

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

**Estuary 1035 (ANDERSON CREEK)**

**Estuary ID** 1035

**Name** ANDERSON CREEK

**Location**

**Latitude / Longitude** -38.755 143.656      **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**

**Issues:**

**General Comments / Notes:**

|  | <b>Notes, Data and Supporting Qualitative Text</b> | <b>Rating<br/>(1-4)</b> | <b>Data<br/>Confidence</b> | <b>References</b> |
|--|--|-------------------------|----------------------------|-------------------|
| STATE COMPONENT (OVERALL)                  |  | 2                       | C                          |                   |
| ECOSYSTEM INTEGRITY INDEX                  |  |                         | D                          |                   |
| 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

|                                | <b>Notes, Data and Supporting Qualitative Text</b> | <b>Rating<br/>(1-4)</b> | <b>Data<br/>Confidence</b> | <b>References</b> |
|--------------------------------|--|-------------------------|----------------------------|-------------------|
| <b>HABITAT CONDITION INDEX</b> | No Deviation Calculated                            |                         | D                          | 2                 |
| Seagrass species present       | Zostera spp., Ruppia spp.                          |                         |                            |                   |

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|                          |           |  |   |
|--------------------------|-----------|--|---|
| Seagrass coverage        | 0.409 km2 |  |   |
| Mangrove species present |           |  |   |
| Mangrove coverage        |           |  | 2 |
| Saltmarsh coverage       |           |  | 2 |
| Wetland coverage         |           |  |   |

| Notes, Data and Supporting Qualitative Text | Rating<br>(1-4) | Data<br>Confidence | References |
|---|-----------------|--------------------|------------|
|---|-----------------|--------------------|------------|

|                             |  |   |   |
|-----------------------------|--|---|---|
| <b>FISH CONDITION INDEX</b> |  | D |   |
| Diversity                   | Fish species present: Southern Sea Garfish, Sea Mullet, Australian Salmon, Luderick, Sand Flathead, Black Bream, King George Whiting, Greenback Flounder, Yellow Eyed Mullet |   | 1 |
| Abundance                   |  |   |   |
| Health                      |  |   |   |
| Recruitment                 |  |   |   |

| Notes, Data and Supporting Qualitative Text | Rating<br>(1-4) | Data<br>Confidence | References |
|---|-----------------|--------------------|------------|
|---|-----------------|--------------------|------------|

|   |                       |  |   |
|---|-----------------------|--|---|
| <b>WATER QUALITY INDEX</b>                        | No water quality data |  | 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   |                       |  |   |
| Dissolved oxygen [surface] (%sat or mg/L) AVERAGE |                       |  |   |
| Dissolved oxygen [bottom] (%sat or mg/L) HEAD     |                       |  |   |

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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

Acid sulphate prolems-No mapping/survey

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<br>(1-4) | Data<br>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<br>(1-4) | Data<br>Confidence | References |
|---|-----------------|--------------------|------------|
|---|-----------------|--------------------|------------|

PRESSURE COMPONENT (OVERALL)

D

UTILISATION INDEX

D

Recreation Pressure

Aesthetic & Amenity

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|                               |                                   |
|-------------------------------|-----------------------------------|
| Yachting & Boating            | 2 swing moorings                  |
| Shellfish                     |                                   |
| Swimming                      |                                   |
| Recreational Fishing          | Present; 4 boat ramps             |
| Infrastructure Pressure       |                                   |
| Sewage Treatment Plants       | None present; no longer discharge |
| Urbanisation and urban runoff |                                   |
| Dredging                      | Absent                            |
| Commercial Pressure           |                                   |
| Industry                      |                                   |
| Aquaculture                   | Absent; previous mussel farm      |
| Reclamation / Declamation     | Absent                            |
| Commercial fishing            |                                   |
| Tourism                       |                                   |
| Agriculture                   |                                   |
| Habitat clearing              |                                   |
| Ports & Port Works            |                                   |
| Shipping Activity             |                                   |

**Notes, Data and Supporting Qualitative Text**

**Rating (1-4)    Data Confidence    References**

**SUSCEPTIBILITY INDEX**

D

|                           |      |
|---------------------------|------|
| Flow-modifying structures | None |
| Catchment loads           |      |
| Flows and flushing        |      |

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Acid sulphate soils

RESPONSE COMPONENT (OVERALL)

Institutional Arrangements

No habitat-protected areas

Management Actions

Community Initiatives

Details of References

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

Key Contacts