

Area of Outstanding Biodiversity Value nomination
Biodiversity Conservation Act 2016 and the Biodiversity Conservation Regulation 2017
Department of Planning, Industry and Environment

Nomination:

**The habitat at Seven Mile Beach between Gerroa and
Shoalhaven Heads in the Kiama and Shoalhaven Council Areas.**

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1. AOBV listing Criteria

How does this nomination meet the AOBV criteria?

Persistence of multiple species or at least one threatened species or ecological community

The nomination area has a high diversity of vegetation communities that support a large number of threatened fauna species and one endangered population. It is habitat for seven Endangered Ecological Communities (EECs).

This diverse habitat provides resilience during periods of environmental stress that is important for the continued existence of many threatened species and populations.

The Winter Flowering Swamp Mahogany EEC is important habitat for migratory species including the Critically Endangered Regent Honeyeater. The wetland EECs are critical habitat for migratory water birds, including the Endangered Australasian Bittern.

At least thirteen threatened fauna species have been observed in the nomination area.

The Blackbutt forest at Seven Mile Beach (SMB) is the primary food source for the Endangered SMB Greater Glider population and is critical habitat for the survival of this isolated population.

Persistence of irreplaceable biological distinctiveness

The complex beach, dune, wetland profile supports a large number of plant species and a scientifically important association of Endangered Ecological Communities with very high structural and compositional diversity.

Coomonderry Swamp wetland and nearby modified wetlands, drainage canals and dredge ponds behind SMB is an essential site for the persistence of threatened fauna species. Coomonderry Swamp is the most extensive wetland in which the Green and Golden Bell frog has yet been discovered in New South Wales and maintains a large population of this species. It also supports a breeding population of the Australasian Bittern. This wetland would be critical habitat for the survival of these species in NSW due to its size, ecological integrity and vegetation diversity.

Persistence of ecological processes or ecological integrity

While sand mining has impacted the beach, dune, wetland profile in part of the nomination area, the ecological integrity of the vegetation/fauna associations at SMB remain largely intact.

Coomonderry Swamp is a large coastal freshwater wetland that has retained its ecological processes and integrity. Its vegetation diversity and complexity support a large number of birds and amphibians over key life stages. It is an essential breeding site for a significant proportion of the Green and Golden Bell frog population in NSW.

Persistence of outstanding ecological value for education or scientific research

Studies and Plans by de Jong (1997), Daly (1996), CMA (2007) and Craven (2016) provide important information and baselines for further scientific investigation of plant communities and fauna of Coomonderry Swamp. This wetland is a valuable scientific resource as much of the coastal freshwater wetland in NSW has been cleared and drained (NPWS 1998).

The nomination area has outstanding ecological value for education because it supports important species and ecological communities and demonstrates important ecological processes and ecosystem functions that maintain species and ecological communities that could provide unique education activities.

2. Introduction:

The Seven Mile Beach National Park, together with adjoining native vegetation on freehold and crown lands, forms a vulnerable, albeit disconnected island of biologically significant coastal vegetation. (Figure 1)

We propose this area be considered as an Area of Outstanding Biodiversity Value due to its complex association of Endangered Ecological Communities that support a large number of threatened fauna species and one endangered population (as listed under the *Biodiversity Conservation Act 2016*).

The nomination area represents the largest parcel of coastal vegetation between the Shoalhaven River in the south and Royal National Park in the north and includes one of the most important coastal freshwater wetlands in NSW.

These values make a significant contribution to persistence of biodiversity in New South Wales.

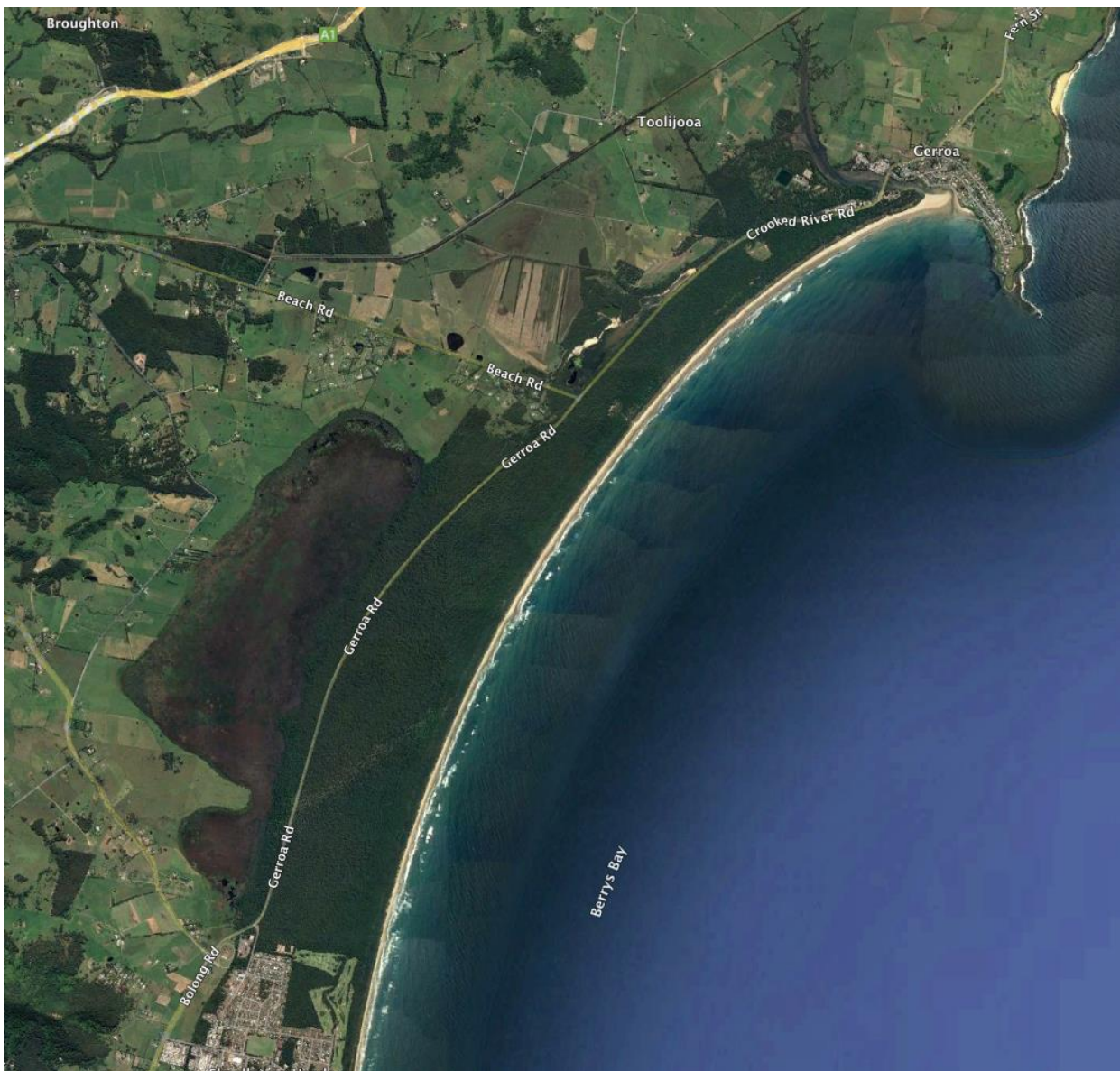


Figure 1. Seven Mile Beach showing area of native vegetation and Coomonderry Swamp

3. Proposed Area of Outstanding Biodiversity Value

Figure 2 shows the area covered in this proposal, being the area of coastal vegetation between Gerroa and Shoalhaven Heads.

It encompasses the Seven Mile Beach National Park and habitats of high biological value on adjoining crown and freehold lands and land managed by Shoalhaven Council.

The area boundary is defined by the E1 and E2 zoning maps in Kiama and Shoalhaven LEPs, except for the small area of Crown Land zoned R1 at Shoalhaven Heads at the southern end of the nomination area.

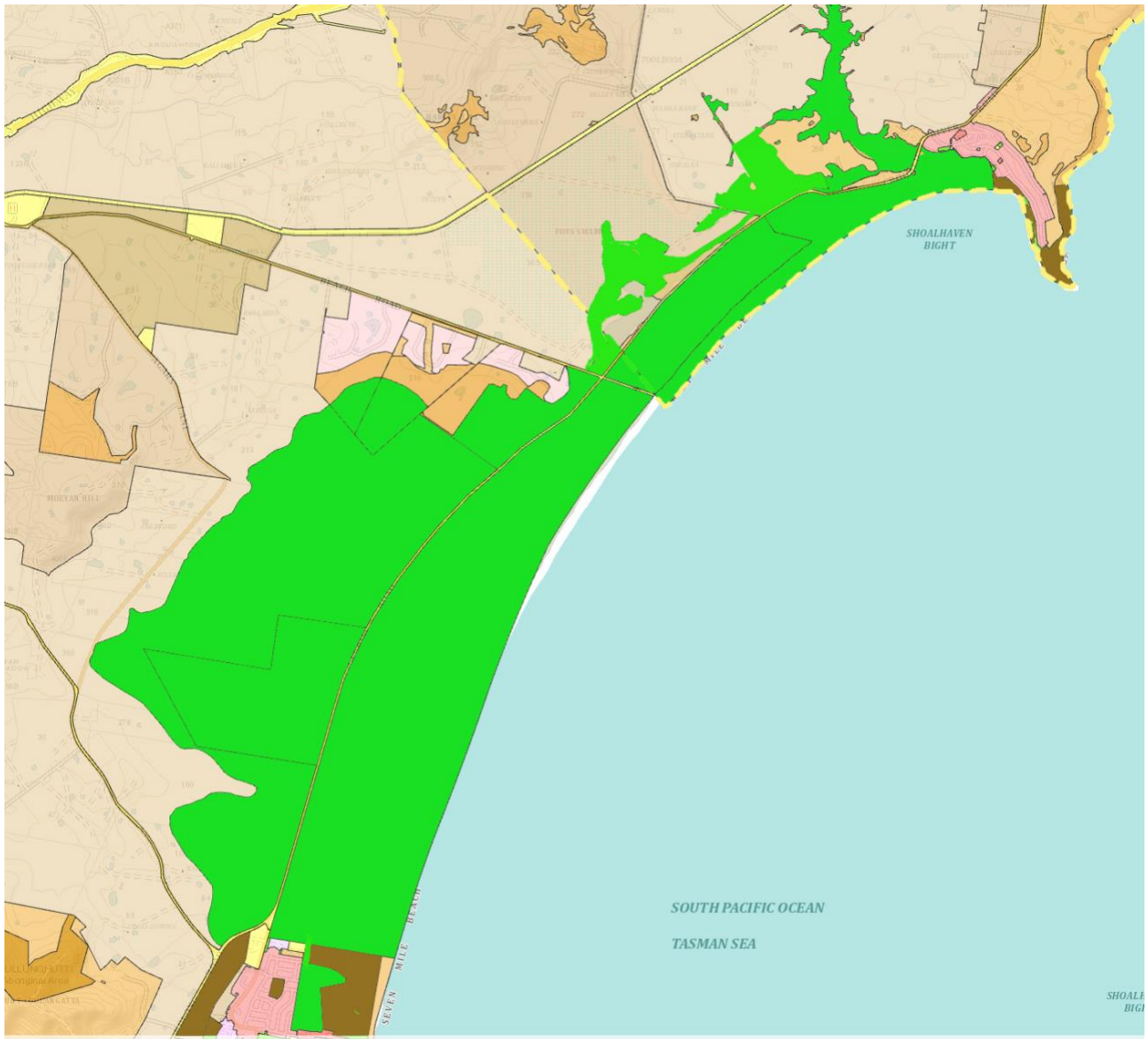


Figure 2. Proposed Area of Outstanding Biological Value indicated in green

4. Outline of biological values for the nomination area

4.1 Background

Seven Mile Beach vegetation is characterised by an intact coastal vegetation profile, including Spinifex grasslands, Acacia Shrubland, Tea Tree Tall Shrubland, Bangalay Sand Forest, Littoral Rainforest, Blackbutt Sand Forest, Swamp Mahogany Forest, Swamp Oak Forest, Paperbark Shrubland and Aquatic Sedgeland (Mills, 2019).

SMB National Park contains large areas of coastal dune forest on an ancient sand barrier which provide habitat for a relatively large population of arboreal mammals, including the Greater Glider (Murphy 1998). It has a high density of small mammals and a high number of reptile and frog species for its relatively small area (Murphy 1998). It has a high diversity of plants, Mills has recorded 266 native plant species in the National Park (2019).

The extensive freshwater wetlands, which are largely located outside the National Park, are an outstanding feature of this ecosystem. Coomonderry Swamp, the only large semi-permanent freshwater wetland on the south coast and which comprises one third of this habitat in NSW, supports scientifically significant fauna and flora and represents the largest freshwater coastal wetlands in southern NSW (NPWS 1998).

There are sufficient vegetation studies and plans to determine the vegetation communities that occur in the nomination area, although there appear to be few targeted surveys or mapping. Studies for the Greater Glider population, and Australasian Bittern and Green and Golden Bell Frog species provide evidence of their sustained presence and reliance on the habitat of the nomination area (Craven 2016).

Clearing for agriculture has resulted in loss of connectivity to the hinterland and other coastal vegetation. Although fragmentation may impact the resilience of some fauna species it does offer a buffer/refuge from wildfire.

The Berry Corridors Landcare Project proposed to link vegetation fragments between the SMB and the escarpment. It aims to build *sustainable and resilient vegetation connections supporting the movement of wildlife between the coast and the escarpment* (Appendix 1).

4.2. Significant fauna species known to inhabit Seven Mile Beach

At least thirteen threatened fauna species are known to inhabit the nomination area:

1. Regent Honey Eater. Status: listed as Critically Endangered under the *BC Act 2016* and Critically Endangered under *EPBC Act 1999*.

Comments: Recorded from Seven Mile Beach in 1993 and 1995 (Mills 2006). *The Office of Environment and Heritage Regent Honeyeater – Profile* identifies the winter flowering Swamp Mahogany as a foraging food source.

The area of occupancy for this species would correspond with the Swamp Mahogany community that occurs in wetlands along the western side of the nomination area between Crooked River and Coomonderry Swamp. This habitat is important for the persistence of this species because Swamp Mahogany is uncommon and restricted in distribution in the state (NPWS 1998).

Sightings of this species is constrained because this key habitat is well away from roads and tracks and mostly on private land;

2. Green and Golden Bell Frog. Status: listed as Endangered under the *BC Act 2016* and Vulnerable under the *EPBC Act 1999*.

Comments: The area of occupancy for this species ranges from Coomonderry Swamp through to adjacent ponds and dams near Foy's Swamp. It has been reported in the southern end of the sand mine dredge pond, (Mills, 2006).

Coomonderry Swamp has maintained a breeding GGBF population (Daly 1996 and Craven 2016);

3. Australasian Bittern. Status: listed as Endangered under the *BC Act 2016* and Endangered under the *EPBC Act 1999*.

Comments: The area of occupancy for this species ranges across the wetland areas from Crooked River to Coomonderry Swamp.

It has been observed at Crooked River/Blue Angle Creek at Gerroa in 2000- 2001 and 2007-2009 by Birds Australia observers and near Foys Swamp ponds by Mills in 2003.

It is known to be resident and has been consistently recorded at Coomonderry Swamp (Mills 2006, Craven 2016) and there is recent evidence of it breeding at the Swamp (G. Daly pers. comm);

4. Pied Oystercatcher. Status: listed as Endangered under the *BC Act 2016*.

Comments: resident breeding pairs are recorded annually at Gerroa on the sand dunes by GEPS members. It has also been recorded at Seven Mile Beach (Avibase -The World Bird Database¹);

5. Greater Glider Status: listed as an Endangered Population at Seven Mile Beach, NSW under the *BC Act 2016* and Vulnerable under the *EPBC Act 1999*.

Comments: Seven Mile Beach National Park supports a robust, isolated population of Greater Gliders within an area that would be minimal to support a population under PVA models (Daly 2014). Mills notes the high proportion of Greater Gliders in the SMB area (Mills 88). Robinson states that this species is the most common species of possum present in the NP (Robinson 1988).

6. Black Bittern. Status: listed as Vulnerable under the *BC Act 2016*.

Comments Recorded on Blue Angle Creek in 1990 (Mills 2006);

7. Gang-gang Cockatoo. Status: listed as Vulnerable under the *BC Act 2016*.

Comments: recorded at Beach Road picnic area by GEPS members on a number of occasions. Recorded at Seven Mile Beach (Avibase -The World Bird Database) and by Mills (1988);

8. Glossy Black-Cockatoo. Status: listed as Vulnerable under the *BC Act 2016*

Comments: Reported from Shoalhaven Heads in 1994 (Mills 2006).

Limited distribution to the south east of the NP where a stand of feed trees (*Allocasuarina littoralis*) occur (G, Daly pers. comm);

9. Powerful Owl. Status: listed as Vulnerable under the *BC Act 2016*.

Comments: Recorded in forest at Seven Mile Beach (Mills 2005);

10. Masked Owl. Status: listed as Vulnerable under *BC Act 2016* and Vulnerable under the *EPBC Act 1999*;

Comments: There is a record of road-killed Masked Owl near Gerroa in 1980 (Mills 2005). Also recorded at Seven Mile Beach (Avibase -The World Bird Database);

11. Greater Broad-nosed Bat. Status: listed as Vulnerable under the *BC Act 2016*.

Comments: recorded in 1995 by Murphy (1998);

12. Yellow-bellied Sheath-tail-bat. Status: listed as Vulnerable under the *BC Act 2016*.

Comments: recorded in 1995 by Murphy (1998);

13. Grey-headed Flying Fox. Status: listed as Vulnerable under the *BC Act 2016* and Vulnerable under the *EPBC Act 1999*.

Comments: A regular summer visitor to the district (Mills 2006 and Murphy 1998);

¹ <https://avibase.bsc-eoc.org/checklist.jsp?region=AUn0185&list=howardmoore>

4.3 Significant fauna species that may inhabit Seven Mile Beach

1. Koala. Status: listed as Vulnerable under the *BC Act 2016* and Vulnerable under the *EPBC Act 1999*.

Comments: Koalas were found at Seven Mile Beach in the 1940s (Robinson 1988).

The NSW Office of Environment and Heritage database identifies two SMB koala sightings since the 1980s, one in 2005.

An unverifiable sighting at SMB was reported in the Kiama Bugle newspaper in September 2021.

The Office of Environment and Heritage Koala - South East Corner: Distribution and vegetation associations: identifies suitable koala habitats similar to in the vegetation communities at SMB;

2. Swift Parrot. Status: listed as Endangered under *BC Act 2016* and Critically Endangered under *EPBC Act 1999*.

Comments: Observed at Shoalhaven Heads in 1984 (Mills, 2006). Also Identified at SMB in the Seven Mile Beach National Park and Comerong Island Nature Reserve Plan of Management (NPWS 1998).

The Office of Environment and Heritage *Swift Parrot – Profile* states that favoured feed trees include winter flowering species such as Swamp Mahogany, which is found at SMB;

3. Spotted-tailed Quoll. Status: listed as Vulnerable under the *BC Act 2016* and Endangered under the *EPBC Act 1999*.

Comments: only one sighting in 1987, may still occur in the study area (Murphy 1998);

4. Large bent-winged bat, Status: listed as Vulnerable under the *BC Act 2016*.

Comments: Possible record in the Cleary Bros Project Area in 2002 (Mills, 2006);

5. Black Necked Stork. Status: listed as Endangered under the *BC Act 2016*.

Comments: Recorded at Crooked River and Coomonderry Swamp (KMC 2015);

4.4 Significant plant species that may inhabit Seven Mile Beach

Rhodamnia rubescens. Status: listed as Critically Endangered *BC Act 2016*

Comments: This species has been recorded in the NP but may now be extinct (Mills 2019);

Chamaesyce psammogeton. Status listed as Endangered *BC Act 2016*

Comments: This species has been recorded in the NP but may now be extinct (Mills 2019).

4.5 Significant habitat for the Seven Mile Beach Endangered Greater Glider Population

Blackbutt Forest has been identified as the main food source for this species in the Park (Daly 2014). The extent of suitable Blackbutt habitat ranges across the NP to freehold and crown lands adjacent to the Park. Blackbutt habitat it is critically important for the survival of this population at this location.

4.6 Endangered Ecological Communities located at Seven Mile Beach

An association of seven Endangered Ecological Communities listed under the *BC Act 2016* occurs within the nomination area:

1. Littoral Rainforest (*Littoral Rainforest in the South East Corner, Sydney Basin and NSW North Coast bioregions*).

Comments: Described as in simple and complex forms at SMB NP (Mills 2019).

A large area of Littoral Rainforest occurring near Blue Angle Creek is listed as a *littoral rainforest area* under the Coastal Management Act 2016. (Appendix 2).

Areas of Littoral Rainforest are located on Crown lands north of the National Park near Gerroa caravan park and 40-year-old regenerating Littoral Rainforest is located north of Beach Road in the National Park;

2. Bangalay Sand Forest (*Bangalay Sand Forest of the Sydney Basin and South East Corner bioregions*).

Comments: Bangalay Sand Forest occurs in all the vegetation units in this nomination. Mills describes this EEC as widespread in the National Park (Mills 2019);

3. Swamp Mahogany Forest (*Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions*).

Comments: Swamp Mahogany Forest occurs in all the vegetation units west of Crooked River Road and is associated freshwater wetlands. (De Jong 1997 and Mills 2006, 2008).

The winter flowering Swamp Mahogany is an important habitat for a range of threatened fauna including Koala, Regent Honeyeater and Swift Parrot;

Mills describes an area of eucalypt forest with Swamp Mahogany on the edge of Coomonderry Swamp as **River-Flat Eucalypt Forest on Coastal Floodplains EEC** (Mills 2019);

4. Swamp Oak Forest (*Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions*).

Comments: Swamp Oak Forest is associated freshwater wetlands and occurs in all the vegetation units west of Crooked River Road, (Mills 2006, 2008) including Coomonderry Swamp (Mills 2019 and De Jong 1997);

5. Illawarra Lowlands Grassy Woodland (*Illawarra Lowlands Grassy Woodland on Berry Siltstone*).

Comments: The Illawarra Lowlands Grassy Woodland is the plant community from the local government areas of Wollongong City, Shellharbour City, and Kiama Municipality (within the Sydney Basin Bioregion).

Mills describes an area of this woodland in the north of the National Park (Mills 2019);

6. Saltmarsh (*Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregion*)

Comments: Saltmarsh occurs in the Crooked River saline wetlands west of the Gerroa Sewerage Treatment Plant. (KMC 2015). (Appendix 3);

7. Freshwater Wetlands (*Freshwater Wetlands on Coastal Floodplains*).

Comments: Freshwater wetlands occur behind the entire length of the Seven Mile Beach nomination area (Appendix 4).

Foys Swamp and smaller areas of wetland west of Crooked River Road between Crooked River and Beach Road have been modified, but still provide some wetland functions, including groundwater recharge and they also support fragmented areas of Swamp Forest EECs with habitats for water birds and amphibians.

The large Coomonderry Swamp wetland, south of Beach Road, retains its ecological integrity, supporting diverse wetland vegetation and fauna habitats;

5. Vegetation Units within the proposed Area of Outstanding Biodiversity Value

For the purpose of discussing the biological values, levels of protection and status of the lands in this nomination the vegetation has been divided into five units. The biological makeup and importance of each Unit will be described separately.

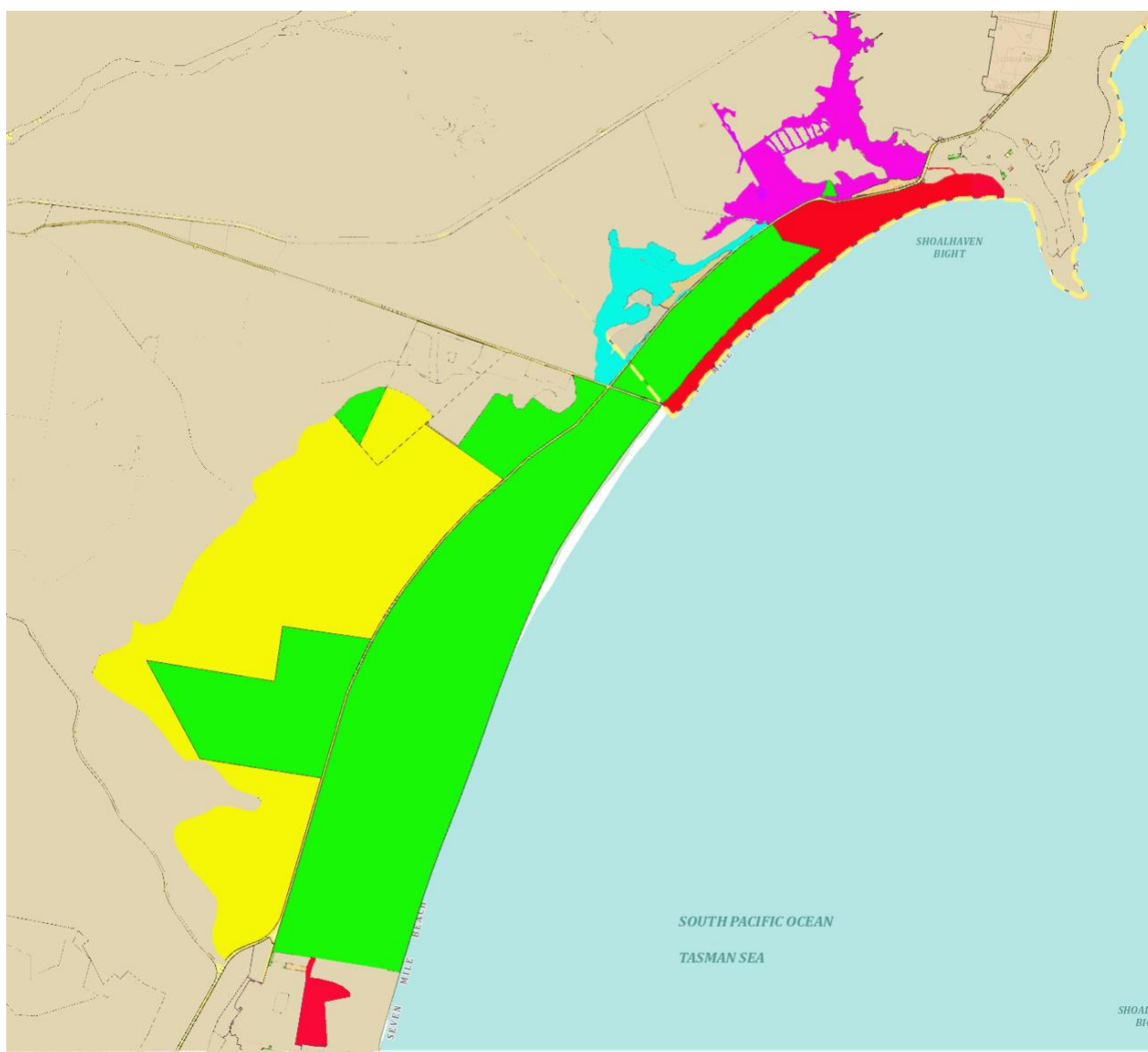


Figure 3: The five vegetation units that make up the nomination proposal

- | | |
|----------------|---|
| Unit 1: Green | Seven Mile Beach National Park |
| Unit 2: Red | Vegetation on Crown Land adjacent to the National Park |
| Unit 3: Pink | Vegetation west of Crooked River Road on private land adjoining the Sewerage Treatment Plant (STP). |
| Unit 4: blue | Vegetation west of Crooked River Road adjoining sand mine on private land. |
| Unit 5: Yellow | Vegetation west of Crooked River Road on freehold land and land managed by Shoalhaven City Council, encompassing Coomonderry Swamp. |

5.1 Unit 1. Seven Mile Beach National Park (Green on map in Figure 3)

The land in Unit 1 encompasses the 953-hectare, Seven Mile Beach National Park (Appendix 5). It contains one of the largest areas of natural coastal dune vegetation on the central part of the NSW coastline, elsewhere, sand barriers have been extensively cleared for urban development (NPWS 1998).

The coastal vegetation supports Blackbutt Forest (Mills 2019), the primary habitat for the Greater Glider (Daly 2014), as well as Bangalay Sand Forest, Freshwater Wetland, Swamp Mahogany and Swamp Oak EECs listed under the *BC Act 2016*.

Littoral Rainforest is regenerating north of Beach Road in the NP, where fire has been absent for nearly 40 years.

While this proposal focusses on the vegetation of SMB National Park and adjoining crown and freehold lands, the nearby Comerong Nature Reserve provides habitat for a large number of water birds and threatened shorebirds including the Hooded Plover, Lesser Sand Plover, Greater Sand Plover, Sooty Oystercatcher, Pied Oystercatcher, Little Tern, Great Knot, Blue-billed duck, Black-tailed Godwit and Black Bittern (NPWS 1998). This nature reserve has not been included in this proposal because it is not connected to the nomination area, however because of its close proximity it could be considered for inclusion in this nomination.

5.2 Unit 2. Vegetation on Crown Land adjacent to the National Park (Red on map in Figure 3)

The land in Unit 2 includes two areas of Crown Land on the east eastern side of Crooked River Road.

The Crown Reserve adjoining the norther end of the National Park is zoned E2 in Kiama LEP 2011. This vegetation is identified as Land having high biodiversity conservation value on the Natural Resources – Terrestrial Biodiversity Map - Sheet NRB_001 – in Kiama LEP 2011 (Appendix 6).

We are not aware of any vegetation studies for this area, however it contains a substantial area of Littoral Rainforest adjoining the council Caravan Park as well as Bangalay Sand Forest and a large area of Blackbutt Forest that contributes habitat for the Greater Glider population outside the NP.

The small area of Crown Reserve (CR1003018) to the south of the National Park in Shoalhaven Heads is zoned R1 in Shoalhaven LEP 2014. The Reserve gazettal of 2001 states the Reserve No. 1003018 was set aside the purpose of public recreation and environmental protection, (Appendix 7). This vegetation is mapped on the Shoalhaven LEP's biodiversity overlay. It contains Bangalay Sand Forest EEC and has been free of fire for a long time and has developing Littoral Rainforest.

5.3 Unit 3. Vegetation west of Crooked River road on freehold land (Pink on map in Figure 3)

The land in Unit 3 is zoned E2 in Kiama LEP 2011. It corresponds with the *land having high biodiversity conservation value* on the Natural Resources – Terrestrial Biodiversity Map - Sheet NRB_001 –in Kiama LEP 2011 (Appendix 6).

This vegetation represents part of the last beach, fore dune, rainforest, hind dune, swamp vegetation profile remaining in the Illawarra. (Muston and Associates, 1994 for Kiama Council – unable to locate study).

The biodiversity values of this Unit are particularly important due to the complex assemblage of five EEC vegetation communities in close association. The Coastal Zone Management Plan for the Crooked River Estuary, Figures 14 and 18, indicates the approximate distribution of these EECs (Appendix 3 and 8).

The dune areas support Bangalay Sand Forest described as common this area (Mills 1988). The Bangalay grows in association with Littoral Rainforest due to the low incidence of bushfire on the western side of Crooked River Road.

Littoral Rainforest in this Unit is described by Mills (1988) and identified as a *littoral rainforests area* under the *Coastal Management Act 2016* (Appendix 2). This is the most significant Littoral Rainforest area at SMB and many giant rainforest trees have survived along Blue Angle Creek (Appendix 9).

Small areas of freshwater wetlands support Swamp Oak and Swamp Sclerophyll EECs located in the lower areas on lot 23 and along the wetlands flowing into Crooked River. Swamp Oak is found along Crooked River and Blue Angle Creek, merging with the Swamp Mahogany community (Mills 1988).

Riparian areas along Crooked River is included in this Unit because Crooked River and associated wetlands are considered an area of regional significance as they are home to several endangered, threatened and rare species of plants, birds, frogs and insectivorous bats (Reinfelds 2004). Coastal saline wetlands supporting Saltmarsh EEC is identified where the wetlands adjoin Crooked River west of the Gerroa STP (KMC 2015). (Appendix 3).

The Australasian Bittern was observed in this Unit at Baileys Island, Crooked River/Blue Angle Creek at Gerroa in 2000- 2001 and 2007-2009 by Birds Australia observers and near Foys Swamp ponds by Kevin Mills (2003) and Craven (2016).

The small crosshatched area on the Gerroa STP site represents 20-year-old land care work carried out by Gerroa Environmental Protection Society in the early 2000s. This revegetation is nearing maturity and is described as *regenerating swamp Oak and Swamp Mahogany Forest west of the STP* (KMC, 2015). As this vegetation is contingent with the rest of the vegetation in this Unit we believe that it could be included in the nomination area. It is zoned E3 in Kiama LEP 2011.

Some vegetation in this Unit is threatened by works at the sewerage treatment plant. Recently constructed effluent dispersal trenches are killing large Blackbutt trees, impacting the sustainability of the SMB Endangered Greater Glider population.

5.4 Unit 4. Vegetation west of Crooked River Road adjoining the sand mine on freehold land. (Light blue on map in Figure 3)

The land in Unit 4 is zoned E2 with very small regenerating areas zoned E3 in Kiama LEP 2011. The E2 land corresponds with the *land having high biodiversity conservation value* on the Natural Resources – Terrestrial Biodiversity Map - Sheet NRB_001 –in Kiama LEP 2011 (Appendix 6).

Vegetation in this Unit has been well described by Mills (2006, 2008) and consists of Swamp Mahogany, Swamp Oak, Bangalay Sand Forest and Littoral Rainforest EECs as well as Blackbutt Forest (Appendix 10).

Small E3 zoned areas and buffers to the E2 zoned vegetation are being regenerated as part of the Cleary Bros sand mine Landscape and Rehabilitation Management Plan developed by Mills (2008). This vegetation in this Unit has been designated as a 'Conservation Area', a condition of consent by the Land and Environment Court as compensation for vegetation removed by sand mining² (Appendix 11). Unit 4 corresponds to the vegetation mapped in this Conservation Area.

Sand mining has historically impacted on Blackbutt, Bangalay and Swamp Mahogany communities in this area and has threatened the sustainability of the Endangered Greater Glider Population at SMB.

5.5 Unit 5. Vegetation west of Crooked River Road on freehold land and land managed by Shoalhaven City Council, encompassing Coomonderry Swamp. (Yellow on map in Figure 3)

The land in Unit 5 is zoned E2 in Shoalhaven LEP 2014. It corresponds with the *land having high biodiversity conservation value* on the Natural Resources – Terrestrial Biodiversity Map - Sheet NRB_001 (Appendix 6).

Coomonderry Swamp is identified in the Coastal Management Act 2016 as a *coastal wetlands area* (Appendix 12).

This intact wetland EEC covers approximate 670 hectares and is the largest freshwater coastal wetland in the southern region of NSW, representing 40% of this wetland type within the State (DECCW NSW 2010). It is recognised as nationally important in the Directory of Nationally Important Wetlands in Australia (Environment Australia, 2001) and listed on the register of the National Trust of Australia (NSW). The

² Gerroa Environment Protection Society Inc v Minister for Planning & Cleary Bros (Bombo) Pty Ltd [2008] NSWLEC 173

Illawarra Regional Landscape and Environment Study (Department of Planning 1981) categorises the wetland as 11c-priority Protection requiring protection against polluting land use (Craven 2016).

The ecological integrity of this wetland is well documented. It supports a high diversity of wetland plants in a variety of wetland habitats and these in turn provide the food, shelter and refuge for a large number of fauna. (De Jong, 1997). It also represents many irreplaceable biodiversity conservation values, including plants and animals of regional and state significance that are reliant on freshwater. The swamp and verges comprise Endangered Ecological Communities and species, Coastal Freshwater Swamp, Swamp Sclerophyll, Swamp Oak Forest and populations of endangered Australasian Bittern and Green and Golden Bell Frog. (Craven, 2016).

Coomonderry Swamp is a significant habitat for the Green and Golden Bell Frog because it is the most extensive wetland in which the frog has yet been discovered in New South Wales and maintains a large population, (Daly, 1996). The majority of the extant GGBF populations in New South Wales occur in coastal wetlands south of Sydney, particularly in the Wollongong, Kiama and Shoalhaven council areas (Daly, 1996).

The Australasian Bittern occupies confined areas of open water and mostly dense aquatic vegetation. Coomonderry Swamp has these characteristics (de Jong, 1997). This species has been recorded consistently at this wetland as aural detections in 1993, 1995, 2005, 2008, 2014 and 2015, (Craven 2016). A recent photo of a fledgling confirms that they are breeding in this wetland (G. Daly pers. comm).

Encroaching urban development in the catchment threatens the sustainability of this wetland habitat. Buffers need to be extended and rehabilitated and the entire wetland protected within the National Park. If regional biodiversity is to be maintained planning authorities need to adopt local environmental planning instruments that protect habitats identified as significant for rare and endangered species such as the Green and Golden Bell Frog, (Daly, 1996).

6. Summary

The Seven Mile Beach ecosystem has outstanding biological Value and could be described as a biologically diverse hot spot of scientific importance.

It supports an irreplaceable coastal dune wetland ecosystem that is a habitat for well-documented Endangered Ecological Vegetation Communities, including the largest intact coastal freshwater wetland in southern NSW, which supports vegetation and fauna of state and national significance.

The complexity of the SMB vegetation provides a diverse habitat for threatened fauna with specialised food and breeding requirements. It sustains well-documented threatened fauna species/populations that are known to breed in the area, as well as critically endangered migratory species which are known to forage in the winter blossoming Swamp Mahogany Forest extending along the nomination area.

The nomination meets all four assessment pathways:

- It supports multiple threatened species and ecological communities.
- It represents irreplaceable biological distinctiveness because of its compositional diversity that is essential for the persistence of threatened species and ecological communities.
- It supports intact vegetation communities that have retained their ecological integrity and processes.
- It represents outstanding ecological value for education or scientific research to study important species, ecological communities, ecological processes and ecosystem functions that maintain species and ecological communities and has the potential to provide unique education activities.

7. References

The following studies, plans and policies provide documentation, prevalence and circumstances of threatened species, populations and communities found at Seven Mile Beach listed in this nomination.

Murphy, M.J. 1998. *Mammal survey of Seven Mile Beach National Park and Comerong Island Nature Reserve on the south coast of New South Wales*.

NPWS, 1998. *Seven Mile Beach National Park and Comerong Island Nature Reserve, Plan of Management*.

Mills, K. 2006. *Flora and Fauna Assessment Extension of Cleary Bros (Bombo) Sand Quarry Gerroa*, Municipality of Kiama, Kevin Mills & Associates Pty Limited.

Daly, G. 2014. *NSW SCIENTIFIC COMMITTEE Nomination to list a population under the Threatened Species Conservation Act, 1995, Nomination for Greater Glider*.

Mills, K. 2008. *Landscape and Rehabilitation Management Plan, Extension and Continuation of Gerroa Sand Quarry*, Kevin Mills and Associates.

KMC, 2015. *Coastal Zone Management Plan for The Crooked River Estuary*, Kiama Municipal Council.

Mills, K. 2019. *Illawarra Vegetation Studies, Plant List and Plant Communities, Seven Mile Beach National Park, Kiama-Shoalhaven Region, NSW*, Kevin Mills.

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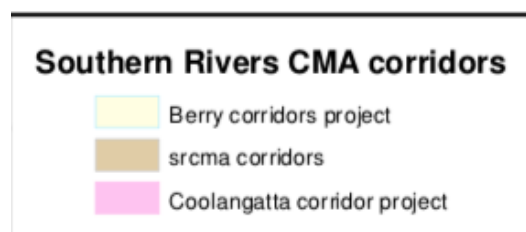
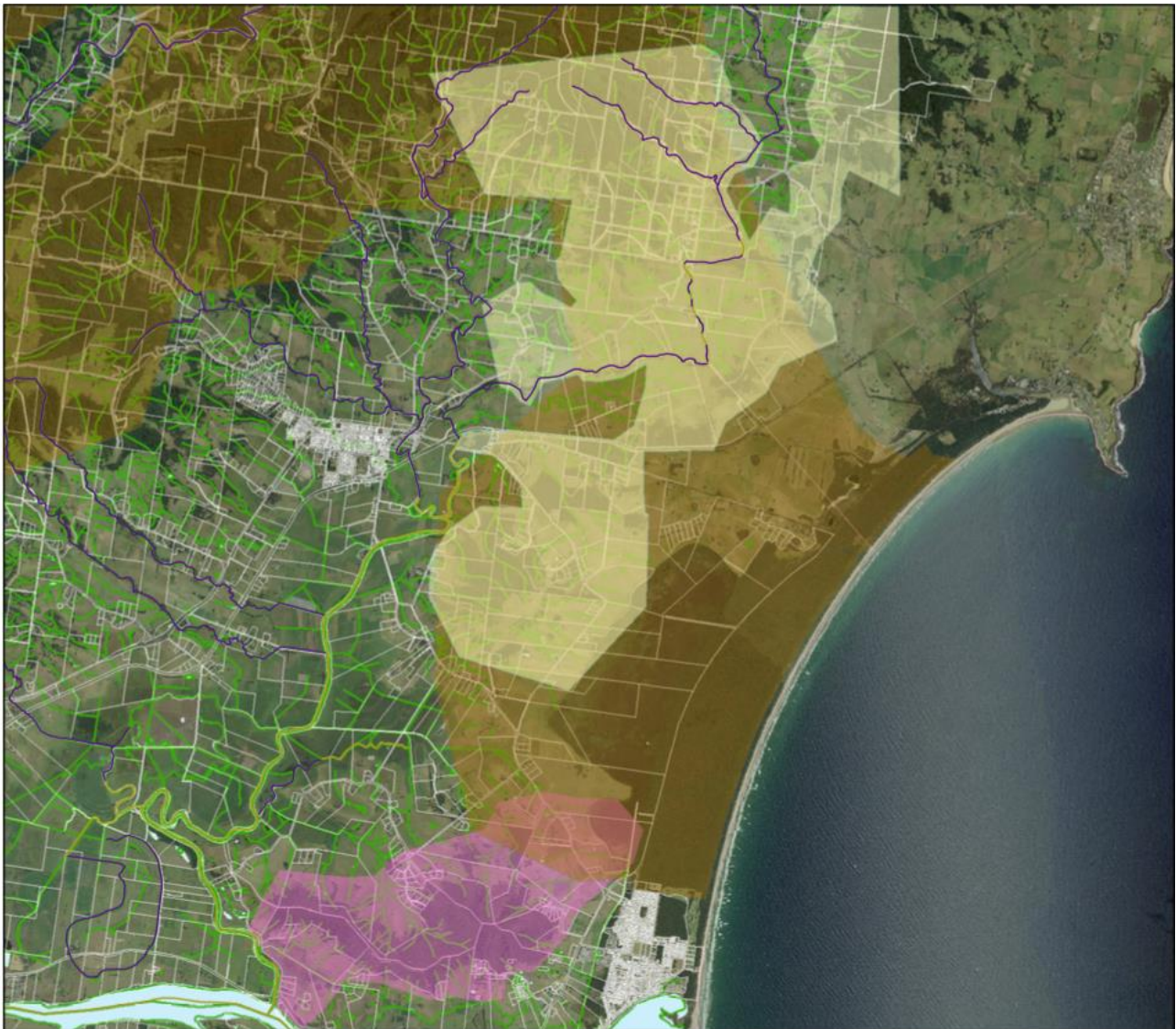
Howard H Jones

Secretary of the Gerroa Environmental Protection Society Inc.

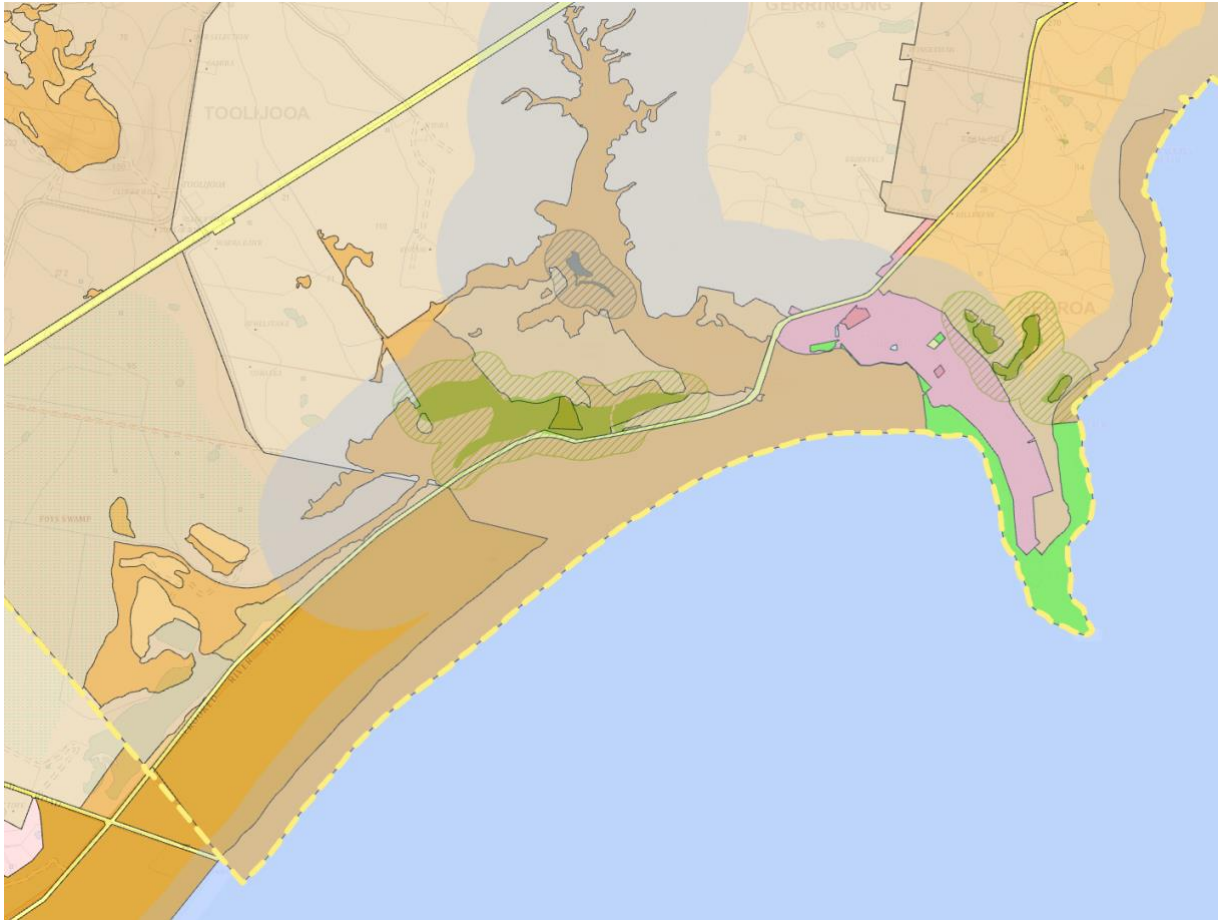
8. Appendixes

Appendix 1: Location of Berry Corridors Landcare Project.

Berry Corridor: *from Escarpment to Sea. Natural Resource Management Plan, 2013.*

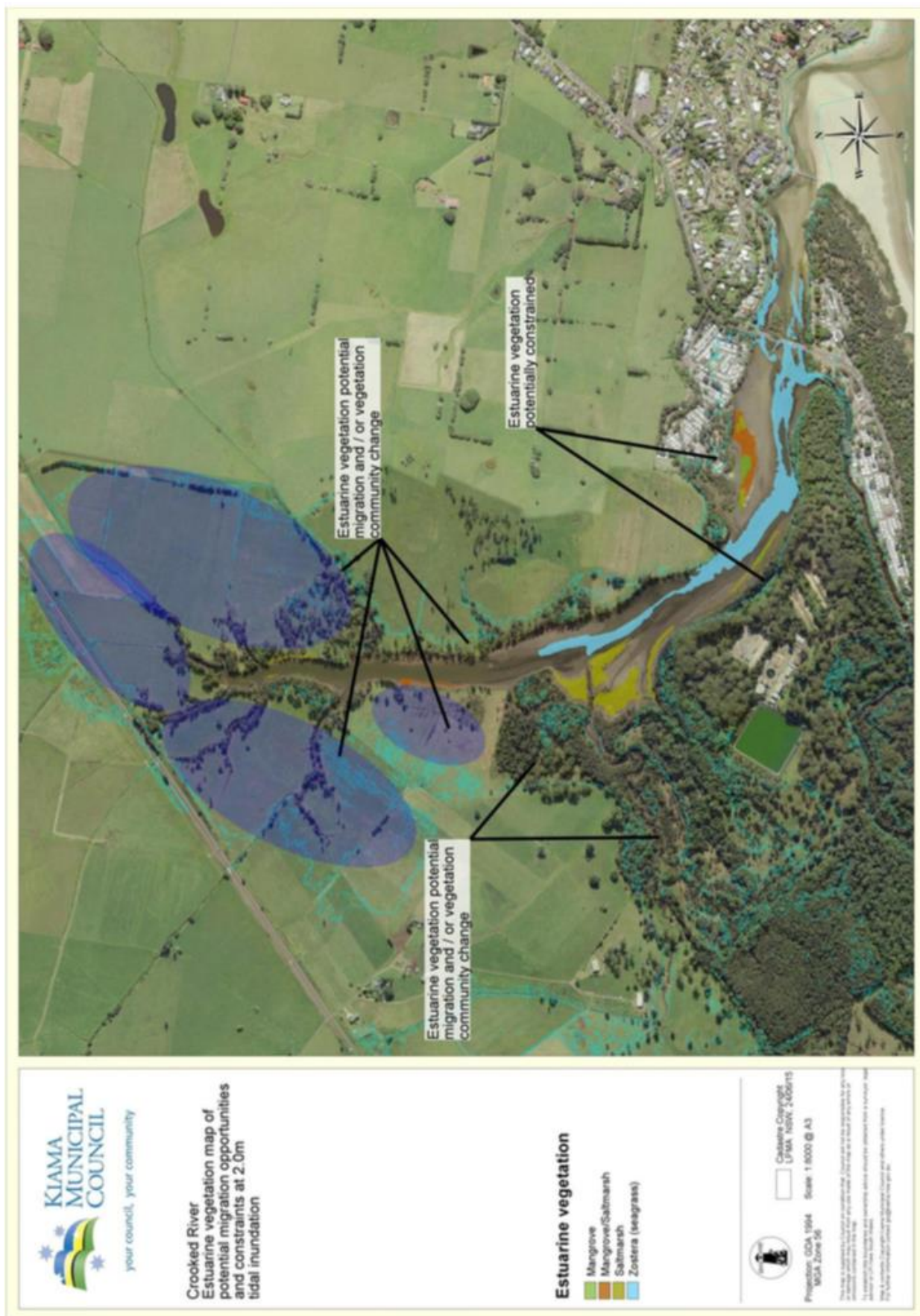


Appendix 2: Location of *Littoral Rainforest Area*, vegetation unit 3.
Coastal Management Act 2016. Map from NSW E Planning Portal.



Appendix 3: Location of Saltmarsh EEC, vegetation unit 3.

Map of estuarine vegetation from the Coastal Zone Management Plan for The Crooked River Estuary KMC, 2015. (mustard colour on map).

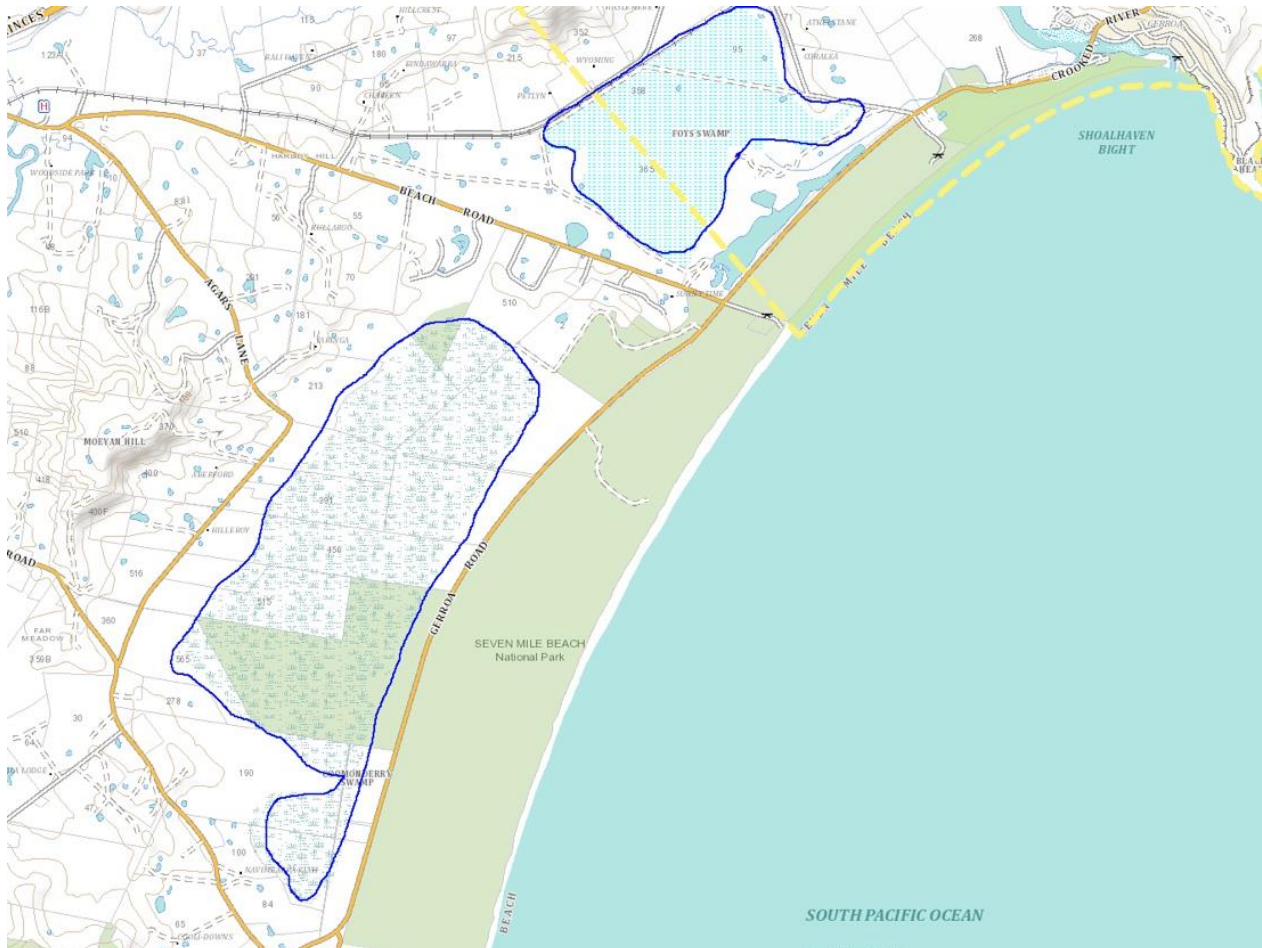


Appendix 4: Location of wetlands behind Seven Mile Beach.

The modified Foys Swamp is at top right and the intact Coomonderry Swamp at bottom left.

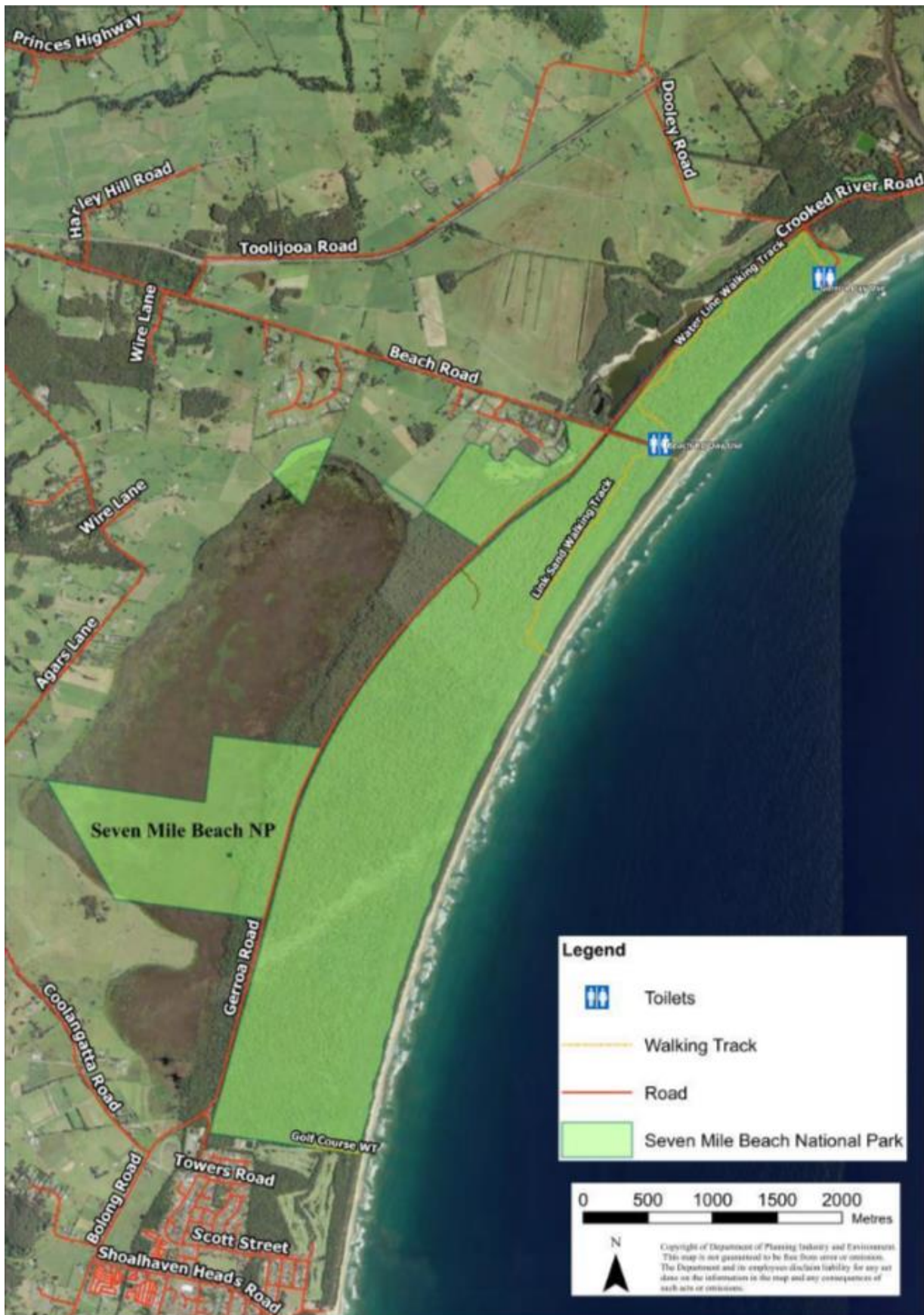
Sand mine dredge ponds are located east of Foys Swamp

Map from NSW E Planning Portal.



Appendix 5: Location of Seven Mile Beach National Park, vegetation unit 1.

Note small area of National Park in north near Gerroa is blocked by text Crooked River Road.



Appendix 6: Natural Resources – Terrestrial Biodiversity Map.

Vegetation identified as having high biodiversity conservation value on the Natural Resources - Biodiversity Map - Sheet NRB_001 Kiama LEP 2011 and Shoalhaven LEP 2014.

Map from NSW E Planning Portal.



Appendix 7: Crown Reserve 1003018 Gazettal 2001 (Shoalhaven Heads).

The reserve gazettal was set aside for the purpose of public recreation and environmental protection.

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OFFICIAL NOTICES

19 October 2001

NOWRA OFFICE
Department of Land and Water Conservation
64 North Street (PO Box 309), Nowra, NSW 2541
Phone: (02) 4423 0122 Fax: (02) 4423 3011

RESERVATION OF CROWN LAND

PURSUANT to section 87 of the Crown Lands Act 1989, the Crown Land specified in Column 1 of the Schedule hereunder is reserved as specified opposite thereto in Column 2 of the Schedule.

RICHARD AMERY, M.P.,
Minister for Agriculture
and Minister for Land and Water Conservation

SCHEDULE

COLUMN 1

Land District: Nowra.
Local Government Area:
Shoalhaven City.
Parish: Coolangatta.
County: Camden.
Locality: Shoalhaven Heads.
Lot 7010, section *, DP 751268#.
Area: About 35 hectares.
File No.: NA01 R 26.

COLUMN 2

Reserve No.: 1003018.
Public Purpose: Public recreation
and environmental protection.

#Please note that the above Lot number marked # is for
Departmental use only.

Coastal Zone Management Plan for the Crooked River Estuary Map KMC, 2015.



Appendix 9: Giant Fig in the Littoral Rainforest along Blue Angle Creek, vegetation unit 3.



Appendix 10: Cleary Bros sand mine Landscape and Rehabilitation Management Plan, vegetation unit 4. (describes vegetation communities)

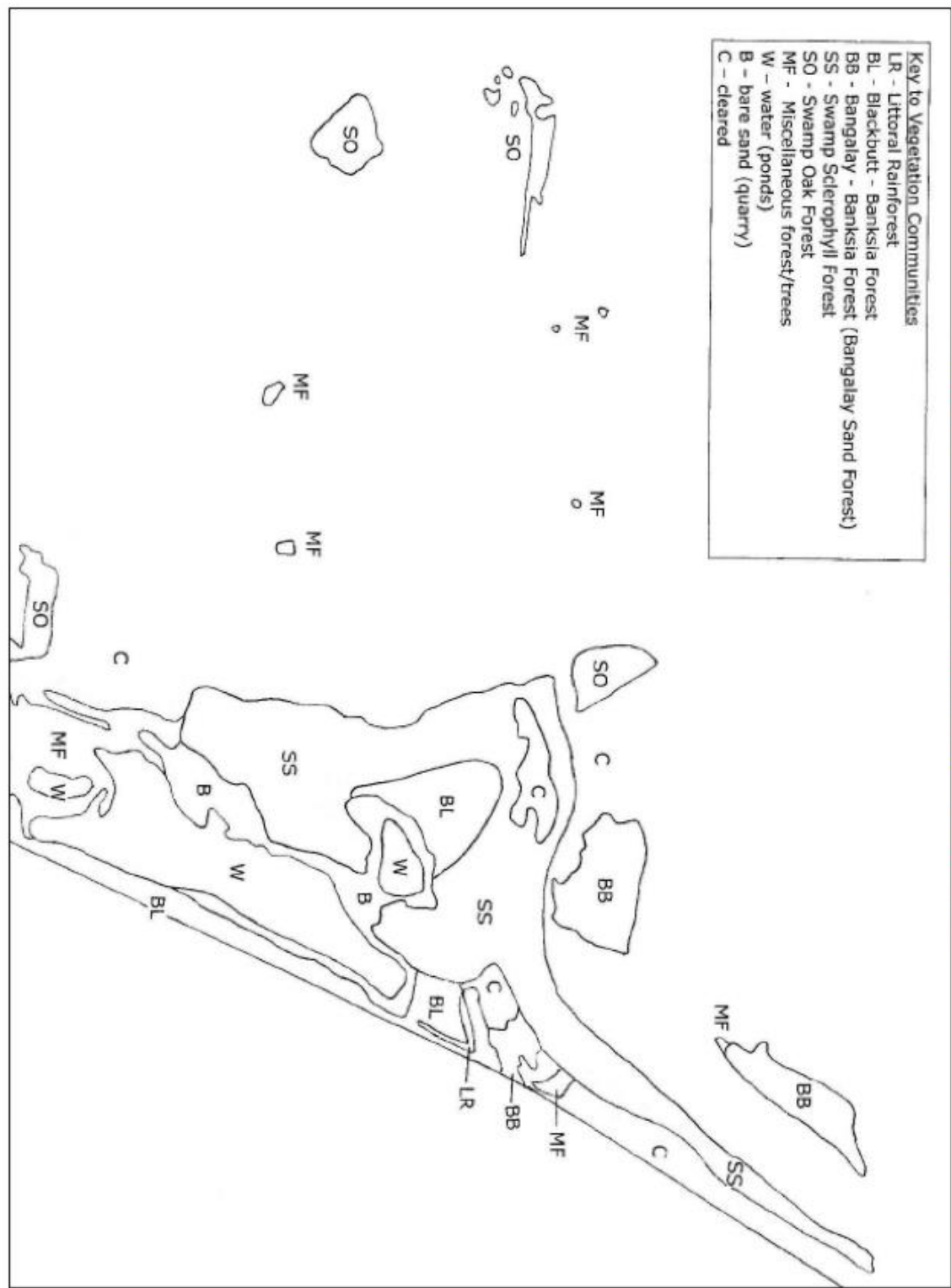


Figure 2. Vegetation Communities in the Area

Appendix 11: Cleary Bros map of designated Conservation Area in vegetation unit 4.

This Plan encompasses existing vegetation and rehabilitated buffers and infill areas.



Appendix 12: Location of Coomonderry Swamp Coastal Wetland Area in vegetation unit 5. Coastal Management Act 2016. Map from NSW E Planning Portal.

