

Indicative Red Flag Areas in the Hunter, Central and Lower North Coast region, NSW



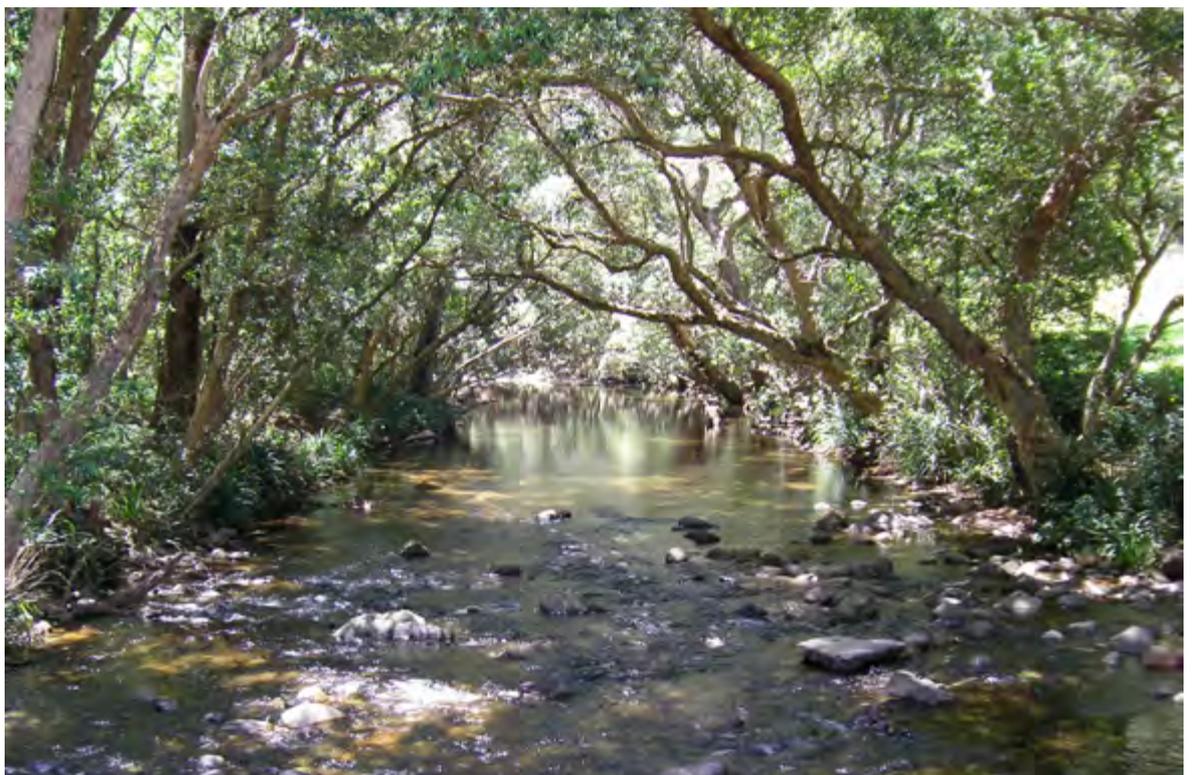
1. Abstract

This data has been collated by the Hunter Councils Environment Division from various datasets and sources. Data has been sourced from the NSW Department of Planning & Infrastructure, Australian Department of the Environment, Gosford City Council, and Wyong Shire Council.

Due to the limited availability of mapping across the region there are some omissions and possible errors. This dataset should therefore be used as an indicative guide only to boundaries and locations of Red Flags. Site assessments by relevant experts are required to confirm the presence or absence of identified Red Flag features for any particular site.

2. Data Processing

- Datasets were clipped to the Hunter, Central and Lower North Coast study area where required
- All datasets were converted to a common spatial-reference: GDA 1994 MGA Zone 56
- Features of each dataset that meet the red flag definition were extracted, and buffers were applied as required (for definition see Table 1)
- Output dataset attributed with red flag type information & source reference, and compiled within a file geodatabase (ArcGIS v10.1) , as well as other formats required by member Councils



PRODUCED BY: The Hunter & Central Coast Regional Environmental Management Strategy team

DATE: 2015

PURPOSE: This is a polygon coverage representing environmental features defined in the 2014 Biobanking Assessment Methodology as Red Flag areas. The data covers the Hunter, Central and Lower North Coast region of NSW.

TABLE 1. RED FLAG AREAS DEFINITION AND SOURCE DATA

DEFINITION	SOURCE DATA
<p>LANDSCAPE FEATURES</p> <p>Native vegetation within:</p> <ol style="list-style-type: none"> 20 m either side of a 4th or 5th order stream 50 m either side of a 6th order stream or higher 50 m of an estuarine area 50 m of an important wetland a state significant biodiversity link a regionally significant biodiversity link <p>State biodiversity link: An area identified as being part of a state significant biodiversity link in a plan approved by the Chief Executive of OEH; OR, A riparian buffer 50 m either side of a 6th + order stream; OR, A riparian buffer 50m around an important wetland or estuarine area</p> <p>Regional biodiversity link: An area identified as being part of a regionally significant biodiversity link and in a plan approved by the Chief Executive of OEH; OR, A riparian buffer 20 m either side of a 4th or 5th order stream</p>	<p>BIODIVERSITY LINKS</p> <ul style="list-style-type: none"> ■ 4th & 5th order streams – 20m buffer ■ 6th or higher order streams – 50m buffer <p>ESTUARINE AREAS</p> <ul style="list-style-type: none"> ■ Estuarine Macrophyte mapping – 50m buffer (NSW Department of Planning & Infrastructure, 2009) ■ SEPP 14 Coastal Wetlands – 50m buffer (NSW Department of Planning & Infrastructure, 2014) <p>IMPORTANT WETLANDS</p> <ul style="list-style-type: none"> ■ Directory of Important Wetlands of Australia database – 50m buffer (Australian Department of Environment, 2010)
<p>NATIVE VEGETATION</p> <p>Native vegetation of a plant community type that:</p> <ol style="list-style-type: none"> has greater than 70% cleared as listed in the VIS Classification Database (that is, has less than 30% of its estimated distribution prior to 1750 remaining in the catchment area) or is associated with a critically endangered ecological community, or endangered ecological community, and is not in low condition, and has a site value score >34 	<p>VEGETATION MAPPING</p> <ul style="list-style-type: none"> ■ Gosford Vegetation Mapping (Bell, 2009) ■ Wyong LGA (Bell & Driscoll, 2009) ■ Hunter Valley Remnant Vegetation (Peake, 2004) ■ Greater Hunter Vegetation Mapping Survey Sites – 50m buffer (NSW Office of Environment & Heritage, 2011) ■ SEPP26 Littoral Rainforests (NSW Department of Planning & Infrastructure, 2014) ■ Lower Hunter Vegetation Mapping (Parsons Brinkerhoff, 2013; OEH Update 2014) <ul style="list-style-type: none"> – Cessnock–Kurri Region Vegetation (Bell & Driscoll, 2007) – Glenrock and Awabakal Vegetation (Bell, 2006) – Lake Macquarie LGA Vegetation (Bell & Driscoll, 2014) – Lake Macquarie LGA Vegetation (Bell & Driscoll, 2012) – LHCCREMS Vegetation (2003) – Lower Hunter, Cessnock LGA Vegetation (PB, 2013) – Maitland LGA Vegetation (Hill, 2003) – Pambalong Vegetation (EcoLogical, 2003) – Tilligerry Vegetation (Bell & Driscoll, 2006) – Tomaree Vegetation (Bell & Driscoll, 2014) – Vegetation and floristics of Sugarloaf State Conservation Area (Bell & Driscoll, 2012) – Vegetation and floristics of Columbey National Park, (Bell, SA 2009) – Vegetation Mapping of the Singleton Military Area (SKM, Bell & Driscoll 2012) – Vegetation of the Salt Ash Air Weapons Range (Bell S & Driscoll C 2006) – Yengo Vegetation (DECC, 2008) ■ University of Melbourne, EEC Models 2015 (separate dataset)
<p>THREATENED SPECIES AND POPULATIONS</p> <p>A threatened species, or any part of its habitat, where:</p> <ol style="list-style-type: none"> the threatened species is identified in the Threatened Species Profile Database as a species that cannot withstand further loss in the major catchment area, or it is a threatened species that has not previously been recorded in the IBRA subregion according to records in the NSW Wildlife Atlas <p>Critical habitat that is listed on the register of critical habitat under section 55 of the TSC Act.</p> <ul style="list-style-type: none"> ■ Only critical habitat in the region is Located on Boondelbah & Cabbage Tree Islands off the coast of Port Stephens for the Gould's Petrel http://www.environment.nsw.gov.au/resources/nature/GouldsPetrelCriticalHabitatSmall.pdf. 	<p>THREATENED SPECIES</p> <ul style="list-style-type: none"> ■ University of Melbourne, Species Distribution Models 2015 (separate dataset) ■ Atlas of Living Australia observation points – 20m buffer (2015) ■ NSW Office of Environment & Heritage, Bionet observation points 2015 – 20m buffer ■ NSW Office of Environment & Heritage, Vegetation Information System 2015 – 20m buffer

3. Dataset Attributes

TYPE:	The type of Red Flag that is represented by that feature. Includes – ‘Landscape features – biodiversity links’; ‘Landscape features – estuarine areas’; ‘Landscape features – important wetlands’; ‘Native vegetation – Critically Endangered or Endangered Ecological Community’; ‘Threatened species and populations’
VEGENAME:	The scientific names of the dominant species of the site’s vegetation community (where available)
COMM:	The common name of a vegetation community. The community type map unit precedes the name where available.
EEC:	The name of the Endangered Ecological Community equivalent.
Scientific:	The scientific name of the threatened species.
CommonNam:	The common name of the threatened species.
NSWStatus:	The status of the species under NSW legislation:

CODE	DESCRIPTION	DEFINITION UNDER THE NPW ACT 1974, THE TSC ACT 1995, THE FM ACT 1994 NO. 38, OR THE SSDP
P	Protected	Refers to fauna not listed in Schedule 11 of the NPW Act 1974.
V	Vulnerable	Refers to fauna and flora species that are likely to become endangered unless the circumstances & factors threatening its survival or evolutionary development cease to operate (Schedule 2, TSC Act 1995).
E1	Endangered	Refers to fauna and flora species that are likely to become extinct in nature in NSW unless the circumstances and factors threatening its survival or evolutionary developments cease to operate; or, its numbers have been reduced to such a critical level, or its habitats have been so drastically reduced, that it is in immediate danger of extinction; or, it might already be extinct, but it is not presumed extinct (Schedule 1, part 1, TSC Act 1995).
E2	Endangered Population	Refers to a population where, in the opinion of the Scientific Committee, its numbers have been reduced to such a critical level, or its habitat has been so drastically reduced, that it is in immediate danger of extinction and it is not a population of a species already listed in Schedule 1, and: (a) it is disjunct and at or near the limit of its geographic range, or (b) it is or is likely to be genetically distinct, or (c) it is otherwise of significant conservation value. (Schedule 1, part 2, TSC Act 1995).
E4	Extinct	Refers to fauna and flora species that have not been located in nature during the preceding 50 years despite searching of known and likely habitats of that period (Schedule 1, part 4, TSC Act 1995).
E4A	Critically Endangered Species	Refers to a species that is eligible to be listed as a critically endangered species if, in the opinion of the Scientific Committee, it is facing an extremely high risk of extinction in New South Wales in the immediate future, as determined in accordance with criteria prescribed by the regulations. (Schedule 1a, part 1, TSC Act 1995).
2	Category 2 sensitive species	Refers to species for which Atlas sightings’ coordinates will be supplied denatured to public web applications, and denatured to licensed clients. Such species are classed as highly sensitive, and provision of precise locations would subject the species to high risk from threats such as disturbance and collection.
3	Category 3 sensitive species	Refers to species for which sightings’ coordinates will be supplied denatured to public web applications, but supplied ‘as-held’ to licensed clients. Current denaturing specifications are set out in Appendix 2. Such species are classed as of medium sensitivity, and provision of precise locations would subject the species to medium risk from threats such as collection/deliberate damage. Data are supplied under the conditions of a written data agreement, usually a Data Licence Agreement.



CommStatus: The status of the species under Commonwealth legislation:

CODE	DESCRIPTION	DEFINITION UNDER THE EPBC ACT 1999, AND MIGRATORY BIRDS AGREEMENT
C	CAMBA	China–Australia Migratory Bird Agreement: Refers to species listed in the Bilateral Agreement between the Government of Australia and the Government of the People's Republic of China for the protection of Migratory Birds and their Environment (Subdivision A of Division 1 of Part 5, Commonwealth EPBC Act 1999).
CE	Critically Endangered	Refers to a native species is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria (Subdivision A of Division 1 of Part 13, Commonwealth EPBC Act 1999).
E	Endangered	Refers to a native species is eligible to be included in the endangered category at a particular time if, at that time: (a) it is not critically endangered; and (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria (Subdivision A of Division 2 of Part 13, Commonwealth EPBC Act 1999).
J	JAMBA	Japan–Australia Migratory Bird Agreement: Refers to species listed in the Bilateral Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment (Subdivision A of Division 1 of Part 5, Commonwealth EPBC Act 1999).
K	ROKAMBA	Republic of Korea–Australia Migratory Bird Agreement: Refers to species listed in the Bilateral Agreement between the Government of Australia and the Government of the Republic of Korea for the protection of Migratory Birds and their Environment (Subdivision A of Division 1 of Part 5, Commonwealth EPBC Act 1999).
V	Vulnerable	Refers to a native species is eligible to be included in the vulnerable category at a particular time if, at that time: (a) it is not critically endangered or endangered; and (b) it is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria (Subdivision A of Division 1 of Part 13, Commonwealth EPBC Act 1999).
X	Extinct	Refers to a native species is eligible to be included in the extinct category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died (Subdivision A of Division 1 of Part 13, Commonwealth EPBC Act 1999).

Sensititv: Indicates whether a species is listed in the Sensitive Species data policy. Geographic co-ordinates for sensitive species may be denatured or withheld, depending on user access permissions.

Denatured records will be flagged with:

^^ – coordinates rounded to 0.01°

^ – coordinates rounded to 0.1°

The policy in full including the sensitive species listings can be located at

<http://www.environment.nsw.gov.au/policiesandguidelines/SensitiveSpeciesPolicy.htm>

SOURCE: Data source.

4. Limitations and Considerations

At the time of the creation of this dataset, full regional coverage of all of the features as described in the definition (table 1) was not possible. The major omissions from this dataset are due to the absence of reliable, full coverage of vegetation mapping, and the absence of a state approved biodiversity links dataset. Due to the abstract nature of Endangered Ecological Communities, and errors and omissions in the data, a site assessment is required to validate data for confirmation of the presence or absence of environmental values.



5. ANZLIC Metadata Statement

GENERAL PROPERTIES	
File Identifier	B774382F-C40E-4FC3-A98F-D5C36725AE74
Hierarchy Level	dataset
Hierarchy Level Name	dataset
Standard Name	ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information – Metadata
Standard Version	1.1
Date Stamp	2015-06-15
Resource Title	Red Flag Areas in the Hunter, Central, and Lower North Coast Region
Other Resource Details	Hunter Councils Environment Division. See table 1 for details of the source layers
KEY DATES AND LANGUAGES	
Date of creation	2015
Date of publication	2015-06-15
Metadata Language	eng
Metadata Character Set	utf8
Dataset Languages	eng
Dataset Character Set	utf8
Abstract	This is a polygon coverage representing environmental features defined in the 2014 Biobanking Assessment Methodology as Red Flag areas.
Purpose	This data has been produced to aid council staff with the identification of potential red flag areas.
METADATA CONTACT INFORMATION	
Name of Individual	Name withheld
Organisation Name	Hunter Councils Inc.
Position Name	GIS Officer
Role	pointOfContact
Voice	0249784025
Facsimile	
Email Address	ellens@huntercouncils.com.au
Address	PO Box 3137 Thornton NSW 2322 Australia
RESOURCE CONTACTS	
Lineage Statement	The available data were collated, simplified and combined into a single layer. See the metadata and reports from the original data for information pertaining to the source layers.
JURISDICTIONS	
	Australia
	New South Wales
SEARCH WORDS	
	BOUNDARIES-Biophysical
	ECOLOGY-Community
	ECOLOGY-Landscape
	FAUNA-Native
	FLORA-Native
	VEGETATION
	WATER-Wetlands
	WATER-Rivers
THEMES AND CATEGORIES	
Topic Category	environment
STATUS AND MAINTENANCE	
Status	required
Maintenance and Update Frequency	unknown
Date of Next Update	

5. ANZLIC Metadata Statement continued

REFERENCE SYSTEM	
Reference System	EPSG::28356 (GDA94 / MGA zone 56)
SPATIAL REPRESENTATION TYPE	
Spatial Representation Type	vector
METADATA SECURITY RESTRICTIONS	
Classification	unclassified
Authority	
Use Limitations	
DATASET SECURITY RESTRICTIONS	
Classification	restricted
Authority	
Use Limitations	
DATASET ACCESS CONSTRAINTS	
Identifier	license
Annotation	
DATASET USE CONSTRAINTS	
Identifier	license
Annotation	
DATASET EMBARGOES	
Identifier	Threatened/Endangered Species
Annotation	Contains sensitive species data, not for public distribution
ADDITIONAL EXTENTS – GEOGRAPHIC	
Identifier	aus
Identifier	NSW_CESSNOCK_C_
Identifier	NSW_DUNGOG_A_
Identifier	NSW_GOSFORD_C_
Identifier	NSW_GLOUCESTER_A_
Identifier	NSW_GREATER_TAREE_C_
Identifier	NSW_GREAT_LAKES_A_
Identifier	NSW_LAKE_MACQUARIE_C_
Identifier	NSW_MAITLAND_C_
Identifier	NSW_MERRIWA_A_
Identifier	NSW_MURRURUNDI_A_
Identifier	NSW_MUSWELLBROOK_A_
Identifier	NSW_NEWCASTLE_C_
Identifier	NSW_PORT_STEPHENS_A_
Identifier	NSW_SINGLETON_A_
Identifier	NSW_SCONE_A_
Identifier	NSW_WYONG_A_

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Regional Environmental
Management Strategy

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