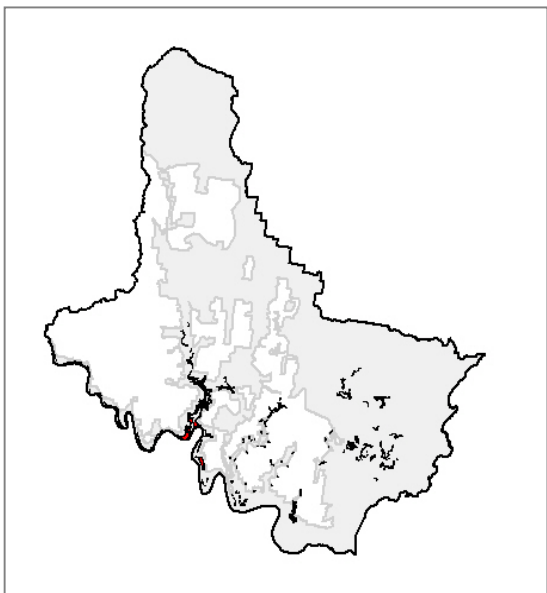


Estuarine Mangrove Scrub

Mangrove Estuarine Complex

Unit E47
REMS Unit 47



General Description:

Estuarine Mangrove Scrub occurs immediately within and adjacent to tidal estuaries. This community can be quite variable structurally, but is always dominated by the mangrove *Avicennia marina* subsp. *australasica*, together with *Aegiceras corniculatum* along major river systems (eg: Hawkesbury River). Tidal gradients within this community also introduce local variations where saltmarsh can be undergoing mangrove colonisation.

Known Floristic/ Structural Variations:

- (a) Estuarine Mangrove Scrub (mapped as E47) – closed and open scrubs dominated solely by *Avicennia marina* subsp. *australasica*.
- (b) Riverine Mangrove Scrub (included in E47) – closed and open scrubs dominated by *Aegiceras corniculatum* with *Avicennia marina* subsp. *australasica*.

Distribution:

Within Gosford LGA – occurs generally as narrow bands around the coastal estuaries, but on larger estuarine flats stands can be quite sizeable.

Within LHCC Region – NPWS (2000) have mapped 6111ha of their Mangrove-Estuarine Complex remaining in the region.

Examples Within Gosford LGA

- Cockle Bay Nature Reserve
- Davistown-Saratoga

Extent: *Extant* - 758.87 ha

Relationship to Other Communities:

This vegetation type is distinct from all other vegetation types both floristically and, in most cases, structurally. The most closely related unit is Unit 47a: Estuarine Saltmarsh/ Grassland, but in general that community rarely contains mangrove species, or if they are present they are of low abundance. Estuarine Swamp Oak Forest (Unit E40) also occurs in close proximity to the coastal estuaries, and consequently some understorey species do occur in both types. However, the

presence of Swamp Oak (*Casuarina glauca*) in monospecific stands clearly separate the two. Swamp Paperbark Thicket (Unit E100) may also occur near coastal estuaries, but that unit is clearly distinguished by the often monospecific stands of *Melaleuca ericifolia*.

Equivalent Vegetation Types:

• Benson 1981 (Mangrove Creek):	n/a
• Benson & Fallding 1981 (Brisbane Water)	Tall open-scrub (Unit 7)
• Benson 1986 (Gosf-Lake Mac):	Open-Scrub (Unit 4a)
• Clarke & Benson 1986 (Dharug):	Forest and Scrub – Mangrove (Unit A1)
• Strom 1986 (Bouddi Peninsula):	Low open scrub – Mangroves (Unit 1.4)
• Clarke & Benson 1987 (Mt White/ Mt Olive):	Mangrove (Unit A1)
• McRae 1990 (Bouddi Peninsula):	n/a
• Binns 1996 (SF MFD):	n/a
• Payne 1997 (Cockle Bay/ Bouddi):	Shrubland, herbland on estuarine alluvium (Unit 4.3)
• Bell 1998 (Popran NP):	Estuarine Mangrove Open Scrub (Unit S2)
• Bell 2002 (Wyong LGA):	Estuarine Mangrove-Saltmarsh Complex (Unit 2)

Significant Species:

- Undescribed species – *none recorded*
- Threatened (TSC Act) – *none recorded*
- Rare (ROTAP) – *none recorded*

Community Conservation Status:

Reserve Representation - within Gosford City, this vegetation type is currently represented in Cockle Bay NR, Rileys Island NR, Pelican Island NR.

TSC Act (1995) Status - not currently listed.

Mapping Reliability & Included Units:

High Resolution Area – this vegetation type has been mapped directly from aerial photographs with ground truthing in some parts. There is likely to be some integration with Unit 47a.

Low Resolution Area – as modelled by LHCCREMS, with some limited ground truthing.

Vegetation Structure:

Stratum	Mean height (m)	Min height (m)	Max height (m)	Mean cover (%)	Sdev	n
Emergent						
Tallest	2.25	0.50	4.00	46	16.0	4
Middle 1	4.00	4.00	4.00	80		1
Middle 2						
Middle 3						
Lowest	0.41	0.10	1.00	73	37.0	5

Key Diagnostic Species [based on 5 plots]:

Life Form	Species	Community		All others		Fidelity
		c/a	Freq.	c/a	Freq.	
Tree	<i>Casuarina glauca</i>	2	20%	3	6%	uninformative
Shrub	<i>Avicennia marina subsp. australasica</i>	4	100%	2	0%	positive
	<i>Aegiceras corniculatum</i>	3	20%	1	0%	uninformative
Herb	<i>Sarcocornia quinqueflora subsp. quinqueflora</i>	6	80%	4	0%	positive

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	<i>Suaeda australis</i>	2	40%	1	0%	positive
	<i>Samolus repens</i>	3	20%	1	2%	uninformative
	<i>Tetragonia tetragonioides</i>	1	20%	1	0%	uninformative
Grass	<i>Sporobolus virginicus</i>	5	20%	4	1%	uninformative
	<i>Zoysia macrantha</i>	2	20%	2	0%	uninformative
	<i>Entolasia stricta</i>	0	0%	2	54%	negative
Graminoid	<i>Lomandra longifolia</i>	0	0%	2	45%	negative
Ground fern	<i>Pteridium esculentum</i>	0	0%	2	43%	negative