SYSTEMATIC SURVEY SITE DATA TEMPLATE INSTRUCTIONS

OVERVIEW

Use this template to record data about the Site area where species occurrences have been sampled during a systematic survey.

This Systematic Survey Site template **must be used in combination** with the Systematic Survey Occurrence template and the Systematic Survey Metadata template.

Templates have been provided to facilitate integration of your data into the Biodiversity Data Repository (BDR) database. Not all types of data have been catered for in the available templates at this stage; therefore, if you are unable to find a suitable template, please contact bdr-support@gaiaresources.com.au to make us aware of your data needs.

NEED TO KNOW:

For data validation, you will need your data file to:

- be the correct **file format**,
- have **matching template fields** to the template downloaded with provision to add extra fields (do not remove, or change the order of fields),
- have populated the relevant fields using the correct data type (for example dates for date fields),
- additional fields may be added **after the templated fields**,
- have values in **mandatory fields** (see Table 1), and
- comply with data **value constraints** for example the geographic coordinates are consistent with a geodeticDatum type of the available options.

FILE FORMAT

- The systematic survey site data template is a UTF-8 encoded csv (not Microsoft Excel Spreadsheets). Be sure to save this file with your data as a .csv (UTF-8) as follows, otherwise it will not pass the in-browser csv validation step upon upload. [MS Excel: Save As > More options > Tools > Web options > Save this document as > Unicode (UTF-8)]
- **Do not include empty rows**.

FILE SIZE

MS Excel imposes a limit of 1,048,576 rows on a spreadsheet, limiting a CSV file to the header row followed by 1,048,575 occurrences. Furthermore, MS Excel has a 32,767 character limit on individual cells in a spreadsheet. These limits may be overcome by using or editing CSV files with other software.

Larger datasets may be more readily ingested using the API interface. Please contact bdr-support@gaiaresources.com.au to make us aware of your data needs.

TEMPLATE FIELDS

The template file contains the field names in the top row. Table 1 will assist you in transferring your data to the template with the following information:

- **Field name** in the template (and an external link to the Darwin Core standard for that field where relevant);
- **Description** of the field;
- **Required** whether the field is **mandatory** **or optional**;
- **Format** (datatype) required for the data values for example text (string), number (integer, float), or date; and
- **Example** of an entry for that field.
- **Vocabulary links** within this document (for example pick list values) where relevant. The fields that have suggested values options for the fields in Table 1 are listed in Table 2 in alphabetical order of field name.

ADDITIONAL FIELDS

Data that do not match the existing template fields may be added as additional columns in the CSV files after the templated fields.
E.g., fieldNotes, continent, country, countryCode, stateProvince, georeferencedDate, landformPattern, landformElement, aspect, slope, visitNo.

Table 1: Systematic Survey Site data template fields with descriptions, conditions, datatype format, and examples.

Field name	Description	Mandatory / Optional	Datatype Format	Examples / Vocabulary
siteID	A unique within dataset string identifier for the site. Valid values include strings that are used specifically for this survey or URIs from BDR Sites that have been established in previous surveys.	Mandatory	String	P1
siteIDSource	The organisation that assigned the SiteID to this Site.	Optional	String	TERN
siteType	The type of site that relates to its sampling type and/or dimensions.	Optional	String	Plot
siteName	A name for the site that may be more descriptive than the SiteID.	Optional	String	Plot 1
siteDescription	The site (plot) description covers important aspects of the site (generally of the land surface). Some overlap in collected information does occur due to the modular nature of the survey processes. The description provides significant background information to gain an appreciation of the plot history, topography, position in the landscape and for understanding the likely relationship between the soils, vegetation and fauna.	Optional	String	Fine woody debris.
habitat	A collection of habitat types representing the dominant vegetation structural formation class adopted by the National Vegetation Information System (NVIS).	Optional	List	Chenopod Shrubland (Vocabulary link)

Field name	Description	Mandatory / Optional	Datatype Format	Examples / Vocabulary
relatedSiteID	Identifier of a related site to the specified site e.g. parent site, same site with different identifier.	Optional	String	Same as within dataset or existing URI
relationshipToRelatedSite	Relationship between the site and the related site. This field can be used to record Site identifiers for the same site from different custodians through the use of URIs.	Conditionally mandatory with relatedSiteID	String	Same as within dataset or existing URI (Vocabulary link)
decimalLatitude	The geographic latitude (in decimal degrees, using the spatial reference system given in geodeticDatum) of the geographic origin of a Site. Positive values are north of the Equator, negative values are south of it. Legal values lie between -90 and 0, inclusive for the Southern hemisphere.	Conditional	Float	-34.036
decimalLongitude	The geographic longitude (in decimal degrees, using the spatial reference system given in geodeticDatum) of the geographic origin of a Site. Positive values are east of the Greenwich Meridian, negative values are west of it. Legal values lie between 0 and 180, inclusive for the BDR use case.	Conditional	Float	146.363
footprintWKT	A Well-Known Text (WKT) representation of the shape (footprint, geometry) that defines the Site. A Site may have both a point-radius representation and a footprint representation, and they may differ from each other.	Conditional	WKT	LINESTRING (146.363 -34.036, 146.363 -34.037) (WKT notes)

Field name	Description	Mandatory / Optional	Datatype Format	Examples / Vocabulary
geodeticDatum	The geodetic datum, or spatial reference system (SRS) upon which the geographic coordinates given for the Site are based.	Conditional	String	WGS84 (Vocabulary link)
coordinateUncertaintyInMeters	The horizontal distance (in metres) from the given decimalLatitude and decimalLongitude describing the smallest circle containing the whole of the Site. Leave the value empty if the uncertainty is unknown, cannot be estimated, or is not applicable (because there are no coordinates). Zero is not a valid value for this term.	Optional	Integer	50
dataGeneralizations	Actions taken to make the shared data less specific or complete than in its original form.	Optional	String	Coordinates given in decimalLatitude, decimalLongitude, easting and northing have been rounded to 0.1 DEG. The observer name has been changed to a unique User ID.
surveyID	The identifier of the Survey that the Site is related to in this dataset.	Optional	String	AR220-01
siteVisitID	The unique key assigned to a visit. A visit is a time distinct assessment conducted within a survey at a designated site.	Optional	String	CPXEI0000001

Field name	Description	Mandatory / Optional	Datatype Format	Examples / Vocabulary
siteVisitStart	The temporal start of when the Site was being used to collect data for the survey. Expected values include date, dateTime, dateTimeStamp.	Mandatory	Timestamp	2016-02-28
siteVisitEnd	The temporal end of when the Site was being used to collect data for the survey. Expected values include date, dateTime, dateTimeStamp.	Optional	Timestamp	2016-02-28
visitOrgs	The names of the organisations responsible for recording the original Occurrence.	Optional	List	NSW Dept of Planning, Industry and Environment.
visitObservers	A list (concatenated and separated using |) of names of people, groups, or organisations responsible for recording the original Occurrence.	Optional	List	Oliver P. Pearson | Anita K. Pearson
condition	The state of a patch of vegetation at the time of sampling relative to some specified standard or benchmark (where available).	Optional	String	Burnt

APPENDICES

APPENDIX-I: VOCABULARY LIST

Apart from geodeticDatum and relationshipToRelatedSite, the data validation does not require adherence to the below vocabularies for each of the fields indicated as having vocabularies. These vocabularies are provided as a means of assistance in developing consistent language within the database. New terms can be added to more appropriately describe your data that goes beyond the current list.

Table 2: Suggested values for controlled vocabulary fields in the template. Each term has a preferred label with a definition to aid understanding of its meaning. For some terms, alternative labels are provided that mean the same sort of thing.
Note: The values for geodeticDatum and relationshipToRelatedSite must come from one of the Preferred labels or Alternate Labels in this table.

Template field name	Preferred label	Definition	Alternate label
geodeticDatum	AGD84	Australian Geodetic Datum 1984	EPSG:4203
	AGD66	Australian Geodetic Datum 1966	EPSG:4202
	GDA2020	Geocentric Datum of Australia 2020	EPSG:7844
	GDA94	Geocentric Datum of Australia 1994	EPSG:4283
	WGS84	World Geodetic System 1984, used in GPS	EPSG:4326
habitat	Beach	Type of Landform Element, which is usually short; low; very wide slope; gently or moderately inclined; built up or eroded by waves; forming the shore of a lake or sea.	
	Billabong or Swamp	A swamp is a wetland that features temporary or permanent inundation of large areas of land by shallow bodies of water, generally with a substantial number of hammocks, or dry-land protrusions, and covered by aquatic vegetation, or vegetation that tolerates periodical inundation.	
	Cave	The type of habitat representative of a naturally formed, subterranean open area or chamber.	

	Chenopod shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% members of Chenopodiaceae.	
	Closed chenopod shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of Chenopodiaceae.	
	Closed fernland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of Fern and Fern-allies.	
	Closed forbland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of Forbs or herbs other than grasses.	
	Closed forest	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of Forbs or herbs other than grassess.	
	Close heathland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of heath shrubs (e.g., members of Ericaceae, Myrtaceae).	
	Closed hummock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of hummock (e.g., Triodia) grasses.	
	Closed lichenland	Refers to the type of habitat characterised by lichenised tree trunks and rocks.	
	Closed liverwortland	Refers to the type of habitat characterised by lower plant groups such as moss, liverworts and bryophytes.	
	Closed mallee forest	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of tree mallee (e.g., some members of Eucalyptus).	
	Closed mallee shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of mallee shrubs (e.g., some members of Eucalyptus).	
	Closed mossland	Refers to the type of habitat characterised by lower plant groups such as moss, liverworts and bryophytes.	
	Closed rushland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of Rushes (e.g., Juncaceae).	
	Closed sedgeland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of sedges (e.g., Cyperaceae).	
	Closed shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of sedges (e.g., Cyperaceae).	
	Closed sod grassland	Refers to the type of habitat representative of a characteristic sod-like (turf) grass.	

	Closed tussock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about >80% members of tussock grasses (e.g., Poa).	
	Closed vineland	Refers to the type of habitat represented by a closed vegetation dominated by stragglers and woody climbers.	
	Coastal Waters	Refers to the type of habitat representative of an aquatic body typically characterized by a shallow continental shelf, gently sloping seaward to a continental slope, which drops relatively abruptly to the deep ocean.	
	Crop Land	Refers to the type of habitat representative of a cultivated land or land on which agricultural crops are grown or land that is set aside or temporarily not being used for crop production.	
	Estuary	Type of Landform Element which has a stream channel close to its junction with a sea or lake; where the action of channelled stream flow is modified by tide and waves. The width typically increases downstream.	
	Fernland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% members of Fern and Fern-allies.	
	Forbland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% members of Forbs or herbaceous plants other than grasses.	
	Freshwater Lake	Refers to the type of habitat representative of an enclosed aquatic body having a relatively low mineral content, generally less than 500 mg/l of dissolved solids.	
	Grazing Land	Refers to the type of habitat representative of a land predominantly used for grazing.	
	Heathland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% members of Heath (e.g., Ericaceae, Myrtaceae).	
	Hummock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% members of hummock grasses (e.g., Triodia).	
	Isolated chenopod shrubs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% members of Chenopodiaceae.	
	Isolated clump of chenopod shrubs	Refers to the type of habitat characterised by isolated clumps of chenopod shrubs.	
	Isolated clump of heath shrubs	Refers to the type of habitat characterised by isolated clumps of heath or heath-like shrubs.	

	Isolated clump of hummock grasses	Refers to the type of habitat characterised by isolated clumps of hummocky grass (e.g., Triodia spp., Spinifex spp.).	
	Isolated clump of liverworts	Refers to the type of habitat characterised by isolated clumps of bryophytes, moss and liverworts.	
	Isolated clump of mallee shrubs	Refers to the type of habitat characterised by isolated clumps of mallee shrubs (members of Eucalyptus spp., multistemmed from base).	
	Isolated clump of mallee trees	Refers to the type of habitat characterised by isolated clumps of tree mallee (members of Eucalyptus spp., multistemmed from base).	
	Isolated clump of mosses	Refers to the type of habitat characterised by isolated clumps of bryophytes, moss and liverworts.	
	Isolated clump of rushes	Refers to the type of habitat characterised by isolated clumps of rushes.	
	Isolated clump of sedges	Refers to the type of habitat characterised by isolated clumps of sedges.	
	Isolated clump of shrubs	Refers to the type of habitat characterised by isolated clumps of shrubs.	
	Isolated clump of sod grasses	Refers to the type of habitat characterised by isolated clumps of sod grass.	
	Isolated clump of trees	Refers to the type of habitat characterised by isolated clumps of trees.	
	Isolated clump of tussock grasses	Refers to the type of habitat characterised by isolated clumps of tussock grasses (e.g., Poa spp).	
	Isolated clump of vines	Refers to the type of habitat characterised by isolated clumps of vines.	
	Isolated clumps of ferns	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0-5% members of Fern and Fern-allies.	
	Isolated clumps of forbs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0-5% members of Forbs or herbs other than grasses.	
	Isolated clup of lichens	Refers to the type of habitat characterised by isolated clumps of lichens.	

	Isolated ferns	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of fern and fern allies.	
	Isolated forbs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of forbs or herbs other than grasses.	
	Isolated heath shrubs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of heath shrubs (e.g., Ericaceae, Myrtaceae).	
	Isolated hummock grasses	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of hummock grasses (e.g., Triodia).	
	Isolated lichens	Refers to the type of habitat characterised by isolated or sparse lichens.	
	Isolated liverworts	Refers to the type of habitat characterised by isolated or sparse liverworts.	
	Isolated mallee shrubs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of mallee shrubs (e.g., some multistemmed individuals from base of Eucalyptus).	
	Isolated mallee trees	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of tree mallee (e.g., some multistemmed individuals from base of Eucalyptus).	
	Isolated mosses	Refers to the type of habitat characterised by isolated mosses, including bryophytes and liverworts.	
	Isolated rushes	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of rushes (e.g., Juncaceae).	
	Isolated sedges	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of sedges (e.g., Cyperaceae).	
	Isolated shrubs	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of shrubs including cycads, grass-tree and tree-fern.	
	Isolated sod grasses	Refers to the type of habitat characterised by isolated or sparse sod or turf-like grasses.	
	Isolated trees	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of trees including palms.	
	Isolated tussock grasses	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about <0.25% of tussock grass (e.g. Poa species).	

	Isolated vines	Refers to the type of habitat characterised by isolated or sparse stragglers or climbing woody vines.	
	Lichenland	Refers to the type of habitat predominated by lichens on rocks, trees or tree stumps, etc.	
	Liverwortland	Refers to the type of habitat predominated by liverworts.	
	Mallee shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of shrub mallee (e.g., individuals of some Eucalypts multistemmed from base).	
	Mallee woodland	Refers to the dominant vegetation structural formation, with a percent cover of about 20-50% of Tree Mallee.	
	Mossland	Refers to the type of habitat dominated by mosses.	
	Mudflat	Refers to the type of habitat characterised by a wetland that forms when mud is deposited by the tides, rivers, sea or oceans.	
	Open Ocean	Refers to the type of habitat surrounded by ocean, i.e., a continuous saline-water bodies that surround the continents and fill the Earth's great depressions.	
	Open chenopod shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of members of Chenopodiaceae.	
	Open fernland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of ferns and fern allies.	
	Open forbland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of forbs or herbs other than grasses.	
	Open forest	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of trees including palms.	
	Open heath	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of heaths (e.g., Ericaceae, Myrtaceae).	
	Open hummock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of hummock grasses (e.g., Triodia).	
	Open lichenland	Refers to the type of habitat represented by open or sparse (i.e., 10-30%) hummocky grasses (e.g., Spinifex spp., Triodia spp.).	
	Open liverwortland	Refers to the type of habitat characterised by open or sparse lichenised tree trunks and rocks.	

	Open mallee forest	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of tree Mallee (e.g., certain individuals of Eucalypts multistemmed from base).	
	Open mallee shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of Mallee shrubs (e.g., certain individuals of Eucalypts multistemmed from base).	
	Open mallee woodland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of tree mallee (e.g., certain individuals of Eucalypts multistemmed from base).	
	Open mossland	Refers to the type of habitat characterised by open or sparse members of lower plant groups such as moss, liverworts and bryophytes.	
	Open rushland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of rushes (e.g. Juncaceae).	
	Open sedgeland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of sedges (e.g. Cyperaceae).	
	Open shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of shrubs (e.g. shrubs, cycads, grass-tree, tree-fern).	
	Open sod grassland	Refers to the type of habitat characterised by open or sparse (10-30% ground cover) of a characteristic sod-like (turf) grass.	
	Open tussock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 20-50% of tussock grasses (e.g. Poa species).	
	Open vineland	Refers to the type of habitat represented by a closed vegetation dominated by stragglers and woody climbers.	
	Open woodland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of trees including palms.	
	Rock Outcrop	Refers to the type of habitat characterised by rocks, which protrudes through the surface layer.	
	Rushland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of rushes (e.g. Juncaceae).	
	Saltwater Lake	Refers to the type of habitat representative of an aquatic body filled with water (with high salinity) of considerable size contained in a depression on a landmass.	

	Sedgeland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of sedges (e.g., Cyperaceae).	
	Shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of shrubs (e.g., shrub, cycad, grass-tree, tree-fern).	
	Sod grassland	Refers to the type of habitat characterised by mid-dense (30-70% cover) sod or turf-like grasses.	
	Sparse chenopod shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of members of Chenopodiaceae.	
	Sparse fernland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of members of fern and fern-allies.	
	Sparse forbland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of members of forbs and herbs other than grasses.	
	Sparse grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of grasses.	
	Sparse heath	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of members of heath (e.g., Ericaceae, Myrtaceae).	
	Sparse lichenland	Refers to the type of habitat characterised by very sparse (<10% cover) lichens.	
	Sparse liverwortland	Refers to the type of habitat characterised by very sparse (<10% cover) liverworts.	
	Sparse mallee shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of members of shrub Mallee.	
	Sparse mossland	Refers to the type of habitat characterised by very sparse (<10% cover) mosses.	
	Sparse rushland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of rushes (e.g., Juncaceae).	
	Sparse sedgeland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of sedges (e.g., Cyperaceae).	
	Sparse shrubland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of shrubs, including cycad, grass-tree, tree-fern.	
	Sparse sod grassland	Refers to the type of habitat characterised by very sparse (<10% cover) sod or turf-like grasses.	

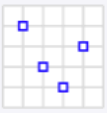
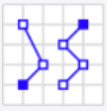
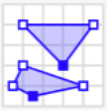
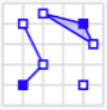
	Sparse tussock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 0.25-20% of tussock grass (e.g., Poa species).	
	Sparse vineland	Refers to the type of habitat characterised by well separated or very sparse crown stragglers or woody vines.	
	Stream or River	Refers to the type of habitat representative of an aquatic body with a watercourse which is linear and flows across the solid portion of a planetary surface.	
	Tussock grassland	Refers to the NVIS dominant vegetation structural formation class, with a percent cover of about 50-80% of tussock grass (e.g., Poa species).	
	Urban	Refers to the type of habitat relating to, located in, or characteristic of a city or densely populated area.	
	Vineland	Refers to the type of habitat characterised by woody climbers/straggling vines.	
	Woodland	Refers to the type of habitat characterised by a low-density forest forming open habitats with plenty of sunlight and limited shade.	
relationshipToRelatedSite	Part of	Refers to the site being a subsection or a component of the larger site.	partOf
			part of
	Same as	Refers to the site having similar characteristics to the other site.	same as
			sameAs

APPENDIX-II: Well Known Text (WKT)

For general information on how WKT coordinate reference data is formatted here. The length of a WKT string or of its components is not prescribed. However MS Excel has a 32,767 (32K) character limit on individual cells in a spreadsheet.

It is possible to edit CSV files outside of Excel in order to include more than 32K characters.

Multipart geometries (2D)

Type	Examples	
MultiPoint		`MULTIPOINT ((10 40), (40 30), (20 20), (30 10))`
		`MULTIPOINT (10 40, 40 30, 20 20, 30 10)`
MultiLineString		`MULTILINESTRING ((10 10, 20 20, 10 40), (40 40, 30 30, 40 20, 30 10))`
MultiPolygon		`MULTIPOLYGON (((30 20, 45 40, 10 40, 30 20)), ((15 5, 40 10, 10 20, 5 10, 15 5)))`
		`MULTIPOLYGON (((40 40, 20 45, 45 30, 40 40)), ((20 35, 10 30, 10 10, 30 5, 45 20, 20 35), (30 20, 20 15, 20 25, 30 20)))`
GeometryCollection		`GEOMETRYCOLLECTION (POINT (40 10), LINESTRING (10 10, 20 20, 10 40), POLYGON ((40 40, 20 45, 45 30, 40 40)))`

APPENDIX-III: Timestamp

Following date and date-time formats are acceptable within the timestamp:

xsd:dateTimeStamp with timezone	yyyy-mm-ddThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00) OR yyyy-mm-ddThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00) OR yyyy-mm-ddThh:mmTZD (eg 1997-07-16T19:20+01:00)
xsd:dateTime	yyyy-mm-ddThh:mm:ss.s (eg 1997-07-16T19:20:30.45) OR yyyy-mm-ddThh:mm:ss (eg 1997-07-16T19:20:30) OR yyyy-mm-ddThh:mm (eg 1997-07-16T19:20)
xsd:Date	dd/mm/yyyy OR d/m/yyyy OR yyyy-mm-dd OR yyyy-m-d
xsd:gYearMonth	mm/yyyy OR m/yyyy OR yyyy-mm
xsd:gYear	yyyy

Where:

yyyy = four-digit year
mm = two-digit month (01=January, etc.)
dd = two-digit day of month (01 through 31)
hh = two digits of hour (00 through 23) (am/pm NOT allowed)
mm = two digits of minute (00 through 59)
ss = two digits of second (00 through 59)
s = one or more digits representing a decimal fraction of a second
TZD = time zone designator (Z or +hh:mm or -hh:mm)

APPENDIX-IV: UTF-8

UTF-8 encoding is considered a best practice for handling character encoding, especially in the context of web development, data exchange, and modern software systems. UTF-8 (Unicode Transformation Format, 8-bit) is a variable-width character encoding capable of encoding all possible characters (code points) in Unicode.
Here are some reasons why UTF-8 is recommended:**Universal Character Support:** UTF-8 can represent almost all characters from all writing systems in use today. This includes characters from various languages, mathematical symbols, and other special characters.

- **Backward Compatibility:** UTF-8 is backward compatible with ASCII (American Standard Code for Information Interchange). The first 128 characters in UTF-8 are identical to ASCII, making it easy to work with systems that use ASCII.
- **Efficiency:** UTF-8 is space-efficient for Latin-script characters (common in English and many other languages). It uses one byte for ASCII characters and up to four bytes for other characters. This variable-length encoding minimises storage and bandwidth requirements.
- **Web Standards:** UTF-8 is the dominant character encoding for web content. It is widely supported by browsers, servers, and web-related technologies.
- **Globalisation:** As software applications become more globalised, supporting a wide range of languages and scripts becomes crucial. UTF-8 is well-suited for internationalisation and multilingual support.
- **Compatibility with Modern Systems:** UTF-8 is the default encoding for many programming languages, databases, and operating systems. Choosing UTF-8 helps ensure compatibility across different platforms and technologies.

When working with text data, it's generally a good idea to use UTF-8 encoding to avoid issues related to character representation and ensure that your software can handle a diverse set of characters and languages.

For assistance, please contact: bdr-support@gaiaresources.com.au