

ESTUARY ASSESSMENT FRAMEWORK FOR NON-PRISTINE ESTUARIES

Estuary 298 (ANDOOM CREEK)

Estuary ID 298

Name ANDOOM CREEK

Location

Latitude / Longitude -12.587 141.88 **Datum** GDA94

Condition Assessment This estuary is in largely unmodified condition

Initial Classification In the first stage of this condition assessment this estuary was classified as being largely unmodified.

Basis of Initial Classification This was based on the changes to land use: mining.

Processed-Based Classification



The way Andoom Creek function is primarily a result of tide energy. It is classed as a tidal flat/tidal creek. This means that the estuary would have low sediment trapping efficiency; naturally high turbidity, well mixed circulation and there is low risk of sedimentation.

Issues:

General Comments / Notes:

Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
STATE COMPONENT (OVERALL)	2	C	
ECOSYSTEM INTEGRITY INDEX		D	
Eutrophication			
Chlorophyll a (µg/L) [median(80th)] HEAD			
Chlorophyll a (µg/L) [median(80th)] MIDDLE			

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Chlorophyll a (µg/L) [median(80th)] MOUTH
 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	Andoom Creek was mapped in 2000 and the following facies		D	2

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	areas were calculated: Flood and ebb tidal delta 2.4 sq.km; Intertidal flats 2.4 sq.km; Mangroves 8.8 sq.km; Saltmarsh/Saltflats 3.8 sq.km; Total facies area 17.5 sq.km. The following habitat deviations from expected were identified -1; no tidal sand banks.	
Seagrass species present		
Seagrass coverage	Not Recorded - Not identified in aerial photographs or noted in the literature	1
Mangrove species present		
Mangrove coverage	0.504	2
Saltmarsh coverage	0.22	2
Wetland coverage		

Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
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FISH CONDITION INDEX		D	
Diversity			
Abundance			
Health			
Recruitment			

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

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Dissolved oxygen [surface] (% sat or mg/L) MIDDLE
 Dissolved oxygen [surface] (% sat or mg/L) MOUTH
 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
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SEDIMENT QUALITY INDEX

Sediment toxicants
 Sediment load TN
 Sediment load TP
 Invertebrate diversity
 Invertebrate abundance

D

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Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
PRESSURE COMPONENT (OVERALL)		D	
UTILISATION INDEX		D	
Recreation Pressure			
Aesthetic & Amenity			
Yachting & Boating			
Shellfish			
Swimming			
Recreational Fishing			
Infrastructure Pressure			
Sewage Treatment Plants			
Urbanisation and urban runoff			
Dredging			
Commercial Pressure			
Industry			
Aquaculture			
Reclamation / Declamation			
Commercial fishing			
Tourism			
Agriculture			
Habitat clearing			
Ports & Port Works			
Shipping Activity			

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Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
SUSCEPTIBILITY INDEX		D	
Flow-modifying structures			
Catchment loads			
Flows and flushing			
Acid sulphate soils			
RESPONSE COMPONENT (OVERALL)			
Institutional Arrangements			
Management Actions			
Community Initiatives			
Details of References	1. QLD state data, 2. AGSO		
Key Contacts			