **sandbank**¹ An undersea ridge of sand, built up by the action of tides, currents, etc, and possibly exposed at low tide. = **sandbar**¹. *Feature set:* <BATH>
- sandbank² A ridge of sand in a lake or in the bed of a stream, which is usually exposed above the surface of the water. = sandbar². Feature set: <LBATH>
- sandbar¹ An undersea ridge of sand, built up by the action of tides, currents, etc, and possibly exposed at low tide. = sandbank¹. Feature set: <BATH>
- sandbar² A ridge of sand in a lake or in the bed of a stream, which is usually exposed above the surface of the water. = sandbank². Feature set: <LBATH>
- sandhill(s) A mound, ridge or hill of drifted sand, formed by the action of the wind.
 = dune(s). Feature set: <DUNE>
- **sandridge** A ridge of drifted sand, formed by the action of the wind. *Feature set:* <DUNE>
- sandspit¹ A small bank of low land projecting into the sea from the shore. =
 spit¹. Feature set: <PT>

- sandspit² A small bank of low land projecting into a lake or other inland body of
 water from the shore. = spit². Feature set: <LPT>
- **sawmill** An establishment in which timber is sawn into planks or boards by machinery. *Feature set:* <BLDG>
- **school** An establishment for primary or secondary education created by the Education Act. *Feature set:* <SCHL>
- **scree** A slope or base of a cliff consisting of broken rock fragments. *Feature* set: <SLP>
- **scrub** A tract of country, not large in extent, which is uncultivated and which bears a dense growth of low-growing bushes or shrubs. = **brush**, **thicket**. Feature set: <WOOD>
- of the smaller divisions of the salt waters that cover the majority of the earth's surface, in particular one which forms part of one of the five oceans and which is partly enclosed by land. Feature set: <SEA>
- **seamount** A large isolated submarine elevation, or a group of such, greater than 1000m in relief above the sea floor, and characteristically of conical form. *Feature set:* <BATH>
- **shaft** A vertical hole serving as access to a mine or other underground workings. *Feature set:* <WELL>
- **shallows** An area of shallow water. = **shoal**². Feature set: <SHOL>
- shelf
 A zone adjacent to a continent (or around an island) and extending from the low water line to a depth at which there is usually a marked increase of slope towards oceanic depths. Feature set: <BATH>
- **shelter** A structure which gives protection and refuge, as from bad weather. *Feature set:* <BLDG>
- shire A regional division of a State or Territory administered by local government. = district¹, local government area, municipality, province. Feature set: <DI>
- **shoal**¹ An offshore hazard to surface navigation with substantially less clearance than the surrounding area and composed of unconsolidated material. *Feature set:* <BATH>
- **shoal**² An area of shallow water. = **shallows**. Feature set: <SHOL>
- **shopping centre** An area where shops are concentrated. *Feature set:* <BLDG>
- **showground** A reserve used for fairs, field days, and local shows. *Feature set:* <RESV>
- **shrine** A place or site venerated for its association with a famous person or

event. Feature set: <MONU>

- **sink** A saucer shaped depression in the earth's surface, usually found in limestone regions, through which water may enter the ground and pass along an underground course. *Feature set:* <DEPR>
- **slate quarry** An open surface excavation or pit for the extraction of slate. *Feature* set: <MINE>
- **slope** A significant inclination of the surface of the ground on the side or end of an elevated relief feature. = **gradient**. Feature set: <SLP>
- **soak** A hollow, often in sandy soil and around the base of granite rocks, where water collects, on or below the surface of the ground. = **soakage**. Feature set: <WTRH>
- soakage A hollow, often in sandy soil and around the base of granite rocks, where water collects, on or below the surface of the ground. = soak. Feature set: <WTRH>
- **sound** A relatively long arm of a sea or ocean forming a channel between an island and the mainland or connecting two larger bodies, as, a sea and the ocean, or two parts of the same body; usually wider and more extensive than a strait. *Feature set:* <SND>
- **speedway** A track, usually oval in shape, on which car and motorcycle races are held. *Feature set:* <RTRK>
- spire A large rock which is part of an elevated relief feature but which is prominent for its tall tapering aspect, resembling an inverted cone or a pyramid. Feature set: <ROCK>
- spit¹ A small bank of low land projecting into the sea from the shore. =
 sandspit¹. Feature set: <PT>
- **spit**² A small bank of low land projecting into a lake or other inland body of water from the shore. **= sandspit**². *Feature set:* <LPT>

- **spring** A place at which a flow of water issues naturally from the ground, either continuously or intermittently. *Feature set:* <SPRG>
- **spur**¹ A subordinate undersea elevation or ridge protruding from a larger feature, such as a plateau or island foundation. *Feature set:* <BATH>
- **spur²** A minor linear projection off an elevated relief feature, less than 2km in length and decreasing in altitude from the parent feature. *Feature set:*

<SPUR>

- **stadium** An area for sports contests, enclosed by grandstands and tiered seating. **= arena**. *Feature set:* **<**SPRT>
- State Any of the six major divisions which, with the Territories, make up the federated Commonwealth of Australia. *Feature set:* <STAT>
- **State forest** An area of land proclaimed to be a managed forest under a Forest Act or equivalent legislation. *Feature set:* <PLAN>
- **station** A structure beside a railway line with facilities for receiving and discharging passengers and freight. = **railway station**. Feature set: <RSTA>
- **steel works** A factory where steel is made and formed into girders, rails and other goods. *Feature set:* <BLDG>
- **steeps** The very steep and deep sides of a mountain or high plateau. *Feature* set: <CLIF>
- **stock route** A route designated for droving stock, with the intent of avoiding vehicular traffic. *Feature set:* <STOK>
- **stockyard** An enclosure for the temporary keeping of livestock, such as horses, sheep or cattle. = **yard**. Feature set: <YARD>
- **strait** A comparatively deep and narrow route affording a passage for a vessel between two landmasses.. *Feature set:* <STR>
- **stream** A body of water flowing in a channel or bed. = **watercourse**. Feature set: <STRM>
- **suburb** A bounded area within a city, town or shire, with an urban character and with a focus of shops, school or transport facility. *Feature set:* <SUB>
- summit The top or obvious culmination of a mountain. = mountain peak, peak¹, point³. Feature set: <PEAK>
- surf break A permanent obstruction such as a reef, bombora, rock or sandbar
 which causes waves to break thus making conditions conducive to surfing. =
 surfing spot. Feature set: <LOCU>
- surfing spot A permanent obstruction such as a reef, bombora, rock or sandbar which causes waves to break thus making conditions conducive to surfing. = surf break. Feature set: <LOCU>
- swamp A tract of land normally saturated with water, having little or no drainage and characterised by a growth of grass or reeds. = marsh, morass. Feature set: <SWMP>

- **tableland** An elevated tract of comparatively flat land with an extent of at least 2500 hectares. = plateau. Feature set: <PL>
- tank An artificial waterhole forming a reservoir for rainwater and adjacent run-off, made by building walls of earth either excavated or conveyed to the site. Feature set: <RES>
- **tannery** A building where raw hides are processed into leather. *Feature set:* <BLDG>
- tarn A small mountain lake. Feature set: <WTRH>
- **tavern** An establishment which provides food and alcoholic drink, but not accommodation, for travellers. *Feature set:* <BLDG>
- **telephone exchange** A building where connections are made between telephone lines. *Feature set:* <BLDG>
- **temple** A building for public worship, especially Buddhist or Bahai. *Feature* set: <BLDG>
- **tennis centre** A facility with courts for tennis coaching and playing. *Feature set:* <SPRT>
- terrace¹ A relatively flat horizontal or gently inclined submarine surface, sometimes long and narrow, which is bounded by a steeper ascending slope on one side and by a steeper descending slope on the opposite side. Feature set: <BATH>
- **terrace**² A series of level narrow strips of land, or one such strip, lying between a slope upwards to hills on one side and a slope, often abrupt, downwards on the other. *Feature set:* <SLP>
- **Territory** Any of those administrative divisions which are not fully represented in the Federal Parliament but which, with the six States, make up the federated Commonwealth of Australia. *Feature set:* <STAT>
- tops The highest part of a range, especially the peaks of a set of hills or mountains. = heights. Feature set: <RNGE>
- **tor** An isolated high rock, commonly one eroded by wind into unusual shapes. *Feature set:* <TOR>
- tower¹ A prominent hill which is perceived as approximately cylindrical in its elevation. *Feature set:* <HILL>
- tower² A building high in proportion to its lateral dimensions, used as a

- fortification or for protection, observation etc. Feature set: <BLDG>
- **tower**³ A high metal tower which carries conductors for the transmission of media broadcasts. = **transmission tower**. *Feature set:* <TOWR>
- **town** A commercial nucleus offering a wide range of services and a large number of shops, often several of the same type. *Feature set:* <URBN>
- **town hall** A building which provides the offices of a local government authority, often with other community facilities included. *Feature set:* <BLDG>
- town site An area set aside for urban development. Feature set: <LOCB>
- **track** An unsurfaced way, especially through rough country, for walking, riding or driving. = **trail**. Feature set: <TRK>
- **trail** An unsurfaced way, especially through rough country, for walking, riding or driving. = **track**. *Feature set*: <TRK>
- **training wall** A barrier built to protect a coastal beach from the force of the waves, or to provide additional protection for vessels in a harbour. = **breakwater**. Feature set: <BRKW>
- **transmission tower** A high metal tower which carries conductors for the transmission of media broadcasts. = **tower**³. Feature set: <TOWR>
- tree A large arboreal specimen, either living or preserved, identified as a cultural object, usually commemorating a historic event associated with it. Feature set: <SITE>
- **trench** A long, narrow, characteristically very deep and asymmetrical depression of the sea floor, with relatively steep sides. *Feature set:* <BATH>
- **trig station** A point on the ground, the geographic position of which has been determined by geodetic survey. *Feature set:* <TRIG>
- **trough** A long depression of the sea floor characteristically flat bottomed and steep sided and normally shallower than a trench. *Feature set:* <BATH>
- **tunnel** An enclosed subterranean excavation through high ground or under a body of water to enable road or rail traffic to pass the obstruction. *Feature* set: <TUNN>
- **TV station** A facility for the production of TV broadcast material. *Feature set:* <BCST>
- **TV tower** A transmission tower for TV broadcasts. Feature set: <TOWR>
- uncultivated land Land not cultivated or tilled for pasture. Feature set: <PLN>
- university A tertiary educational institution with the power to award postgraduate
 research degrees. Feature set: <SCHL>

- **urban place** A place, site or precinct in an urban landscape, the name of which is in current use, but the limits of which have not been defined under the address locality program. *Feature set:* <SUB>
- urban village A cohesive populated place with some local services in an urban landscape, the name of which is in current use, but the limits of which have not been defined under the address locality program. Feature set: <SUB>
- vale A long area of lower elevation in an area of elevated relief, bounded by hills or mountains, usually with a river flowing through it, and formed by erosion or by movements in the earth's crust. = valley. Feature set: <VAL>
- valley A long area of lower elevation in an area of elevated relief, bounded by hills or mountains, usually with a river flowing through it, and formed by erosion or by movements in the earth's crust. = vale. Feature set: <VAL>
- **velodrome** An arena with a banked track, usually oval in shape, constructed for cycle races. *Feature set:* <RTRK>
- village A cohesive populated place in rural surroundings, which may provide a limited range of services to the local area, with residential subdivisions in urban lot sizes. Feature set: <LOCB>
- **vineyards** Agricultural holdings where grapes are grown on the vine. *Feature set:* <FLD>
- wall A perpendicular or steep face of rock considerable in height, either inland or along the coast. = cliff. Feature set: <CLIF>
- warehouse A storehouse for goods. Feature set: <BLDG>
- washpool A natural pool in a stream in which sheep are washed before shearing. Feature set: <WTRH>
- water aerodrome A body of water designated for the operations of seaplanes and with facilities licensed for such craft to use. Feature set: <AF>

- waterhole A natural hole or hollow containing water, especially one in the dry bed of an intermittent river. = hole². Feature set: <WTRH>

- waterway A large artificial channel used by vessels as a route over land. =
 canal. Feature set: <CNAL>
- weir A barrier erected across a stream to impound and raise the water level for the purpose of maintaining it at the level required for irrigation or navigation purposes. Feature set: <DAM>
- **well¹** A hole drilled into the ground to extract oil or gas. *Feature set:* <WELL>
- **well**² A hole or pit dug or drilled into the ground to extract water. *Feature* set: <BORE>
- wetdock A dock in which the water can be maintained at the set level by opening or closing a gate. Feature set: <DOCK>
- wetland An area inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support vegetation typical of swamps, marshes, bogs, etc. Feature set: <SWMP>
- wharf A platform, such as a jetty, pier or quay, alongside of which ships may be secured for loading or unloading cargo or passengers. Feature set: <PIER>
- winery A place where wine is made. Feature set: <BLDG>
- wood(s) A tract of country, not large in extent, which is uncultivated and covered with trees. Feature set: <WOOD>
- **woolshed** A special-purpose building on a rural property where sheep are shorn and where the wool is classed and baled. *Feature set:* <HMSD>
- works A site where a factory or manufacturing plant is situated. *Feature set:* <BLDG>
- wreck The ruined remains of a sunken vessel. Feature set: <WRCK>
- yard An enclosure for the temporary keeping of livestock, such as horses, sheep or cattle. = stockyard. Feature set: <YARD>

APPENDIX 2

Feature Set Glossary

Feature Feature Set Definition Code ΔF A landing area for aircraft Included terms: aerodrome airfield airport airstrip helipad heliport landing_ground water aerodrome **ANCH** A sheltered location suitable for vessels to anchor Included terms: anchorage 1 roads roadstead **BATH** Any feature of marine waters which is always or usually submerged [Temporary set; ultimately to be replaced by a number of feature sets dominated by + MARINE, +BATHYMETRICI Included terms: bank bank canyon discordance escarpment fracture zone gap guyot hole knoll plain reef ridge rise saddle sandbank sandbar seamount shelf shoal spur terrace¹ trench trough BAY A concave recess made by the sea in the coastline, larger than <COVE> but smaller and more convex than <BGHT> Included terms: bav1 всн A sloping sea shore that is periodically washed by waves or tides and is usually covered with sand or gravel Included terms: beach1 **BCST** A facility for the production of broadcast material, such as radio or TV studios Included terms: broadcasting station radio station TV station **BEND** A section of a stream which incorporates a significant change in the stream's general direction Included terms: bend elbow meander river bend **BGHT** A large-scale indentation in a coastline, larger and not so markedly recessed as <BAY> Included terms: bight **BLDG** A building constructed as a facility for work, education or residence Included terms: abattoir abbey arsenal barn barracks battery bell tower brewery chalet chapel church coal depot convent defence establishment factory fire station quard house hospital hotel hut inn kiln market mill mission monastery museum observatory pagoda plant police_station post_office power_station prison pump pumping_station roadhouse sanatorium sawmill shelter shopping centre steel works tannery tavern telephone_exchange temple tower² town_hall warehouse winery works
A hole bored into the ground for the extraction of water **BORE** Included terms: artesian_bore bore well² **BRDG** A raised structure which provides a crossing over a road, railway, stream or other barrier of geography Included terms: bridge causeway viaduct **BRKW** A structure in a port or otherwise on the shoreline which provides protection from the action of waves Included terms: breakwater groyne mole training_wall **BSTA** A terminus for buses and coaches Included terms: bus(way) station CAPE A large piece of land jutting out into the sea Included terms: cape head headland ness peninsula promontory CAVE A hollow in the earth, especially one which opens more or less horizontally into the side of <CLIF> or <HILL> features Included terms: blowhole cave cavern grotto CEM A burial ground, such as a cemetery or graveyard Included terms: cemetery gravevard CHAN Part of a marine route through shallow waters, which is deep enough to be navigable Included terms: channel¹ **CLIF** A perpendicular or steep face of rock on an elevated relief feature

Included terms: bluff breakaway cliff escarpment² jumpup precipice rock_face steeps wall

Feature Set Definition

Code

CNAL A channel constructed as a route over land for vessels

Included terms: canal waterway

CNTY A unit of land administration, larger than a <PRSH>

Included terms: county

COVE A concave recess or inlet in the coastline, smaller than a <BAY>

Included terms: arm1 cove1 inlet1

CP A facility for temporary recreational accommodation, such as a camp site or picnic

area

Included terms: camp campsite picnic_area

DAM A structure such as a wall, mound or barrage for holding back or containing a

body of water

Included terms: barrage dam1 levee weir

DEPR A large depression or open hollow in the landscape

Included terms: amphitheatre basin¹ catchment crater² depression donga gnamma hole

rockhole sink

DI An area of administration or responsibility, recognised by local government, tourist

authority, or such

Included terms: district local government area municipality province region shire

DOCK An enclosed or bounded berth for vessels

Included terms: anchorage² basin² dock dry dock marina wetdock

DRN A watercourse constructed as part of a water supply or for irrigation or drainage

purposes

Included terms: aqueduct bore drain channel³ culvert drain

DSRT A large tract of land with such low precipitation that it will not adequately support

vegetation

Included terms: desert

DUNE A ridge or ridges of drifted sand.

Included terms: dune(s) sandhill(s) sandridge

ENTR A passage into enclosed waters

Included terms: entrance

ESTY The mouth of a river where tidal effects are evident and where fresh water and

sea water mix

Included terms: estuary river_mouth

FARM An agricultural research establishment or specialised farm

Included terms: farm_(specialised) research_establishment

Cultivated ground, prepared or productive for agriculture

Included terms: clearing enclosure field garden meadow paddock pasture vineyards

FORD A place where a a road, railway, stream or other barrier of geography may be

crossed

FLD

Included terms: crossing cutting ferry ford river_crossing

FRNG A tract of land set aside for weapons testing or as a rifle range

Included terms: bombing_range rifle_range rocket_range

FRST Uncultivated tree-covered land of considerable extent

Included terms: forest rainforest

GATE An exit point, either on an urban transport route or at a border fence

Included terms: city_exit gate

GLCR A mass of permanent snow and ice flowing from an area of snow accumulation on

higher ground [Temporary set; ultimately to be replaced by a number of feature sets

dominated by +ICE] Included terms: glacier

GORG A steep-sided narrow valley

Included terms: canyon² chasm cirque glen gorge ravine

GULF A recess made by the sea in the coastline, narrower and usually larger than

<BAY>

Included terms: gulf loop

HBR A large body of water sheltered by surrounding land and providing protection for

vessels

Included terms: harbour haven

Feature Feature Set Definition Code HILL An elevation of the earth's surface, less than 300m from foot to summit, rising conspicuously from the surrounding level but not normally an isolated feature Included terms: cone hill hillock knob knoll² sugarloaf tower¹ **HMSD** A main residence or other large special-purpose building on a rural property Included terms: aboriginal outstation homestead outcamp outstation woolshed **HWY** A major vehicular route, usually multi-laned and sealed, and with national or State designation Included terms: highway IS A tract or tracts of land surrounded by water and not large enough to be called a continent Included terms: archipelago cay clumps island island group isle islet rock rocks A narrow strip of land, bordered on both sides by water, which connects two larger **ISTH** bodies of land Included terms: isthmus neck1 LAGN An area of sheltered water separated from the sea by low banks or by reef, and with only a narrow entrance or entrances to the sea Included terms: lagoon lake LAKE A stretch of fresh water of considerable size, surrounded by land Included terms: lake² loch lough mountain lake(s) **LBATH** Any feature of non-marine waters which is always or usually submerged Included terms: bank² bar² hole² sandbank² sandbar² I BAY A concave recess made in the shore of a lake, larger than <LCOV> Included terms: bay2 LBCH A sloping shore of a lake or a low stretch of river's edge, usually covered with sand or gravel. Included terms: beach² LCAP A large piece of land jutting out into a lake or other inland water body Included terms: head2 headland2 promontory2 **LCOV** A concave recess or inlet in the shore of a lake, smaller than <LBAY> Included terms: arm², cove², inlet² LDGE A narrow horizontal shelf-like surface on a <MT> or <HILL> feature Included terms: ledge, lookout¹ LIS A tract or tracts of land surrounded by water within a lake or river Included terms: island² islet² rock² rocks² LOCB A non-urban area or locality, with defined boundaries, within a local authority or other legislative area Included terms: community district² locality (bounded) populated place region² town site village LOCK An enclosure of water in a river or canal, with sluice gates which enable the water level to be raised and lowered for the passage of craft Included terms: lock A non-urban area or locality, without defined boundaries, within a local authority or LOCU other legislative area Included terms: boundary corner¹ corner² fishing_spot landmark locality_(unbounded) road_bend road_corner rural_place surf_break surfing_spot LPT A protrusion of land, smaller than an <LCAP> feature, into the waters of a lake or river, or the outer end of such a protrusion Included terms: point² sandspit² spit² MINE A place or area from which commercial minerals are removed from the earth Included terms: coalfield gasfield goldfield mine mining centre oilfield opalfield quarry slate quarry MONU A structure by which the memory of persons or things is preserved Included terms: cairn² column³ marker monument obelisk shrine MT A major elevation of the earth's surface, which is arbitrarily marked as greater than 300m from foot to summit, rising conspicuously from the surrounding level but not normally an isolated feature Included terms: mountain peak² pyramid

Feature Feature Set Definition Code **NAVB** A prominent specially constructed object forming a conspicuous mark as a fixed aid to navigation Included terms: beacon buoy light lighthouse PAN A small non-vegetated area, often a shallow depression, which may hold water for some time after rain Included terms: clay_flat clayhole claypan clay_pit salt_pan **PASS** A relatively horizontal opening between hills or mountains or within a range Included terms: col gap² opening pass passage² saddle² PEAK The uppermost prominent point of a height feature Included terms: hilltop mountain_peak peak¹ point³ summit **PIER** An unenclosed landing place or berth for vessels Included terms: landing landing_place pier quay ramp wharf PLAn extensive area of relatively flat land in an area of high relief Included terms: mesa plateau tableland PLAN Cultivated ground for arboriculture Included terms: arboretum plantation State forest PLN Ground with non-arboreal vegetation, not being wetland and not cleared for agriculture Included terms: bottom downs fells flat grassland heath moor plain² prairie river flat uncultivated land PORT A place provided with terminal and transfer facilities for loading and discharging cargo or passengers from vessels Included terms: port PRSH A unit of land administration, smaller than a <CNTY> Included terms: hundred, parish PT A protrusion of land into the sea, smaller than a <CAPE> feature, or the outer end of such a protrusion Included terms: bill point1 sandspit1 spit1 RCH A straight section of a river, especially a navigable river between two bends Included terms: reach RDGF A long and narrow stretch of elevated ground on a mountain or hill or within a range Included terms: fault neck² ridge² **RES** A body of water stored for domestic or other use Included terms: artificial lake dam² pond² pondage public watering place reservoir tank **RESV** A tract of land set apart for recreation, as a public reserve, or for a specific purpose Included terms: common conservation park flora reserve lookout² national park park reserve showground **RLWY** A track or set of tracks of iron or steel rails used for the passage of trains Included terms: rail_loop railway_line railway_siding A place where a roadway crosses a railway line RLYX Included terms: railway crossing **RNGE** An extended line of mountains or hills forming a connected system. Included terms: divide heights hills massif mountain range mountains range tops A way usually open to the public for the passage of vehicles ROAD Included terms: road A prominent outcrop of stone on another height feature ROCK Included terms: column² crag needle pillar pinnacle² rock⁴ rock column rock formation² rocks4 spire **RSTA** A place where trains stop for passengers or freight Included terms: railway station station RTRK A track on which races, especially motor races or horse races, are held Included terms: auto track racecourse racetrack speedway velodrome RUIN The remains of a fallen and derelict building

A place established for the purpose of education and instruction

Included terms: college institute school university

Included terms: ruin

SCHL

Feature Set Definition Code

SEA

The salt waters that cover the greater part of the earth's surface, or a part of those

waters

Included terms: ocean sea

SHOL An expanse of shallow water

Included terms: patch patches shallows shoal²

SITE A location of a former cultural feature, especially one which commemorates that

feature

Included terms: heritage_place historic_area historical_locality historical_reconstruction

historic_site tree

SLP A gradient on a height feature

Included terms: gradient hillside scree slope terrace²

SND An arm of the sea which extends between an island and the mainland or

otherwise connects two larger bodies of water, but which is wider and more

extensive than <STR> features

Included terms: sound

SPRG A flow of water issuing naturally out of the ground, either continuously or

intermittently

Included terms: hot_springs mineral_spring pool_spring spring

SPRT A sporting facility other than a <RTRK> feature

Included terms: arena athletic_ centre baths courts golf_course netball_centre oval

sports field sportsground stadium tennis centre

SPUR A narrow linear projection from a mountain or hill, normally less than 2km long and

decreasing in elevation from the parent feature

Included terms: buttress spur²

STAT A major political and administrative division, as a State or Territory

Included terms: State Territory

STOK A route designated for droving stock

Included terms: stock_route

STR A narrow passage which connects two larger bodies of water

Included terms: channel² passage¹ strait

STRM A course of running water

Included terms: anabranch backwash backwater beck brook burn creek gully river rivulet

run stream watercourse

SUB An area within a city, town or shire, principally of urban character

Included terms: suburb urban_place urban_village

SWMP A tract of low-lying land normally saturated with water, having little or no drainage

and characterised by a growth of grass or reeds

Included terms: cowal marsh morass saltmarsh swamp wetland

TOR A prominent and isolated mass of rock or rocks

Included terms: boulder butte column¹ kopje monolith(s) pinnacle¹ rock³ rock_formation¹

rocks3 tor

TOWR A transmission tower for media broadcasts

Included terms: radio tower tower³ transmission tower TV tower

A point with elevation or position determined by survey

Included terms: bench_mark cairn¹ control _point trig_station

TRK A formed or marked way which is used by people walking, cycling or horse-riding

Included terms: path track trail

TUNN An artificial underground passage past a natural barrier for road or rail traffic

Included terms: tunnel

URBN An area which is designated as a town or city

Included terms: city town urban area

VAL A relatively low region within an area of elevated relief, and bounded by hills or

mountains.

Included terms: dale dell vale vallev

VCRT A circular depression formed at or near the peak of a volcanic structure

Included terms: crater1

WELL A hole bored into the ground for the extraction of oil, gas, etc.

Included terms: shaft well¹

TRIG

Feature Code	Feature Set Definition
WOOD	Uncultivated tree-covered land, not perceived as being as extensive as <frst> features</frst>
	Included terms: brush bush copse grove scrub thicket wood(s)
WRCK	The ruined remains of a stranded or sunken vessel or aircraft Included terms: aircraft wreckage wreck
WRFL	A sudden descent of water over a step or steps in the bed of a <strm> feature Included terms: cascade cataract falls rapids waterfall</strm>
WTRH	A natural hole or hollow containing water, sometimes in the dry bed of an intermittent river, constituting a pool or small lake
	Included terms: billabong hole ³ lagoon ² native_well oxbow pond ¹ pool soak soakage tarn washpool waterhole
YARD	An enclosure forming a pen for livestock Included terms: stockyard yard

APPENDIX 3 Semantic Components

The set of seventy three semantic components used to distinguish the feature sets are set out in Appendix 3, beginning on the page below.

Semantic component generates this characteristic

AERO relates to air, as opposed to ground, transport

AGRICULTURAL relates to farms and other agricultural establishments

APICAL is recognised as the uppermost part of a larger relief feature

ARBOREAL is characterised by the presence of tree-like vegetation

BARRIER serves to contain or to obstruct passage

BATHYMETRIC is a feature of marine or non-marine waters which is always or

predominantly submerged

BERTH provides an assigned place for mooring vessels

BOUNDED is an area or locality with a defined boundary

CADASTRAL represents property ownership parcels and their boundaries

CAMPING represents the presence of facilities for temporary recreational

accommodation, such as cabins, tents etc.

COMMEMORATIVE exists to preserve and honour the memory of a person, people or an

event

COMMUNICATIONS is an infrastructure feature that relates to media and signalling facilities

CONCAVE is curved inwards

CONSTRUCTED is primarily the result of human intervention and manufacture

CULTIVATED is the result of preparation or improvement, usually for crop production

or such

DEEP is characterised more by depth than by breadth

DWELLING is a building used primarily for accommodation or as part of a

residence

EDUC is used for educational purposes

ELEVATED rises above its surrounds, and is therefore a raised relief feature

ENCLOSED is partly or completely surrounded by a boundary or protective barrier

EXTENDED is perceived as having significant extent

EXTRACT is a structure designed to extract a substance from below ground by

drilling

FLUVIAL is a stream or part of a stream

GOVT is an area of government recognised as being one of the three levels

of Australian jurisdiction (national, state or local)

HORIZONTAL is perceived as having no significant gradient, and is characterised by

the absence of vertical aspect

HISTORICAL relates to sites or structures of a historical or commemorative nature

HYDRIC is characterised by the presence of moist or wet ground

HYDRO relates to the extraction, containment or diversion of water as a utility
HYDROGRAPHIC is a water feature (in the form of sea, ice, stream or lake) or a landform

defined and bounded by such a water feature

HYPSOGRAPHIC is characterised by relief, either positive or negative

ICE is a water feature which is normally in the frozen state

Semantic component generates this characteristic

INDEPENDENT is perceived as a topographical form in its own right, rather than as a

derivative or subsidiary of a larger feature

INFRASTRUCTURE is part of the permanent installations which comprise the underlying

framework within a country (such as transport, communications, water

supply, etc.)

ISOLATED rises conspicuously from level surrounds

LANDFORM is a feature of the landscape defined and bordered by the sea or by an

inland water feature

LITTORAL is an element of the shoreline of a sea or ocean

LOCAL is a unit of local government, the third level of Australian government

MAJOR is greater in size or significance

MARINE is a sea or ocean, or is a feature associated with such

MARITIME is related to shipping and its infrastructure

MEDIA_PROD is a facility for the production (as opposed to the transmission) of

broadcast material

MILITARY is a facility constructe for munitions testing and storage

MINING relates to the extraction of subterranean material

MONUMENT is a structure erected in memory of a person, people or event NARROW is perceived as having significant length rather than width

NATURAL is produced primarily by forces of nature, not culture

NAVIGATION is an element in a guidance or warning system for ships or aircraft

NECROPOLIS is a burial ground

NEGLECTED has been allowed to fall into disrepair over time

OPEN is perceived as having aperture which is greater or more significant

than its bounds.

PASSAGE is open at both ends, enabling through passage

PROJECTED extends either horizontally or vertically from a larger feature

RACING is a venue for speed competition events involving vehicles (such as

cars or bikes) or animals (such as horses or dogs)

RAIL is a structure related to transport by train
RAISED is elevated above its immediate surrounds

RECESSED is markedly set back or indented from its larger feature

RECREATION is a feature constructed or set aside as a facility for sporting or other

leisure activity

ROUTE is a course for passage of people, vehicles or vessels, such as a path,

a road, a railway line or a canal

SHEER is characterised by extreme gradient

SHELTERED is perceived as providing protection from unfavourable weather,

especially for the harbouring of vessels

SOURCE is the place of origin of a good such as water

Semantic component generates this characteristic

SPORT is provided or constructed as a facility for active (as opposed to

passive) recreation

STABLE is not subject to obvious short-term deformation and relocation

STOCK is a transport feature which relates to the movement or holding of

animals

STORE is a store or containment of a substance

STRAIGHT is perceived as proceeding without bend or significant deviation from

its primary course

TALL rises from its immediate surrounds and has major elevation, arbitrarily

set at >300m above surrounding terrain

TERMINUS is an element within the transport system which exists as the end point

or as a resting stage of a route

TIDAL is a non-marine feature which is nevertheless affected by ocean tides

TRANSPORT is an infrastructure feature that relates to the transport of people or

goods on land or sea

URBAN is a civic unit designated as a city or a suburb

VEGETATED is characterised by the presence of vegetation

VEHICULAR is a route provided for the passage of vehicles, such as a road or a

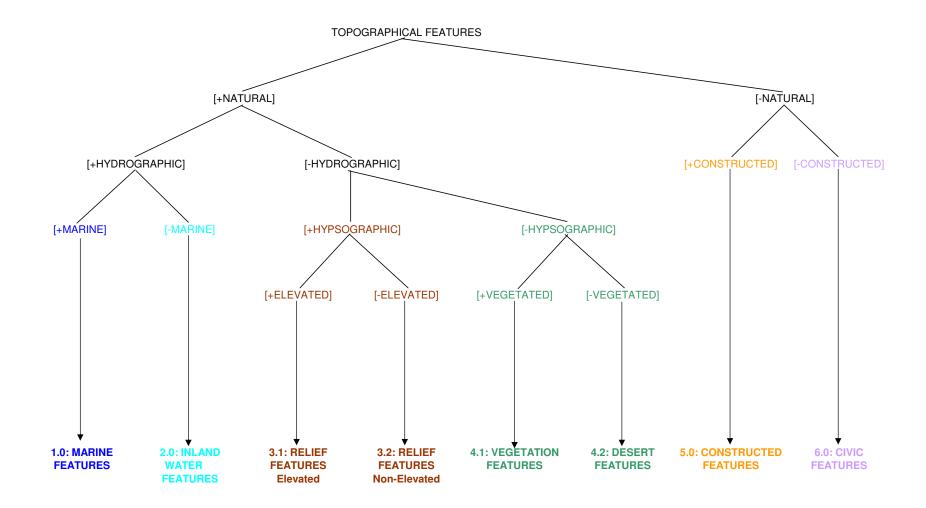
railway

APPENDIX 4

Taxonomy of Toponymic Features

i		Broad taxonomy					
 11	1.0	Marine features					
111		1.1	Unders	ea featu	res		
		1.2	Surface	feature	S		
					1.2.1	Landform features	
					1.2.2	Sea features	
iV	2.0	Inland	d water features				
		2.1	Underwater features				
		2.2	Surface features				
			2.2.1	Landfo	rm feat	ures	
V			2.2.2	River and lake features			
				2.2.2.1	Riverin	e features	
vi				2.2.2.2	Lacusti	rine features	
	3.0	Relief f	features				
Vii		3.1	Relief features: elevated				
V111		3.2	evated				
	4.0	Vegeta	ration and desert features				
ix		4.1	Vegeta	tion feat	ures		
X		4.2	Desert	features			
xi	5.0	Constr	nstructed features				
xii		5.1	Transport features				
X111		5.2	Communications features				
xiv		5.3	Hydro features				
XV		5.4	Histori	<mark>cal</mark> featu	res		
		5.5	Mining	features	3		
		5.6	Military	feature	S		
		5.7	Trig fea	atures			
		5.8	Dwellin	ng featur	es		
		5.9	Agricul	tural fea	tures		
		5.10	Educat	ion featu	ıres		
		5.11	Recreat	tion feat	ures		
		5.12	Buildin	g featur	es		
xvi	6.0	Civic fe	features				
		6.1	Govern	nment			
		6.2	Non-go	overnme	ent		

BROAD TAXONOMY



THEMES: 1.0 MARINE

2.0 INLAND WATER

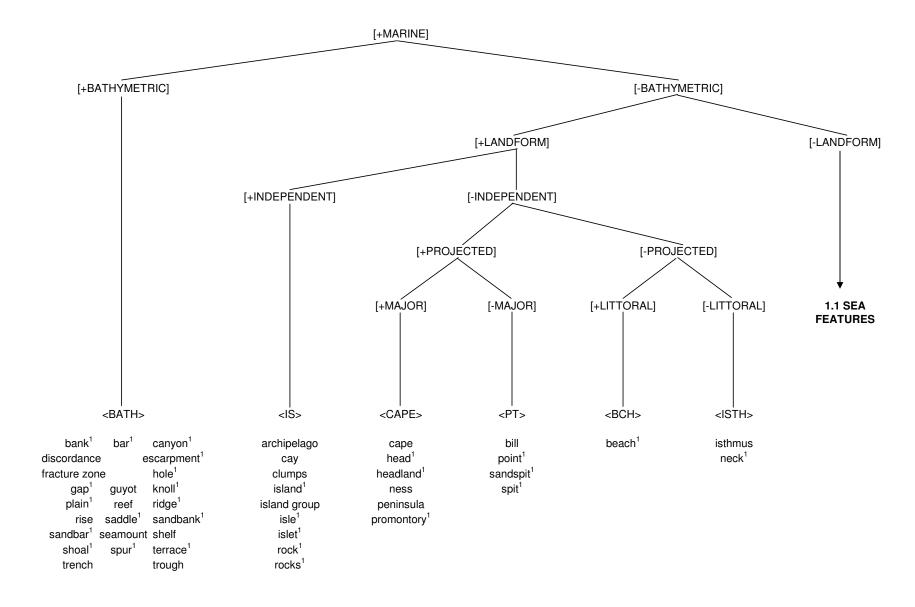
3.0 RELIEF

4.0 VEGETATION&DESERT

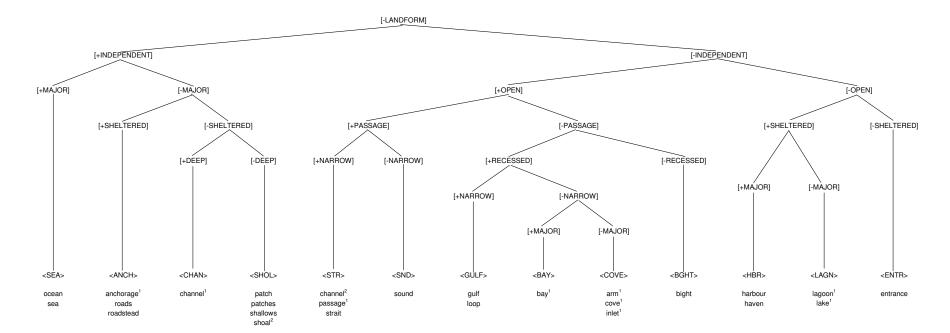
5.0 CONTRUCTED

6.0 CIVIC

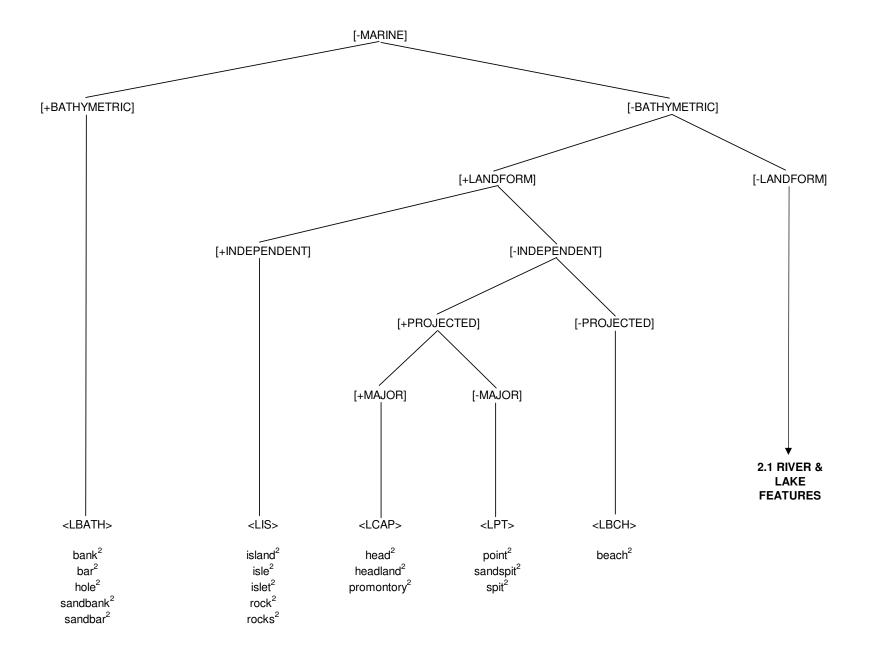
1.0 - MARINE FEATURES



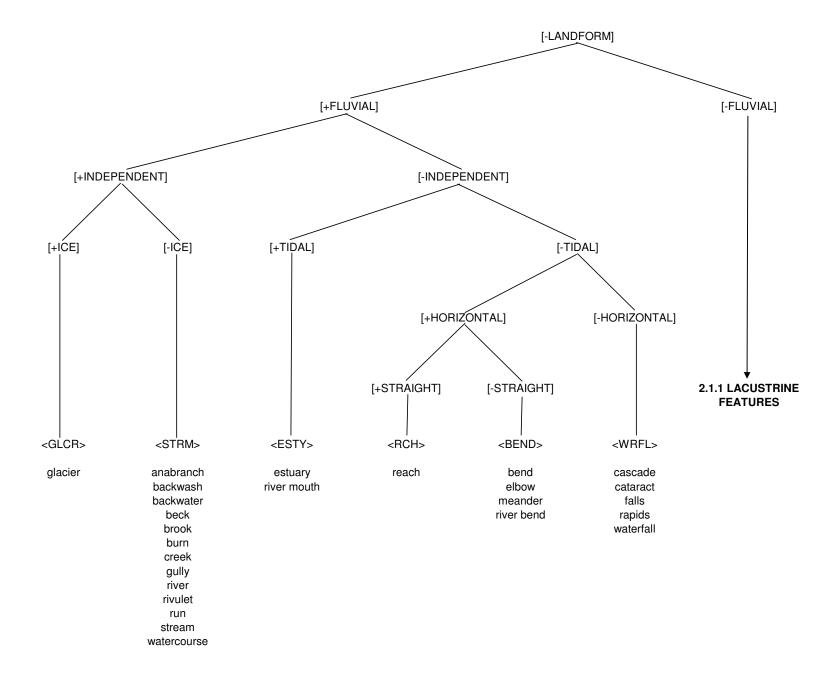
1.1 - SEA FEATURES



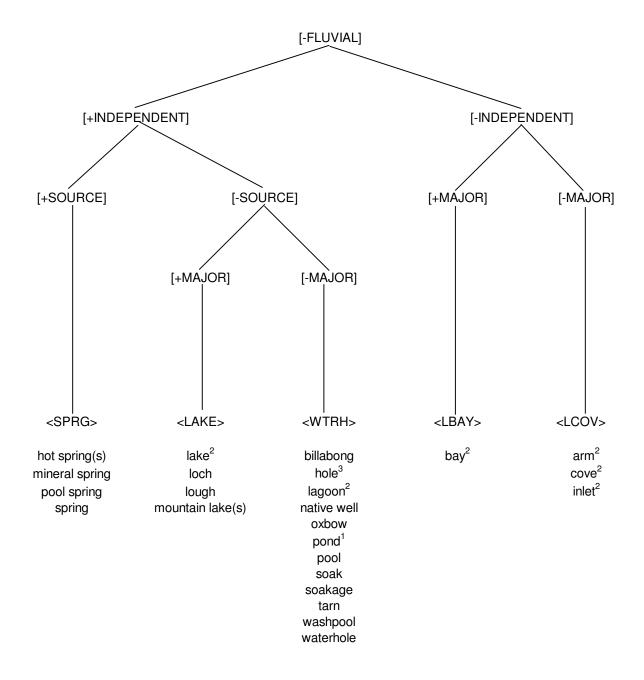
2.0 - INLAND WATER FEATURES



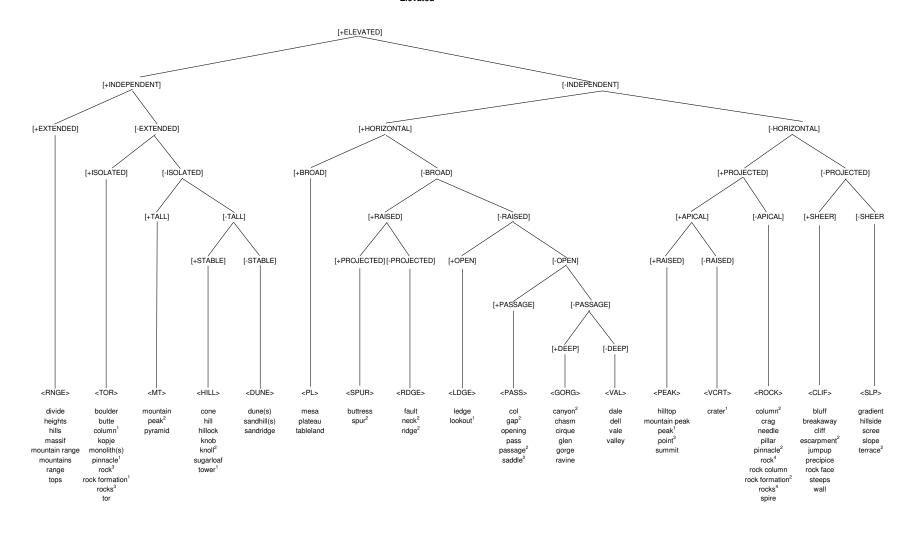
2.1 - RIVER and LAKE FEATURES



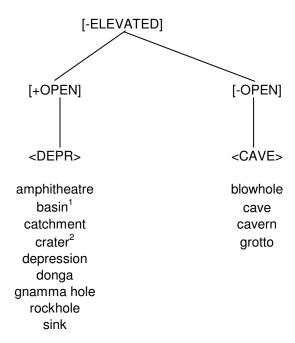
2.1.1 - LAKE FEATURES



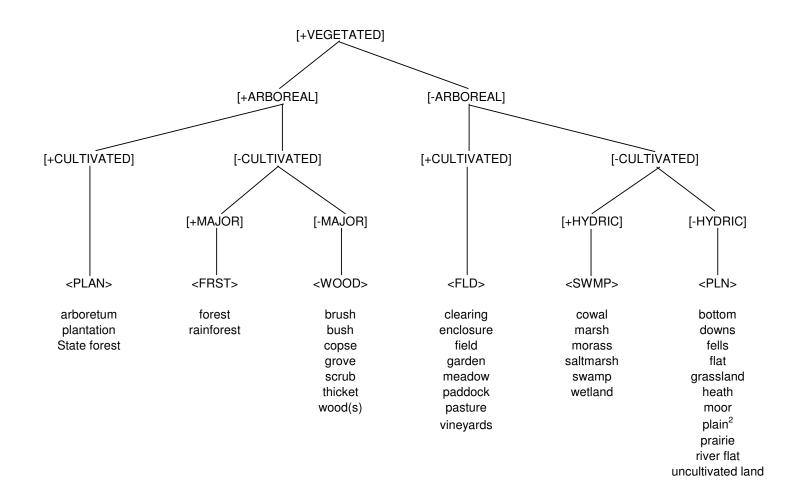
3.1 - RELIEF FEATURES: Elevated



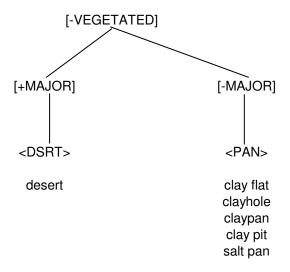
3.2 - RELIEF FEATURES Non-Elevated



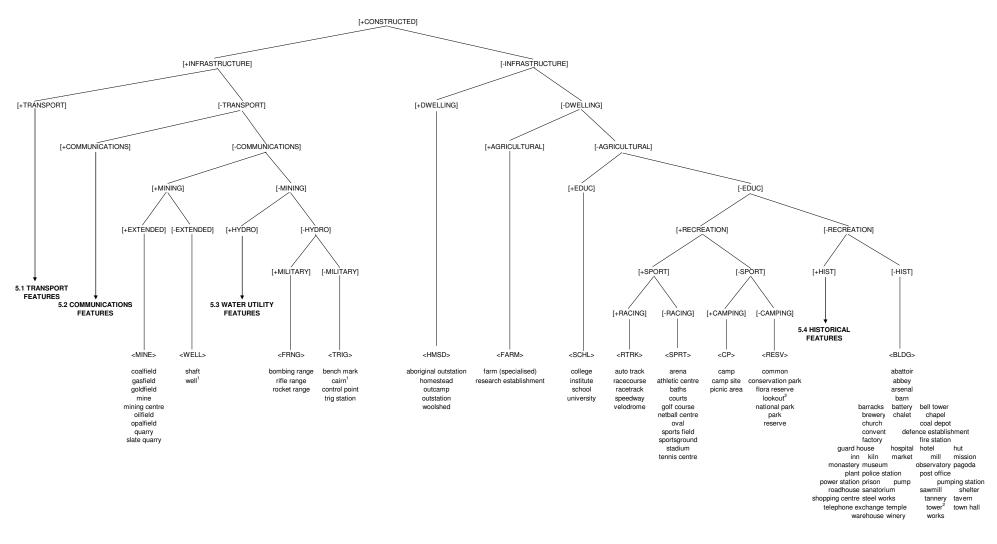
4.1 - VEGETATION FEATURES



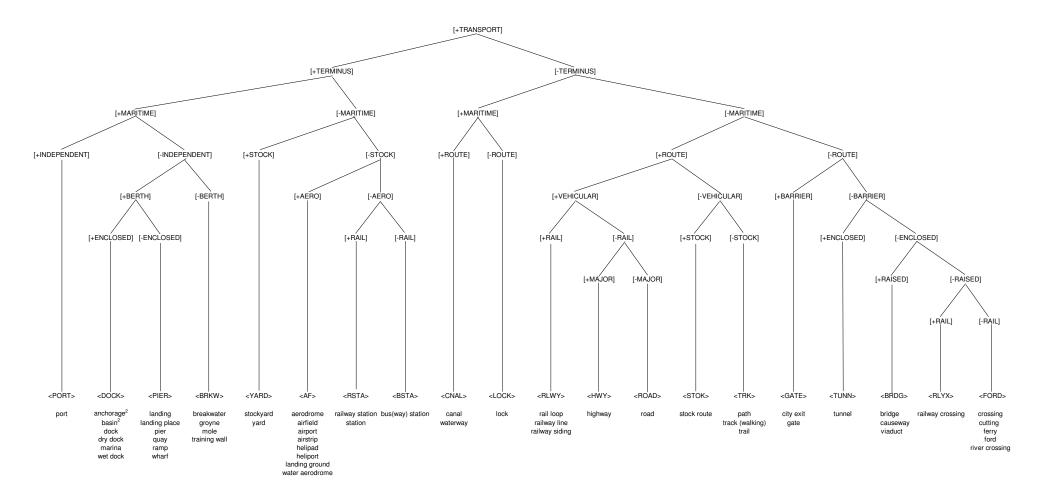
4.2 - DESERT FEATURES



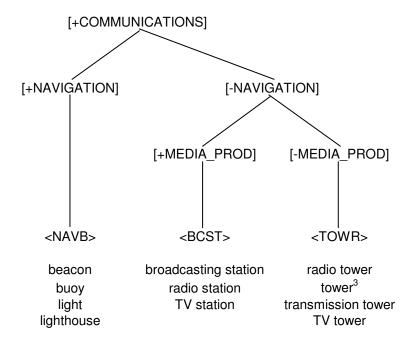
5.0 - CONSTRUCTED FEATURES



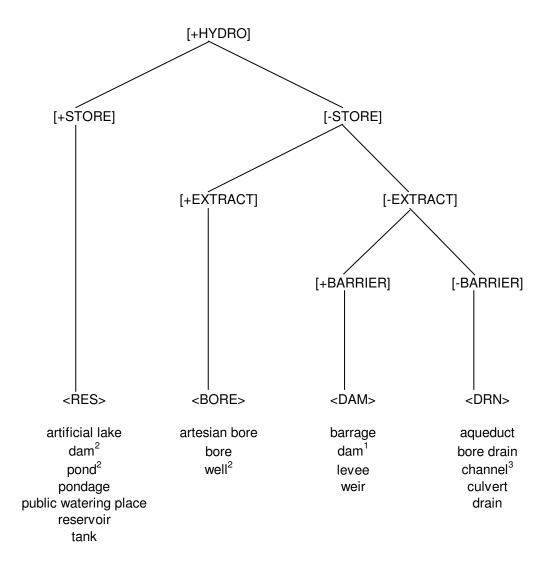
5.1 - TRANSPORT FEATURES



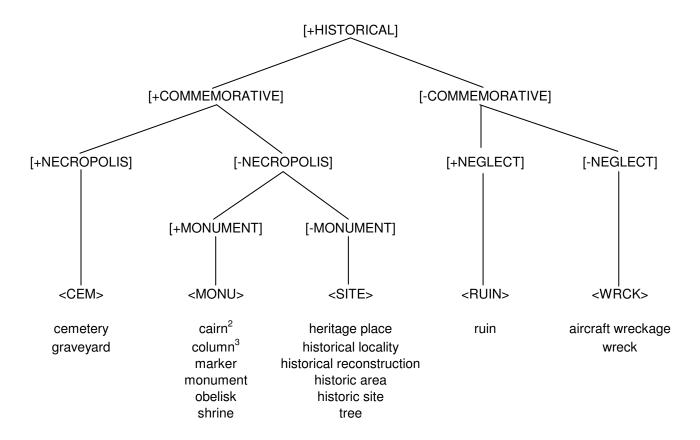
5.2 - COMMUNICATIONS FEATURES



5.3 - WATER UTILITY FEATURES



5.4 - HISTORICAL FEATURES



6.0 - CIVIC FEATURES

