

ESTUARY ASSESSMENT FRAMEWORK FOR NON-PRISTINE ESTUARIES

Estuary 840 (AMERICAN RIVER)

Estuary ID 840
Name AMERICAN RIVER
Location S CENT
Latitude / Longitude -35.785 137.775 **Datum** GDA94

Condition Assessment This estuary is in modified condition under high to very high pressure

Initial Classification

Basis of Initial Classification

Processed-Based Classification

Issues:

General Comments / Notes:

Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
STATE COMPONENT (OVERALL)	3	C	
ECOSYSTEM INTEGRITY INDEX	3	C	
Eutrophication			
Chlorophyll a (µg/L) [median(80th)] HEAD			
Chlorophyll a (µg/L) [median(80th)] MIDDLE			
Chlorophyll a (µg/L) [median(80th)] MOUTH			

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Chlorophyll a (µg/L) [median(80th)] AVERAGE

Harmful algal blooms

Turbidity [median(80th)]

Turbidity (NTU or secchi depth) HEAD

Turbidity (NTU or secchi depth) MIDDLE

Turbidity (NTU or secchi depth) MOUTH

Turbidity (NTU or secchi depth) AVERAGE

Shellfish closures

Fish/bird kills

Pathogens

Faecal coliforms (no/100mL) [median(80th)] HEAD

Faecal coliforms (no/100mL) [median(80th)] MIDDLE

Faecal coliforms (no/100mL) [median(80th)] MOUTH

Faecal coliforms (no/100mL) [median(80th)] AVERAGE

Critical habitat loss

Anoxic and hypoxic events

Invasive species

	Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
HABITAT CONDITION INDEX	American River was mapped in 2000 and the following facies areas were calculated: Central Basin 13.1 sq.km; Flood and ebb tidal delta 3.6 sq.km; Intertidal flats 0.4 sq.km;	2	C	2

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	Saltmarsh/Saltflats 1.5 sq.km; Tidal sand banks 0.2 sq.km; Total facies area 18.8 sq.km. The following habitat deviations from expected were identified -2 / +1; no barrier or back barrier/no mangrove/contains tidal sand banks.		
Seagrass species present	Yes		1
Seagrass coverage	16.6 km2		1
Mangrove species present	None		1
Mangrove coverage	0		2
Saltmarsh coverage	0.08		2
Wetland coverage			

	Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
FISH CONDITION INDEX		3	B	
Diversity	3 fish species present			1
Abundance				
Health				
Recruitment				

	Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
WATER QUALITY INDEX			D	
Nutrients [median(80th)]				
Dissolved oxygen [median(20th)]				
Dissolved oxygen [surface] (%sat or mg/L) HEAD				
Dissolved oxygen [surface] (%sat or mg/L) MIDDLE				
Dissolved oxygen [surface] (%sat or mg/L) MOUTH				

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Dissolved oxygen [surface] (% sat or mg/L) AVERAGE
 Dissolved oxygen [bottom] (% sat or mg/L) HEAD
 Dissolved oxygen [bottom] (% sat or mg/L) MIDDLE
 Dissolved oxygen [bottom] (% sat or mg/L) MOUTH
 Dissolved oxygen [bottom] (% sat or mg/L) AVERAGE
 pH
 Heavy metals
 Are heavy metals a problem in this estuary (Y/N)?
 Other toxicants (including pesticides)
 Salinity
 Temperature
 Depth

	Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
SEDIMENT QUALITY INDEX			D	
Sediment toxicants				
Sediment load TN				
Sediment load TP				
Invertebrate diversity				
Invertebrate abundance				
	Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
PRESSURE COMPONENT (OVERALL)		3	B	

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UTILISATION INDEX	1995 BRS data: Crop/pasture & Plantations comprise 82.7365 % of the catchment. Native woody vegetation comprises 17.084 % of the catchment.	D	3
Recreation Pressure			
Aesthetic & Amenity			
Yachting & Boating	Present - 35 swing moorings; 2 boat ramps		1
Shellfish			
Swimming			
Recreational Fishing			
Infrastructure Pressure			
Sewage Treatment Plants	None		1
Urbanisation and urban runoff			
Dredging	Yes		1
Commercial Pressure			
Industry			
Aquaculture			
Reclamation / Declamation			
Commercial fishing	7 operators		1
Tourism			
Agriculture			
Habitat clearing			
Ports & Port Works	Absent		1
Shipping Activity			

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SUSCEPTIBILITY INDEX				
Flow-modifying structures			D	
Catchment loads				
Flows and flushing				
Acid sulphate soils	Acid sulphate soils are a potential problem but no mapping has been done			1
RESPONSE COMPONENT (OVERALL)				
Institutional Arrangements	No protected area with fishing permitted; 15.3 km ² of protected area without fishing permitted			
Management Actions				
Community Initiatives				
Details of References	1. SA state data, 2. AGSO, 3. Derived from BRS landcover data			
Key Contacts				