

**ESTUARY ASSESSMENT FRAMEWORK FOR NON-PRISTINE ESTUARIES**

**Estuary 403 (ALTHAUS CREEK)**

**Estuary ID** 403

**Name** ALTHAUS CREEK

**Location**

**Latitude / Longitude** 0 0 **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**

**Processed-Based Classification**



The way Althaus Creek function is primarily a result of river energy. It is a wave-dominated delta. This means that the estuary would have low sediment trapping efficiency; naturally low turbidity, salt wedge/ partially mixed circulation and there is a low risk of habitat loss due to sedimentation.

**Issues:**

**General Comments / Notes:**

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

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Chlorophyll a ( $\mu\text{g/L}$ ) [median(80th)] MIDDLE

Chlorophyll a ( $\mu\text{g/L}$ ) [median(80th)] MOUTH

Chlorophyll a ( $\mu\text{g/L}$ ) [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

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	<b>Notes, Data and Supporting Qualitative Text</b>	<b>Rating (1-4)</b>	<b>Data Confidence</b>	<b>References</b>
<b>HABITAT CONDITION INDEX</b>	Althaus Creek was mapped in 2000 and the following facies areas were calculated: Flood and ebb tidal delta 0.3 sq.km; Intertidal flats 0.1 sq.km; Mangroves 0.4 sq.km; Saltmarsh/Saltflats 0.6 sq.km; Total facies area 1.4 sq.km. The following habitat deviations from expected were identified -1; no fluvial-bayhead delta.		D	2
Seagrass species present				
Seagrass coverage				
Mangrove species present				
Mangrove coverage	0.261			2
Saltmarsh coverage	0.445			2
Wetland coverage				

	<b>Notes, Data and Supporting Qualitative Text</b>	<b>Rating (1-4)</b>	<b>Data Confidence</b>	<b>References</b>
<b>FISH CONDITION INDEX</b>	In the 1997 RFISH diary program (not a comprehensive geographical survey), ranked recreational catch for Leichardt Creek + Althaus Creek + Black River + Sleeper Log Creek + Bluewater Creek included Mullet, Whiting, Sardine, Herring (Bait), Mud Crab, Garfish, Flathead, Grunter, Stripey, Coral Cod (14 species total)		D	1
Diversity				
Abundance				
Health				
Recruitment				

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<p><b>WATER QUALITY INDEX</b></p> <p>Nutrients [median(80th)]</p> <p>Dissolved oxygen [median(20th)]</p> <p>Dissolved oxygen [surface] (%sat or mg/L) HEAD</p> <p>Dissolved oxygen [surface] (%sat or mg/L) MIDDLE</p> <p>Dissolved oxygen [surface] (%sat or mg/L) MOUTH</p> <p>Dissolved oxygen [surface] (%sat or mg/L) AVERAGE</p> <p>Dissolved oxygen [bottom] (%sat or mg/L) HEAD</p> <p>Dissolved oxygen [bottom] (%sat or mg/L) MIDDLE</p> <p>Dissolved oxygen [bottom] (%sat or mg/L) MOUTH</p> <p>Dissolved oxygen [bottom] (%sat or mg/L) AVERAGE</p> <p>pH</p> <p>Heavy metals</p> <p>Are heavy metals a problem in this estuary (Y/N)?</p> <p>Other toxicants (including pesticides)</p> <p>Salinity</p> <p>Temperature</p> <p>Depth</p>	D		

Notes, Data and Supporting Qualitative Text	Rating (1-4)	Data Confidence	References
<p><b>SEDIMENT QUALITY INDEX</b></p> <p>Sediment toxicants</p>	D		

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Sediment load TN  
 Sediment load TP  
 Invertebrate diversity  
 Invertebrate abundance

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PRESSURE COMPONENT (OVERALL)			D	
UTILISATION INDEX	1995 BRS data: Crop/pasture & Plantations comprise 14.3256 % of the catchment. Native woody vegetation comprises 81.7408 % of the catchment.		D	3
Recreation Pressure				
Aesthetic & Amenity				
Yachting & Boating				
Shellfish				
Swimming				
Recreational Fishing	Total estimated recreational catch (harvest & released) for Leichardt Creek + Althaus Creek + Black River + Sleeper Log Creek + Bluewater Creek in 1997 was 32,550 fish (0.06% of Qld total) from 2,697 trips (0.03% of Qld total). Estimated catch (top 5 species by no.) Mullet 15,876, Whiting 6,357, Sardine 6,027, Herring (Bait) 1,470, Mud Crab 735			1
Infrastructure Pressure				
Sewage Treatment Plants				
Urbanisation and urban runoff				
Dredging				
Commercial Pressure				

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Industry

Aquaculture

Reclamation / Declamation

Commercial fishing

A maximum of 8 boats fished Leichardt Creek + Althaus Creek + Black River + Sleeper Log Creek + Bluewater Creek in 1999, for a total catch of 17.56 tonnes. Commercial fishing effort (days fished) by method comprised line (4), net (130), pot (1), trawl (65), not stated (52).

1

Tourism

Agriculture

Habitat clearing

Ports & Port Works

Shipping Activity

<b>Notes, Data and Supporting Qualitative Text</b>	<b>Rating (1-4)</b>	<b>Data Confidence</b>	<b>References</b>
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**SUSCEPTIBILITY INDEX**

D

Flow-modifying structures

Catchment loads

Flows and flushing

Acid sulphate soils

**RESPONSE COMPONENT (OVERALL)**

Institutional Arrangements

Management Actions

Community Initiatives

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Details of References

1. QLD state data, 2. AGSO, 3. Derived from BRS landcover data

Key Contacts