**Data Dictionary – Sydney Basin Bioregion 20160715**

***Asset database for the Sydney Basin bioregion on 29 March 2016 Public*  
Public version**

This document describes the structure and contents of the unrestricted, public version of *Asset database for the Sydney Basin bioregion on 29 March 2016 Public.*

The public version of the asset database retains all of the **unrestricted** components of Asset database for the Sydney Basin bioregion on 29 March 2016 (ae283994-5f14-4442-af0d-8f8c81eb657e); any material that is unable to be published or redistributed to a third party by the BA Programme has been removed from the database. The data in this public version is, therefore, a subset of the assets and elements published in the Sydney Basin bioregion, product 1.3 *Description of the water-dependent asset register and asset list for the Sydney Basin bioregion 29th March 2016* and the associated *Water-dependent asset register and asset list for the Sydney Basin bioregion 29th March 2016,* which are available from the BA internet pages at: <https://data.bioregionalassessments.gov.au/datastore/dataset/ae283994-5f14-4442-af0d-8f8c81eb657e>.

The Bioregional Assessment Programme (BAP) has a policy of open access; however, a limited number of data sets are currently unavailable due to restrictions placed on them by their data custodians. Examples of the types of restricted datasets include protecting the location of threatened species or protecting the personal identification of an individual such as an individual's address that pertains to a water licence. All BA data sets, whether restricted or not, are described by metadata, including the nature of any licensing or access restrictions.

It is important to note that a BA is conducted with a particular version of each data set and, in some cases, more up to date versions have been produced since the time of data acquisition for the BA. Further, the latest versions may have different license conditions; typically, less restrictive conditions (e.g. CC BY) that are becoming more common. A number of source datasets that cannot be published or redistributed can be obtained directly from data custodians. These datasets are identified within this document. See Appendix B for a summary table of the accessibility status of the BA source data sets and links to the source organisations for that data.

# Formats of the public version of the asset database

To support access to the public asset database it is available in the following formats:

1. **Personal Geodatabase** (MDB, Microsoft Access Proprietary format)   
   This database contains all unrestricted data other than the spatial data.
2. **File Geodatabase** (GDB, ESRI Proprietary format)  
   This database contains all unrestricted spatial data and all attribute data
3. **Shapefile** (ESRI proprietary format, though the format is proprietary It is developed and regulated by ESRI as a (mostly) open specification for data interoperability among ESRI and other GIS software products.)  
   This data set consists of up to six (6) shapefiles contain all unrestricted spatial data and, for the Assets, the attributes from the AssetList and, for the Elements, the unrestricted attributes from the ElementList table
4. **Tab-delimited text files** of all the attribute tables in the Asset Database  
   This data set consists of all the unrestricted attribute data that are stored as tables in the Asset Database.

# Data Dictionary from restricted version of the asset database

In the interests of transparency, the following is a copy of the Data Dictionary from the full, Restricted Version with a few minor explanatory additions. Please note that the **restricted data** are not available in the Public Version of the asset database.

Asset database for the Sydney Basin bioregion on 29 March 2016 Public is a pair to the Asset database for the Sydney Basin bioregion 29th March 2016 and has the following differences to the restricted version:

(1) Remove 120 turned off assets from table AssetList and associated elements from tables of Element\_to\_Asset and ElementList

(2) Delete restricted fields of SW\_BLR\_MLDay, SW\_BLR\_MLYr, GW\_BLR\_MLDay, GW\_BLR\_MLYr, SW\_NT\_MLDay and SW\_NT\_Mlyr from table tbl\_Economic\_WSP

(3)Delete all fields except ElementID from restricted data table tbl\_EconomicNSW\_GW

(4) Delete all fields except ElementID from restricted data table tbl\_EconomicNSW\_SW

(5) Delete 5 turned off elements from tbl\_Economic\_GMA

(6) Delete 2 turned off elements from tbl\_Economic\_WSP

(7) Delete 12 turned off elements from tbl\_SCA\_WaterSup\_Econ\_storageDam

(8) Delete restricted data tables of tbl\_KEAstreams, tbl\_RNE, tbl\_ShorebirdHabitat, tbl\_Species and tbl\_TEC

(7) Delete turned off data tables of tbl\_Economic\_GWMP\_turnoff\_20160208, tbl\_Economic\_SW\_BWR\_area\_turnoff\_20160208, tbl\_Economic\_SW\_WAR\_area\_turnoff\_20160208, tbl\_EconomicNSW\_GW\_turnoff\_part\_20160205, ,tbl\_SCA\_WaterSup\_Econ\_areas\_turnoff\_20160208

(8)Delete process spatial data GM\_CMA\_SubReg\_4\_NSWTESC\_SSB

(9)Delete process table of tbl\_SSB\_Species\_TEC\_decisions\_reveiw\_23112015

(10) Delete restricted fields of Note, DecisionByWho from table AssetDecisions

(11) Removed the restricted data from tables of Element\_to\_Asset and ElementList; and from all asset and element spatial data

Other recent changes (in common with the previous version) include:

(12) Replaced Appendix B with BA source dataset register information and their licence information

(13) Replaced Appendix C with Elements and Asset counts for Unrestricted Version of the Asset Database

(14) Added Appendix D with Elements and Asset counts for Restricted Version of the Asset Database

(15) Added two SQL queries to the database i.e. (a) Find\_number\_of\_assets\_by\_class, and (b) Find\_number\_of elements\_in\_class.

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# Introduction

The Bioregional Assessments methodology (Barrett et al., 2013) defines a water-dependent asset as a spatially distinct, geo-referenced entity contained within a bioregion with characteristics having a defined cultural indigenous, economic or environmental value, and that can be linked directly or indirectly to a dependency on water quantity and/or quality.

Under the BA program, a spatial assets database is developed for each defined bioregional assessment project. The spatial elements that underpin the identification of water dependent assets are identified in the first instance by regional NRM organisations (via the WAIT tool) and supplemented with additional elements from national and state/territory government datasets. Elements are initially included in the database if they are partly or wholly within the subregion’s preliminary assessment extent (Materiality Test 1, M1). Elements are then grouped into assets which are evaluated by project teams to determine whether they meet materiality test 2 (M2) - assets considered to be water dependent.

Elements may be represented by a single, discrete spatial unit (polygon, line or point), or a number of spatial units occurring at more than one location (multipart polygons/lines or multipoints). Spatial features representing elements are not clipped to the preliminary assessment extent - features that extend beyond the boundary of the assessment extent have been included in full. To assist with an assessment of the relative importance of elements, area statements have been included as an attribute of the spatial data. Detailed attribute tables contain descriptions of the geographic features at the element level. Tables are organised by data source and can be joined to the spatial data on the “ElementID” field.

Elements are grouped into Assets, which are the objects used by project teams to model scenarios under the BA program. Detailed attribution does not exist at the asset level. Asset attribution includes only the core set of BA-derived attributes reflecting the BA classification hierarchy (described in Appendix A).

The “Element\_to\_Asset” table contains the relationships and identifies the elements that were grouped to create each asset.

Following delivery of the first pass asset list, project teams then make a determination as to whether an asset (comprised of one or more elements) is water dependent, as assessed against the materiality tests detailed in the BA Methodology. These decisions are provided to ERIN by the project team leader and incorporated into the Asset List table in the Asset database. The Asset database is re-published into the BA repository.

The following pages provide detailed descriptions of the database structures of the Asset database for the Sydney Basin bioregion 29th March 2016.

# Description of the Asset List Database

The restricted versions of the asset database have been created in two different data formats due to size limitations:

1. **Personal Geodatabase** (MDB, Microsoft Access Proprietary format, formatted to ESRI personal geodatabase specifications)

This database contains all data other than the spatial data. Limit of 2 Gigabytes

1. **File Geodatabase** (GDB, ESRI Proprietary format)

This database contains all the spatial data with only an ID attribute to enable joins to the attribute data.

Source datasets are highly variable and have different attributes, so separate tables are maintained in the Access database to enable the querying of thematic source layers.

Spatial data is represented as a series of spatial feature classes (point, line and polygon layers). Non-spatial attribution can be joined from the Access database using the AID and ElementID fields, which are common to both the spatial and non-spatial datasets. Spatial layers containing all the point, line and polygon – derived elements and assets have been created to simplify management of the Elementlist and Assetlist tables, which list all the elements and assets, regardless of the spatial data geometry type. i.e. the total number of features in the combined spatial layers (points, lines, polygons) for assets (and elements) is equal to the total number of non-spatial records of all the individual data sources.

# Development of the Asset Register from the Asset database

Decisions for M0 (fit for purpose), M1 (PAE) and M2 (water dependent) determine which assets are included in the “asset list” and “water-dependent asset register” which are published as Product 1.3.

The rule sets are applied as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **M0** | **M1** | **M2** | **Result** |
| **No** | n/a | n/a | Asset is not included in the asset list or the water-dependent asset register |
| (≠ No) | **No** | n/a | Asset is not included in the asset list or the water-dependent asset register |
| (≠ No) | **Yes** | **No** | Asset included in published asset list but not in water dependent asset register |
| (≠ No) | **Yes** | **Yes** | Asset included in both asset list and water-dependent asset register |

Assessment teams are then able to use the database to assign receptors and impact variables to water-dependent assets and the development of a receptor register as detailed in BA submethodology M03: *Assigning receptors and impact variables to water-dependent assets*, and the receptor register is then incorporated into the asset database.

At this stage of its development, the Sydney Basin bioregion 29th March 2016, which this document describes, does not contain receptor information.

# 1. Tabular Data

The key table in the database is the ‘AssetList’ table. This contains the complete set of assets for a bioregion (i.e. all elements combined into point, line and polygon designations and grouped according to source and location) with basic information describing them. This table represents the BA “Asset List”, and is updated with decisions by the project team to flag assets that are considered to be water dependent. This table contains the data that becomes the “Asset List” component of the *Water dependent asset register and asset list* (i.e. the full list of assets in the PAE). Only assets which are assessed by the project team as being water dependent are included in the “Water dependent asset register” section of the register.

## AssetList

The *Methodology to identify assets and receptors for bioregional assessments* (Barrett et al, 2013) states that “water dependent assets have a defined set of attributes being group, sub-group, class, name, and depth. These fields together with geospatial information and unique identifier completely describe each water dependent asset used in the bioregional assessments.”

The attributes *group, sub-group, class, name, depth* and *AssetID (AID)* are the core attributes of the AssetList table. Other additional attributes are included in the table to help address data provenance requirements of the BA program (*source, listdate, geometry, PAE\_region* and *PAE\_date*).

|  |  |  |
| --- | --- | --- |
| AID | Long Integer | BA asset identifier (unique per asset spatial feature) |
| AssetName | Text (255) | A name given to each asset by ERIN according to the naming convention developed for each source dataset (recorded in the “NameRule” field). All assets require a name. |
| Group | Text (40) | The highest level of the BA classification hierarchy. Values are either ‘Economic’, ‘Ecological’ or ‘Sociocultural’. |
| SubGroup | Text (255) | The 2nd tier of the classification hierarchy. See Appendix A. |
| Class | Text (255) | The 3rd tier of the classification hierarchy. See Appendix A. |
| Depth | Text (50) | Values are currently set to either ‘surface’ or ‘subsurface’. |
| Source | Text (50) | The dataset from which the elements that have been combined into the asset were sourced. |
| ListDate | Date/Time (Short Date) | The date the element was originally added to the element list. |
| Geometry | Text (10) | The type of spatial representation of the asset (point, line, polygon). |
| PAE\_Region | Text (150) | The name of the subregion for which this particular database was compiled, as spatially defined by the subregion’s PAE.  [It does not refer to the location of the asset on the ground, as for example an asset could be located within the Namoi PAE, and be within the Gwydir sub-region boundary and not the Namoi subregion boundary]. |
| PAE\_Date | Date/Time (Short Date) | The date of the approved PAE used to initially select the elements for inclusion in the element list. |
| M1 | Text (5) | Asset meets Materiality Test 1 (occurs within the PAE) |
| M1\_Reason | Text (255) | Reason for inclusion (i.e. “Spatially overlaps or entirely within the PAE”) |
| NameRule | Text (255) | Records the formula used to derive an asset name. Generally based on attributes contained in the source data (i.e. at the element-level). |
| Asset\_Areaha\_Lengthkm | Double | Total calculated area (Ha) / length (km) of the full extent of the spatial representation of an asset. |
| T\_Area\_ha /  T\_leng\_km | Integer (double) | Total calculated area (Ha) / length (km) of the full extent of the spatial representation of an asset. |
| P\_Area\_ha /  P\_leng\_km | Integer (double) | The calculated area (Ha) / length (km) of the spatial representation of an asset that is within the PAE. |
| P\_Area\_Pct /  P\_leng\_Pct | Integer  (double) | Percentage of area/length of an asset that is within the PAE, relative to its total area / length. (Percentage values may be approximate) |
| M0 | Text (5) | Fit-for-BA Test such as Duplicates/Current Irrelevant data/Adequate information/Best asset to pass/Accessible data/ Publishable data |
| M0\_Reason | Text (255) | Reason for M0 |
| M2 | Text (5) | Does the asset pass the water dependency test? |
| M2\_Reason | Text (255) | Reason for M2 |
| M3 | Text (5) | Hydrologic Connection (HC) test |
| M3\_Reason | Text (255) | Reason for M3 |
| M4 | Text (5) | Does the asset pass the 'materiality' impact test |
| M4\_Reason | Text (255) | Reason for M4 |
| InRegister | Text (5) | Is the asset registered for further inclusion in other BA components? |
| RegisteredDate | Date/Time | The date when the current registration status of an asset was recorded |
| Public | Text (25) | Source data licences condition (Yes = CCBY and No = Restricted) ( for the public version only) |

## Element\_to\_Asset

Contains the relationships identifying the elements grouped into each asset (from within the same source dataset. This table is used to relate the detailed attribution associated with elements (at the element-level), to an asset.

**Please note that in the Public version of the Asset database Restricted Elements have been removed from the Element\_to\_Asset table.**

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | BA element identifier (unique per spatial feature) |
| AID | Long Integer | BA asset identifier (unique per asset spatial feature) |
| AssetName | Text (255) | A name given to each asset by ERIN according to the naming convention developed for each source dataset |
| M1 | Text (5) | Asset meets Materiality Test 1 (occurs within the PAE) |
| M1\_Reason | Text (255) | Reason for inclusion (i.e. “Spatially overlaps or entirely within the PAE”) |
| NameRule | Text (255) | Records the formula used to derive an asset name. Generally based on attributes contained in the source data (i.e. at the element-level). |

## ElementList

Contains the spatial features located within the PAE. The attributes *group, sub-group, class, name, depth* and *AssetID* are the core attributes. Other additional attributes are included in the table to help address data provenance requirements of the BA program (*source, listdate, geometry, PAE\_region* and *PAE\_date*).

**Please note in the public version of the Asset database for Sydney Basin bioregion 29th March 2016 Restricted Elements have been removed from the ElementList.**

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | BA element identifier (unique per spatial feature) |
| (Name) | Text (200) | A name given to each element either by the NRM region or copied from a name field in an alternative dataset. Not all elements will have a name. |
| Group | Text (40) | The highest level of the BA classification hierarchy. Values are either ‘Economic’, ‘Ecological’ or ‘Sociocultural’. |
| SubGroup | Text (255) | The 2nd tier of the classification hierarchy. See Appendix A. |
| Class | Text (255) | The 3rd tier of the classification hierarchy. See Appendix A. |
| Depth | Text (50) | Values are currently set to either ‘surface’ or ‘subsurface’. |
| Source | Text (50) | The dataset from which the element was sourced. |
| ListDate | Date/Time (Short Date) | The date the element was added to the 1st pass element list. |
| Geometry | Text (10) | The type of spatial representation of the asset (point, line, polygon). |
| PAE\_Region | Text (150) | This element list was compiled for BA work on a particular bioregion or sub-region, which is spatially defined by the PAE. It is not the location of the element on the ground (as for example, an asset could be assessed in the Namoi PAE but be physically located in the Gwydir sub-region). |
| PAE\_Date | Date/Time (Short Date) | The date of the ‘approved’ PAE which was used to select the elements to be included in the element list. |
| ElementIDPre | Text (255) | The element identifier for joining WAIT data (ELEMENTID filed in table tbl\_NRM\_Asset\_Water\_Asset) |
| T\_Area\_ha /  T\_leng\_km | Integer (double) | Total calculated area (Ha) / length (km) of the full extent of the spatial representation of an element. |
| P\_Area\_ha /  P\_leng\_km | Integer (double) | The calculated area (Ha) / length (km) of the spatial representation of an element that is within the PAE. |
| P\_Area\_Pct /  P\_leng\_Pct | Integer  (double) | Percentage of area/length of an element that is within the PAE, relative to its total area / length. (Percentage values may be approximate) |

## AssetDecisions

Table devised to manage multiple decisions for assets as made and revised by project teams per asset. Can manage many-to-one relationships with the AssetList table. Please note in the Public Asset database the [DecisionByWho] field has been removed from the AssetDecisions table and the [Note] field to preserve the identity of individuals.

|  |  |  |
| --- | --- | --- |
| AID | Number | BA element identifier (unique per spatial feature) |
| TestType | Text | Is the asset in the preliminary assessment extent?/Does the asset pass the water dependency test?/Does the asset pass the materiality test/Fit-for-BA Test |
| TestTypeCode | Text | M1: Is the asset in the preliminary assessment extent?/M2:Does the asset pass the water dependency test?/M3:Does the asset pass the materiality test/M4:Fit-for-BA Test |
| Decision | Text | ‘Yes’ or ‘No’ |
| DecisionBrief | Text | Short description about decision |
| DecisionReason | Memo | Long description about decision |
| DecisionByWho | Text | Approver of decision |
| DecisionDate | Date/Time | Date of decision |
| Note | Memo | Other relevant details as required |

## tbl\_Version

This table identifies the database version, and includes a brief description of key differences between existing versions. Please note in the public version of the database a record has been added to this table to identify when the public version was created.

## tbl\_NRM\_Asset\_Water\_Asset

Describes the key attributes of the water dependent environmental assets (or elements) as provided by regional NRM organisations under the BA program. Key attributes, as recorded in the Water Assets Information Tool (WAIT databases), are as follows (noting that not all these attributes were provided in every case):

|  |  |
| --- | --- |
| ElementName | Accepted legal name for a location, as provided by regional NRM organisations. |
| NRM\_region | NRM region/CMA from which data was received |
| ElementID | ERIN-generated BA asset identifier. Unique per spatial feature |
| Description | Overall asset description, location, river system, aquifer, area (in hectares), climate and other relevant details. |
| coordinates\_define | Spatial layer type (points, lines or polygons) |
| EnvironmentalValue | Environmental Value (diversity, habitat, distinctiveness, naturalness, and representativeness). |
| EconomicValue | Economic values |
| SocialCulturalValue | Social & cultural values |
| Hydrology | Hydrology eg. water balance (water flowing in, water flowing out) groundwater infiltration and seepage surface–groundwater interactions tidal regime, inundation regime (volume, frequency, duration, height and seasonality [timing] of inundation) |
| Geology\_geomorphology | Notes on geology and geomorphology |
| Other\_Relevant\_Details | Further relevant information about the asset |
| ManagementAuthority | Authority with responsibility for managing the asset |
| Tenure | Tenure of the asset or the land where the asset occurs |
| Condition | Condition of the asset |
| Primary\_contact\_for\_asset | Name, organisation, role, phone and email |
| Legal\_protection | State, Federal or International protection e.g. World heritage, Ramsar, EPBC listed community etc. |
| Notes | Other notes relevant to the asset under the BA process |

## tbl\_NRM\_Asset\_LandUse (table)

A lookup table showing main land use/s at the site of elements. Values based on [Australian Land Use Management Classification (ALUM)](http://www.daff.gov.au/abares/aclump). Provided by bioregional stakeholders as part of the process for populating an initial assets database.

|  |  |
| --- | --- |
| ElementID | ERIN-generated BA element identifier. Unique per spatial feature |
| Landuse | Main land use categories as provided by regional stakeholders |

## tbl\_NRM\_Asset\_NWQM\_Value

Lookup table showing the key environmental values of elements as detailed in the [National Water Quality Management Strategy](http://www.environment.gov.au/topics/water/water-quality/national-water-quality-management-strategy) (NWQMS). The NWQMS process involves development and implementation of management plans for each catchment, aquifer, estuary, coastal water or other water body, by community and government. Local government, community organisations and other agencies carry out these plans using the NWQMS to protect agreed environmental values (or ‘EVs’).

|  |  |
| --- | --- |
| ElementID | ERIN-generated BA element identifier. Unique per spatial feature |
| NWQMSEnvironValues | NWQMS EVs as provided by regional stakeholders |

## tbl\_NRM\_Asset\_WaterBody\_Type

A lookup table which provides a value describing elements as a water body type. Values based on [Australian National Guidelines for Ramsar Wetlands](http://www.environment.gov.au/water/topics/wetlands/ramsar-convention/australian-guidelines.html), but may include other values, particularly for those describing groundwater elements or assets.

|  |  |
| --- | --- |
| ElementID | ERIN-generated BA element identifier. Unique per spatial feature |
| WaterBodyType | Brief description of the asset in terms of the type of water feature it represents |

## tbl\_NRM\_vulnerability

A lookup table that presents the key components of a vulnerability assessment of the elements or assets provided by the NRMs.

|  |  |
| --- | --- |
| ID | ERIN-generated BA element identifier. Unique per spatial feature |
| ElementID | Vulnerability assessment ID |
| Activity | Activity identified as the most likely to impact the element or asset. |
| Existing potential | Identifies if the current activity is already occurring (existing) or likely to occur (potential), or exists but likely to expand. |
| Effect (of activity on asset) | Most likely effect the activity will have on the water resources pertaining to the element or asset. |
| Impact | Potential level of impact of the activity on the element or asset. |
| Mitigation in place | Mitigation measures that have been (or will be) implemented to protect the element or asset. |
| Description | Why the selected activity is perceived to be a threat, and identifies stressors that are already affecting the element or asset. |

# 2. Spatial data

Spatial data is presented as three combined spatial layers (point, line, polygon), amalgamated according to the geometry of the source layers – three each for elements and assets, as required. The spatial data contains minimal, standardised BA attribution (as detailed in 2.1 below).

**Note that for the Sydney Basin bioregion 29th March 2016 Public Asset database only polygon Element and polygon Asset features were required to be removed due to datasets with Restricted Licences.**

AssetList ***GMJ\_SSB\_AssetList\_ln/***

***GMJ\_SSB\_AssetList\_poly/***

***GMJ\_SSB\_AssetList\_pt***

|  |  |  |
| --- | --- | --- |
| AID | Text (255) | BA asset identifier (unique per asset spatial feature) |

**( same as those in table AssetList for the public version)**

ElementList ***GMJ\_SSB\_ElementsList\_ln/***

***GMJ\_SSB\_ElementsList\_poly/***

***GMJ\_SSB\_ElementsList\_pt***

Attributes

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | Bioregional Assessment program element identifier assigned by ERIN (unique per spatial feature) |

**( same as those in table ElementList for the public version)**

# 3. Attribute tables

The Element and Asset lists are comprised of data from the following datasets. The following pages describe the source datasets and their attribution.

**Note**: Economic source data is prepared by the Bureau of Meteorology based on data from state government authorities. Detailed descriptions of economic source data layers can be found on the BA repository.

## A. Ecological and sociocultural data

## tbl\_CAPAD The Collaborative Australian Protected Areas Database (CAPAD)

The Australian Government collects information on protected areas from state and territory governments and other managers of protected areas. This information is published in the Collaborative Australian Protected Area Database (CAPAD).

CAPAD provides a national perspective of the conservation of biodiversity in protected areas and allows Australia to regularly report on the status of protected areas to meet international obligations.

Under the *Australia's Strategy for the National Reserve System 2009-2030*, state and territory governments and the Australian Government have agreed to adopt international standards for the definition of a protected area and management categories used by the IUCN.

CAPAD provides information at a national, state and territory level. For each grouping, CAPAD includes information about the following:

* List of all protected areas: including information on IUCN category, location (latitude and longitude of mid-point (centroid)), area (hectares) and gazettal date (the year an area was declared a protected area).
* Protected areas classified according to reservation type designations eg National Park, Conservation Covenant, and Indigenous Protected Area.
* Protected areas classified according to IUCN management categories.
* Protected areas classified according to type designations as a proportion of IBRA (V.7) regions. For example, the number of type designations within the Victorian Midlands (VM) IBRA region in Victoria and the percentage of those types of Protected Areas within that region.
* Protected areas classified according to IUCN management categories as a proportion of IBRA region eg. Number of Category II protected areas in Queensland and the percentage of those IUCN categories within the Queensland IBRA regions.
* The level of protection of IBRA regions.
* The level of protection of IBRA subregions.
* Protected Areas classified according to governance e.g. government, joint, indigenous and private.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| NAME | Protected area name as gazetted (or “Unnamed”) |
| TYPE | Protected area type according to protected area establishment mechanism |
| IUCN | IUCN protected area management category, ascribed by the managing authority. |
| NRS\_PA | Status of the protected area as part of the National Reserve System (NRS) |
| GIS\_AREA | Calculated area (Ha) based on spatial data projected to Albers equal area projection for Australia (where protected area consists of multiple polygons, GIS\_AREA is the sum of all the polygons with the same name, type, state and IUCN category) |
| STATE | The state in which the protected area is located (COM = protected areas located in Australian external territories) |
| COMMENTS | Comments |
| ENVIRON | A protected area gazetted as terrestrial may have a marine component and vice versa. A protected area can be designated 'T' terrestrial, ‘M’ marine or ‘B’ both. Terrestrial CAPAD 2010 contains 'T' and 'B'. Marine CAPAD 2010 contains 'M'. |
| MGT\_PLAN | The code of the status of the management plan for the protected area |
| RES\_NUMBER | The reserve number (if declared) as used by the controlling authority and pre-fixed text denoting State / Territory (eg. NSW0850). Indigenous Protected Areas (IPA) Reserve Numbers is allocated by the Dept for CAPAD. |

|  |  |  |
| --- | --- | --- |
| **IUCN category** | **Definition** | **IUCN codes** |
| IA | Strict Nature Reserve: protected area managed mainly for science | IA |
| IB | Wilderness Area: protected area managed mainly for wilderness protection | IB |
| II | National Park: protected area managed mainly for ecosystem protection | II |
| III | Natural Monument: protected area managed mainly for conservation of specific natural features | III |
| IV | Habitat / Species Management Area: protected area managed mainly for conservation through management intervention | IV |
| V | Protected Landscape / Seascape: protected area managed mainly for landscape/seascape conservation and recreation | V |
| VI | Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems | VI |
| Not applicable | Denotes an area that does not meet the NRS criteria or the IUCN definition of a protected area but has management complimentary to the NRS | NA |

## tbl\_DIWA Directory of Important Wetlands of Australia (DIWA)

A polygon coverage representing the wetlands cited in *A Directory of Important Wetlands in Australia* Third Edition (EA, 2001), plus various additions for wetlands listed after 2001.

A wetland may be considered nationally important if it meets at least one of the following criteria:

* It is a good example of a wetland type occurring within a biogeographic region in Australia.
* It is a wetland which plays an important ecological or hydrological role in the natural functioning of a major wetland system/complex.
* It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycles, or provides a refuge when adverse conditions such as drought prevail.
* The wetland supports 1% or more of the national populations of any native plant or animal taxa.
* The wetland supports native plant or animal taxa or communities which are considered endangered or vulnerable at the national level.
* The wetland is of outstanding historical or cultural significance.

The wetland classification system used in the Directory identifies 40 different wetland types in three categories:

A. [Marine and Coastal Zone wetlands](http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/directory-important#marine)

B. [Inland wetlands](http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/directory-important#inland), and

C. [Human-made wetlands](http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/directory-important#human).

This system was agreed to by the then ANZECC Wetlands Network in 1994. It is based on that used by the Ramsar Convention in [describing Wetlands of International Importance](http://www.environment.gov.au/water/topics/wetlands/ramsar-convention/identification-criteria.html), but was modified slightly to suit the Australian situation in describing wetlands of national importance.

This dataset is a compilation of various source data collected using a variety of methods and should be used as an indicative guide only to wetland boundaries and locations.

Database is online at

<http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/australian-ramsar-wetlands>

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| FEAT\_CODE | Description of the waterbody's hydrographic feature (eg. 'lake', 'swamp'). This attribute is derived from TOPO250K |
| WNAME | Name of the wetland site as listed in the Directory |
| STATE | State or Territory in which the waterbody occurs |
| REFCODE | Unique identifier for [online wetlands database](http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/australian-ramsar-wetlands) which contains much more information about each wetland |
| SPECIFIC\_N | Slightly more specific feature name |

## tbl\_EAD Environmental Assets Database (Commonwealth Environmental Water Holder)

**RESTRICTED DATASET**

**Please note tables tbl\_EAD did not occur in the restricted version of the Sydney Basin Bioregion Asset database.**

Based on the (Water) Environmental Asset Database (EAD) created by ERIN, based on descriptions from the CEWH.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| NAME | The name of the Environmental Asset (or element) |
| AREA\_HA | GIS-calculated area of the spatial representation of the element, in Ha |

## tbl\_GAB\_GW\_Recharge Great Artesian Basin Groundwater Recharge (Link to BAIP)

**Please note tables tbl\_GAB\_GW\_Recharge did not occur in the restricted version of the Sydney Basin Bioregion Asset database.**

Areas of groundwater recharge across the Great Artesian Basin, including regionally variable local recharge in some places.

Produced for the Great Artesian Basin Water Resource Assessment. Ransley TR and Smerdon BD (eds) (2012) Hydrostratigraphy, hydrogeology and system conceptualisation of the Great Artesian Basin. A technical report to the Australian Government from the CSIRO Great Artesian Basin Water Resource Assessment. CSIRO Water for a Healthy Country Flagship, Australia.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| map\_symb | No additional metadata available |
| geol\_bnd | No additional metadata available |
| aquifer | No additional metadata available |

## tbl\_GDEsur Groundwater Dependent Ecosystems (Surface model)

The *Groundwater Dependent Ecosystems Atlas* contains ecological and hydrogeological information about groundwater dependent ecosystems across Australia. The surface component of this data describes ecosystems that may rely on the surface expression of groundwater—this includes all the surface water ecosystems which may have a groundwater component, such as rivers, wetlands and springs. Marine and estuarine ecosystems can also be groundwater dependent, but these are not mapped in this dataset.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| UFI | Source dataset unique identifier |
| NAME | GDE feature name |
| ECOCL\_DS | GDE class |
| ECOTYPE\_DS | Ecosystem type from standard list of ecosystem types |
| EHZ\_DS | Identifier for Ecological Hydrogeological Zone |
| DRBASIN\_DS | Drainage Basin |
| GMORPH\_DS | Physiography |
| LSCAPE\_DS | Landscape assessment DEM analyses (i.e. MrVBF ‐ FLAG) (1) Plateau (2) Slope (3) Low lying |
| RAINF\_DS | Seasonal rainfall zone |
| BIOREG\_DS | Bioregionalisation |
| GWFLOW\_DS | Broad hydrogeological setting/Groundwater Flow System  (1) Shallow alluvial, Local (2) Shallow alluvial, Intermediate (3) Shallow alluvial, Regional (4) Basin, Local (5) Basin, Intermediate (6) Basin, Regional (7) Bedrock, Local (8) Bedrock, Intermediate (9) Bedrock, Regional (10) Nested (11) Perched |
| LANDUSE\_DS | Broad landuse type |
| GMA\_DS | (Ground) Water Management Areas |
| STATE\_DS | Attribute source: Geodata v3 (GA) |
| IDE\_N | Inflow Dependent Ecosystems – likelihood (1 to 10) |
| GWDEP\_DS | Confidence of ecosystem being a GDE (5) Known/Established (by field validation) (4) Derived ‐ identified by third party (3) Derived – high confidence (2) Derived – low confidence (1) IDE |
| WREGIME\_DS | Water regime (1) Ephemeral (unpredictable, short term) (2) Intermittent (irregular, persists for medium term) (3) Seasonal (annual, regular) (4) Permanent, near permanent (flowing) (5) Permanent, near permanent (static) (6) Unknown (7) No data |
| SP\_CONN\_DS | Spatial connectivity between GDE and groundwater |
| PERMCON\_DS | Temporal nature of groundwater connectivity/use (1) Ephemeral (unpredictable, short term) (2) Intermittent (irregular, persists for medium term) (3) Seasonal (annual, regular) (4) Permanent, near permanent (5) Unknown (6) No data |
| AQ\_IGWID\_N | Aquifer identifier |
| SRCE | Source of input data |

## tbl\_GDEsub Groundwater Dependent Ecosystems (Subsurface Model - vegetation)

The *Groundwater Dependent Ecosystems Atlas* contains ecological and hydrogeological information about groundwater dependent ecosystems across Australia. This dataset contains information about ecosystems that may rely on the subsurface presence of groundwater – this includes all vegetation ecosystems.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| UFI | Source dataset unique identifier |
| ECOCL\_DS | GDE class |
| ECOTYPE\_DS | Ecosystem type from standard list of ecosystem types |
| S\_ETYPE\_DS | Supplied ecosystem type from source data |
| EHZ\_DS | Identifier for Ecological Hydrogeological Zone |
| DRBASIN\_DS | Drainage Basin |
| GMORPH\_DS | Physiography |
| LSCAPE\_DS | Landscape assessment DEM analyses (i.e. MrVBF ‐ FLAG) (1) Plateau (2) Slope (3) Low lying |
| RAINF\_DS | Seasonal rainfall zone |
| BIOREG\_DS | Bioregionalisation |
| GWFLOW\_DS | Broad hydrogeological setting/Groundwater Flow System  (1) Shallow alluvial, Local (2) Shallow alluvial, Intermediate (3) Shallow alluvial, Regional (4) Basin, Local (5) Basin, Intermediate (6) Basin, Regional (7) Bedrock, Local (8) Bedrock, Intermediate (9) Bedrock, Regional (10) Nested (11) Perched |
| LANDUSE\_DS | Broad landuse type |
| GMA\_DS | (Ground) Water Management Areas |
| GWDEP\_DS | Confidence of ecosystem being a GDE (5) Known/Established (by field validation) (4) Derived ‐ identified by third party (3) Derived – high confidence (2) Derived – low confidence (1) IDE |
| AQ\_IGWID\_N | Aquifer identifier |
| SRCE | Source of input data |

## tbl\_IBA Important Bird Areas

Important Bird Areas (IBAs) are sites of global bird conservation importance. Each IBA meets one of four global criteria used by BirdLife International. IBAs are priority areas for bird conservation.

IBAs are a site-scale conservation prioritisation only and do not imply unimportance of excluded areas. Areas not designated as Important Bird Areas may also be important for bird conservation, especially for species such as arid country and savanna species whose conservation is best addressed at landscape-scales rather than site-scales.

Comprehensive site specific surveys have not been conducted for each IBA, therefore, these data are not a definitive statement of the presence or absence of any species at any location. These data should not be considered a substitute for on-site surveys that may be required for an environmental assessment, environmental impact statement, or conservation planning. Birds Australia makes no warranty, expressed or implied, as to the use or appropriateness of use of the enclosed data, nor are there warranties of merchantability or fitness for a particular purpose or use. Boundaries are based on known distributions of key birds, key habitats and/or expert opinion. Cadastral boundaries may be used where more practicable. However protected areas are preferentially chosen for any IBAs nominated solely for 'restricted-range' (A2) species. IBAs therefore commonly include a variety of land ownerships and uses. All major land-holders will be consulted directly or through appropriate umbrella land-use.

Acknowledgments: "Birds Australia (2009) Important Bird Areas of Australia."

Latest version of [IBA shapefiles](http://www.birdsaustralia.com.au/images/stories/current-projects/iba/IBA_shapefile.zip)

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| SITERECID | Site record identifier from source dataset |
| IBANAME | Name of the important bird area |
| STATE | Jurisdiction in which the IBA occurs |

## tbl\_KEAwaterbodiesAH tbl\_KEAstreams tbl\_KEAwaterbodiesNAH Key Environmental Assets of the Murray-Darling Basin

**RESTRICTED DATASET**

**Please note tables *tbl\_KEAstreams* did not occur in the restricted version of the Sydney Basin Bioregion Asset database.**

**Please note tables tbl\_KEAwaterbodiesAH and tbl\_KEAwaterbodiesNAH did not occur in the restricted version of the Sydney Basin bioregion 29th March 2016 Asset database..**

The Murray-Darling Basin Authority (MDBA) considers an environmental asset to be the physical parts of the Murray-Darling River system which provide habitat for the plants, animals, fish, invertebrates and microbes and combine to make the ecosystems of the Basin. They comprise rivers, wetlands, floodplains, lakes and estuaries.

A set of criteria were used to select water-dependent ecosystem considered to be key environmental assets. If an asset fulfils the achievement indicators of at least one of the following criteria it is selected as a key environmental asset. Specific achievement indicators were developed for each of the criteria to ensure a consistent (to the extent possible) and measurable assessment of water-dependent ecosystems:

* Criterion 1: water-dependent ecosystem is formally recognised in, and/or is capable of supporting species listed in, international agreements; and/or
* Criterion 2: water-dependent ecosystem is natural or near-natural, rare or unique; and/or
* Criterion 3: water-dependent ecosystem provides vital habitat; and/or
* Criterion 4: water-dependent ecosystem supports Commonwealth, State or Territory listed threatened species and/or ecological communities; and/or
* Criterion 5: water-dependent ecosystem supports or is capable of supporting significant biodiversity.

More detailed information about the five criteria is available in [Appendix A](http://www.mdba.gov.au/what-we-do/basin-plan/development/eslt/appendix-a) to the [proposed "environmentally sustainable level of take" for surface water of the Murray–Darling Basin: Method and Outcomes.](http://www.mdba.gov.au/what-we-do/basin-plan/development/eslt)

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| SOURCEDATA | No additional metadata identified |
| SOURCEID\_T | No additional metadata identified |
| SOURCEID\_L | No additional metadata identified |
| KEAD\_ID | No additional metadata identified |
| SOURCENAME | No additional metadata identified |
| C1 | Infer: Criterion 1 met “1” or not met “0” |
| C2 | Infer: Criterion 2 met “1” or not met “0” |
| C3 | Infer: Criterion 3 met “1” or not met “0” |
| C4 | Infer: Criterion 4 met “1” or not met “0” |
| C5 | Infer: Criterion 5 met “1” or not met “0” |
| ASSETNAME | MDBA KEA name |
| HYDROID | Identifier from Aushydro dataset |
| OWNID | MDBA identifier |

## tbl\_TEC Listed Threatened Ecological Communities

**RESTRICTED DATASET**

**Please note this table has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

This dataset describes modelled “known” and “likely” distributions of threatened ecological communities as listed under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999.* Based on the Database of Species of National Environmental Significance.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| COM\_NAME | TEC common name |
| COM\_ID | Community identifier for the DSNES. To join to COM\_ID in the tec\_model table. This table contains a more detailed description of how the distribution for each community was modelled. |
| PRESENCE | Likelihood of TEC occurring in the modelled habitat distribution, or description of how the TEC might exist in or use the habitat in the distribution |
| COMMUNITY\_NAME | TEC name |
| STATUS | Listing class (eg vulnerable, endangered, critically endangered) |
| URL | Link to Species Profile and Threats (SPRAT) database TEC profile |

**Associated table: tec\_model**

|  |  |
| --- | --- |
| COM\_ID | Community identifier. Joins to COM\_ID in **TEC** table |
| ENTITY\_SHORT | Community name |
| ITEM\_DESCRIPTION | Description of how the distribution for each community was modelled. |

## tbl\_Species\_EPBC Listed Threatened Species (EPBC Act)

**RESTRICTED DATASET**

**Please note this table has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

This dataset describes modelled “known” and “likely” distributions of species of national environmental significance as listed under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999,* including from categories: threatened, migratory and marine species, cetaceans and species in other countries covered by international agreements that Australia is a party to. Based on the Database of Species of National Environmental Significance.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| TaxonID | Taxon identifier used to join to TAXON\_ID in the sp\_model table. This table contains a more detailed description of how the distribution for each species was modelled. |
| Listing | Instrument under which listed (eg EPBC Act) |
| ListingStatus | Listing category (eg vulnerable, endangered, critically endangered) and type of listing (eg Marine, Threatened, Migratory), where known (e.g. Marine, Threatened, Migratory) |
| ScientificName | Species scientific name |
| CommonName | Species common name/s |
| ClassCommonName | Taxonomic class common name |
| FamilyCommonName | Taxonomic family common name |
| Kingdom | Taxonomic kingdom common name |
| HabitatDependence | Relative importance of general habitat in a given geographic area to the conservation of a particular species (a subjective judgement based upon threatened status, occurrence type and current understanding of the species ecology) |
| OccurrenceType | Likelihood of species, or its habitat, occurring in a given geographic area |
| GeneralHabitat | Current understanding of the species general habitat described in the species profile ([SPRAT](http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl) database) |
| WaterDependence | Relative importance of aquatic, riparian and groundwater habitat to the conservation of a particular species (a subjective judgement based upon threatened status, occurrence type and current understanding of the species ecology) |
| AquaticHabitat | Current understanding of the species aquatic habitat described in the species profile ([SPRAT](http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl) database) |
| EndemnicityValue | A coarse indication of the known/likely endemnicity for each species in the area (2 – high, 3 – moderate, 4 – low) |
| URL | Web address of species profile in the [SPRAT](http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl) database |

**Associated table: tbl\_sp\_model**

|  |  |
| --- | --- |
| TAXON\_ID | Species identifier. Joins TAXON\_ID in **Species** table |
| ENTITY\_SHORT | Species name |
| ITEM\_DESCRIPTION | Description of how the distribution for each species was modelled. |

## tbl\_Ramsar Wetlands of International Importance (Ramsar Wetlands)

**Please note this table tbl\_Ramsar did not occur in the restricted version of the Sydney Basin bioregion 29th March 2016 Asset database.**

Under the [Ramsar Criteria](http://www.environment.gov.au/water/topics/wetlands/ramsar-convention/identification-criteria.html), wetlands should be selected for the [Ramsar List](http://www.environment.gov.au/cgi-bin/wetlands/alphablist.pl) on account of their international significance in terms of the biodiversity and uniqueness of their ecology, botany, zoology, limnology or hydrology. In addition, the Criteria indicates that in the first instance, wetlands of international importance to waterbirds at any season should be included on the Ramsar List.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| REFCODE | Ramsar identification code |
| URL | Link to entry in [Australian Wetlands Database](http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/australian-ramsar-wetlands) |
| RAMSAR\_NAME | Name of the Ramsar listing |
| WETLAND\_NAME | Name of the wetland |
| JURISDICTION | State/territory wetland is in |
| DESIGNATION\_DATE | Date of listing |
| AREA\_HA | Calculated area (Ha) |
| TOTAL\_SITE\_AREA\_HA | Calculated area of total site |
| SRCE | Source of spatial data |
| URL | URL for Australian Wetlands Database site record |

## tbl\_WHL tbl \_NHL tbl \_CHL tbl \_RNE National Heritage Database (World, National & Commonwealth Heritage Lists; Register of the National Estate)

**Please note restricted table tbl \_RNE only has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

A number of heritage lists and registers exist of natural, historic and Indigenous heritage places throughout Australia. These are not comprehensive lists of heritage places, but lists of the places that have been identified and recorded up to the present time.

The following four registers may include places which may be considered assets under the Bioregional Assessments Program:

[*World Heritage List*](http://www.environment.gov.au/heritage/places/world/index.html)

Australian heritage places that are of outstanding universal value and have been included on this United Nations Educational, Scientific and Cultural Organisation (UNESCO) - managed list.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| PLACE\_ID | Unique place identifier |
| NAME | Name of the place on the list |
| SRCE | Source of spatial data |
| STATUS | Listing status |
| IUCN\_MGT | IUCN category where applicable |
| BIOGEOPROV | WWF ecozone classification |
| NATURAL | World heritage criteria met for [natural heritage](http://www.environment.gov.au/heritage/about/world/criteria.html) |
| CULTURAL | World heritage criteria met for [cultural heritage](http://www.environment.gov.au/heritage/about/world/criteria.html) |
| STATE | State or territory the listing is found |
| HECTARES | Area of the listed site (Ha) |
| ADDRESS | Listed site address |
| INSCRIBED | Year site was inscribed onto the world heritage list |
| URL | URL for Australian Heritage Database site record |

[*National Heritage List*](http://www.environment.gov.au/topics/heritage/heritage-places/national-heritage-list)

Natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation. Australia's national heritage comprises exceptional natural and cultural places that contribute to Australia's national identity. It includes natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| PLACE\_ID | Unique place identifier |
| NAME | Name of the place on the list |
| HCLASS | Natural; Historic; Indigenous |
| STATUS | Legal status |
| STATE | State/territory in which the listing is found |
| AREA\_HA | Area of the listed site (Ha) |
| ADDRESS | Address of listed site |
| URL | URL for Australian Heritage Database site record |

[*Commonwealth Heritage List*](http://www.environment.gov.au/topics/heritage/heritage-places/commonwealth-heritage-list)

Natural, historic and Indigenous places of heritage significance owned or controlled by the Australian Government. These include places connected to defence, communications, customs and other government activities that also reflect Australia's development as a nation.

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| PLACE\_ID | Unique place identifier |
| NAME | Name of the place on the list |
| HCLASS | Natural; Historic; Indigenous |
| STATUS | Legal status |
| STATE | State/territory the listing is found |
| AREA\_HA | Area of the listed site (Ha) |
| ADDRESS | Address of listed site |
| URL | URL for Australian Heritage Database site record |

[*Register of the National Estate*](http://www.environment.gov.au/topics/heritage/heritage-places/register-national-estate)

Archive of information about more than 13,000 places throughout Australia.

**RESTRICTED DATASET**

**Please note this table has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| PLACE\_ID | Unique place identifier |
| NAME | Name of the place on the list |
| HCLASS | Natural; Historic; Indigenous |
| STATUS | Legal status |
| SRCE | Source of spatial data |
| ADDRESS | Address of listed site |
| STATE | State/territory the listing is found |
| URL | URL for Australian Heritage Database site record |

*The Australian Heritage Database*

Potential elements identified from these lists include a URL to the appropriate record in the [Australian Heritage Database](http://www.environment.gov.au/cgi-bin/ahdb/search.pl). The Australian Heritage Database contains information about more than 20,000 natural, historic and Indigenous places from the four lists identified above, as well as places in the List of Overseas Places of Historic Significance to Australia and places that may have been considered – or are currently under consideration – for any of these heritage lists.

## tbl\_ GDE\_NSW\_H\_CR Groundwater Dependent Ecosystems (NSW DPI, Hunter-Central Rivers)

**Please note this table did not occur in the restricted version of the Sydney Basin bioregion 29th March 2016 Asset database..**

Vegetation in NSW of high ecological value having high probability of being

groundwater dependent were identified through a process that used current vegetation

data, depth to groundwater data, data that showed potential frequency of water use other than surface water based on a continuous 10 year period and expert opinion.

High Probability vegetation communities were identified as being of High Ecological

Value when they sat within one or more selected datasets.

High Probability

1. Vegetation: obtained from OEH

2. Depth to groundwater: modelled data provided by Office of Water Hydrogeologists

3. Potential frequency of water use other than surface water based on a continuous 10

year period : This data set was created by Herbert Hemakumara (Office of Water) using remote sensing MODIS

High Ecological Value

1. National Parks and State Forests (OEH)

2. SEPP 14 & 26 (Dept Planning)

3. RAMSAR Wetlands (OEH)

4. Marine parks and aquatic reserves (OEH)

5. Identified rain forest communities (OEH)

6. Threatened or endangered species (OEH)

7. Wildlife corridors, Regional Conservation strategies or communities identified as

being significant in various studies (Various Sources)

Attributes

|  |  |
| --- | --- |
| ElementID | BA element identifier (unique per spatial feature) |
| Name | BA name |
| Native\_Veg | No additional metadata provided |
| Native\_V\_1 | No additional metadata provided |
| Keith\_Form | No additional metadata provided |
| Keith\_Clas | No additional metadata provided |
| Source | No additional metadata provided |
| GRIDCODE | No additional metadata provided |
| Source\_1 | No additional metadata provided |
| gde\_class | No additional metadata provided |
| Source\_12 | No additional metadata provided |
| GMA\_TYPE\_1 | No additional metadata provided |
| GDE\_Name | No additional metadata provided |
| Type | No additional metadata provided |
| VegStruct | No additional metadata provided |
| WoodyNonWo | No additional metadata provided |
| Level1 | No additional metadata provided |
| Level2 | No additional metadata provided |
| Level3 | No additional metadata provided |
| Level3a | No additional metadata provided |
| Level3d | No additional metadata provided |
| Rainforest | No additional metadata provided |
| EEC | No additional metadata provided |
| Riparian | No additional metadata provided |
| SIGNIFICAN | No additional metadata provided |
| EXOTIC | No additional metadata provided |
| DECNAME | No additional metadata provided |
| DiwaNAME | No additional metadata provided |
| DiwaTYPE | No additional metadata provided |
| DiwaRefCOD | No additional metadata provided |
| NP\_NAME | No additional metadata provided |
| NP\_TYPE | No additional metadata provided |
| RamNAME | No additional metadata provided |
| SEPP\_NO | No additional metadata provided |
| SEPP\_F\_COD | No additional metadata provided |
| CritNAME | No additional metadata provided |
| FloraRes | No additional metadata provided |
| StaForName | No additional metadata provided |
| ImportLake | No additional metadata provided |
| MarinePark | No additional metadata provided |
| MarineType | No additional metadata provided |
| Name | No additional metadata provided |
| OldGrowth | No additional metadata provided |
| VegRare | No additional metadata provided |
| AquaName | No additional metadata provided |
| AquaRes | No additional metadata provided |
| SIGNIFIC\_1 | No additional metadata provided |
| EcoValue | No additional metadata provided |
| NSW\_source | No additional metadata provided |

## B. Economic Data

Attribute tables for economic data are as follows. Metadata for the source datasets from which these are derived have been registered to the BA repository by the Bureau of Meteorology.

## tbl\_EconomicNSW\_GW NSW Groundwater Data

## tbl\_EconomicNSW\_SW NSW Surface water Data

## tbl\_Economic\_SW\_WAR\_area

NSW Surface water “Water access right” area data

**Please note this turned off has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

## tbl\_Economic\_SW\_BWR\_area

NSW Surface water “Basic water right” area data

**Please note** **this turned off table has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

## tbl\_ Economic\_RegRiv (NSW Regulated Rivers)

**Please note this table tbl\_ Economic\_RegRiv did not occur in the restricted version of the Sydney Basin bioregion 29th March 2016 Asset database.**

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | Bioregional Assessment program element identifier assigned by ERIN (unique per spatial feature). |
| WATER\_SOURCE | Text (100) | The water source name. |
| NAME\_OF\_THE\_PLAN | Text (255) | A name given to the plan. |
| WATER\_SHARING\_PLAN | Text (100) | Regulated rivers associated water sharing plan. |
| WSP\_STATUS | Text (50) | Regulated rivers associated water sharing plan status. |
| START\_DATE | Text (50) | No additional metadata available |
| END\_DATE | Text (50) | No additional metadata available |
| COMMENTS | Memo | The reach associated with the allocation/ entitlement. Not all elements will have this information. |
| Plan\_No | Text (50) | No additional metadata available |
| Name | Text (200) | A name given to the asset. |
| GIS\_SOURCE\_DATASET | Text (255) | The source dataset used to compile the spatial data. |
| SW\_BLR\_MLDay | Integer (double) | No additional metadata available |
| SW\_BLR\_MLYr | Integer (double) | No additional metadata available |
| GW\_BLR\_MLDay | Integer (double) | No additional metadata available |
| GW\_BLR\_MLYr | Integer (double) | No additional metadata available |
| SW\_NT\_MLDay | Integer  (double) | No additional metadata available |
| SW\_NT\_Mlyr | Integer  (double) | No additional metadata available |

## tbl\_Economic\_GWMP (NSW Groundwater Macro Plans)

**Please note this turned off has been removed from the public version of the Sydney Basin bioregion 29th March 2016 Asset database.**

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | Bioregional Assessment program element identifier assigned by ERIN (unique per spatial feature) |
| NAME\_OF\_THE\_PLAN | Text (255) | A name given to the plan. |
| GIS\_SOURCE\_DATASET | Text (255) | The source dataset used to compile the spatial data. |
| WATER\_SOURCE\_ORIG | Text (255) | The water source name. |
| Name | Text (200) | A name given to the asset. Not all elements will have a name. |
| GW\_BLR\_MLDay | Integer (double) | No additional metadata available |
| GW\_BLR\_MLYr | Integer (double) | No additional metadata available |
| WATER\_SOURCE | Text (255) | No additional metadata available |
| Comments | Text (255) | No additional metadata available |

## tbl\_ Economic\_WSP (NSW Water Sharing Plans)

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | Bioregional Assessment program element identifier assigned by ERIN (unique per spatial feature) |
| NAME\_OF\_TH | Text (255) | A name given to the water sharing plan. |
| GIS\_SOURCE\_DATASET | Text (255) | The source dataset used to compile the spatial data. |
| WATER\_SOUR | Text (255) | The water source name. |
| SW\_BLR\_MLDay | Text (200) | No additional metadata available |
| SW\_BLR\_MLYr |  | No additional metadata available |
| GW\_BLR\_MLDay | Integer (double) | No additional metadata available |
| GW\_BLR\_MLYr | Integer (double) | No additional metadata available |
| SW\_NT\_MLDay | Integer (double) | No additional metadata available |
| SW\_NT\_Mlyr | Integer (double) | No additional metadata available |
| Name | Text (200) | A name given to the asset. |

## tbl\_Economic\_GMA

(NSW groundwater management area)

|  |  |  |
| --- | --- | --- |
| ElementID | Text (255) | Bioregional Assessment program element identifier assigned by ERIN (unique per spatial feature) |
| GMA\_Title | Text (255) | The title of groundwater management area |
| Full\_Name | Text (255) | A name given to groundwater management area |
| GMA\_type | Text (255) | The type of groundwater management area |
| State | Text (5) | The state of groundwater management area |
| Plan\_Title | Text (255) | No additional metadata available |
| Water\_Resource | Text (255) | No additional metadata available |
| From\_Depth | Integer | No additional metadata available |
| To\_Depth | Integer | No additional metadata available |
| Date\_Declared | Date/Time (Short Date) | No additional metadata available |
| Regulated\_By | Text (255) | No additional metadata available |
| Plan\_Reference | Text (255) | No additional metadata available |
| Data\_Licence | Text (255) | No additional metadata available |
| Limit\_Reference | Text (255) | No additional metadata available |
| Limit\_Type | Text (50) | No additional metadata available |
| Limit\_description | Text (255) | No additional metadata available |
| Is\_sub\_region | Text (3) | No additional metadata available |
| Parent\_region | Text (50) | No additional metadata available |
| Entitlement\_Limit | Double | No additional metadata available |
| Current\_Entitlement | Double | No additional metadata available |
| Ent\_percentage | Double | No additional metadata available |
| drawLayer | Integer | No additional metadata available |
| Plan\_status | Text (50) | No additional metadata available |

## C. Other Source Datasets

Attribute tables for additional data are as follows. Metadata for the source datasets from which these are derived have been registered to the BA repository by the project team.

## tbl\_NSW\_Estuarine

## tbl\_NSW\_NVM\_ManageBenefit

## tbl\_NSW\_TSR

## tbl\_NSW\_Wetlands2006

## tbl\_PlatypusALA

## tbl\_NSW\_TESC\_TEC

## tbl\_NSW\_TESC\_TS

(Added after asset workshop)

## tbl\_AHGF2p11\_NetworkStream

## tbl\_CulSig\_GDE\_HN\_CMA

## tbl\_CumberlandSubregion\_CoreAreas

## tbl\_CumberlandSubregion\_Corridors

## tbl\_IllawarraRegion\_corearea

## tbl\_IllawarraRegion\_Corridors

## tbl\_NSW\_CEEC

## tbl\_NSW\_DPI\_fisheries

## tbl\_NSW\_Estuarine\_fisheries

## tbl\_NSW\_OW\_IdentDGE\_Karst

## tbl\_NSW\_SCIVI\_E2230

## tbl\_NSW\_wetlands2006\_Floodplain

## tbl\_NSW\_WildRiver

## tbl\_OLDGrowthForests

## tbl\_SCA\_WaterSup\_Econ\_areas

## tbl\_SCA\_WaterSup\_Econ\_storageDam

## tbl\_SEPP\_No14

## tbl\_SEPP\_No26

## tbl\_WAL\_10CA117220\_Econ\_storageDam\_SW

## tbl\_Economic\_GMA\_2\_add\_20160321

# Appendix A Asset classification scheme

Assets fall into economic, ecological or sociocultural groupings and, within these groups, into a set of subgroups and classes.

The BA classification hierarchy was revised in July 2014. All data compiled since then will have been classified to according to the new hierarchy (table 1). Note that this hierarchy for element lists created before this date are being reviewed as databases are updated, so will generally consistent between the AssetList and ElementList tables, but not always. The AssetList table will always reflect the updated classification hierarchy.

|  |  |  |
| --- | --- | --- |
| **Group** | **Subgroup** | **Class** |
| Economic | Groundwater management zone or area (surface area) | A groundwater feature used for water supply |
| Economic | Groundwater management zone or area (surface area) | Water supply and monitoring infrastructure |
| Economic | Groundwater management zone or area (surface area) | Water access right |
| Economic | Groundwater management zone or area (surface area) | Basic water right (stock and domestic) |
| Economic | Surface water management zone or area (surface area) | A surface water feature used for water supply |
| Economic | Surface water management zone or area (surface area) | Water supply and monitoring infrastructure |
| Economic | Surface water management zone or area (surface area) | Water access right |
| Economic | Surface water management zone or area (surface area) | Basic water right (stock and domestic) |
| Sociocultural | Cultural | Heritage site |
| Sociocultural | Cultural | Indigenous site |
| Sociocultural | Social | Recreation area |
| Ecological | Surface water feature | River or stream reach, tributary, anabranch or bend |
| Ecological | Surface water feature | Lake, reservoir, lagoon or estuary |
| Ecological | Surface water feature | Waterhole, pool, rockpool or billabong |
| Ecological | Surface water feature | Wetland, wetland complex or swamp |
| Ecological | Surface water feature | Marsh, sedgeland, bog, spring or soak |
| Ecological | Surface water feature | Floodplain |
| Ecological | Groundwater feature (subsurface) | Aquifer, geological feature, alluvium or stratum |
| Ecological | Vegetation | Groundwater-dependent ecosystems |
| Ecological | Vegetation | Riparian vegetation |
| Ecological | Vegetation | Habitat (potential species distribution) |

# Appendix B Source datasets and their licence

Assets and Elements removed where Public = No (Licence = restricted).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **BA Dataset GUID** | **Title** | **Dataset type** | **Custodian** | **Licence type** | **Source Code** |
| ed3acf9b-888c-4d53-b376-ecab89781651 | Geofabric Surface Network - V2.1 | Source | Bureau of Meteorology | Creative Commons | AHGFV2p11\_Networkstream |
| 7b649c6d-fdbf-40e3-b002-db521665af53 | Collaborative Australian Protected Areas Database (CAPAD) 2010 | Source | Department of the Environment | Creative Commons Attribution (CC BY) | CAPAD |
| 57720684-4948-45db-a2c8-37259d531d87 | Commonwealth Heritage List Spatial Database (CHL) | Source | Department of the Environment | Creative Commons Attribution (CC BY) | CHL |
| 14bda271-f0e8-4bfb-91dd-865f8b311d29 | Cumberland Subregion BIO Map Core Areas 20150804 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | Cumberland\_SubregionBIOMap\_CoreAreas |
| 223e1f69-2da8-40e3-bdb5-433df6de650c | Cumberland Subregion BIO Map Biodiversity | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | Cumberland\_SubregionBIOMap\_Corridors |
| 6636846e-e330-4110-afbb-7b89491fe567 | Directory of Important Wetlands in Australia (DIWA) Spatial Database (Public) | Source | Department of the Environment | Creative Commons Attribution (CC BY) | DIWA |
| 41c28791-77d0-4d1d-b06b-8c9b579b9ab6 | NSW Office of Water - Groundwater Management Areas | Source | State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | ECON\_GW\_NSW\_MacroPlan |
| a3da31b4-1fca-4d55-addb-05d295c31427 | Sydney Catchment Authority Water Licences and Approvals Package May 2012 | Source | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | ECON\_NSW\_SCA\_WS\_Dams |
| 90476e12-77a2-4970-a0be-942eeb84e95e | NSW Wetlands | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | ECON\_NSW\_WAL10CA117220\_SW\_Dams |
| 24157c41-c42f-4e1f-a791-a1ad18c8215d | NSW Office of Water combined geodatabase of regulated rivers and water sharing plan regions | Source | State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | ECON\_NSW\_WSP |
| 24157c41-c42f-4e1f-a791-a1ad18c8215d | NSW Office of Water combined geodatabase of regulated rivers and water sharing plan regions | Source | State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | ECON\_SW\_NSW\_WSP |
| e358e0c8-7b83-4179-b321-3b4b70df857d | National Groundwater Dependent Ecosystems (GDE) Atlas | Source | Bureau of Meteorology | Creative Commons Attribution (CC BY) | GDEsub |
| e358e0c8-7b83-4179-b321-3b4b70df857d | National Groundwater Dependent Ecosystems (GDE) Atlas | Source | Bureau of Meteorology | Creative Commons Attribution (CC BY) | GDEsur |
| 5d488350-83b6-4e71-8d17-687ad8ff9941 | Birds Australia - Important Bird Areas (IBA) 2009 | Source | Birds Australia at http://www.birdata.com.au | Other open access licence | IBA |
| 523facf7-eacd-42b8-92b3-a01a842b9b75 | Illawarra Region BIO Map - Core Areas 20150430 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | Illawarra\_RegionBIOMap\_CoreAreas |
| edd25bee-de70-47ba-a3af-b6f08846fdfa | Illawarra Region BIO Map Corridors 20150430 | Source | State of NSW (Department of Planning and Environment) | Creative Commons Attribution (CC BY) | Illawarra\_RegionBIOMap\_Corridors |
| 26daa8d7-a90e-47f3-982b-0df362414e65 | National Heritage List Spatial Database (NHL) (v2.1) | Source | Department of the Environment | Creative Commons Attribution (CC BY) | NHL |
| 59c19a78-ee89-4555-a57d-d57bc3c80c28 | GW Economic Elements Sydney Basin 20150730 | derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_BOM\_OW\_Econ\_GMA |
| 59c19a78-ee89-4555-a57d-d57bc3c80c28 | GW Economic Elements Sydney Basin 20150730 | derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_BOM\_OW\_Econ\_GW |
| 4240553d-702c-4fae-b64b-074d611f2a34 | SW Economic Elements Sydney Basin 20150730 | Derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_BOM\_OW\_Econ\_SW |
| 4240553d-702c-4fae-b64b-074d611f2a34 | SW Economic Elements Sydney Basin 20150730 | Derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_BOM\_OW\_Econ\_SW\_BWR\_Area |
| 4240553d-702c-4fae-b64b-074d611f2a34 | SW Economic Elements Sydney Basin 20150730 | Derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_BOM\_OW\_Econ\_SW\_WAR\_Area |
| cd7fdee5-1dec-4778-91f7-ddd43eabe8dc | Map of Critically Endangered Ecological Communities NSW Version 3 20150925 | Derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_CEEC |
| fb7bf5a0-f0e3-429b-9b54-0d4b58fb49c2 | Estuarine Macrophytes of Hunter Subregion NSW DPI Hunter 2004 | Source | New South Wales Department Primary Industries | Other open access licence | NSW\_DPI\_Estuarine |
| e7d763eb-d6b8-480a-8d9e-3d6e9e0b9bc1 | An Estuarine Inventory for New South Wales, Australia VIS\_ID 2224 20100723 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_EstuarineFisheryArea |
| 8e6e7bce-fce0-4dd0-b5ec-dcf513cf2213 | Purple Spotted Gudgeon NSW DPI Fisheries 20150317 | Source | State of NSW (Department of Industry, Skills and Regional Development) | Creative Commons Attribution (CC BY) | NSW\_FishCommunity\_Status2015 |
| cd5b1500-f56b-47b0-beff-5f3349493054 | Macquarie Perch NSW DPI Fisheries 20150313 | Source | State of NSW (Department of Industry, Skills and Regional Development) | Creative Commons Attribution (CC BY) | NSW\_FishCommunity\_Status2015 |
| fe9241ad-79d6-43bb-922b-cb2fe86fff68 | Fitzroy Falls Spiny Crayfish NSW DPI Fisheries 20150316 | Source | State of NSW (Department of Industry, Skills and Regional Development) | Creative Commons Attribution (CC BY) | NSW\_FishCommunity\_Status2015 |
| b299e256-1d37-4f89-8c51-93567ebf3753 | Native Vegetation Management (NVM) - Manage Benefits | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_NVM\_ManageBenefit |
| 85a296b9-0c03-4dec-a0c1-cb22debbdbd1 | Old Growth Forest Mapping Broad, Central, 1996. VIS\_ID 4122 2015 20150116 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_OldGrowthForests |
| b6df5934-c978-471c-83a0-c55b5031f79b | NSW Office of Water identified GDEs | Source | State of NSW (NSW Office of Water) | Creative Commons Attribution (CC BY) | NSW\_OW\_identified\_GDEs |
| 0f1aeb33-1b49-4839-88fa-8b635cf9d3ab | Southeast NSW Native Vegetation Classification and Mapping - SCIVI VIS\_ID 2230 20030101 | Derived | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_SCIVI\_E2230 |
| d2ec27ef-026b-4cb8-ad12-bd1d638240d0 | State Environmental Planning Policy no. 14 - Coastal Wetlands 19891027 | Source | State of NSW (NSW Department of Planning and Environment) | Creative Commons Attribution (CC BY) | NSW\_SEPP\_14 |
| c6c20dcc-8f14-44b5-a018-b8865c4193e5 | State Environmental Planning Policy no. 26 - Littoral Rainforest 19860101 | Source | State of NSW (Department of Planning and Environment) | Creative Commons Attribution (CC BY) | NSW\_SEPP\_26 |
| a6664894-1489-46d1-a6ca-16f9ab519a28 | Spatial Threatened Species and Communities (TESC) NSW 20131129 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_TSEC |
| 198900d5-0d06-4bd0-832b-e30a7c4e8873 | Travelling Stock Route Conservation Values | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_TSR |
| 90476e12-77a2-4970-a0be-942eeb84e95e | NSW Wetlands | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_Wetlands2006 |
| 90476e12-77a2-4970-a0be-942eeb84e95e | NSW Wetlands | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_Wetlands2006\_Floodplain |
| 817b89f1-36dd-4725-b849-d60fb45d6f31 | NSW Wild Rivers Office of Environment and Heritage (OEH) 20091001 | Source | State of NSW (NSW Office of Environment and Heritage) | Creative Commons Attribution (CC BY) | NSW\_WildRiver |
| cb420b33-b828-40fe-a844-7fdbe828d4d6 | Atlas of Living Australia NSW ALA Portal 20140613 | derived | Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, Atlas of Living Australia (ALA) | Creative Commons Attribution (CC BY) | WAIT\_ALA\_ERIN |
| 330532aa-66ba-44f5-984b-8a21a99661a0 | New South Wales NSW - Regional - CMA - Water Asset Information Tool - WAIT - databases | Source | Department of the Environment | Creative Commons Attribution (CC BY) | WAIT\_Central West |
| 330532aa-66ba-44f5-984b-8a21a99661a0 | New South Wales NSW - Regional - CMA - Water Asset Information Tool - WAIT - databases | Source | Department of the Environment | Creative Commons Attribution (CC BY) | WAIT\_Hawkesbury Nepean |
| 330532aa-66ba-44f5-984b-8a21a99661a0 | New South Wales NSW - Regional - CMA - Water Asset Information Tool - WAIT - databases | Source | Department of the Environment | Creative Commons Attribution (CC BY) | WAIT\_Southern Rivers |
| 330532aa-66ba-44f5-984b-8a21a99661a0 | New South Wales NSW - Regional - CMA - Water Asset Information Tool - WAIT - databases | Source | Department of the Environment | Creative Commons Attribution (CC BY) | WAIT\_Sydney Metro |
| 4927789b-7ba7-4a77-b6fc-be1b29b6590c | Australia World Heritage Areas | Source | Department of the Environment | Creative Commons Attribution (CC BY) | WHA |
| **4d0bc9d9-7675-4e57-b0fd-750b323fde95** | **Identification of Culturally Significant Groundwater Dependent Ecosystems CSIRO 2010** | **Derived** | **Bioregional Assessment Programme http://www.bioregionalassessments.gov.au, CSIRO** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **CSIRO\_BradMoggridgeAuthoredReport** |
| **9948195e-3d3b-49dc-96d2-ea7765297308** | **Key Environmental Assets - KEA - of the Murray Darling Basin RESTRICTED (Metadata only)** | **Source** | **Murray-Darling Basin Authority** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **KEA\_streams** |
| **7276dd93-cc8c-4c01-8df0-cef743c72112** | **Species Profile and Threats Database (SPRAT) - Australia - Species of National Environmental Significance Database (BA subset - RESTRICTED - Metadata only)** | **derived** | **Department of the Environment** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **National EPBC Species List** |
| **cc0b62a0-ded7-4c14-b954-1552337b395e** | **Threatened migratory shorebird habitat mapping DECCW May 2006** | **Source** | **NSW Department of Environment Climate Change and Water** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **NSW\_DEC\_ThreatenedMigratory** |
| **878f6780-be97-469b-8517-54bd12a407d0** | **Australia, Register of the National Estate (RNE) - Spatial Database (RNESDB) Internal** | **Source** | **Australian Heritage Council, Department of the Environment.** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **RNE** |
| **7276dd93-cc8c-4c01-8df0-cef743c72112** | **Species Profile and Threats Database (SPRAT) - Australia - Species of National Environmental Significance Database (BA subset - RESTRICTED - Metadata only)** | **derived** | **Department of the Environment** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **Species** |
| **c01c4693-0a51-4dbc-bbbd-7a07952aa5f6** | **Communities of National Environmental Significance Database - RESTRICTED - Metadata only** | **Source** | **Department of the Environment** | **Restricted licence for BA ONLY to USE but NOT PUBLISH** | **TEC** |

# Appendix C Assets and Unrestricted Elements counts for Unrestricted Version of the Asset Database

The elements/assets in Group, subgroup, class in Sydney Basin bioregion

|  |  |  |
| --- | --- | --- |
| **Group                               Subgroup** | **Elements** | **Assets** |
| ***Ecological*** | **49 784** | **1 148** |
| ***Groundwater feature (subsurface)*** | **34** | **34** |
| ***Surface water feature*** | **10 073** | **153** |
| ***Vegetation*** | **39 677** | **961** |
| ***Socio-cultural*** | **6** | **251** |
| ***Cultural*** | **4** | **219** |
| ***Social*** | **2** | **32** |
| ***Economic*** | **3 999** | **61** |
| ***Groundwater management zone or area (surface area)*** | **3 372** | **32** |
| ***Surface water management zone or area (surface area)*** | **627** | **29** |
| ***Total*** | **53 789** | **1 460** |

# Appendix D Assets and Elements counts for Restricted Version of the Asset Database

The elements/assets in Group, subgroup, class in Sydney Basin bioregion

|  |  |  |
| --- | --- | --- |
| **Group                               Subgroup** | **Elements** | **Assets** |
| ***Ecological*** | **65 454** | **1 148** |
| ***Groundwater feature (subsurface)*** | **34** | **34** |
| ***Surface water feature*** | **10 323** | **153** |
| ***Vegetation*** | **55 097** | **961** |
| ***Socio-cultural*** | **251** | **251** |
| ***Cultural*** | **(218)** | **219** |
| ***Social*** | **(33)** | **32** |
| ***Economic*** | **4 495** | **61** |
| ***Groundwater management zone or area (surface area)*** | **3 770** | **32** |
| ***Surface water management zone or area (surface area)*** | **725** | **29** |
| ***Total*** | **70 200** | **1 460** |

The Restricted Water dependent assets /assets in Group, subgroup, class in Sydney Basin bioregion

|  |  |  |
| --- | --- | --- |
| **Group                               Subgroup** | **Water dependent assets** | **Assets** |
| ***Ecological*** | **751** | **1 148** |
| ***Groundwater feature (subsurface)*** | **34** | **34** |
| ***Surface water feature*** | **153** | **153** |
| ***Vegetation*** | **564** | **961** |
| ***Socio-cultural*** | **190** | **251** |
| ***Cultural*** | **166** | **219** |
| ***Social*** | **24** | **32** |
| ***Economic*** | **61** | **61** |
| ***Groundwater management zone or area (surface area)*** | **32** | **32** |
| ***Surface water management zone or area (surface area)*** | **29** | **29** |
| ***Total*** | **1 002** | **1 460** |