# Stage 3 evaluations of 28 wetlands in the Avon Natural Resource Management region, spring 2008



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## Prepared by

Science Division

Department of Environment and Conservation

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## **Prepared for the Avon Catchment Council**

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## 1. Introduction

This document provides the results of the application of the wetland evaluation methodology:

Jones, S. M., Pinder, A. M., Sim, L.L., Halse, S. A. (2009). *Evaluating the conservation significance of basin wetlands within the Avon Natural Resource Management region: Stage Three Assessment Method.* Prepared for the Avon Catchment Council by the Department of Environment and Conservation, Perth.

This methodology was applied at 28 wetlands in the Avon NRM region in spring 2008, as part of a trial of the methodology conducted by the Wetlands Group in the Science Division, Department of Environment and Conservation (DEC), Perth. All data was collected at every site and has been presented in this document, even when the site was automatically assigned to the Conservation category in the early stages of the assessment. In section 3 the stage 3 wetland evaluations are also compared with the assessments produced using the stage 1 methodology (Jones, *et al.*, 2008), which was applied to all mapped basin and granite outcrop wetlands greater than 1 hectare in the region.

The Avon stage 3 wetland evaluation methodology provides a practical, easy-to-use procedure for assessing the conservation significance of inundated basin wetlands in the region. Wetlands are assessed according to their attributes and functions, which may include scientific, educational, amenity, spiritual, philosophical, recreational, consumptive use and ecosystem service values. By following the procedure, wetlands are placed into one of three wetland management categories: Conservation, Resource Enhancement and Multiple Use. Table 1 below provides an explanation of the three wetland management categories, as described in the *Environmental Guidance for Planning and Development* (Environmental Protection Authority, 2008).

Table 1 - Wetland management categories and associated descriptions and management objectives

(Environmental Protection Authority, 2008 adapted from Hill, et al., 1996a)

| (Environmental Froteet | ion Admonty, 2000 (  | adapted from mili, et al., 1996a)   |
|------------------------|--|---|
| Management category    | General description  | Management objectives   |
| Conservation           | Wetlands which<br>support a high level of<br>attributes and<br>functions   | Highest priority wetlands. Objective is to preserve and protect the existing conservation values of the wetlands through various mechanisms including:  • reservation in national parks, Crown reserves and State owned land,  • protection under Environmental Protection Policies, and  • wetland covenanting by landowners.            |
| Resource enhancement   | Wetlands which may<br>have been partially<br>modified but still<br>support substantial<br>ecological attributes<br>and functions | Priority wetlands. Ultimate objective is to manage, restore and protect towards improving their conservation value. These wetlands have the potential to be restored to Conservation category. This can be achieved by restoring wetland function, structure and biodiversity.  Protection is recommended through a number of mechanisms. |
| Multiple use           | Wetlands with few remaining important attributes and functions   | Use, development and management should be considered in the context of ecologically sustainable development and best management practice catchment planning through Landcare.   |

For a full explanation of the scoring system or any terms used in the attached reports, please refer to the methodology document (Jones, et al., 2009), which is available on the Avon Natural Diversity website < www.avonnaturaldiversity.org > ND001 Baselining > Wetlands. The Avon Stage 3 wetland evaluation methodology has been endorsed by the State Wetlands Coordinating Committee (WCC), which ensures it is consistent with other wetland evaluation methodologies produced throughout the State.

## 2. Stage 3 assessment reports for 28 wetlands in the Avon NRM region

Site Name: ABP032

Site Code: Drummond Lake #1 @ Old Plains Road

Latitude: -31.3269 Longitude: 116.4025

Date Assessed: 11/09/2007, 06/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Freshwater basin

## Site summary

This wetland is in near pristine condition and has particular value in the diversity of vegetation and invertebrate species that it supports. There is a Priority Ecological Community as well as Declared Rare and Priority plant species occurring at this wetland.

## **Site Photos**







## Automatic Conservation category criteria evaluation

| 1 | Is the wetland identified under any of the following agreements?  Ramsar Convention on wetlands  State Government endorsed candidate sites for the Ramsar Convention on Wetlands  Directory of Important Wetlands  Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998  World/National Heritage listings | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet one of the following criteria?   | Yes                    |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>   | ✓                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>  | ×                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | ×                      |
| 3 | <ul> <li>Does the wetland meet <u>two</u> of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:</li> </ul>  | Yes                    |
|   | is the best known representative of the wetland group in the catchment   | ✓                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x DR, 2 x P4</li> </ul>  | <b>√</b>               |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community. Priority 2 EC</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute. Freshwater</li> </ul>   | ✓                      |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>  | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

Yes

|  | Site                   | e Evaluation   |                      |   |
|--|------------------------|--|----------------------|---|
| Naturalness  |                        |  |                      |   |
| a Modification to Water Chemistry  | Reading                | <u>Comments</u>  | Index<br>Score       | Indicator<br>Score                      |
| рН   |                        | - pH is a little acidic for a freshwater wetland.  | 2                    |   |
| Salinity (g/L)   | 0.099                  | -  | 3                    |   |
| Total Soluble N (µg/L)   | 1000                   | -  | 3                    | 0.07                                    |
| Final Score for modification to water  | <sup>-</sup> chemistry |  |                      | 2.67                                    |
| b Modification to vegetation   |                        |  |                      |   |
| Regenerative capacity  | - Species expe         | ected to be recruiting were doing so.  | 3                    |   |
| Weed invasion  |                        | ecies present but not significant.   | 3                    |   |
| Structure  |                        | elements expected were present.  | 3                    |   |
| State  | _                      | tress in the vegetation.   | 3                    |   |
| Final Score for modification to vege   | tation                 |  |                      | 3.00                                    |
| c Other disturbances   |                        |  |                      |   |
| Adjustment to score  | - No other phys        | sical disturbances at the wetland.   |                      | 0.00                                    |
| Final naturalness score = ave  | erage (water che       | emistry, vegetation) – other disturbances  |                      | <u>2.8</u>                              |
| Diversity  |                        |  |                      |   |
| a Habitat diversity  | # Habitats             | Comments   | Index                | Indicato                                |
| Final score for habitat diversity  | 5                      | <del></del>  | <u>Score</u>         | <u>Score</u><br>2.00                    |
| b Flora richness   | # Species              |  |                      |   |
| No. submerged species  |                        | - E.g. Eleocharis keigheryi, Hydrocotyle   | 3                    |   |
| ·  |                        | lemnoides, Schoenus natans.  | -                    |   |
| No. emergent species   |                        | - E.g. Melaleuca lateritia.  | 3                    |   |
| No. fringing species  Final flora richness score   | 4                      | - E.g. Centrolepis alepyroides.  | 2                    | 2.67                                    |
| c Fauna richness   | # Species              | •  |                      | *************************************** |
| Invertebrates  | 45                     | - Species level identification of micro- and   | 2                    |   |
|  | -                      | macro- invertebrates.  | _                    |   |
| Waterbirds Other native wetland fauna observed   | 0                      | Tadpolog observed  | 1<br>3               |   |
| Final fauna richness score   | 1                      | -Tadpoles observed.  | 3                    | 2.00                                    |
|  | ao (hahitat diyo       | sity, flora richness, fauna richness)  |                      | 2.2                                     |
| Significance   | je (Habitat Giver      | Sity, nota riciniess, fauna riciniess)   |                      | <u>2.2</u>                              |
| <ul> <li>Does the wetland have a consumptive</li> </ul>  | e use value?           | - Although this site is freshwater, it is not or PDWSA or used for consumption.            | urrently in a        | ×                                       |
| Does the wetland have a recreational   | value?                 | -  |                      | ×                                       |
| Does the wetland have a spiritual/phil   | losophical value?      | _  |                      | ×                                       |
| Does the wetland perform an ecosyst  | em service?            | -  |                      | ×                                       |
| <ul> <li>Does the wetland have a scientific/ed</li> </ul>  | ucational value?       |  | ct of quite a        | ✓                                       |
| Does the wetland have a vegetation of  | connectivity           | few studies.  - This wetland has good vegetation connection.                               | tions with           | ,                                       |
| value?  Does the wetland have a representation of the second of the seco | •                      | another freshwater wetland in the same res<br>- This wetland is in very good condition and | serve.<br>d although | <b>√</b>                                |
|  |                        | not all wetlands in this catchment have been it is likely to be one of the best condition  | en sampled,          | ✓                                       |
|  | Fina                   | representatives.   |                      |   |
| verage diversity and naturalness score   |                        |  | 2.53                 |   |
| itial wetland management category (avera   |                        | and diversity >2.3 = Conservation,   | N/A                  |   |
| 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is ungraded to Resource Enhancement enterprised by the applicable?  |                        |  |                      |   |
|  |                        |  | No                   |   |
| the wetland is in the Multiple Use categor<br>is upgraded to Resource Enhancement ca<br>inal wetland management category   |                        |  | No<br>Conserva       | ntion                                   |

Site Name: ABP041

Site Code: Dobaderry Swamp at Dobaderry Nature Reserve

Latitude: -32.2009 Longitude: 116.6078

Date Assessed: 14/09/2007, 29/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Freshwater basin

## Site summary

This freshwater swamp is in quite good condition. There is a very high diversity of invertebrates and plants and the water quality is good. Some of the Melaleuca's appear stressed for causes unknown. There were five Priority plant species recorded and the presence of Melaleuca lateritia over herbs makes this a Priority Ecological Community.

This has not been formally recognised yet.

## **Site Photos**







| Automotic | Concorvation | category criteria | ovaluation |
|-----------|--------------|-------------------|------------|
|           |              |                   |            |

|   | Automatic Conservation category criteria evaluation  |              |
|---|--|--------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings. Within the boundary of a Register of the National Estate site – Wandoo Reserve</li> </ul> | Yes  x  x  x |
| 2 | Does the wetland meet one of the following criteria?   | Yes          |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ✓            |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×            |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×            |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | ×            |
| 3 | Does the wetland meet <u>two</u> of the following criteria?  • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and:   | Yes          |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x P2, 2 x P3, 2 x P4</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community. Priority 2 EC.</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>                         | ✓<br>✓<br>×  |
|   | The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute. Freshwater   | ✓            |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | *            |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | *            |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

Yes

|          |  | Sit              | e Evaluation   |                   |                      |
|----------|--|------------------|--|-------------------|----------------------|
| Na       | turalness  |                  |  |                   |                      |
|          |  | D "              |  | Index             | Indicator            |
| а        | Modification to Water Chemistry pH   | Reading<br>6.8   | <u>Comments</u>  | <u>Score</u><br>3 | <u>Score</u>         |
|          | Salinity (g/L)   | 0.097            | _  | 3                 |                      |
|          | Total Soluble N (μg/L)   | 1000             | <u>_</u>   | 3                 |                      |
|          | Final Score for modification to water                                      |                  |  | O                 | 3.00                 |
| <b>h</b> | Modification to vegetation   |                  |  |                   |                      |
| b        |  |                  |  | _                 |                      |
|          | Regenerative capacity  |                  | ected to be recruiting were doing so.  | 3                 |                      |
|          | Weed invasion  |                  | pecies present but not significant.  | 3                 |                      |
|          | Structure  |                  | elements expected were present.  | 3                 |                      |
|          | State Final Score for modification to veget                                |                  | Melaleuca's showing signs of stress.   | 2                 | 2.75                 |
|          |  | aliuri           |  |                   | 2.75                 |
| С        | Other disturbances   |                  |  |                   |                      |
|          | Adjustment to score  | - No other phy   | ysical disturbances at the wetland.  |                   | 0.00                 |
|          | Final naturalness score = ave  | rage (water ch   | emistry, vegetation) – other disturbances  |                   | <u>2.8</u>           |
| Div      | versity  |                  |  |                   |                      |
| а        | Habitat diversity  | # Habitats       | Comments   | Index             | Indicato             |
|          | Final score for habitat diversity  | 5                |  | <u>Score</u>      | <u>Score</u><br>2.00 |
| <b>b</b> |  |                  |  |                   | 2.00                 |
| b        | Flora richness   | # Species        | E. a. Undragatula la manaidae. Cabacania   |                   |                      |
|          | No. submerged species  | 7                | - E.g. Hydrocotyle lemnoides, Schoenus natans.   | 3                 |                      |
|          | No. emergent species   | 10               | - E.g. Lilaeopsis polyantha.   | 3                 |                      |
|          | No. fringing species   | 10               | - E.g. Blennospora phlegmatocarpa.   | 3                 |                      |
|          | Final flora richness score   |                  |  |                   | 3.00                 |
| С        | Fauna richness   | # Species        |  |                   |                      |
|          | Invertebrates  | 53               | - Species level identification of micro- and macro- invertebrates.                         | 2                 |                      |
|          | Waterbirds   | 0                | -  | 1                 |                      |
|          | Other native wetland fauna observed  | 0                | -  | N/A               |                      |
|          | Final fauna richness score   | -                |  |                   | 1.50                 |
|          | Final diversity score = average  | e (habitat dive  | ersity, flora richness, fauna richness)  |                   | 2.                   |
| Si       | gnificance   | .,               |  |                   |                      |
| •        | Does the wetland have a consumptive  | use value?       | - Although this site is freshwater, it is not of PDWSA or used for consumption.            | urrently in a     | ×                    |
| •        | Does the wetland have a recreational                                       | value?           |  |                   | *                    |
| •        | Does the wetland have a spiritual/philo                                    | osophical value  | ? -  |                   | *                    |
| •        | Does the wetland perform an ecosyste                                       |                  | -  |                   | ×                    |
| •        | Does the wetland have a scientific/edu                                     | ucational value? | •  | ect of quite a    | ✓                    |
|          | Does the wetland have a vegetation co                                      | onnectivity      | few studies.  - This wetland has good vegetation conne                                     | ctions with       |                      |
| •        | value?  Does the wetland have a representative                             | •                | the surrounding Nature Reserve.  - This wetland is in very good condition an               |                   | ✓                    |
|          | ,  |                  | not all wetlands in this catchment have be<br>it is likely to be one of the best condition |                   | ✓                    |
|          |  | Fin              | representatives.  al Evaluation  |                   |                      |
| era      | ge diversity and naturalness score   |                  |  | 2.52              |                      |
|          | wetland management category (average 2.3 = Resource Enhancement, <1.67 = N |                  | s and diversity >2.3 = Conservation,   | N/A               |                      |
| the      | wetland is in the Multiple Use category pgraded to Resource Enhancement ca | and has an ed    |  | No                |                      |
|          | wetland management category  | go. y. 10 till3  |  | Conserva          | tion                 |
| ııal     | wettand management category  |                  |  | CONSCIVA          | OII                  |
|          |  |                  |  |                   |                      |

Site Name: Saline lake at Kuender Road Nature Reserve

Site Code: ABP101 Latitude: -32.9601 Longitude: 118.4993

Date Assessed: 08/09/2008, 15/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

## Site summary

This naturally saline wetland is slightly unusual in that surface runoff coming into the northern side of the wetland is off granite. There were 2 Priority plant species recorded and the brine shrimp, Parartemia extracta, which has a restricted distribution.

## **Site Photos**







#### **Automatic Conservation category criteria evaluation**

|   | Automatic Conservation category criteria evaluation  |                             |
|---|--|-----------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>*<br>* |
| 2 | Does the wetland meet <u>one</u> of the following criteria?  • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the  | No                          |
|   | Bush Forever scale.  • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever  | ×                           |
|   | scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the State Government.   | ×                           |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                           |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *                           |
| 3 | <ul> <li>Does the wetland meet <u>two</u> of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:</li> </ul>  | No                          |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | *                           |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>   | √<br>×                      |
|   | <ul> <li>supports an identified occurrence of a Friority For 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×                           |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×                           |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>  | ×                           |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                           |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|   |               |  | Sit             | te Evaluation   |              |                      |  |
|---|---------------|--|-----------------|---|--------------|----------------------|--|
| 1   | 1 Naturalness |  |                 |   |              |                      |  |
| •   | INd           |  |                 |   | Index        | Indicator            |  |
|   | а             | Modification to Water Chemistry  | Reading         | <u>Comments</u>   | Score<br>2   | <u>Score</u>         |  |
|   |               | pH<br>Salinity (g/L)   | 8.8<br>63       | -<br>-  | N/A          |                      |  |
|   |               | Total Soluble N (µg/L)   | 1500            | -   | 2            |                      |  |
|   |               | Final Score for modification to water  |                 |   |              | 2.00                 |  |
|   | b             | Modification to vegetation   |                 |   |              | •                    |  |
|   |               | Regenerative capacity  |                 | of some <i>Tecticornia</i> and other small shrubs                   | 2.3          |                      |  |
|   |               | Weed invasion  | observed.       | ent but not significant.  | 3.0          |                      |  |
|   |               | Structure  |                 | ural layers missing at lower elevations.                            | 1.7          |                      |  |
|   |               | State  |                 | ent in taller shrubs and some <i>Tecticornia</i> .                  | 1.7          |                      |  |
|   |               | Final Score for modification to veget  | tation          |   |              | 2.17                 |  |
|   | С             | Other disturbances   |                 |   |              |                      |  |
|   |               | Adjustment to score  |                 | -   |              | 0.00                 |  |
|   |               | Final naturalness score = ave  | rage (water ch  | nemistry, vegetation) – other disturbances                          |              | <u>2.08</u>          |  |
| 2   | Di            | versity  |                 |   |              |                      |  |
|   | а             | Habitat diversity  | # Habitats      | <u>Comments</u>   | Index        | Indicator            |  |
|   |               | Final score for habitat diversity  | 5               | -   | <u>Score</u> | <u>Score</u><br>2.00 |  |
|   | b             | Flora richness   | # Species       |   |              |                      |  |
|   |               | No. submerged species  | 2               | - Lepilaena cylindrocarpa and Ruppia<br>maritima.                   | 3            |                      |  |
|   |               | No. emergent species   | 2               | - Prasophyllum gracile, Sarcocornia quiqueflora.                    | 3            |                      |  |
|   |               | No. fringing species   | 17              | - E.g. Blennospora phlegmatocarpa,                                  | 3            |                      |  |
|   |               | Final flora richness score   |                 | Frankenia drummondii.   | -            | 3.00                 |  |
|   | С             | Fauna richness   | # Species       |   |              |                      |  |
|   |               | Invertebrates  | 18              | - Parartemia extracta recorded, this species                        | 3            |                      |  |
|   |               |  |                 | has a limited distribution. Species level ID's Australian Shelduck. |              |                      |  |
|   |               | Waterbirds Other native wetland fauna observed                                 | 1<br>0          | - Australian Shelduck.  | 2            | 2.50                 |  |
|   |               | Final fauna richness score   | U               | -   |              | 2.30                 |  |
|   |               | Final diversity score = averag   | e (habitat dive | ersity, flora richness, fauna richness)                             |              | <u>2.50</u>          |  |
| 3   | Si            | gnificance   | <u> </u>        | <u> </u>  |              |                      |  |
| -   | •             | Does the wetland have a consumptive  | use value?      | -   |              | ×                    |  |
|   | •             | Does the wetland have a recreational   |                 | -   |              | ×                    |  |
|   | •             | Does the wetland have a spiritual/phile  | osophical value | -   |              | ×                    |  |
|   | •             | Does the wetland perform an ecosyste   |                 | -   |              | ×                    |  |
|   | •             | Does the wetland have a scientific/edu<br>Does the wetland have a vegetation c |                 | <ul> <li>Yes. Vegetation is well connected to n</li> </ul>          | earby flat   | *                    |  |
|   |               | value?  Does the wetland have a representation                                 | veness value?   | areas and the nature reserve.                                       | •            | <b>v</b>             |  |
|   | Ť             | Does the wetland have a representati   |                 | al Evaluation   |              | *                    |  |
| A   | vera          | ge diversity and naturalness score   |                 |   | 2.29         | )                    |  |
| In  | itial         | wetland management category (avera<br>2.3 = Resource Enhancement, <1.67 = I    |                 | s and diversity >2.3 = Conservation,                                | Resource Ent | nancement            |  |
| lf  | the           | wetland is in the Multiple Use category  | and has an e    | cosystem or human significance, then                                | N/A          | 1                    |  |
| it is upgraded to Resource Enhancement category. Is this applicable?  Final wetland management category  Resource Enhancement |               |  |                 |   |              | nancement            |  |
|   | aı            |  |                 |   |              | oomont               |  |

Site Name: Saline lake at King Rocks Rd

Site Code: ABP102 Latitude: -32.3554 Longitude: 119.1346

Date Assessed: 09/09/2008, 14/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

## Site summary

Although this naturally saline wetland has relatively poor water quality, the surrounding vegetation is in good condition and has good connections to surrounding wetlands. One Priority plant species was collected.

## **Site Photos**







## **Automatic Conservation category criteria evaluation**

|   | Automatio Conservation Successify Stricture evaluation  |     |
|---|---|-----|
| 1 | Is the wetland identified under any of the following agreements?  | No  |
|   | Ramsar Convention on wetlands   | ×   |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×   |
|   |   | ×   |
|   | 2 mosterly of miliportant of outlines   | ×   |
|   | <ul> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>   | ~   |
|   | World/National Heritage listings  | ×   |
|   |   |     |
| 2 | Does the wetland meet <u>one</u> of the following criteria?   | Yes |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>  | ✓   |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | *   |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | *   |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | ×   |
| 3 | Does the wetland meet two of the following criteria?  | No  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |     |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>  | ×   |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x P3</li> </ul>   | ✓   |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and</li> </ul>   | ×   |
|   | geoconservation   | -   |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | ×   |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | *   |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | ×   |
|   | ••  |     |

|   |  |  | S               | ite Evaluation  |                     |                      |  |
|---|--|--|-----------------|---|---------------------|----------------------|--|
| 1   | 1 Naturalness  |  |                 |   |                     |                      |  |
|   |  |  | Reading         | Comments  | Index               | Indicator            |  |
|   | а  | Modification to Water Chemistry pH   | 3.5             | - Unsure if this is natural or not, taken                               | <u>Score</u><br>N/A | <u>Score</u>         |  |
|   |  | •  |                 | precautionary approach and not scored pH.                               |                     |                      |  |
|   |  | Salinity (g/L)   | 73<br>3800      | -   | N/A<br>1            |                      |  |
|   |  | Total Soluble N (μg/L)  Final Score for modification to water                  |                 | - Unsure of the source of nitrogen.                                     | ı                   | 1.00                 |  |
|   | <br>h  |  | onennony        |   |                     | 1.00                 |  |
|   | b  | Modification to vegetation   | 0               |   | 4 7                 |                      |  |
|   |  | Regenerative capacity Weed invasion  |                 | uitment of <i>Tecticornia</i> occurring.                                | 1.7                 |                      |  |
|   |  | Structure  | -               | cies present but not significant.<br>tural layers expected are present. | 3.0<br>2.7          |                      |  |
|   |  | State  |                 | b species showing signs of stress.                                      | 2.7                 |                      |  |
|   |  | Final Score for modification to veget  |                 | b species showing signs of stress.                                      | 2.0                 | 2.42                 |  |
|   | <br>С  | Other disturbances   |                 |   |                     |                      |  |
|   |  | Adjustment to score  |                 | ng along edge of wetland would impact upon on communities on that side. |                     | 0.17                 |  |
|   |  | Final naturalness score = ave  | rage (water c   | chemistry, vegetation) – other disturbances                             |                     | <u>1.54</u>          |  |
| 2   | Div  | rersity  |                 |   |                     |                      |  |
|   | а  | Habitat diversity  | # Habitats      | Comments  | Index               | Indicator            |  |
|   |  | Final score for habitat diversity  | 4               | -   | <u>Score</u>        | <u>Score</u><br>2.00 |  |
|   | b  | Flora richness   | # Species       |   |                     |                      |  |
|   |  | No. submerged species  | 0               | _   | N/A                 |                      |  |
|   |  | No. emergent species   | 2               | - E.g. Tecticornia aff halocnemoides                                    | 3                   |                      |  |
|   |  | No. fringing species   | 7               | - E.g. Blennospora phlegmatocarpa                                       | 1                   |                      |  |
|   |  | Final flora richness score   |                 |   |                     | 2.00                 |  |
|   | С  | Fauna richness   | # Species       |   |                     | ••••                 |  |
|   |  | Invertalization  | 0               | - Species level identification of micro- and                            | 0                   |                      |  |
|   |  | Invertebrates  | 8               | macro- invertebrates.   | 2                   |                      |  |
|   |  | Waterbirds   | 0               | -   | 1                   |                      |  |
|   |  | Other native wetland fauna observed  | 0               | <del>-</del>  | N/A                 | 1 50                 |  |
|   |  | Final fauna richness score   |                 |   |                     | 1.50                 |  |
|   |  |  | ie (habitat div | versity, flora richness, fauna richness)                                |                     | <u>1.83</u>          |  |
| 3   | Si   | gnificance   |                 |   |                     |                      |  |
|   | •  | Does the wetland have a consumptive  |                 | -   |                     | ×                    |  |
|   | •  | Does the wetland have a recreational   |                 | -   |                     | *                    |  |
|   | •  | Does the wetland have a spiritual/phile  | =               | le? -   |                     | ×<br>×               |  |
|   | •  | Does the wetland perform an ecosyste<br>Does the wetland have a scientific/edu |                 | -<br>-?   |                     | ×                    |  |
|   | •  | Does the wetland have a vegetation c   |                 | <ul> <li>Extensive vegetation connections with the</li> </ul>           | nature              | √                    |  |
|   | _  | value?   | -               | reserve that contains other salt lakes.                                 |                     | •                    |  |
|   | •  | Does the wetland have a representati   | veness value?   | <del>-</del>  |                     | ×                    |  |
|   |  |  | Fi              | nal Evaluation  |                     |                      |  |
|   |  | ge diversity and naturalness score   |                 |   | 1.6                 | 9                    |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  N/A |  |  |                 |   | 4                   |                      |  |
|   | If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |  |                 |   |                     | A                    |  |
| Fin   | al v   | vetland management category  |                 |   | Conserv             | /ation               |  |
|   |  |  |                 |   |                     |                      |  |

Site Name: Saline lake at East Hyden Road

Site Code: ABP103 Latitude: Private property Longitude: Private property

Date Assessed: 09/09/2008, 15/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

## **Site Photos**

## Site summary

This naturally saline wetland is degraded, most likely due to salinisation and grazing. The water is acidic and supports few aquatic invertebrates. Two Priority plant species were collected. Structure and composition of vegetation closest to shoreline has been significantly altered.







#### Automatic Conservation category criteria evaluation

|    | Automatic Conservation category criteria evaluation  |              |
|----|--|--------------|
| 1  | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> </ul>              | No<br>×<br>× |
|    | Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998  | ×            |
|    | World/National Heritage listings   | *            |
| 2  | Does the wetland meet one of the following criteria?   | No           |
|    | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×            |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×            |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×            |
|    | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *            |
| 3  | Does the wetland meet two of the following criteria?   | No           |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>  |              |
|    | ■ is the best known representative of the wetland group in the catchment   | ×            |
|    | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>   | √<br>*       |
|    | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | *            |
|    | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×            |
|    | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | *            |
|    | The wetland supports cultural values that are based on natural attributes or functions.  | *            |
| ls | the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?  | No           |

|  |  |   | Cit             | te Evaluation  |                   |                      |  |  |
|--|--|---|-----------------|--|-------------------|----------------------|--|--|
|  | NI   | uwalna sa   | Sit             | e Evaluation   |                   |                      |  |  |
| 1  | Na   | turalness   |                 |  | Index             | Indicator            |  |  |
|  | а  | Modification to Water Chemistry pH  | Reading<br>3.6  | Comments - Acidity unlikely to be natural.                                     | <u>Score</u><br>1 | <u>Score</u>         |  |  |
|  |  | Salinity (g/L)  | 3.6<br>110      | - Acidity utilikely to be flatural.  | N/A               |                      |  |  |
|  |  |   | 2200            | - High nitrogen levels possibly a result of                                    | 2                 |                      |  |  |
|  |  | Total Soluble N (μg/L)  |                 | runoff from crops.   | 2                 | 4.50                 |  |  |
|  |  | Final Score for modification to water   | chemistry       |  |                   | 1.50                 |  |  |
|  | b  | Modification to vegetation  |                 |  |                   |                      |  |  |
|  |  | Regenerative capacity   | -               | cruitment of native plant taxa observed.                                       | 1.0               |                      |  |  |
|  |  | Weed invasion   |                 | e significant in one quadrat<br>yers were missing in areas at lower            | 2.3               |                      |  |  |
|  |  | Structure   | elevations.     | yers were missing in areas at lower  | 1.3               |                      |  |  |
|  |  | State   | - Taller shrub  | s particularly stressed.   | 2.0               |                      |  |  |
|  |  | Final Score for modification to veget   | ation           |  |                   | 1.67                 |  |  |
|  | С  | Other disturbances  |                 |  |                   |                      |  |  |
|  |  | Adjustment to score   |                 | g through edge of wetland and recent ork, would be affecting veg. communities. |                   | 0.17                 |  |  |
|  |  | Final naturalness score = ave   | rage (water ch  | nemistry, vegetation) – other disturbances                                     |                   | <u>1.41</u>          |  |  |
| 2  | Div  | ersity  |                 |  |                   |                      |  |  |
|  | а  | Habitat diversity   | # Habitats      | <u>Comments</u>  | Index             | Indicator            |  |  |
|  |  | Final score for habitat diversity   | 3               | _  | <u>Score</u>      | <u>Score</u><br>1.00 |  |  |
|  | b  | Flora richness  | # Species       |  |                   |                      |  |  |
|  |  | No. submerged species   | 0               | -  | N/A               |                      |  |  |
|  |  | No. emergent species  | 1               | - Tecticornia aff halocnemoides.   | 2                 |                      |  |  |
|  |  | No. fringing species  | 13              | - E.g. Blennospora phlegmatocarpa.   | 2                 |                      |  |  |
|  | -  | Final flora richness score  |                 |  |                   | 2.00                 |  |  |
|  | С  | Fauna richness  | # Species       |  |                   |                      |  |  |
|  |  | Invertebrates   | 4               | - Species level identification of micro- and                                   | 1                 |                      |  |  |
|  |  | Waterbirds  | 1               | macro- invertebrates Australian Shelduck.                                      | 2                 |                      |  |  |
|  |  | Other native wetland fauna observed   | 0               | -  | N/A               |                      |  |  |
|  |  | Final fauna richness score  |                 |  |                   | 1.50                 |  |  |
|  |  | Final diversity score = averag  | e (habitat dive | ersity, flora richness, fauna richness)  |                   | <u>1.50</u>          |  |  |
| 3  | Si   | gnificance  |                 |  |                   |                      |  |  |
|  | •  | Does the wetland have a consumptive   | use value?      | -  |                   | ×                    |  |  |
|  | •  | Does the wetland have a recreational  | value?          | -  |                   | ×                    |  |  |
|  | •  | Does the wetland have a spiritual/philo   | •               | -  |                   | ×                    |  |  |
|  | •  | Does the wetland perform an ecosyste  |                 | -  |                   | *                    |  |  |
|  | •  | Does the wetland have a scientific/edu<br>Does the wetland have a vegetation of |                 | <ul> <li>This site has reasonable vegetation or</li> </ul>                     | onnections with   | ×                    |  |  |
|  | •  | value?  | OfficeCtivity   | nearby wetlands.   | onnections with   | ✓                    |  |  |
|  | •  | Does the wetland have a representative  | veness value?   | -  |                   | ×                    |  |  |
|  |  |   | Fin             | al Evaluation  |                   |                      |  |  |
| Α۱   | /era   | ge diversity and naturalness score  |                 |  | 1.46              |                      |  |  |
|  | Initial wetland management category (average naturalness and diversity >2.3 = Conservation,<br>1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use) Multiple Use |   |                 |  |                   |                      |  |  |
| If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |  |   |                 |  |                   |                      |  |  |
| Fi   | nal v  | vetland management category   |                 |  | Resource Enha     | ancement             |  |  |
|  |  |   |                 |  |                   |                      |  |  |

Site Name: Freshwater reservoir at Koorda-Bencubbin Rd

Site Code: ABP104 Latitude: Private property Longitude: Private property

Date Assessed: 10/09/2008, 10/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland

Biological classification: Artificial reservoir, assessed as freshwater basin

## Site summary

This reservoir, although artificial, appears to be a refuge for breeding waterbird species and frogs. Other faunal and floral diversity was low.

## Site Photos







#### Automatic Conservation category criteria evaluation

|   | Automatic Conservation category criteria evaluation   |              |
|---|---|--------------|
| 1 | Is the wetland identified under any of the following agreements?  Ramsar Convention on wetlands  State Government endorsed candidate sites for the Ramsar Convention on Wetlands  | No<br>×<br>× |
|   | <ul> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>  | *<br>*       |
|   | World/National Heritage listings  | ×            |
| 2 | Does the wetland meet one of the following criteria?  | No           |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>  | *            |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×            |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×            |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | ×            |
| 3 | Does the wetland meet <b>two</b> of the following criteria?   | No           |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |              |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> </ul>  | ×            |
|   | <ul> <li>supports an identified occurrence of a Declared Hare of Priority 1, 2, 3 of 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>   | ×            |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and<br/>geoconservation</li> </ul>  | ×            |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute. Freshwater, but this criteria excludes artificial reservoirs.</li> </ul>   | ×            |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>   | ×            |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | *            |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|    |      |   | S              | Site Evaluation  |                       |                      |
|----|------|---|----------------|--|-----------------------|----------------------|
| 1  | Na   | turalness   |                | The Evaluation   |                       |                      |
| •  | a    | Modification to Water Chemistry   | Reading        | Comments   | <u>Index</u><br>Score | Indicator<br>Score   |
|    |      | pH  | 7.0            | -  | 3                     | · <u></u>            |
|    |      | Salinity (g/L)  | 0.28           | -  | 3                     |                      |
|    |      | Total Soluble N (μg/L)  | 3300           | <ul> <li>High nitrogen levels likely to be from<br/>agricultural runoff through creek system.</li> </ul>         | 1                     |                      |
|    |      | Final Score for modification to water                                       | chemistry      | agricultural furion through creek system.  |                       | 2.33                 |
|    | b    | Modification to vegetation  |                |  |                       |                      |
|    |      | Regenerative capacity   | - Little recru | itment of natives observed.  | 1.0                   |                      |
|    |      | Weed invasion   |                | ere significant in dryland areas.  | 2.0                   |                      |
|    |      | Structure   |                | ctural elements missing.   | 1.0                   |                      |
|    |      | State   | - Remaining    | y vegetation doesn't appear stressed.  | 2.5                   |                      |
|    |      | Final Score for modification to vege  | tation         |  |                       | 1.63                 |
|    | С    | Other disturbances  |                |  |                       | •••                  |
|    |      | Adjustment to score   | - Damming,     | little fringing vegetation remaining.  |                       | 0.33                 |
|    |      | Final naturalness score = ave   | rage (water o  | chemistry, vegetation) – other disturbances  |                       | <u>1.65</u>          |
| 2  | Div  | versity   |                |  |                       |                      |
|    | а    | Habitat diversity   | # Habitats     | Comments   | <u>Index</u>          | Indicator            |
|    |      | Final score for habitat diversity   | 8              | - Good diversity of habitats.  | <u>Score</u>          | <u>Score</u><br>3.00 |
|    | b    | Flora richness  | # Species      |  |                       |                      |
|    | ~    |   | 0              |  | N/A                   |                      |
|    |      | No. submerged species  No. emergent species                                 | 3              | - E.g. Casuarina obesa, Juncus aridicola.  | 2                     |                      |
|    |      | No. fringing species  | 1              | <ul> <li>L.g. Casuarria obesa, suricus anucora.</li> <li>1 native species – Lachnagrostis filiformis.</li> </ul> | 1                     |                      |
|    |      | Final flora richness score  | •              | Thative species Laciniagiosus illioiniis.  |                       | 1.50                 |
|    | С    | Fauna richness  | # Species      |  |                       |                      |
|    | C    | rauna nomicos   | # Орссісз      | - Species level identification of micro- and   |                       |                      |
|    |      | Invertebrates   | 25             | macro- invertebrates.  | 1                     |                      |
|    |      | Waterbirds  | 5              | - Includes breeding Black-tailed Native Hen.   | 2                     |                      |
|    |      | Other native wetland fauna observed   | 1              | - Many Bullfrog tadpoles observed.   | 3                     |                      |
|    |      | Final fauna richness score  |                |  |                       | 2.00                 |
|    |      | Final diversity score = averag  | e (habitat di  | versity, flora richness, fauna richness)   |                       | <u>2.17</u>          |
| 3  | Si   | gnificance  |                |  |                       |                      |
|    | •    | Does the wetland have a consumptive   | use value?     | - Likely as it is freshwater and a reservo   | ir.                   | ✓                    |
|    | •    | Does the wetland have a recreational  | value?         | -  |                       | ×                    |
|    | •    | Does the wetland have a spiritual/phile                                     | •              | ue? -  |                       | ×                    |
|    | •    | Does the wetland perform an ecosyste  |                | -  |                       | ×                    |
|    | •    | Does the wetland have a scientific/edi                                      |                | e? -   |                       | ×                    |
|    | •    | Does the wetland have a vegetation c value?                                 | onnectivity    | -  |                       | ×                    |
|    | •    | Does the wetland have a representati  | veness value?  | ?  |                       | ×                    |
|    |      |   | F              | inal Evaluation  |                       |                      |
| A۱ | vera | ge diversity and naturalness score  |                |  | 1.9                   | 1                    |
|    |      | wetland management category (avera<br>2.3 = Resource Enhancement, <1.67 = I |                |  | Resource En           | nancement            |
|    |      | wetland is in the Multiple Use category                                     |                | ecosystem or human significance, then s applicable?  | N/A                   | ١                    |
|    |      | wetland management category   |                |  | Resource En           | nancement            |
|    |      |   |                |  |                       |                      |

Site Name: Saline lake at Sharman Road

Site Code: ABP105 Latitude: -30.7349 Longitude: 117.3365

Date Assessed: 11/09/2008, 9/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

## **Site Photos**

## Site summary

This naturally saline wetland was mostly surrounded by nature reserve although it appeared there was some runoff from agricultural land on the western side. Water quality and faunal diversity were low. Vegetation appeared stressed in areas adjacent to the waters edge.







#### **Automatic Conservation category criteria evaluation**

|   | Automatic Conservation category criteria evaluation   |                   |
|---|---|-------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul>  | No                |
| 2 | <ul> <li>Does the wetland meet one of the following criteria?</li> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the Bush Forever scale.</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the</li> </ul>  | No<br>×           |
|   | <ul> <li>State Government.</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.</li> </ul>  | ×                 |
| 3 | <ul> <li>Does the wetland meet two of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and:         <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul> </li> </ul> | No<br>×<br>×<br>× |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute.</li> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.</li> <li>The wetland supports cultural values that are based on natural attributes or functions.</li> </ul>   | *<br>*<br>*       |

| A Modification to Water Chemistry pt 1   |   | Sit                | te Evaluation                                |              |           |  |  |
|--|---|--------------------|--|--------------|-----------|--|--|
| a Modification to Water Chemistry Planding pH 3.5 - This is not likely to be naturally acidic. 1 A Salinity (grL) 8 B  | 1 Naturalness   |                    |  |              | l         |  |  |
| pH Salinity (grL) 81 Salinity (grL) 81 Total Soluble N (ugrL) 5300 result of runoff from crops on western side. 1 Final Score for modification to water chemistry 1.00  Modification to vegetation 1.00 Repensative capacity Recruitment observed for some shrub and herb species. 1.7 Weed invasion - Weeds were not significant. 2.7 Structure - Upper shrub layer of beach zones missing. 1.3 State - Final Score for modification to vegetation 1.2 Final Score for modification to vegetation 1.3 State - Final Score for modification to vegetation 1.3 State - Final Score for modification to vegetation 1.75  C Other disturbances Adjustment to score - Adjustment to score - Adjustment to score - Final naturalness score = average (water chemistry, vegetation) - other disturbances 1.3  Diversity - Final score for habitat diversity # Habitats Comments  |   | Dooding            | Comments                                     |              |           |  |  |
| Salinity (g/L) 81 Total Soluble N (µg/L) 5300 - Very high nitragen levels, likely to be a result of runoff from crops on western side. 1 Final Score for modification to weater chemistry.    b   Modification to vegetation   |   |                    |  |              | Score     |  |  |
| Total Soluble N (µg/L) 5900 result of runoff from crops on western side.  Final Score for modification to water chemistry    Modification to vegetation   New Year of Pach   New Year of | •   |                    | -  | -            |           |  |  |
| Final Score for modification to water chemistry    Final Score for modification to water chemistry   Final Score for modification to water chemistry   Medification to vegetation   Regenerative capacity   Recruitment observed for some shrub and herb species.   1.7  | , ,   | F200               | - Very high nitrogen levels, likely to be a  | 1            |           |  |  |
| Begenerative capacity - Recruitment observed for some shrub and herb species. 1.7 Regenerative capacity - Recruitment observed for some shrub and herb species. 1.7 Weed invasion - Weeds were not significant. 2.7 Structure - Upper shrub layer of beach zones missing. 1.3 State - Upper and middle shrub layers very stressed. 1.3 Final Score for modification to vegetation - 1.75  c Other disturbances Adjustment to score Final naturalness score = average (water chemistry, vegetation) - other disturbances  2 Diversity  a Habitat diversity # Habitats Comments Score Score Score 1.00 Final score for habitat diversity 3 Comments Score 1.00 Final score for habitat diversity 3 Score 1.00  b Flora richness No. submerged species 0 No. emergent species 1 - Tecticornia aff halocnemoides 2 No. fringing species 1 - Tecticornia aff halocnemoides 2 No. fring | • /   |                    | result of runoff from crops on western side. | ·            | 4.00      |  |  |
| Regenerative capacity - Recruitment observed for some shrub and herb species. 1.7 Weed invasion - Weeds were not significant. 2.7 Structure - Upper shrub layer of beach zones missing. 1.3 State - Upper and middle shrub layers very stressed. 1.3 Final Score for modification to vegetation - 1.75  C Other disturbances Adjustment to score - average (water chemistry, vegetation) - other disturbances Final naturalness score = average (water chemistry, vegetation) - other disturbances  2 Diversity  a Habitat diversity # Habitats Comments Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 3 - Indicator Score Final score for habitat diversity 4 - Indicator Score Final score for habitat diversity 4 - Indicator Score Final score for habitat diversity 4 - Indicator Score Final score for habitat diversity 4 - Indicator Score Final diversity Score Final score for for for formation for for formation for formati | Final Score for modification to water   | chemistry          |  |              | 1.00      |  |  |
| Weed invasion  | b Modification to vegetation  |                    |  |              |           |  |  |
| Structure - Upper shrub layer of beach zones missing. 1.3    | Regenerative capacity   | - Recruitment      | observed for some shrub and herb species.    | 1.7          |           |  |  |
| State - Upper and middle shrub layers very stressed. 1.3 Final Score for modification to vegetation  | Weed invasion   | - Weeds were       | e not significant.                           | 2.7          |           |  |  |
| Final Score for modification to vegetation  C Other disturbances Adjustment to score Final naturalness score = average (water chemistry, vegetation) – other disturbances  2 Diversity  a Habitat diversity # Habitats Comments Score Score Final score for habitat diversity 3  b Flora richness # Species No. submerged species 0 No. emergent species 1 - Tecticornia aff halocnemoides 2 No. fringing species 14 - Fe.g. Angianthus micropodioides, 2 Final flora richness score 14 - Species Invertebrates 5 - Species level identification of micro- and macro- invertebrates. 2  C E auna richness # Species 1 - Australian Shelduck. 2  Other native wetland fauna observed 0 Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Significance  Does the wetland have a consumptive use value? - 1.50 Does the wetland have a spiritualphilosophical value? - 2.50 Does the wetland have a spiritualphilosophical value? - 3.50 Does the wetland have a vegetation connectivity value? - 1.50 Does the wetland have a representativeness value? - 1.51 Does the wetland have a representativeness value? - 1.51 Does the wetland have a representativeness value? - 1.51 Does the wetland have a representativeness value? - 1.51 Does the wetland have a representativeness value? - 1.51 Does the wetland have a representativeness value? - 1.52 Does the wetland have a representativeness value? - 1.53 Does the wetland have a representativeness value? - 1.54 Does the wetland have a representativeness value? - 1.55 Does the wetland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativeness value? - 1.55 Does the metland have a representativene | Structure   |                    | -  | 1.3          |           |  |  |
| Collect disturbances Adjustment to score Final naturalness score = average (water chemistry, vegetation) – other disturbances    Privater   Private   Privat |   |                    | niddle shrub layers very stressed.           | 1.3          |           |  |  |
| Activation to score   Activation   Final naturalness score   average (water chemistry, vegetation) - other disturbances   1.38   | Final Score for modification to vege  | tation             |  |              | 1.75      |  |  |
| Final naturalness score = average (water chemistry, vegetation) – other disturbances   1.38  | c Other disturbances  |                    |  |              |           |  |  |
| Diversity  a Habitat diversity # Habitats Comments Index Score Score 1.00  b Fiora richness # Species No. submerged species 0 row now mergent species 1 rectification aff halonemoides 2 row fringing species 14 rectification aff halonemoides 2 row fringing species 14 rectification of micro-philipant for a richness score 8 row fringing species 1 rowertebrates 5 row fringing species 1 rowertebrates 2 row fringing species 1 rowertebrates 5 row fringing species 1 rowertebrates 2 row fringing species 2 row fringing species 3 rowertebrates 4 row fringing species 2 row fringing species 3 row fringing species 4 row fringing species 4 row fringing species 3 row fringing species 3 row fringing species 3 row fringing species 4 row | Adjustment to score   |                    | -  |              | 0.00      |  |  |
| Diversity  a Habitat diversity # Habitats Comments Index Score Score 1.00  b Fiora richness # Species No. submerged species 0 row now mergent species 1 rectification aff halonemoides 2 row fringing species 14 rectification aff halonemoides 2 row fringing species 14 rectification of micro-philipant for a richness score 8 row fringing species 1 rowertebrates 5 row fringing species 1 rowertebrates 2 row fringing species 1 rowertebrates 5 row fringing species 1 rowertebrates 2 row fringing species 2 row fringing species 3 rowertebrates 4 row fringing species 2 row fringing species 3 row fringing species 4 row fringing species 4 row fringing species 3 row fringing species 3 row fringing species 3 row fringing species 4 row | Final naturalness score = ave   | erage (water ch    | nemistry, vegetation) – other disturbances   |              | 1.38      |  |  |
| a Habitat diversity # Habitats Comments Score   Indicator Score    |   |                    |  |              |           |  |  |
| Final active for habitat diversity   # Habitaty   3   -  | -   |                    | _  | Index        | Indicator |  |  |
| No. submerged species No. submerged species No. emergent species 1 - Tecticomia aff halocnemoides 2 No. fringing species 1 - Tecticomia aff halocnemoides 2 No. fringing species 1 - Tecticomia aff halocnemoides 2 No. fringing species 1 - Tecticomia aff halocnemoides 2 No. fringing species 1 - Tecticomia aff halocnemoides 2 No. fringing species 1 - Tecticomia aff halocnemoides 2 No. fringing species 2 No. fringing species 3 1 - Tecticomia aff halocnemoides 2 No. fringing species 3 1 - Tecticomia aff halocnemoides 2 No. fringing species 3 1 - Tecticomia aff halocnemoides 3 No. submerged species 4 No. submerged species 5 No. submerged species 6 No. emergent species 7 2 No. fringing species 8 1 - Tecticomia aff halocnemoides 9 No. fringing species 9 No. fringing species 1 No. fringing species 9 No. fringing species 1 1 - Tecticomia aff halocnemoides 9 No. fringing species 9 No. fringinginger 9 No. fringinginger 9 No. fringingingingingingingingingingingingingi  | a <u>Habitat diversity</u>  | # Habitats         | <u>Comments</u>                              |              |           |  |  |
| No. submerged species No. emergent species No. emergent species 1  | Final score for habitat diversity   | 3                  | -  |              | 1.00      |  |  |
| No. emergent species  No. fringing species  No. fringing species  14   | b Flora richness  | # Species          |  |              |           |  |  |
| No. emergent species  No. fringing species  No. fringing species  Final flora richness score  C Fauna richness  # Species  Invertebrates  Nother native wetland fauna observed  Other native wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a representativeness value?  Note the wetland have a represe | No. submerged species   | 0                  | -  |              |           |  |  |
| No. fringing species  Final flora richness score  Fauna richness  Invertebrates  Invertebrates  Invertebrates  Vaterbirds  Other native wetland fauna observed  Final flora richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  Significance  Does the wetland have a consumptive use value?  Does the wetland have a spiritual/philosophical value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  This wetland has good vegetation connections with value?  Does the wetland have a representativeness value?  This wetland has good vegetation connections with value?  This wetland have a vegetation connectivity value?  This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  This wetland have an diversity >2.3 = Conservation, Multiple Use  The wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement, <1.67 = Multiple Use)  | 5 1   | 1                  | - Tecticornia aff halocnemoides              | 2            |           |  |  |
| Final flora richness score  C Fauna richness #Species Invertebrates 5 - Species level identification of micro- and macro- invertebrates. 1 Waterbirds 1 - Australian Shelduck. 2 Other native wetland fauna observed 0 Final fauna richness score 1.50 Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  Does the wetland have a consumptive use value? - × Does the wetland have a recreational value? - × Does the wetland have a spiritual/philosophical value? - × Does the wetland have a scientific/educational value? - × Does the wetland have a vegetation connectivity value? - This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Average diversity and naturalness score 1.44 Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use) If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |   | 14                 |  | 2            |           |  |  |
| Invertebrates 5 - Species level identification of micro- and macro- invertebrates. 1  Waterbirds 1 - Australian Shelduck. 2  Other native wetland fauna observed 0 - Final fauna richness score 1.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Significance  Does the wetland have a consumptive use value? - ×  Does the wetland have a recreational value? - ×  Does the wetland have a spiritual/philosophical value? - ×  Does the wetland have a scientific/educational value? - ×  Does the wetland have a vegetation connectivity value? - This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  This wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good vegetation connections with other nearby wetlands and the nature reserve ×  This wetland has good veg  |   | 1-7                | Blennospora phlegmatocarpa.                  | 2            | 0.00      |  |  |
| Invertebrates    Second   Seco | Final flora richness score  |                    |  |              | 2.00      |  |  |
| Waterbirds 1 - Australian Shelduck. 2  Other native wetland fauna observed 0  Final fauna richness score 1.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.50  Significance  Does the wetland have a consumptive use value? - ×  Does the wetland have a recreational value? - ×  Does the wetland have a spiritual/philosophical value? - ×  Does the wetland perform an ecosystem service? - ×  Does the wetland have a scientific/educational value? - This wetland has good vegetation connections with value? - This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Final Evaluation  Average diversity and naturalness score 1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   | c Fauna richness  | # Species          |  |              |           |  |  |
| Waterbirds Other native wetland fauna observed Other native wetland fauna observed Final fauna richness score Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  • Does the wetland have a consumptive use value? • Does the wetland have a recreational value? • Does the wetland have a spiritual/philosophical value? • Does the wetland have a spiritual/philosophical value? • Does the wetland have a scientific/educational value? • Does the wetland have a scientific/educational value? • Does the wetland have a vegetation connectivity value? • Does the wetland have a representativeness value? • This wetland has good vegetation connections with other nearby wetlands and the nature reserve. • Does the wetland have a representativeness value? • This wetland has good vegetation connections with other nearby wetlands and the nature reserve. • This wetland has good vegetation connections with other nearby wetlands and the nature reserve. • This wetland has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | Invertebrates   | 5                  | •  | 1            |           |  |  |
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| Final fauna richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a vegetation connectivity value?  Final Evaluation  Average diversity and naturalness score  Final Evaluation  Average diversity and naturalness score at l.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |   | -                  | -  | 2            |           |  |  |
| Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  • Does the wetland have a consumptive use value?  • Does the wetland have a recreational value?  • Does the wetland have a spiritual/philosophical value?  • Does the wetland perform an ecosystem service?  • Does the wetland have a scientific/educational value?  • Does the wetland have a vegetation connectivity value?  • Does the wetland have a vegetation connectivity value?  • Does the wetland have a representativeness value?  • This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Final Evaluation  Average diversity and naturalness score  1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |   | Ü                  |  |              | 1.50      |  |  |
| Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  I.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |   | ne (hahitat dive   | preity flora richness fauna richness)        |              |           |  |  |
| Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Final Evaluation  Average diversity and naturalness score  1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, for-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |   | ge (nabhat arre    | rony, nora normess, rauna normess,           |              | 7.00      |  |  |
| <ul> <li>Does the wetland have a recreational value?         <ul> <li>Does the wetland have a spiritual/philosophical value?</li> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation          <ul> <li>Average diversity and naturalness score</li> <li>I.44</li> </ul> </li> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, Multiple Use of the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul>  | •   | a uga value 0      |  |              | v         |  |  |
| Does the wetland have a spiritual/philosophical value?     Does the wetland perform an ecosystem service?     Does the wetland have a scientific/educational value?     Does the wetland have a vegetation connectivity value?     Does the wetland have a representativeness value?     This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Final Evaluation  Average diversity and naturalness score  1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then t is upgraded to Resource Enhancement category. Is this applicable?   |   |                    | <del>-</del>                                 |              |           |  |  |
| <ul> <li>Does the wetland perform an ecosystem service?         <ul> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation         <ul> <li>Average diversity and naturalness score</li> <li>nitial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>f the wetland is in the Multiple Use category and has an ecosystem or human significance, then t is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>   |   |                    | -<br>.? -                                    |              |           |  |  |
| Does the wetland have a scientific/educational value?     Does the wetland have a vegetation connectivity value?     Does the wetland have a representativeness value?     This wetland has good vegetation connections with other nearby wetlands and the nature reserve.  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  Yes   |   |                    | ·· -   |              |           |  |  |
| value?  • Does the wetland have a representativeness value?  • Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation,  1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | •   |                    | ? -  |              |           |  |  |
| value?  • Does the wetland have a representativeness value?  • Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation,  1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | Does the wetland have a vegetation of   | connectivity       |  |              | 1         |  |  |
| Final Evaluation  Average diversity and naturalness score  1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  Yes   | value?  | -                  | other nearby wetlands and the nature re      | serve.       | •         |  |  |
| Average diversity and naturalness score  1.44  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | Does the wetland have a representation  | veness value?      | -  |              | ×         |  |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |   | Fin                | al Evaluation                                |              | -         |  |  |
| 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  Yes  | Average diversity and naturalness score 1.44  |                    |  |              |           |  |  |
| If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |   |                    | s and diversity >2.3 = Conservation,         | Multiple     | Use       |  |  |
|  | If the wetland is in the Multiple Use category and has an ecosystem or human significance, then |                    |  |              |           |  |  |
|  | Final wetland management category   | <b>• ,</b> • • • • |  | Resource Enh | ancement  |  |  |

Site Name: Saline lake at Kondut South Road

Site Code: ABP106 Latitude: Private property Longitude: Private property

Date Assessed: 11/09/2008, 6/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

**Site Photos** 

## Site summary

This naturally saline wetland, although slightly affected by salinisation, retains good water quality and faunal diversity. There were two Priority plant species collected and the vegetation community at higher elevations remains in relatively good condition.







No

#### **Automatic Conservation category criteria evaluation**

|   | Automatic Conservation category criteria evaluation   |          |
|---|---|----------|
| 1 | Is the wetland identified under any of the following agreements?  • Ramsar Convention on wetlands   | No<br>×  |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | *        |
|   | Directory of Important Wetlands   | ×        |
|   | <ul> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>   | ×        |
|   | World/National Heritage listings  | ×        |
| 2 | Does the wetland meet one of the following criteria?  | No       |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>  | ×        |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×        |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×        |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | ×        |
| 3 | Does the wetland meet <b>two</b> of the following criteria?   | No       |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u>:</li> </ul>  |          |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> </ul>   | <b>x</b> |
|   | <ul> <li>supports an identified occurrence of a Declared Nate of Priority 1, 2, 3 of 4 flora species. 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×        |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and<br/>geoconservation</li> </ul>  | ×        |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | ×        |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | ×        |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | ×        |

| 1 Na |   |                 |  |                   |              |
|------|---|-----------------|--|-------------------|--------------|
|      | ituralness  |                 | ite Evaluation   |                   |              |
| а    | Modification to Water Chemistry   | Reading         | Comments   | <u>Index</u>      | Indicator    |
| ч    | <del></del>   | 7.9             | <u>comments</u>  | <u>Score</u><br>3 | <u>Score</u> |
|      | pH<br>Salinity (g/L)  | 7.9<br>26       | -  | N/A               |              |
|      | Total Soluble N (μg/L)  | 950             | -<br>-   | 3                 |              |
|      | Final Score for modification to water   |                 |  | Ü                 | 3.0          |
| b    | Modification to vegetation  |                 |  |                   | 0.0          |
| D    |   | D               | tana ana amin'ny ara-daharana ara-daharana   | 0.0               |              |
|      | Regenerative capacity Weed invasion   | •               | ion occurring at higher elevations. d species, but not significant.                            | 2.0<br>2.7        |              |
|      | Structure   |                 | u species, but not significant.  Ib layer of the beach zones missing.                          | 2.7               |              |
|      |   |                 | uadrats at higher elevation in reasonable  |                   |              |
|      | State   | condition.      | <b>G</b>   | 2.3               |              |
|      | Final Score for modification to veget   | tation          |  |                   | 2.25         |
| С    | Other disturbances  |                 |  |                   |              |
|      | Adjustment to score   |                 | -  |                   | 0.00         |
|      | Final naturalness score = ave   | rage (water c   | chemistry, vegetation) – other disturbances  |                   | <u>2.63</u>  |
| 2 Di | versity   |                 |  |                   |              |
| а    | Habitat diversity   | # Habitats      | Comments   | <u>Index</u>      | Indicator    |
| а    | <del></del>   |                 |  | <u>Score</u>      | Score Score  |
|      | Final score for habitat diversity   | 7               | -Good diversity of habitats.   |                   | 3.00         |
| b    | Flora richness  | # Species       |  |                   |              |
|      | No. submerged species   | 2               | - Lepilaena cylindrocarpa, Ruppia polycarpa.   | 3                 |              |
|      | No. emergent species  | 0               |  | 1                 |              |
|      | No. fringing species  | 9               | - E.g. Frankenia glomerata, Podotheca uniseta.   | 1                 |              |
|      | Final flora richness score  |                 |  |                   | 1.67         |
| С    | Fauna richness  | # Species       |  |                   |              |
|      | Invertebrates   | 28              | - Species level identification of micro- and macro- invertebrates.                             | 3                 |              |
|      | Waterbirds  | 4               | <ul> <li>Australian Shelduck, Hoary Headed Grebe,<br/>Grey Teal, White-faced Heron.</li> </ul> | 2                 |              |
|      | Other native wetland fauna observed   | 0               | -  | N/A               |              |
|      | Final fauna richness score  |                 |  |                   | 2.50         |
|      | Final diversity score = averag  | e (habitat div  | versity, flora richness, fauna richness)   |                   | <u>2.3</u>   |
| 3 Si | ignificance   |                 |  |                   |              |
| •    | Does the wetland have a consumptive   | use value?      | -  |                   | ×            |
| •    | Does the wetland have a recreational  | value?          | -  |                   | ×            |
| •    | Does the wetland have a spiritual/philo   | •               | re? -  |                   | ×            |
| •    | Does the wetland perform an ecosyste  |                 | -  |                   | *            |
| •    | Does the wetland have a vegetation of value?  | onnectivity     | - Yes, good connections with other nearby  | wetlands.         | ✓            |
| •    | Does the wetland have a representative  | veness value?   | -  |                   | ×            |
| •    | Does the wetland have a scientific/edu  | ucational value | e? -   |                   | ×            |
|      |   | Fi              | nal Evaluation   |                   |              |
|      | age diversity and naturalness score   |                 |  | 2.5               | 1            |
|      | wetland management category <i>(averag</i><br>2.3 = Resource Enhancement, <1.67 = I |                 | ss and diversity >2.3 = Conservation,  | Conserv           | ation        |
|      | wetland is in the Multiple Use category   | and has an      | ecosystem or human significance, then  | No                | ı            |
|      | pgraded to Resource Enhancement ca  | tegory. Is thi  | s applicable?  |                   |              |

Site Name: Wilgie Lake at Wilgie Hill Rd

Site Code: ABP109 Latitude: Private property Longitude: Private property

Date Assessed: 15/09/2008, 08/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Freshwater basin but secondarily salinised

## **Site Photos**



This wetland, originally believed to be freshwater, is now heavily affected by secondary salinisation. It still retains some plant diversity in the fringing zone, but high salinity and acidity has resulted in low invertebrate and waterbird diversity.



#### Automatic Conservation category criteria evaluation

|   | Automatic Conservation category criteria evaluation   |                        |
|---|---|------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul>                  | No<br>*<br>*<br>*<br>* |
| 2 | Does the wetland meet one of the following criteria?  • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the Bush Forever scale.  | No<br>×                |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | *                      |
| 3 | <ul> <li>Does the wetland meet <u>two</u> of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:</li> </ul>   | No                     |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul> | *<br>*<br>*            |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | *                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | ×                      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|       |  | S                                       | ite Evaluation   |              |                      |
|-------|--|---|--|--------------|----------------------|
| 1 N   | aturalness   |   | Taladion .   |              |                      |
|       |  | D. a. Bara                              | Oppose   | Index        | Indicator            |
| а     | Modification to Water Chemistry pH   | Reading<br>3.1                          | <u>Comments</u>  | Score<br>1   | <u>Score</u>         |
|       | Salinity (g/L)   | 67                                      | -  | 1            |                      |
|       | Total Soluble N (µg/L)   | 2000                                    | -  | 2            |                      |
|       | Final Score for modification to water  | chemistry                               |  |              | 1.33                 |
| b     | Modification to vegetation   |   |  |              |                      |
|       | Regenerative capacity  | <ul> <li>Recruitment layers.</li> </ul> | nt of Tecticornia occurring, but not upper shrub   | 1.7          |                      |
|       | Weed invasion  | - Weeds bed                             | coming dominant in some areas of the wetland.  | 2.0          |                      |
|       | Structure  | - Major struc                           | ctural elements missing.   | 1.0          |                      |
|       | State  | _                                       | remaining showing significant signs of stress.   | 1.0          |                      |
|       | Final Score for modification to vege   | tation                                  |  |              | 1.43                 |
| С     | Other disturbances   |   |  |              |                      |
|       | Adjustment to score  | - Road runn                             | ing through western third of wetland.  |              | 0.17                 |
|       | Final naturalness score = ave  | rage (water o                           | chemistry, vegetation) – other disturbances  |              | <u>1.21</u>          |
| 2 Di  | versity  |   |  |              |                      |
| а     | Habitat diversity  | # Habitats                              | Comments   | Index        | Indicator            |
|       | Final score for habitat diversity  | 5                                       | <del>-</del>   | <u>Score</u> | <u>Score</u><br>2.00 |
| b     | Flora richness   | # Species                               |  |              |                      |
| -     | No. submerged species  | 1                                       | - <i>Ruppia</i> sp.  | 2            |                      |
|       | No. emergent species   | 0                                       | -<br>-   | 1            |                      |
|       | No. fringing species   | 8                                       | - E.g. Melaleuca atroviridis, Atriplex spp.  | 3            |                      |
|       | Final flora richness score   |   | 3  |              | 2.00                 |
| С     | Fauna richness   | # Species                               |  |              |                      |
|       | Invertebrates  | 12                                      | <ul> <li>Species level identification of micro- and<br/>macro- invertebrates.</li> </ul> | 1            |                      |
|       | Waterbirds   | 1                                       | - Black-winged Stilt.  | 1            |                      |
|       | Other native wetland fauna observed  | 0                                       | -  | N/A          |                      |
|       | Final fauna richness score   |   |  |              | 1.00                 |
|       | Final diversity score = averag   | ıe (habitat div                         | versity, flora richness, fauna richness)   |              | <u>1.67</u>          |
| 3 S   | ignificance  |   |  |              |                      |
| •     | Does the wetland have a consumptive  | e use value?                            | -  |              | ×                    |
| •     | Does the wetland have a recreational   |   | -  |              | ×                    |
| •     | Does the wetland have a spiritual/phile  | •                                       | ie? -  |              | ×                    |
| •     | Does the wetland perform an ecosyste   |   | -  |              | *                    |
|       | Does the wetland have a scientific/edu<br>Does the wetland have a vegetation of      |   | <b>5</b> ! -   |              | ×                    |
| •     | value?   | •                                       | -  |              | ×                    |
| •     | Does the wetland have a representati   | veriess value                           | <del>-</del>   |              | ×                    |
|       |  | Fi                                      | nal Evaluation   |              |                      |
|       | age diversity and naturalness score  |   |  | 1.4          | 4                    |
|       | l wetland management category <i>(avera</i><br>2.3 = Resource Enhancement, <1.67 = I |   | ss and diversity >2.3 = Conservation,  | Multiple     | e Use                |
|       | wetland is in the Multiple Use category pgraded to Resource Enhancement ca           |   | ecosystem or human significance, then s applicable?                                      | No           | )                    |
| Final | wetland management category  |   |  | Multiple     | e Use                |
|       |  |   |  |              |                      |

Site Name: Secondarily saline lake at Nugadong East Rd

Site Code: ABP110 Latitude: Private property Longitude: Private property

Date Assessed: 15/09/2008, 07/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Freshwater basin but secondarily salinised

## **Site Photos**



This wetland has been severely affected by secondary salinisation, as it was confirmed by landowner that it was originally freshwater. The only native vegetation surrounding the wetland is a thin strip of Samphire. Faunal diversity was limited, with few invertebrate collected and only a pair of nesting Red-Necked Avocets observed.







#### **Automatic Conservation category criteria evaluation**

|   | Automatic Conservation category criteria evaluation   |    |
|---|---|----|
| 1 | Is the wetland identified under any of the following agreements?  | No |
|   | Ramsar Convention on wetlands   | ×  |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×  |
|   | Directory of Important Wetlands   | ×  |
|   | <ul> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>   | ×  |
|   | World/National Heritage listings  | ×  |
| 2 | Does the wetland meet <u>one</u> of the following criteria?   | No |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.   | ×  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | *  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×  |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | *  |
| 3 | Does the wetland meet <b>two</b> of the following criteria?   | No |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |    |
|   | ■ is the best known representative of the wetland group in the catchment  | ×  |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species</li> </ul>   | ×  |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | *  |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | *  |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>   | *  |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | *  |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

| 1 Naturalness   1 Naturalness   2 Natification to Water Chemistry   1 Naturalness   1 Naturalness   2 Natification to Water Chemistry   1 Naturalness   2 Natification to Water Chemistry   2 Natification to Water Chemistry   3 Naturalness   3 Naturaln     |       |                                       |                | Site Evaluation                               |          |              |
|--|-------|---------------------------------------|----------------|---|----------|--------------|
| a Modification to Water Chemistry Place   Score   Modification   Score   Score | 1 Na  | turalness                             | 3              | bite Evaluation                               |          |              |
| pH 6.4   |       |                                       | Dooding        | Commente                                      | Index    | Indicator    |
| Salinity (grL) 98 - Highly saline even for a secondarily saline wetland. Total Soluble N (µg/L) 4000 - Ukaly that high nitrogen levels are from surrounding cropping areas.  Final Score for modification to water chemistry.    Modification to vegetation  | а     | <del>-</del>                          |                | Comments                                      |          | <u>Score</u> |
| Saintly (gL) 4000 - Likely that high nitrogen levels are from surrounding cropping areas.  Final Score for modification to water chemistry  b Modification to vegetation Regenerative capacity - Most recruitment observed was of weed species. Weed invasion - Aggressive weeds present at higher elevations. 1.5 Structure - Upper shrub layer completely removed replaced. 1.0 Structure - Upper shrub layer complete |       | •                                     |                | - Highly saline even for a secondarily saline | _        |              |
| ### Score for modification to water chemistry    Final Score for modification to water chemistry   Final Score for modification to water chemistry   Meditivasion   Aggressive weeds present at higher elevations   1.5  |       | Salinity (g/L)                        | 98             | ,   | 1        |              |
| Final Score for modification to water chemistry    Modification to vegetation   Regenerative capacity   Most recruitment observed was of weed species.   1.0   Regenerative capacity   Most recruitment observed was of weed species.   1.0   Structure   Upper shrub layer completely removed/replaced.   1.0   Final Score for modification to vegetation   Upper shrub layer completely removed/replaced.   1.0   Final Score modification to vegetation   Upper shrub layer completely removed/replaced.   1.0   1.13  |       | Total Soluble N (μg/L)                | 4000           |   | 1        |              |
| Regenerative capacity  |       | Final Score for modification to water | chemistry      | 3 - 1,1                                       |          | 1.33         |
| Weed invasion   Aggressive weeds present at higher clevations. Structure   Upper shrub layer completely removed/replaced.   1.0  | b     | Modification to vegetation            |                |   |          |              |
| Structure  |       | Regenerative capacity                 | - Most recru   | itment observed was of weed species.          | 1.0      |              |
| State - Enchylaena and Tecticornia species very stressed.  Final Score for modification to vegetation  Adjustment to score  - There is a road running through what would have been the edge of the wetland.  Final naturalness score = average (water chemistry, vegetation) – other disturbances  Diversity  A Habitat diversity  A Secre  Final score for habitat diversity  A Secre  Final score for habitat diversity  A Secre  Final flora richness  A Secre  Final flora richness  A Secre  Final flora richness score  Final flora richness score  A Secre  Final flora richness  A Secre  Final flora richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness)  This diversity score = average (habitat diversity, flora richness, fauna richness diversity score = average (habitat diversity, flora richness, fauna richness score  Does the wetl |       | Weed invasion                         | - Aggressive   | e weeds present at higher elevations.         | 1.5      |              |
| Final Score for modification to vegetation  Content disturbances Adjustment to score Trinal naturalness score = average (water chemistry, vegetation) – other disturbances Trinal naturalness score = average (water chemistry, vegetation) – other disturbances  Diversity  a Habitat diversity # Habitats Comments Index Score Score Final score for habitat diversity 3   |       | Structure                             | - Upper shru   | ub layer completely removed/replaced.         | 1.0      |              |
| c Other disturbances Adjustment to score the wetland. Final naturalness score = average (water chemistry, vegetation) — other disturbances  2 Diversity  a Habitat diversity # Habitats Comments Score # Labitat diversity # 3 —   |       | State                                 | - Enchylaen    | a and Tecticornia species very stressed.      | 1.0      |              |
| There is a road running through what would have been the edge of the wetland.   Final naturalness score = average (water chemistry, vegetation) – other disturbances   1.06  |       | Final Score for modification to vege  | tation         |   |          | 1.13         |
| # Abjust diversity  a Habitat diversity # Habitats Comments Score Score 1,00  b Flora richness # Species No. submerged species No. emergent species 0 - Atriplex spp., Tecticornia pergranulata, Triglochin longicarpa.  b Flora richness # Species 1 - Atriplex spp., Tecticornia pergranulata 2 subsp pergranulata, Triglochin longicarpa.  c Fauna richness # Species 1 - Species Invertebrates 6 - Species level identification of micro- and macro- invertebrates. Waterbirds 1 - 2 pairs of nesting Red-necked Avocets. 1 - 2 poes the wetland have a consumptive use value?  Does the wetland have a consumptive use value?  Does the wetland have a spiritual/philosophical value?  Does the wetland have a spiritual/philosophical value?  Does the wetland have a scientific/educational value?  Does the wetland have a recreational value?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a representativeness value?  Final Evaluation  No Multiple Use  Hidital wetland amanagement category (average naturalness and diversity > 2.3 = Conservation, 1.67-2.3 = Resource Enhancement, < 1.67 = Multiple Use)  No Hidital wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | С     | Other disturbances                    |                |   |          |              |
| Patient   Pati   |       | Adjustment to score                   |                |   |          | -0.17        |
| # Habitat diversity # Habitats Comments   Index Score   Indicator Score   Final score for habitat diversity   3   -  |       | Final naturalness score = ave         | erage (water d | chemistry, vegetation) – other disturbances   |          | <u>1.06</u>  |
| Final score for habitat diversity   # Habitats   Lomments   Score   Score   1.00   | 2 Di  | versity                               |                |   |          |              |
| Final score for habitat diversity 3 - 1.00    Flora richness   | а     | Habitat diversity                     | # Habitats     | <u>Comments</u>                               |          |              |
| No. submerged species 0 - Salinity too high for submerged species. N/A No. emergent species 0 - Atriplex spp., Tecticornia pergranulata subsp pergranulata, Triglochin longicarpa.  Final flora richness score - Species level identification of micro- and macro- invertebrates.  Invertebrates 6 - Species level identification of micro- and macro- invertebrates.  Waterbirds 1 - 2 pairs of nesting Red-necked Avocets. 1 Other native wetland fauna observed 0 - N/A  Final fauna richness score 1.00  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.17  3 Significance - Does the wetland have a consumptive use value? - × Does the wetland have a recreational value? - × Does the wetland have a spiritual/philosophical value? - × Does the wetland perform an ecosystem service? - × Does the wetland have a vegetation connectivity value? - × Does the wetland have a vegetation connectivity value? - × Does the wetland have a representativeness value? - × Does the wetland have a representativen |       | Final score for habitat diversity     | 3              | -   | OCOIC    |              |
| No. emergent species  No. fringing species  A - Atriplex spp., Tecticornia pergranulata subsp pergranulata, Triglochin longicarpa.  Final flora richness score  Invertebrates Invertebra | b     | Flora richness                        | # Species      |   |          |              |
| No. emergent species  No. fringing species  A - Atriplex spp., Tecticornia pergranulata subsp pergranulata, Triglochin longicarpa.  Final flora richness score  Invertebrates Invertebra |       | No. submerged species                 | 0              | - Salinity too high for submerged species.    | N/A      |              |
| No. fringing species  Final flora richness score  C Fauna richness  Invertebrates  Invertebrates |       | · ·                                   |                | -   |          |              |
| Final flora richness score    Fauna richness   |       | •                                     | 4              |   | 2        |              |
| Invertebrates 6 - Species level identification of micro- and macro- invertebrates. 1 Waterbirds 1 - 2 pairs of nesting Red-necked Avocets. 1 Other native wetland fauna observed 0 - N/A  Final fauna richness score 1.00  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.17  3 Significance • Does the wetland have a consumptive use value? -   |       | Final flora richness score            |                | subsp pergranulata, Trigiocriin longicarpa.   |          | 1.50         |
| Waterbirds  Waterbirds  Other native wetland fauna observed  Other native wetland fauna observed  Final fauna richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  1.00  Final diversity score = average (habitat diversity, flora richness, fauna richness)  1.17  Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Intil Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   | С     | Fauna richness                        | # Species      |   |          | •••          |
| Waterbirds Other native wetland fauna observed Other native wetland richness score Other native wetland richness score Other native wetland richness score Other native wetland richness fauna richness)  Into the wetland richness observed  Note the wetland have a consumptive use value?  - Does the wetland have a spiritual/philosophical value? - Does the wetland perform an ecosystem service? - Does the wetland have a scientific/educational value? - Does the wetland have a vegetation connectivity value? - Does the wetland have a vegetation connectivity value? - Does the wetland have a representativeness value? - Tinal Evaluation  Average diversity and naturalness score Into the wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |       |                                       |                | - Species level identification of micro- and  | 4        |              |
| Other native wetland fauna observed 0 - N/A  Final fauna richness score 1.00  Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  • Does the wetland have a consumptive use value? • Does the wetland have a recreational value? • Does the wetland have a spiritual/philosophical value? • Does the wetland perform an ecosystem service? • Does the wetland have a scientific/educational value? • Does the wetland have a scientific/educational value? • Does the wetland have a vegetation connectivity value? • Does the wetland have a representativeness value? • Does the wetland have a representativeness value?  Average diversity and naturalness score  Intial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |       |                                       |                |   |          |              |
| Final fauna richness score Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  Does the wetland have a consumptive use value? Does the wetland have a recreational value? Does the wetland have a spiritual/philosophical value? Does the wetland perform an ecosystem service? Does the wetland have a scientific/educational value? Does the wetland have a scientific/educational value? Does the wetland have a vegetation connectivity Nalue? Does the wetland have a vegetation connectivity Time Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |       |                                       | -              | - 2 pairs of nesting Red-necked Avocets.      | •        |              |
| Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Tinal Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |       |                                       | 0              | -   | N/A      |              |
| 3 Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Does the wetland have a representativeness value?  Tinal Evaluation  Average diversity and naturalness score  1.11  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |       |                                       |                |   |          |              |
| Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Does the wetland have a representativeness value?  Does the wetland have a representativeness value?  Tinal Evaluation  Average diversity and naturalness score  1.11  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |       | Final diversity score = averag        | je (habitat di | versity, flora richness, fauna richness)      |          | <u>1.17</u>  |
| <ul> <li>Does the wetland have a recreational value?</li> <li>Does the wetland have a spiritual/philosophical value?</li> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> <li>Tinal Evaluation</li> </ul> Average diversity and naturalness score <ul> <li>1.11</li> </ul> Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use) If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? No   | 3 S   | •                                     |                |   |          |              |
| <ul> <li>Does the wetland have a spiritual/philosophical value?         <ul> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> <li>Does the wetland have a representativeness value?</li> <li>Tinal Evaluation</li> </ul> </li> <li>Average diversity and naturalness score         <ul> <li>1.11</li> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>   | •     | •                                     |                | -   |          |              |
| <ul> <li>Does the wetland perform an ecosystem service?         <ul> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> <li>Does the wetland have a representativeness value?</li> <li>Final Evaluation</li> </ul> </li> <li>Average diversity and naturalness score         <ul> <li>1.11</li> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>   | •     |                                       |                | -   |          |              |
| <ul> <li>Does the wetland have a scientific/educational value?         <ul> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> <li>Tinal Evaluation</li> </ul> </li> <li>Average diversity and naturalness score         <ul> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>  | •     |                                       | -              | ıe? -   |          |              |
| Does the wetland have a vegetation connectivity value?      Does the wetland have a representativeness value?      Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   | •     |                                       |                | -   |          | -            |
| value?  • Does the wetland have a representativeness value?  • Does the wetland have a representativeness value?  • Final Evaluation  Average diversity and naturalness score  1.11  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | •     | Does the wetland have a scientific/ed | ucational valu | e? -  |          | ×            |
| Final Evaluation  Average diversity and naturalness score  1.11  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | •     |                                       | onnectivity    | -   |          | *            |
| Average diversity and naturalness score  1.11  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  | •     | Does the wetland have a representati  | veness value   | ? -   |          | *            |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |       |                                       | Fi             | inal Evaluation                               |          |              |
| 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |       | •                                     |                |   | 1.1      | 1            |
| it is upgraded to Resource Enhancement category. Is this applicable?   |       |                                       |                |   | Multiple | Use          |
| Final wetland management category Multiple Use   |       |                                       |                |   | No       |              |
|  | Final | wetland management category           |                |   | Multiple | Use          |

Site Name: Secondarily saline lake at Arbuckle Rd

Site Code: ABP111 Latitude: Private property Longitude: Private property

Date Assessed: 16/09/2008, 07/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Freshwater basin but secondarily salinised

## **Site Photos**



This wetland has been heavily affected by secondary salinisation, which is evident from shrub death across the basin. There is very little plant or animal diversity and water quality is poor. Remaining vegetation is stressed, particularly remnant Melaleuca's.







|   | Automatic Conservation category criteria evaluation  |                        |
|---|--|------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
| 2 | Does the wetland meet one of the following criteria?   | No                     |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>  | ×                      |
|   | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.  | *                      |
| 3 | Does the wetland meet two of the following criteria?   | No                     |
|   | Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u> :   |                        |
|   | ■ is the best known representative of the wetland group in the catchment   | ×                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | *                      |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and<br/>geoconservation</li> </ul>   | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|   |   | S               | ite Evaluation  |                |                    |
|---|---|-----------------|---|----------------|--------------------|
| 1 Na  | turalness                               |                 |   |                |                    |
| а   | Modification to Water Chemistry         | Reading         | <u>Comments</u>   | Index<br>Score | Indicator<br>Score |
|   | рН                                      | 8.1             | -   | 3              |                    |
|   | Salinity (g/L)                          | 110             | - Very high salinity.   | 1              |                    |
|   | Total Soluble N (μg/L)                  | 4300            | -Very high levels, possibly due to runoff from  | 1              |                    |
|   | Final Score for modification to water   | chemistrv       | surrounding crops.  |                | 1.67               |
| b   | Modification to vegetation              |                 |   |                |                    |
| -   | Regenerative capacity                   | - Very little r | recruitment observed, even of Tecticornia.  | 1.0            |                    |
|   | Weed invasion                           | •               | vations had significant weed invasion.  | 2.0            |                    |
|   | Structure                               | •               | ler shrubs and herb layer.  | 1.0            |                    |
|   | State                                   | _               | er of native shrubs are very stressed.  | 1.7            |                    |
|   | Final Score for modification to vege    | tation          | ·   |                | 1.42               |
| С   | Other disturbances                      |                 |   |                |                    |
|   | Adjustment to score                     |                 |   |                | 0.00               |
|   | Final naturalness score = ave           | rage (water d   | chemistry, vegetation) – other disturbances   |                | 1.5                |
| n Di  |   |                 | ,,g,  |                |                    |
|   | versity                                 | # 11 1 to 1     | 2   | Index          | Indicato           |
| а   | Habitat diversity                       | # Habitats      | <u>Comments</u>   | Score          | Score              |
|   | Final score for habitat diversity       | 3               | -   |                | 1.00               |
| b   | Flora richness                          | # Species       |   |                |                    |
|   | No. submerged species                   | 0               | -   | N/A            |                    |
|   | No. emergent species                    | 0               | -   | 1              |                    |
|   | No. fringing species                    | 5               | - Atriplex codonocarpa, A. semibaccata, A.<br>semilunaris, Melaleuca atroviridis,<br>Tecticornia pergranulata subsp pergranulata. | 2              |                    |
|   | Final flora richness score              |                 | р. д  |                | 1.50               |
| С   | Fauna richness                          | # Species       |   |                |                    |
|   | Invertebrates                           | 6               | <ul> <li>Species level identification of micro- and<br/>macro- invertebrates.</li> </ul>  | 1              |                    |
|   | Waterbirds                              | 3               | - Australian Shelduck, Black-winged Stilt,  | 2              |                    |
|   | Other native wetland fauna observed     | 0               | Red-capped Plover.  | N/A            |                    |
|   | Final fauna richness score              | Ü               |   | 14//1          | 1.50               |
|   | Final diversity score = average         | ıe (habitat div | versity, flora richness, fauna richness)  |                | 1.3                |
| Si  | gnificance                              |                 | <b>,</b>  |                |                    |
| •   | Does the wetland have a consumptive     | use value?      | -   |                | ×                  |
| •   | Does the wetland have a recreational    |                 | -   |                | ×                  |
| •   | Does the wetland have a spiritual/phile |                 | ie? -   |                | ×                  |
| •   | Does the wetland perform an ecosyste    | em service?     | -   |                | ×                  |
| •   | Does the wetland have a connectivity    |                 | -   |                | *                  |
| •   | Does the wetland have a representati    |                 |   |                | ×                  |
| •   | Does the wetland have a scientific/edu  |                 |   |                | ×                  |
| vera  | ge diversity and naturalness score      | Fi              | inal Evaluation   | 1.44           | 1                  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, |   |                 |   |                |                    |
| f the   |   | and has an      | ecosystem or human significance, then   | No             |                    |
| it is upgraded to Resource Enhancement category. Is this applicable?                        |   |                 |   |                |                    |
| ıııdı   | wetland management category             |                 |   | Multiple       | USE                |

Site Name: Claypan at Dambouring Road East

Site Code: ABP112 Latitude: -30.5094 Longitude: 116.7155

Date Assessed: 16/09/2008, 09/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa Biological classification: Turbid claypan

## Site Photos

## Site summary

Water levels in this turbid claypan were low at the time of sampling. There were abundant numbers of tadpoles and this is likely to be one of the few remaining turbid claypans in the catchment.







Yes

## **Automatic Conservation category criteria evaluation**

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet <u>one</u> of the following criteria?  | Yes                    |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>   | ✓                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *                      |
| 3 | Does the wetland meet two of the following criteria?   | Yes                    |
|   | • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u> :   |                        |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ✓                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×                      |
|   | <ul> <li>supports an identified occurrence of a Filothy Fol 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>  | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ✓                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | *                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | *                      |

|  |   |  | S              | ite Evaluation  |                     |                      |  |
|--|---|--|----------------|---|---------------------|----------------------|--|
| 1  | Na  | turalness  |                |   |                     |                      |  |
| •  | a   | Modification to Water Chemistry pH   | Reading<br>7.8 | <u>Comments</u>   | Index<br>Score<br>2 | Indicator<br>Score   |  |
|  |   | Salinity (g/L)   | 3.1            | - High salinity may be due to low water levels.                                   | 1                   |                      |  |
|  |   | Total Soluble N (μg/L)   | 7200           | - Unfiltered nutrient levels.   | 1                   | 4.00                 |  |
|  |   | Final Score for modification to water  | cnemistry      |   |                     | 1.33                 |  |
|  | b   | Modification to vegetation   |                |   |                     |                      |  |
|  |   | Regenerative capacity  |                | nt of <i>Tecticornia</i> occurring.   | 3.0                 |                      |  |
|  |   | Weed invasion  |                | species present but not significant. al layers that are expected in a claypan are | 3.0                 |                      |  |
|  |   | Structure  | present.       |   | 3.0                 |                      |  |
|  |   | State  |                | s present did not appear stressed.  | 2.5                 |                      |  |
|  |   | Final Score for modification to veget  | ation          |   |                     | 2.88                 |  |
|  | С   | Other disturbances   |                |   |                     |                      |  |
|  |   | Adjustment to score  |                | -   |                     | 0.00                 |  |
|  |   | Final naturalness score = ave  | rage (water c  | hemistry, vegetation) – other disturbances  |                     | <u>2.10</u>          |  |
| 2  | Div   | versity  |                |   |                     |                      |  |
|  | а   | Habitat diversity  | # Habitats     | <u>Comments</u>   | Index               | Indicator            |  |
|  |   | Final score for habitat diversity  | 3              |   | <u>Score</u>        | <u>Score</u><br>2.00 |  |
|  | b   | Flora richness   | # Species      |   |                     |                      |  |
|  | D   |  |                |   | NI/A                |                      |  |
|  |   | No. submerged species No. emergent species                                     | 0<br>0         | -   | N/A<br>1            |                      |  |
|  |   | No. fringing species   | 6              | - 3 species <i>Tecticornia</i> , 2 species <i>Triglochin</i>                      | 1                   |                      |  |
|  |   | Final flora richness score   | O              | and Lachnagrostis filiformis.   | '                   | 1.00                 |  |
|  |   |  | # Cassiss      |   |                     | 7.00                 |  |
|  | С   | Fauna richness   | # Species      | - Species level identification of micro- and                                      | _                   |                      |  |
|  |   | Invertebrates  | 20             | macro- invertebrates.   | 1                   |                      |  |
|  |   | Waterbirds   | 0              | Water was thick with tadpoles, believed to  |                     |                      |  |
|  |   | Other native wetland fauna observed  | 2              | be Bullfrog and Humming Frog.   | 3                   |                      |  |
|  |   | Final fauna richness score   |                |   |                     | 2.00                 |  |
|  |   | Final diversity score = averag   | e (habitat div | versity, flora richness, fauna richness)  |                     | <u>1.67</u>          |  |
| 3  | Si  | gnificance   |                |   |                     |                      |  |
|  | •   | Does the wetland have a consumptive  |                | -   |                     | ×                    |  |
|  | •   | Does the wetland have a recreational   |                | -   |                     | *                    |  |
|  | •   | Does the wetland have a spiritual/philo  | -              | e? -  |                     | ×                    |  |
|  | •   | Does the wetland perform an ecosyste<br>Does the wetland have a scientific/edu |                | -<br>-? _   |                     | ×                    |  |
|  | •   | Does the wetland have a vegetation of  |                | <ul> <li>Within a nature reserve so good vegetation</li> </ul>                    | า                   |                      |  |
|  |   | value?   | •              | connections with other wetlands.  | *                   | •                    |  |
|  |   | Does the wetland have a representative   | eness value?   | - There are very few turbid claypans known the catchment.                         | to exist in         | ✓                    |  |
|  |   |  | Fi             | nal Evaluation  |                     |                      |  |
| Average diversity and naturalness score 1.89   |   |  |                |   | 1.89                |                      |  |
|  | Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  N/A |  |                |   |                     |                      |  |
| If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |   |  |                |   |                     |                      |  |
| Fi   | Final wetland management category Conservation  |  |                |   |                     |                      |  |
|  |   |  |                |   |                     |                      |  |

Site Name: Saline lake at McKay Road

Site Code: ABP113 Latitude: Private property Longitude: Private property

Date Assessed: 16/09/2008, 08/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

## Site Photos



This naturally saline wetland is in good condition. It retains high invertebrate, waterbird and plant diversity. Water quality is also good. Vegetation at the higher elevations is in reasonable condition, while some structural levels are missing from lower elevations. Two Priority species collected.

No



|   | Automatic Conservation category criteria evaluation   |         |
|---|---|---------|
| 1 | Is the wetland identified under any of the following agreements?  • Ramsar Convention on wetlands   | No<br>× |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×       |
|   | <ul> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>  | ×       |
|   | World/National Heritage listings  | *       |
| 2 | Does the wetland meet one of the following criteria?  | No      |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.   | ×       |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×       |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×       |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | ×       |
| 3 | Does the wetland meet <b>two</b> of the following criteria?   | No      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |         |
|   | is the best known representative of the wetland group in the catchment  | *<br>•  |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×       |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and<br/>geoconservation</li> </ul>  | *       |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | ×       |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | ×       |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | ×       |

|    | Site Evaluation  |   |                          |   |              |                      |  |
|----|--|---|--------------------------|---|--------------|----------------------|--|
|    |  |   | 3                        | ite Evaluation  |              |                      |  |
| 1  | Na   | turalness   |                          |   | Index        | Indicator            |  |
|    | а  | Modification to Water Chemistry   | Reading                  | <u>Comments</u>   | Score        | Score                |  |
|    |  | pH  | 7.8                      | -   | 3            |                      |  |
|    |  | Salinity (g/L)  | 95                       | -   | N/A          |                      |  |
|    |  | Total Soluble N (μg/L)  Final Score for modification to water               | 1400                     | -   | 2            | 2.50                 |  |
|    | ٠.   |   | Crierriistry             |   |              | Z.JU                 |  |
|    | D  | Modification to vegetation  | <i>+</i>                 |   | 0.0          |                      |  |
|    |  | Regenerative capacity Weed invasion   |                          | and some native herbs recruiting.  d species present but not significant.                           | 2.0<br>2.5   |                      |  |
|    |  |   |                          | vations retain all expected vegetation layers,  | _            |                      |  |
|    |  | Structure   | lower elevati            | ons missing upper shrub layer.  | 1.8          |                      |  |
|    |  | State   |                          | and taller shrub species stressed.  | 1.3          |                      |  |
|    |  | Final Score for modification to veget                                       | ation                    |   |              | 1.88                 |  |
|    | С  | Other disturbances  |                          |   |              |                      |  |
|    |  | Adjustment to score   | - There is a the wetland | large channel dug between this wetland and to the east.   |              | 0.17                 |  |
|    |  | Final naturalness score = ave   | rage (water c            | hemistry, vegetation) – other disturbances  | 1            | <u>2.02</u>          |  |
| 2  | Div  | versity   |                          |   |              |                      |  |
|    | a  | Habitat diversity   | # Habitats               | Comments  | <u>Index</u> | Indicator            |  |
|    | а  | Final score for habitat diversity   | # Habitats               | Onments   | <u>Score</u> | <u>Score</u><br>2.00 |  |
|    | b  | Flora richness  | # Species                |   |              | 2.00                 |  |
|    | D  | No. submerged species   | <u># Эресіез</u><br>0    |   | N/A          |                      |  |
|    |  | •   |                          | - Prasophyllum gracile, Tecticornia aff   |              |                      |  |
|    |  | No. emergent species  | 2                        | halocnemoides<br>- E.g. Angianthus micropodioides,  | 3            |                      |  |
|    |  | No. fringing species  | 23                       | Podotheca uniseta, 4 xTecticornia species.  | 3            |                      |  |
|    |  | Final flora richness score  |                          |   |              | 3.00                 |  |
|    | С  | Fauna richness  | # Species                |   |              |                      |  |
|    |  | Invertebrates   | 12                       | - Species level identification of micro- and  | 2            |                      |  |
|    |  | Waterbirds  | 1                        | macro- invertebrates Single wader species   | 2            |                      |  |
|    |  | Other native wetland fauna observed   | 0                        | -   | N/A          |                      |  |
|    |  | Final fauna richness score  |                          |   |              | 2.00                 |  |
|    |  | Final diversity score = average   | e (habitat div           | versity, flora richness, fauna richness)  |              | <u>2.33</u>          |  |
| _  | C:   |   | •                        | •   |              |                      |  |
| 3  | SI:  | gnificance  | Jugo volus 0             |   |              | ×                    |  |
|    | •  | Does the wetland have a consumptive<br>Does the wetland have a recreational |                          | -   |              | ×                    |  |
|    | •  | Does the wetland have a spiritual/philo                                     |                          | e? -  |              | ×                    |  |
|    | •  | Does the wetland perform an ecosyste  | •                        | <del>-</del>  |              | ×                    |  |
|    | •  | Does the wetland have a scientific/edu                                      |                          | ∍? -  |              | ×                    |  |
|    | •  | Does the wetland have a vegetation covalue?                                 | onnectivity              | <ul> <li>Good vegetation connections with oth<br/>wetlands as landholder has not cleared</li> </ul> |              | ✓                    |  |
|    | •  | Does the wetland have a representative                                      | veness value?            | palaeodrainage channel.   |              | ×                    |  |
|    |  |   |                          | -   |              |                      |  |
| Α- |  | go divoraity and naturalness assure   | Fi                       | nal Evaluation  | 0.44         | •                    |  |
|    |  | ge diversity and naturalness score<br>wetland management category (avera    | ne naturalnes            | ss and diversity >2 3 – Conservation  | 2.18         | -                    |  |
| 1. | 67-2   | 2.3 = Resource Enhancement, <1.67 = I                                       | Multiple Use)            |   | Resource Enl | nancement            |  |
|    | If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |   |                          |   |              | 1                    |  |
| Fi | nal  | wetland management category   |                          |   | Resource Enl | nancement            |  |
|    |  |   |                          |   |              |                      |  |

Site Name: Claypan at "Lakeside"

Site Code: ABP114 Latitude: Private property Longitude: Private property

Date Assessed: 17/09/2008, 09/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa Biological classification: Turbid claypan

## **Site Photos**

## Site summary

This site was dug out by the property owners many years ago for a drinking water source. It has since gone brackish and has changed significantly from natural. It still retains some diversity values in the fauna it supports.







No

## **Automatic Conservation category criteria evaluation**

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet one of the following criteria?  • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the Bush Forever scale.   | No<br>×                |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna liste<br/>by the Australian or State Government.</li> </ul>   | d 😠                    |
| 3 | <ul> <li>Does the wetland meet two of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and:</li> </ul>  | No                     |
|   | is the best known representative of the wetland group in the catchment   | ×                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species</li> </ul>  | ×                      |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>  | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | *                      |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 faunalisted by the State Government.</li> </ul>   | a <b>x</b>             |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |

|    | Site Evaluation |   |  |   |                          |                            |  |
|----|-----------------|---|--|---|--------------------------|----------------------------|--|
| 1  | Na              | turalness   |  |   |                          |                            |  |
|    | а               | Modification to Water Chemistry pH Salinity (g/L)   | Reading<br>9.1<br>5.3                                      | Comments<br>-<br>-  | Index<br>Score<br>2<br>1 | Indicator<br>Score         |  |
|    |                 | Total Soluble N (μg/L)<br>Final Score for modification to water   | 1600<br>chemistry  | -   | 3                        | 2.00                       |  |
|    | <i>b</i>        | Modification to vegetation Regenerative capacity Weed invasion Structure State Final Score for modification to veget  | - Some week<br>- Structural la<br>- Significant            | on of <i>Tecticornia</i> occurring in upper slope.  d species present but not significant.  ayers are as expected for a claypan.  area of <i>Tecticornia</i> showing signs of stress.                 | 2.0<br>2.5<br>3.0<br>2.0 | 2.38                       |  |
|    | С               | Other disturbances  Adjustment to score   | resource.  | historically excavated claypan for water  |                          | -0.33                      |  |
|    |                 | Final naturalness score = avel  | rage (water c  | hemistry, vegetation) – other disturbances  |                          | <u>1.86</u>                |  |
| 2  | <b>Div</b><br>a | rersity  Habitat diversity  Final score for habitat diversity   | # Habitats   | <u>Comments</u>   | Index<br>Score           | Indicator<br>Score<br>2.00 |  |
|    | b               | Flora richness  No. submerged species  No. emergent species  No. fringing species  Final flora richness score   | # Species<br>1<br>0<br>4                                   | - Ruppia polycarpa.<br>-<br>- Atriplex, Tecticornia, Gunniopsis, Triglochir   | 3<br>1<br>1              | 1.67                       |  |
|    | c               | Fauna richness Invertebrates Waterbirds Other native wetland fauna observed Final fauna richness score  | # Species<br>28<br>0<br>1                                  | - Species level identification of micro- and macro- invertebrates Significant numbers of tadpoles observed, although appeared to be struggling due to increasing salinity as basin dries (Bull frog). | 2<br>N/A<br>3            | 2.50                       |  |
|    |                 | Final diversity score = averag  | e (habitat div   | ersity, flora richness, fauna richness)   |                          | <u>2.06</u>                |  |
| 3  | Si              | gnificance  Does the wetland have a consumptive  Does the wetland have a recreational  Does the wetland have a spiritual/philo  Does the wetland perform an ecosyste  Does the wetland have a scientific/edu  Does the wetland have a vegetation covalue? | value?<br>osophical valu<br>om service?<br>ocational value | -   |                          | x<br>x<br>x<br>x           |  |
|    | •               | Does the wetland have a representative  | veness value?  | -   |                          | ×                          |  |
|    |                 |   |  | nal Evaluation  |                          |                            |  |
| In | itial           | ge diversity and naturalness score<br>wetland management category <i>(avera</i><br>3 = Resource Enhancement, <1.67 = N  |  | ss and diversity >2.3 = Conservation,   | 1.96<br>Resource Enl     |                            |  |
|    |                 | wetland is in the Multiple Use category<br>ograded to Resource Enhancement cat  |  | ecosystem or human significance, then sapplicable?  | No                       |                            |  |
| Fi | nal             | wetland management category   |  |   | Resource Enl             | nancement                  |  |

Site Name: Saline lake at "Lakeside"

Site Code: ABP115 Latitude: Private property Longitude: Private property

Date Assessed: 17/09/2008, 09/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

## Site Photos



The vegetation at this naturally saline wetland appears to have been historically cleared. Little diversity and structure remains, along with significant weed invasion at higher elevations. Rehabilitation of vegetation may be possible. This wetland retains good aquatic values such as maintaining water quality for submerged vegetation, invertebrates and waterbird colonisation.







| A 4 4 ! - | 0            |                  |              |
|-----------|--------------|------------------|--------------|
| Automatic | Conservation | category criteri | a evaluation |

|   | Automatic Conservation category criteria evaluation  |                        |
|---|--|------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
| 2 | Does the wetland meet one of the following criteria?   | No                     |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.  | ×                      |
| 3 | Does the wetland meet two of the following criteria?   | No                     |
|   | Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:   |                        |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ×                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×<br>×                 |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |
|   |  |                        |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

| Adjustment to score    Naturalness   Index   Indicator   Score   Score |  |                      |  | S                                       | ite Evaluation                               |              |             |
|--|--|----------------------|--|---|--|--------------|-------------|
| A  | 4  | NI~                  | huralnoee                              |   | no Evaluation                                |              |             |
| Salinky (grt)   32   | 1  | Na                   | turainess                              |   |  | Index        | Indicator   |
| Salinity (gL) 32 - NA A 2 Total Souble N (µg/L) 120 250 Final Score for modification to water chemistry 2.50 Modification to vegetation Regenerative capacity - Little recruitment of native species occurring, 1.5 Weed invasion - Significant weed invasion on western side of take. 2.0 Structure - Upper shrub layer missing. 1.5 Structure - Upper shrub layer missing. 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Large areas of Tecticornia showing stress. 1.0 1.5 Structure - Comment of the structure - Comment - Comment of the structure - Comment of the structure - Comment - C     |  | а                    | Modification to Water Chemistry        | Reading                                 | <u>Comments</u>                              | Score        | Score       |
| Total Soluble N (grtL)   1200     2  |  |                      | рН                                     | 8.2                                     | -  | 3            |             |
| Final Score for modification to water chemistry   2.50   |  |                      | Salinity (g/L)                         | 32                                      | -  | N/A          |             |
| Beginnerative capacity   - Little recruitment of native species occurring.   1.5   |  |                      | Total Soluble N (μg/L)                 | 1200                                    | -  | 2            |             |
| Regenerative capacity Weed invasion Structure - Upper shrub layer missing. State - Large areas of Tecticornia showing stress.  1.0  Coller disturbances - A channel has been excavated on the northern side. Which acts to hydrologically connect the two wetlands. Road running through what would have been the edge of the wetland.  Final score for modification to vegetation  Final naturalness score = average (water chemistry, vegetation) - other disturbances  Plora richness Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetland.  Final naturalness score = average (water chemistry, vegetation) - other disturbances  Plora richness  Final score for habitat diversity  Blora richness  Blora richness  Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetlands. Road running through what would have been the edge of the wetland have a consumptive use with the wetland of the wetland flowersity  Final flora richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  Significance Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland have a sepiratual/philosophical value?  Does the wetland have a sepiratual/philosophical value?  Does the wetland have a recreational value?  Does the wetland have a recreational value?  Does the wetland have a regreation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Final Evaluation  N/A  Resource Enhancement  If the Wet |  |                      | Final Score for modification to water  | chemistry                               |  |              | 2.50        |
| Weed invasion   Significant weed invasion on western side of lake.   2.0   Structure   Upper shrub layer missing.   1.5   1.   |  | b                    | Modification to vegetation             |   |  |              |             |
| Weed invasion   Significant weed invasion on western side of lake.   2.0   Structure   Upper shrub layer missing.   1.5   1.   |  |                      | Regenerative capacity                  | - Little recrui                         | tment of native species occurring.           | 1.5          |             |
| State - Large areas of Tecticomia showing stress.  Final Score for modification to vegetation  Adjustment to score  Adjustment to score  - A channel has been excavated on the northern side, which acts to hydrologically connect the two wellands.  Final naturalness score = average (water chemistry, vegetation) - other disturbances  Pinal naturalness score = average (water chemistry, vegetation) - other disturbances    Pinal score for habitat diversity  |  |                      |  |   |  | 2.0          |             |
| State - Large areas of Tecticomia showing stress.  Final Score for modification to vegetation  Adjustment to score  Adjustment to score  - A channel has been excavated on the northern side, which acts to hydrologically connect the two wellands.  Final naturalness score = average (water chemistry, vegetation) - other disturbances  Pinal naturalness score = average (water chemistry, vegetation) - other disturbances    Pinal score for habitat diversity  |  |                      | Structure                              | - Upper shru                            | ıb layer missing.                            | 1.5          |             |
| Final Score for modification to vegetation  Other disturbances  - A channel has been excavated on the northern side, which acts to hydrologically connect the two wetlands. Road running through what would have been the edge of the wetland. Road running through what would have been the edge of the wetland. Road running through what would have been the edge of the wetland. Road running through what would have been the edge of the wetland. Road running through what would have been the edge of the wetland. Road running through what would have been the edge of the wetland flowersity.  Final naturalness score = average (water chemistry, vegetation) - other disturbances  Description of habitat diversity # Habitats  |  |                      | State                                  | - Large area                            | s of <i>Tecticornia</i> showing stress.      | 1.0          |             |
| A cljustment to score swerzee (water chemistry, vegetation) – other disturbances  Final naturalness score = averæee (water chemistry, vegetation) – other disturbances  Final naturalness score = averæee (water chemistry, vegetation) – other disturbances  Final naturalness score = averæee (water chemistry, vegetation) – other disturbances    Adjustment to score   averæee (water chemistry, vegetation) – other disturbances   1.83  |  |                      | Final Score for modification to veget  | ŭ                                       | Ğ  |              | 1.50        |
| Adjustment to score which acts to hydrologically connect the two wetlands. Road running through what would have been the edge of the wetland.  Final naturalness score = average (water chemistry, vegetation) – other disturbances    Final naturalness score = average (water chemistry, vegetation) – other disturbances   Final score for habitat diversity   3   Comments   Index Score   Index Score |  | c Other disturbances |  |   |  |              |             |
| Pacific   Paci   |  |                      |  | which acts to<br>Road runnin            | hydrologically connect the two wetlands.     |              | 0.17        |
| A   Habitat diversity   # Habitats   Comments   Index Score   Indicator Score   Score   Indicator Indicator Indicator   Indicator Indica   |  |                      | Final naturalness score = ave          | rage (water c                           | hemistry, vegetation) – other disturbances   |              | <u>1.83</u> |
| Final score for habital diversity 3 - Comments Score Flora richness #Species  No. submerged species 2 - Lepilaena cylindrocarpa, Ruppia polycarpa. 3 No. emergent species 0 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 2  | Di۱                  | versity                                |   |  |              |             |
| Final score for habitat diversity 3 - 1,00  b Flora richness #Species No. submerged species 2 - Lepilaena cylindrocarpa, Ruppia polycarpa. 3 No. emergent species 0 - 1 1 1 1.67 No. fringing species 6 - 6 species of Tecticomia. 1 1 1.67  c Fauna richness #Species Invertebrates 12 - Species level identification of micro- and macro- invertebrates. 12 - Species level identification of micro- and macro- invertebrates. 12 No. A 1.67  C Fauna richness 5 5 - E.g. Black-winged Stilt, Red-capped Plover. 3 No. A 1.67  C Teanal diversity score = average (habitat diversity, flora richness, fauna richness) 1.72  Other native wetland fauna observed 0 No. A 1.72  Significance  Does the wetland have a consumptive use value? - 1 1.72  Does the wetland have a recreational value? - 1 1.72  Does the wetland have a spiritual/philosophical value? - 1 1.73  Does the wetland have a spiritual/philosophical value? - 1 1.73  Does the wetland have a scientific/educational value? - 1 1.73  Does the wetland have a vegetation connectivity value? - 1 1.73  Does the wetland have a vegetation connectivity value? - 1 1.73  Does the wetland have a recreatentativeness value? - 1 1.73  Average diversity and naturalness score 1.76  Final tevelland management category (average naturalness and diversity > 2.3 = Conservation, 1.67-2.3 = Resource Enhancement   |  | а                    | Habitat diversity                      | # Habitats                              | Comments                                     |              |             |
| No. submerged species   2  |  | <u> </u>             | -                                      |   | -  | <u>Score</u> |             |
| No. submerged species 2 - Lepilaena cylindrocarpa, Ruppla polycarpa. 3 No. emergent species 0 - 1 No. fringing species 6 - 6 species of Tecticornia. 1 Final flora richness score 1.67  C Fauna richness #Species Invertebrates 12 - Species level identification of micro- and macro- invertebrates. 2 Waterbirds 5 - E.g. Black-winged Stilt, Red-capped Plover. 3 Other native wetland fauna observed 0 - N/A Final flauna richness score 2.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.77  3 Significance  Does the wetland have a consumptive use value? - 2.50 Does the wetland have a recreational value? - 3 Does the wetland have a spiritual/philosophical value? - 3 Does the wetland have a spiritual/philosophical value? - 3 Does the wetland have a scientific/educational value? - 3 Does the wetland have a vegetation connectivity value? - 3 Does the wetland have a vegetation connectivity value? - 3 Does the wetland have a representativeness value? - 3 Does the wetland have a repre |  | h.                   |  |   |  |              |             |
| No. emergent species No. fringing species Final flora richness score Fauna richness Invertebrates Intervalvation Int |  | U                    |  |   |  | •            |             |
| No. fringing species   |  |                      | •                                      |   | - Lepilaena cylindrocarpa, Huppia polycarpa. |              |             |
| Final flora richness score  Final richness    Final richness   |  |                      |  | -                                       | -  |              |             |
| Fauna richness   |  |                      |  | 6                                       | - 6 species of Tecticornia.                  | 1            |             |
| Invertebrates 12 - Species level identification of micro- and 2 Waterbirds 5 - E.g. Black-winged Stilt, Red-capped Plover. 3 Other native wetland fauna observed 0 - N/A Final fauna richness score 2.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.72  3 Significance  • Does the wetland have a consumptive use value? -   |  |                      | Final flora richness score             |   |  |              | 1.67        |
| Waterbirds 5 - E.g. Black-winged Stilt, Red-capped Plover. 3 Other native wetland fauna observed 0 - N/A Final fauna richness score 2.50  Final diversity score = average (habitat diversity, flora richness, fauna richness) 1.72  3 Significance  Does the wetland have a consumptive use value? - × Does the wetland have a recreational value? - × Does the wetland have a spiritual/philosophical value? - × Does the wetland perform an ecosystem service? - × Does the wetland have a scientific/educational value? - × Does the wetland have a vegetation connectivity value? - × Does the wetland have a representativeness value? - × Does the wetland have a representativeness value? - × Tinal Evaluation  Average diversity and naturalness score 1.78 Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  Resource Enhancement it is upgraded to Resource Enhancement category. Is this applicable?   |  | С                    | Fauna richness                         | # Species                               |  |              |             |
| Waterbirds 5 - E.g. Black-winged Stilt, Red-capped Plover. 3 Other native wetland fauna observed 0 - N/A Final fauna richness score 2.50  Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  • Does the wetland have a consumptive use value? -  |  |                      | Invertebrates                          | 12                                      | •  | 2            |             |
| Other native wetland fauna observed 0 - N/A  Final fauna richness score 2.50  Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  • Does the wetland have a consumptive use value? • Does the wetland have a recreational value? • Does the wetland have a spiritual/philosophical value? • Does the wetland perform an ecosystem service? • Does the wetland have a scientific/educational value? • Does the wetland have a vegetation connectivity • Does the wetland have a vegetation connectivity • Does the wetland have a representativeness value? • Tinal Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  Resource Enhancement  N/A   |  |                      | Waterbirds                             | 5                                       |  | . 3          |             |
| Final fauna richness score  Final diversity score = average (habitat diversity, flora richness, fauna richness)  3 Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  1.78  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  Resource Enhancement  N/A  |  |                      | Other native wetland fauna observed    |   |  |              |             |
| 3 Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |  |                      |  | -                                       |  |              | 2.50        |
| 3 Significance  Does the wetland have a consumptive use value?  Does the wetland have a recreational value?  Does the wetland have a spiritual/philosophical value?  Does the wetland perform an ecosystem service?  Does the wetland have a scientific/educational value?  Does the wetland have a scientific/educational value?  Does the wetland have a vegetation connectivity value?  Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  |  |                      | Final diversity score = average        | ıe (habitat div                         | versity, flora richness, fauna richness)     |              |             |
| <ul> <li>Does the wetland have a consumptive use value? <ul> <li>Does the wetland have a recreational value?</li> <li>Does the wetland have a spiritual/philosophical value?</li> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation  Average diversity and naturalness score  <ul> <li>Final Evaluation</li> </ul> </li> <li>Average diversity and naturalness score  1.78  Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul>  | 3  | Si                   | , ,                                    | (11010110111011110111111111111111111111 | <b>,</b> ,,                                  |              |             |
| <ul> <li>Does the wetland have a recreational value? <ul> <li>Does the wetland have a spiritual/philosophical value?</li> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation  Average diversity and naturalness score  1.78  Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul>  | •  | •                    | -                                      | use value?                              | _  |              | ×           |
| <ul> <li>Does the wetland have a spiritual/philosophical value?         <ul> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation         <ul> <li>Average diversity and naturalness score</li> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>Resource Enhancement it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>   |  |                      | -                                      |   | _  |              |             |
| <ul> <li>Does the wetland perform an ecosystem service?         <ul> <li>Does the wetland have a scientific/educational value?</li> <li>Does the wetland have a vegetation connectivity value?</li> <li>Does the wetland have a representativeness value?</li> </ul> </li> <li>Final Evaluation</li> <li>Average diversity and naturalness score         <ul> <li>Initial wetland management category (average naturalness and diversity &gt;2.3 = Conservation, 1.67-2.3 = Resource Enhancement, &lt;1.67 = Multiple Use)</li> <li>Resource Enhancement it is upgraded to Resource Enhancement category. Is this applicable?</li> </ul> </li> </ul>   |  | •                    |  |   | e? -   |              |             |
| Does the wetland have a scientific educational value?     Does the wetland have a vegetation connectivity value?     Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  **  **  **  **  **  **  **  **  **  |  |                      |  | =                                       | <u>-</u>                                     |              | ×           |
| Does the wetland have a vegetation connectivity value?     Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?    X   |  | •                    |  |   | <u>.</u>                                     |              | ×           |
| value?  • Does the wetland have a representativeness value?  Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   |  | •                    |  |   |  |              |             |
| Final Evaluation  Average diversity and naturalness score  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  N/A   |  |                      | value?                                 | -                                       | -  |              | ×           |
| Average diversity and naturalness score  1.78  Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  1.78  Resource Enhancement N/A  |  | •                    | Does the wetland have a representative | veness value?                           | ·<br>-                                       |              | ×           |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?  N/A  |  |                      |  | Fi                                      | nal Evaluation                               |              |             |
| 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable?   | Average diversity and naturalness score 1.78 |                      |  |   |  |              | 8           |
| it is upgraded to Resource Enhancement category. Is this applicable?   |  |                      |  |   |  |              |             |
|  |  |                      |  |   |  | N/A          | <b>A</b>    |
|  |  |                      |  | J .                                     |  | Resource En  | hancement   |

Site Name: Boshack Lake at Dawson Road

Site Code: ABP116 Latitude: Private property Longitude: Private property

Date Assessed: 18/09/2008, 18/09/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Lake Biological classification: Freshwater basin

Site Photos

# Site summary

This wetland is a recreational area for campers and bird watchers. It supports fish, turtles, piscivorous waterbirds most likely due to favourable water quality. Half of the wetland also falls into a Registered Aboriginal Site.







Yes

| Automotio | Concorvation | antagory arita | ria evaluation |
|-----------|--------------|----------------|----------------|
|           |              |                |                |

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet <u>one</u> of the following criteria?  | No                     |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>  | ×                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | × t                    |
| 3 | Does the wetland meet two of the following criteria?   | Yes                    |
|   | Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever     and and the second condition of the wetland has native vegetation in 'Good' or better condition using the Bush Forever     and and the second condition of the wetland has native vegetation in 'Good' or better condition using the Bush Forever                               |                        |
|   | scale <u>and</u> : <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>  | *                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | *<br>*                 |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute. Freshwater</li> </ul>   | ✓                      |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 faunalisted by the State Government.</li> </ul>   | ×                      |
|   | <ul> <li>The wetland supports cultural values that are based on natural attributes or functions. Half of wetland falls into<br/>Registered Aboriginal Site</li> </ul>  | a ✓                    |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|  |   | Site Evaluation |   |                       |                    |  |  |  |
|--|---|-----------------|---|-----------------------|--------------------|--|--|--|
| 1 N-   | turalnose   | - 31            | L Valdation   |                       |                    |  |  |  |
| 1 Na   | turalness   |                 |   | Index                 | Indicator          |  |  |  |
| а  | Modification to Water Chemistry                               | Reading         | <u>Comments</u>   | Score                 | Score              |  |  |  |
|  | pH  | 9.0             | -   | 2                     |                    |  |  |  |
|  | Salinity (g/L)  | 2.6             | -   | 2                     |                    |  |  |  |
|  | Total Soluble N (μg/L)  Final Score for modification to water | 780             | -<br>-  | 3                     | 2.33               |  |  |  |
|  |   | CHEITHSUY       |   |                       | 2.33               |  |  |  |
| b  | Modification to vegetation                                    |                 |   |                       |                    |  |  |  |
|  | Regenerative capacity   |                 | t of sedges/reeds occurring.  | 2.5                   |                    |  |  |  |
|  | Weed invasion   | 0 1             | nes of <i>Juncus</i> in some areas.  Tructural layers generally present. Some areas | 2.0                   |                    |  |  |  |
|  | Structure   | have been cle   |   | 2.5                   |                    |  |  |  |
|  | State   | - Most native   | vegetation in good condition.   | 3.0                   |                    |  |  |  |
|  | Final Score for modification to veget                         | ation           |   |                       | 2.50               |  |  |  |
| С  | Other disturbances  |                 |   |                       |                    |  |  |  |
|  | Adjustment to score   |                 | nd of lake has been modified to accommodate derate impact.                          |                       | 0.17               |  |  |  |
|  | Final naturalness score = ave                                 | rage (water ch  | nemistry, vegetation) – other disturbances  |                       | <u>2.25</u>        |  |  |  |
| 2 Div  | versity   |                 |   |                       |                    |  |  |  |
| а  | Habitat diversity   | # Habitats      | <u>Comments</u>   | <u>Index</u><br>Score | Indicator<br>Score |  |  |  |
|  | Final score for habitat diversity                             | 6               | -   | <u>Score</u>          | 2.00               |  |  |  |
| b  | Flora richness  | # Species       |   |                       |                    |  |  |  |
| -  | No. submerged species   | 1               | - Najas marina.   | 2                     |                    |  |  |  |
|  | No. emergent species  | 3               | - E.g. Casuarina obesa, Eucalyptus rudis.   | 2                     |                    |  |  |  |
|  | No. fringing species  | 6               | - E.g. <i>Apium</i> spp., <i>Triglochin</i> spp., <i>Lobelia</i>                    | 2                     |                    |  |  |  |
|  |   | 0               | spp.  | 2                     | 0.00               |  |  |  |
| ·  | Final flora richness score                                    |                 |   |                       | 2.00               |  |  |  |
| С  | Fauna richness  | # Species       |   |                       |                    |  |  |  |
|  | Invertebrates   | 20              | - Species level identification of micro- and macro- invertebrates.                  | 1                     |                    |  |  |  |
|  | Waterbirds  | 6               | - E.g. Little Black Cormorant, Black Duck.  | 2                     |                    |  |  |  |
|  | Other native wetland fauna observed                           | 3               | - Western Minnow, Swan River Goby, turtle.  | 3                     |                    |  |  |  |
|  | Final fauna richness score                                    |                 |   |                       | 2.00               |  |  |  |
|  | Final diversity score = averag                                | e (habitat dive | ersity, flora richness, fauna richness)   |                       | <u>2.00</u>        |  |  |  |
| 3 Si   | gnificance  |                 |   |                       |                    |  |  |  |
| •  | Does the wetland have a consumptive                           | use value?      | -   |                       | ×                  |  |  |  |
| •  | Does the wetland have a recreational                          |                 | - Camping area.   |                       | ✓                  |  |  |  |
| •  | Does the wetland have a spiritual/phile                       | osophical value |   |                       | ×                  |  |  |  |
| •  | Does the wetland perform an ecosyste                          | em service?     | -   |                       | ×                  |  |  |  |
| •  | Does the wetland have a scientific/edu                        | ucational value |   |                       | ×                  |  |  |  |
| •  | Does the wetland have a vegetation c value?                   | onnectivity     | <ul> <li>Good vegetation connections with other n wetlands.</li> </ul>              | earby                 | ✓                  |  |  |  |
| •  | Does the wetland have a representative                        | veness value?   | wellands.   |                       | *                  |  |  |  |
|  |   | Fie             | -   |                       |                    |  |  |  |
| Final Evaluation  Average diversity and naturalness score 2.12   |   |                 |   |                       |                    |  |  |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  N/A              |   |                 |   |                       |                    |  |  |  |
| If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |   |                 |   |                       |                    |  |  |  |
| Final  | wetland management category                                   |                 |   | Conserv               | ation              |  |  |  |

Site Name: Murrays Lake at Tyndall Rd

Site Code: ABP117 Latitude: Private property Longitude: Private property

Date Assessed: 18/09/2008, 21/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Lake Biological classification: Freshwater basin

Site Photos

## Site summary

According to the landholder, this lake arose in recent history. There are still sheep yards in the middle of it, which is now under more than 1.5m of water. This site has good water chemistry and high invertebrate diversity.







No

## **Automatic Conservation category criteria evaluation**

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet one of the following criteria?   | No                     |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.  | ×                      |
| 3 | Does the wetland meet <b>two</b> of the following criteria?  | No                     |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>  |                        |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ×                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×<br>×                 |
|   | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×                      |
|   | • The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute. Freshwater   | ✓                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|  | Site Evaluation  |  |   |  |                |                      |  |  |  |
|--|--|--|---|--|----------------|----------------------|--|--|--|
| 1  | No   | turalness  |   |  |                |                      |  |  |  |
| '  | INA  | turamess   |   |  | Index          | Indicator            |  |  |  |
|  | а  | Modification to Water Chemistry  | Reading                                     | <u>Comments</u>  | <u>Score</u>   | <u>Score</u>         |  |  |  |
|  |  | pH<br>Solinity (a/L)   | 9.3<br>1.3                                  | <del>-</del>   | 2<br>2         |                      |  |  |  |
|  |  | Salinity (g/L) Total Soluble N (μg/L)                                      | 1.3   | -<br>-   | 3              |                      |  |  |  |
|  |  | Final Score for modification to water                                      |   | -  | 3              | 2.33                 |  |  |  |
|  | b  | Modification to vegetation   | ononnou y                                   |  |                |                      |  |  |  |
|  | D  | <u></u>  | - Recruitmer                                | nt of reeds and sedges observed, not taller                                    | 4 7            |                      |  |  |  |
|  |  | Regenerative capacity  | shrubs.                                     | is or record and ecoagoe excerves, not tailed                                  | 1.7            |                      |  |  |  |
|  |  | Weed invasion  | •   | areas of <i>Juncus</i> .   | 1.7            |                      |  |  |  |
|  |  | Structure  | <ul> <li>Upper shru<br/>cleared.</li> </ul> | b layer missing in some areas that have been                                   | 1.7            |                      |  |  |  |
|  |  | State  |   | vegetation in good condition.  | 3.0            |                      |  |  |  |
|  | _  | Final Score for modification to veget                                      | ation                                       |  |                | 2.00                 |  |  |  |
|  | С  | Other disturbances   |   |  |                |                      |  |  |  |
|  |  | Adjustment to score  |   | nin appears to have been excavated on the e of the lake, only moderate impact. |                | 0.17                 |  |  |  |
|  |  | Final naturalness score = ave  | rage (water c                               | hemistry, vegetation) – other disturbances                                     | <b>;</b>       | <u>2.00</u>          |  |  |  |
| 2  | Div  | versity  |   |  |                |                      |  |  |  |
|  | а  | Habitat diversity  | # Habitats                                  | Comments   | Index          | Indicator            |  |  |  |
|  | -  | Final score for habitat diversity  | 6   | <u>-</u>   | <u>Score</u>   | <u>Score</u><br>2.00 |  |  |  |
|  | b  | Flora richness   | # Species                                   |  |                |                      |  |  |  |
|  |  | No. submerged species  | 2   | - Najas marina, Potamogeton pectinatus.  | 3              |                      |  |  |  |
|  |  | No. emergent species   | 3   | - 2 species of Baumea, Eucalyptus rudis.                                       | 2              |                      |  |  |  |
|  |  | No. fringing species   | 2   | - Lobelia alata, Sonchus hydrophilus.  | 2              |                      |  |  |  |
|  |  | Final flora richness score   |   |  |                | 2.33                 |  |  |  |
|  | С  | Fauna richness   | # Species                                   |  |                |                      |  |  |  |
|  |  | Invertebrates  | 43  | - Species level identification of micro- and macro- invertebrates.             | 2              |                      |  |  |  |
|  |  | Waterbirds   | 4   | - Musk Duck, Australian Black Duck, Silver Gull, Purple Swamphen.              | 2              |                      |  |  |  |
|  |  | Other native wetland fauna observed  | 0   | Guii, Fuipie Swamphen.   | N/A            |                      |  |  |  |
|  |  | Final fauna richness score   |   |  |                | 2.00                 |  |  |  |
|  |  | Final diversity score = averag   | e (habitat div                              | versity, flora richness, fauna richness)                                       |                | <u>2.11</u>          |  |  |  |
| 3  | Si   | gnificance   |   |  |                |                      |  |  |  |
|  | •  | Does the wetland have a consumptive  | use value?                                  | - Owner uses water for irrigation and st                                       | tock watering. | ✓                    |  |  |  |
|  | •  | Does the wetland have a recreational                                       |   | -  | · ·            | ×                    |  |  |  |
|  | •  | Does the wetland have a spiritual/philo                                    | osophical valu                              | e? -   |                | ×                    |  |  |  |
|  | •  | Does the wetland perform an ecosyste                                       |   | -  |                | ×                    |  |  |  |
|  | •  | Does the wetland have a scientific/edu                                     |   | 9? -   |                | ×                    |  |  |  |
|  | •  | Does the wetland have a vegetation covalue?                                | onnectivity                                 | -  |                | ×                    |  |  |  |
|  | •  | Does the wetland have a representative                                     | veness value?                               | <u>-</u>   |                | *                    |  |  |  |
|  | Final Evaluation   |  |   |  |                |                      |  |  |  |
| Average diversity and naturalness score 2.05 |  |  |   |  | i              |                      |  |  |  |
|  |  | wetland management category (averages).3 = Resource Enhancement, <1.67 = N |   | ss and diversity >2.3 = Conservation,  | Resource Enh   | nancement            |  |  |  |
| lf t<br>it i                                 | If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |  |   |  |                |                      |  |  |  |
| Fi   | nal  | wetland management category  |   |  | Resource Enh   | nancement            |  |  |  |
|  |  |  |   |  |                |                      |  |  |  |

Site Name: Freshwater wetland at Carr Road

Site Code: ABP118 Latitude: Private property Longitude: Private property

Date Assessed: 22/09/2008, 23/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Freshwater basin

### Site summary

Although this site has undergone some changes (waterlogging), it still retains a population of Acacia brachypoda (Declared Rare Flora). There were also breeding waterbirds observed at the site.

### **Site Photos**







### **Automatic Conservation category criteria evaluation**

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
|---|--|------------------------|
| 2 | Does the wetland meet one of the following criteria?   | No                     |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>   | *                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | *                      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *                      |
| 3 | Does the wetland meet two of the following criteria?   | Yes                    |
|   | Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:   |                        |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ×                      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x DR</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>   | ✓<br>*                 |
|   | <ul> <li>supports an identified occurrence of a Friority For 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute. Freshwater</li> </ul>   | ✓                      |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | *                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

Yes

|       |  | Si              | ite Evaluation   |                   |                      |
|-------|--|-----------------|--|-------------------|----------------------|
| 1 Na  | aturalness   |                 |  |                   |                      |
|       |  | Deseller        | O a manufacture of the control of th | Index             | Indicator            |
| а     | Modification to Water Chemistry pH   | Reading<br>8.1  | <u>Comments</u>  | <u>Score</u><br>2 | <u>Score</u>         |
|       | Salinity (g/L)   | 1.3             | _  | 2                 |                      |
|       |  |                 | - Very high nitrogen levels, probably from   |                   |                      |
|       | Total Soluble N (μg/L)   | 5900            | surrounding farmland.  | 1                 | 4.07                 |
|       | Final Score for modification to water                                      | chemistry       |  |                   | 1.67                 |
| b     | Modification to vegetation   |                 |  |                   |                      |
|       | Regenerative capacity - Little recruitment observed. 1.3                   |                 |  |                   |                      |
|       | Weed invasion  |                 | y almost completely replaced with weeds.   | 1.3               |                      |
|       | Structure  |                 | b layer missing.   | 1.0               |                      |
|       | State  |                 | icornia and Melaleuca's stressed.  | 2.7               | 4.50                 |
|       | Final Score for modification to veget                                      | ation           |  |                   | 1.58                 |
| С     | Other disturbances   |                 |  |                   |                      |
|       | Adjustment to score  |                 | -  |                   | 0.00                 |
|       | Final naturalness score = ave  | rage (water c   | hemistry, vegetation) – other disturbances   |                   | <u>1.63</u>          |
| 2 Di  | versity  |                 |  |                   |                      |
| а     | Habitat diversity  | # Habitats      | <u>Comments</u>  | Index             | Indicator            |
|       | Final score for habitat diversity  | 7               |  | <u>Score</u>      | <u>Score</u><br>3.00 |
| -     |  |                 |  |                   | 0.00                 |
| b     | Flora richness   | # Species       |  |                   |                      |
|       | No. submerged species  | 2               | - Potamogeton sp., Ruppia sp.  | 3                 |                      |
|       | No. emergent species   | 2               | <ul> <li>Eucalyptus rudis, Meeboldina scariosa.</li> <li>Heliotropium, Isolepis, Melaleuca,</li> </ul>   | 2                 |                      |
|       | No. fringing species   | 4               | - Hellotropium, Isolepis, Melaleuca,<br>Triglochin.  | 2                 |                      |
|       | Final flora richness score   |                 | _  |                   | 2.33                 |
| С     | Fauna richness   | # Species       |  |                   |                      |
|       | Invertebrates  | 36              | - Species level identification of micro- and   | 2                 |                      |
|       | Waterbirds   | 6               | macro- invertebrates E.g. Pink-eared Duck, Australasian Grebe  | 2                 |                      |
|       | Other native wetland fauna observed  | 0               | - L.g. Filik-ealed Duck, Australasian Grebe  | N/A               |                      |
|       | Final fauna richness score   | V               |  | 14/71             | 2.00                 |
|       | Final diversity score = average  | e (habitat div  | ersity, flora richness, fauna richness)  |                   | 2.44                 |
| 3 S   | ignificance  | •               | ,  |                   |                      |
| •     | Does the wetland have a consumptive  | use value?      | <del>-</del>   |                   | ×                    |
| •     | Does the wetland have a recreational                                       |                 | -  |                   | ×                    |
| •     | Does the wetland have a spiritual/philo                                    | osophical value | e? -   |                   | ×                    |
| •     | Does the wetland perform an ecosyste                                       |                 | -  |                   | ×                    |
| •     | Does the wetland have a scientific/edu                                     |                 |  |                   | ×                    |
| •     | Does the wetland have a vegetation of value?                               | onnectivity     | <ul> <li>Good vegetation connection with other new<br/>wetland.</li> </ul>   | earby             | ✓                    |
| •     | Does the wetland have a representative                                     | veness value?   |  |                   | ×                    |
|       |  | Fir             | nal Evaluation   |                   |                      |
| Avera | nge diversity and naturalness score  |                 |  | 2.04              |                      |
|       | wetland management category (average 2.3 = Resource Enhancement, <1.67 = N |                 | ss and diversity >2.3 = Conservation,  | N/A               |                      |
|       | wetland is in the Multiple Use category pgraded to Resource Enhancement ca |                 | ecosystem or human significance, then<br>s applicable?   | N/A               |                      |
| Final | wetland management category  |                 |  | Conserv           | ation                |
|       |  |                 |  |                   |                      |

Site Name: Pike Lake at Kokeby Road

Site Code: ABP119
Latitude: Private property
Longitude: Private property
Date Assessed: 22/09/2008
Personnel: SMJ, MTC, DLH, CJF
Geomorphic wetland type: Playa

Biological classification: Freshwater basin but secondarily salinised

## **Site Photos**



This site has high conservation value, although unfortunately is being impacted by secondary salinisation. Casuarina's and Melaleuca's across the bed are starting to die off, but still form a Threatened Ecological Community. This site has a high diversity of flora and fauna.







| Automotic   | Concorvation  | antogory arite | eria evaluation   |
|-------------|---------------|----------------|-------------------|
| MULUIIIALIC | CONSCI VALION | Calcuoty Citt  | ti ia Evaiualiuii |

|   | Automatic Conservation category criteria evaluation   |     |
|---|---|-----|
| 1 | Is the wetland identified under any of the following agreements?  | No  |
|   | Ramsar Convention on wetlands   | ×   |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×   |
|   | Directory of Important Wetlands   | ×   |
|   | Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998   | ×   |
|   | World/National Heritage listings  | ×   |
|   |   |     |
| 2 | Does the wetland meet <u>one</u> of the following criteria?   | Yes |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.   | ×   |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>   | ×   |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community. Living stands of Casuarina<br/>obesa and Melaleuca strobophylla across the basin floor. Not an official TEC site.</li> </ul> | ✓   |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | *   |
| 3 | Does the wetland meet two of the following criteria?  | No  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |     |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>  | ×   |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> </ul>  | *   |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and</li> </ul>   | ×   |
|   | geoconservation   |     |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>   | ×   |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>   | ×   |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | *   |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

Yes

|  | Site Evaluation  |  |  |                |                      |  |  |
|--|--|--|--|----------------|----------------------|--|--|
| 4 N  | Neturalnasa  | Sit  | e Evaluation   |                |                      |  |  |
| 1 N  | Naturalness  |  |  | Index          | Indicator            |  |  |
| а  | <del></del>  | Reading  | <u>Comments</u>  | Score          | Score                |  |  |
|  | pH   | 10.0   |  | 1              |                      |  |  |
|  | Salinity (g/L)<br>Total Soluble N (µg/L)   | 8.8<br>1300  | - Affected by secondary salinisation.  | 1<br>3         |                      |  |  |
|  | Final Score for modification to water  |  | <del>-</del>   | 3              | 1.67                 |  |  |
| h  |  | on on one  |  |                |                      |  |  |
| Ь  | <u> </u>   | Litale are smaller                                 | and of mathematical  | 4.0            |                      |  |  |
|  | Regenerative capacity  |  | ment of natives occurring. ecially prominent along southern shore of                 | 1.3            |                      |  |  |
|  | Weed invasion  | wetland.   |  | 1.7            |                      |  |  |
|  | Structure  | <ul> <li>Remnants o<br/>due to salinisa</li> </ul> | f all strata left, but Paperbarks are dying off                                      | 2.0            |                      |  |  |
|  | State  |  | b layer very stressed.   | 1.5            |                      |  |  |
|  | Final Score for modification to veget  | ation  | •  |                | 1.63                 |  |  |
| С  | C Other disturbances   |  |  |                |                      |  |  |
|  | Adjustment to score  | - Drain has be                                     | een excavated on southern side.  |                | 0.17                 |  |  |
|  | •  |  | nemistry, vegetation) – other disturbances   |                | 1.48                 |  |  |
|  | rillai liaturalliess score = ave   | rage (water cri                                    | emistry, vegetation) – other disturbances  |                | <u>1.40</u>          |  |  |
| 2 D  | Diversity  |  |  |                |                      |  |  |
| а  | a Habitat diversity  | # Habitats   | <u>Comments</u>  | Index<br>Secre | Indicator<br>Score   |  |  |
|  | Final score for habitat diversity  | 7  | <del>-</del>   | <u>Score</u>   | <u>Score</u><br>3.00 |  |  |
| b  |  | # Species  |  |                |                      |  |  |
| D  | No. submerged species  | <del># Орссісз</del><br>1                          | Punnia nalyaarna   | 2              |                      |  |  |
|  |  | -  | <ul><li>Ruppia polycarpa.</li><li>Eucalyptus rudis, Baumea spp., Casuarina</li></ul> |                |                      |  |  |
|  | No. emergent species   | 4  | obesa.   | 3              |                      |  |  |
|  | No. fringing species   | 9  | - E.g. Atriplex, Cotula, Triglochin, Wilsonia.                                       | 3              |                      |  |  |
|  | Final flora richness score   |  |  |                | 2.67                 |  |  |
| С  | c Fauna richness   | # Species  |  |                |                      |  |  |
|  | Invertebrates  | 37   | - Species level identification of micro- and macro- invertebrates.                   | 2              |                      |  |  |
|  | Waterbirds   | 9  | - Yellow-billed Spoonbill nest and brood of  | 2              |                      |  |  |
|  |  | -  | Grey Teal.   |                |                      |  |  |
|  | Other native wetland fauna observed  Final fauna richness score  | 0  | -  | N/A            | 2.00                 |  |  |
|  |  |  |  |                |                      |  |  |
|  | Final diversity score = averag   | e (habitat dive                                    | ersity, flora richness, fauna richness)  |                | <u>2.56</u>          |  |  |
| 3 5  | Significance   |  |  |                |                      |  |  |
| •  | Does the wetland have a consumptive  | use value?   | -  |                | ×                    |  |  |
| •  | Does the wetland have a recreational   |  | -  |                | ×                    |  |  |
|  | Does the wetland have a spiritual/phild  | -  | -  |                | <b>x</b>             |  |  |
| •  | <ul> <li>Does the wetland perform an ecosyste</li> <li>Does the wetland have a scientific/edu</li> </ul>   |  | -<br>2   |                | ×                    |  |  |
| •  | <ul> <li>Does the wetland have a vegetation of</li> </ul>  |  |  |                |                      |  |  |
|  | value?   | -  | - Vegetation connectivity with other nearby  | wetiands.      | ✓                    |  |  |
| •  | Does the wetland have a representative   | eness value?                                       | -  |                | ×                    |  |  |
|  |  | Fin  | al Evaluation  |                |                      |  |  |
| Average diversity and naturalness score 2.02   |  |  |  |                |                      |  |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  N/A  |  |  |  |                |                      |  |  |
| If the   | If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |  |  |                |                      |  |  |
|  | al wetland management category   |  |  | Conserva       | ation                |  |  |
| the state of the s |  |  |  |                |                      |  |  |

Site Name: Saline lake #1 off Mills Road

Site Code: ABP120 Latitude: Private property Longitude: Private property

Date Assessed: 24/09/2008, 16/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

# Site summary

The vegetation at this naturally saline wetland appears to have been historically cleared. Little plant diversity and structure remains, along with significant weed invasion at higher elevations. Wetland retains moderate water quality and invertebrate and macrophyte diversity.

## **Site Photos**







No

### **Automatic Conservation category criteria evaluation**

| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No |
|---|--|----|
| 2 | Does the wetland meet one of the following criteria?   | No |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×  |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>  | ×  |
|   | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.  | *  |
| 3 | Does the wetland meet <b>two</b> of the following criteria?  | No |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>  |    |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ×  |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×  |
|   | <ul> <li>supports an identified occurrence of a Priority 1 of 2 Ecological Confinding</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×  |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | *  |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×  |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | *  |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

|    |      |   | 5  | ite Evaluation   |                       |                           |  |  |
|----|------|---|--|--|-----------------------|---------------------------|--|--|
| 1  | Na   | turalness   |  |  | Index                 | Indicator                 |  |  |
|    | а    | Modification to Water Chemistry   | Reading  | <u>Comments</u>  | Score                 | Score                     |  |  |
|    |      | pH  | 9.4  | -  | 2                     |                           |  |  |
|    |      | Salinity (g/L)  | 28   | -  | N/A                   |                           |  |  |
|    |      | Total Soluble N (μg/L)  | 1700   | -<br>-   | 2                     | 2.00                      |  |  |
|    | -    | Final Score for modification to water   | cnemistry  |  |                       | 2.00                      |  |  |
|    | b    | Modification to vegetation  |  |  |                       |                           |  |  |
|    |      | Regenerative capacity   | -  | ecruitment observed.   | 1.0                   |                           |  |  |
|    |      | Weed invasion   |  | re significant at upper elevations.  | 2.0                   |                           |  |  |
|    |      | Structure   |  | er shrub layer missing.  | 1.0                   |                           |  |  |
|    |      | State   | -  | cies remaining appear stressed.  | 1.0                   | 4.05                      |  |  |
|    |      | Final Score for modification to veget   | ation  |  |                       | 1.25                      |  |  |
|    | С    | Other disturbances  |  |  |                       |                           |  |  |
|    |      | Adjustment to score   | <ul> <li>Road runni<br/>minor effect.</li> </ul> | ng next to wetland but likely to have only a   |                       | 0.00                      |  |  |
|    |      | Final naturalness score = ave   | rage (water c                                    | hemistry, vegetation) – other disturbances   |                       | <u>1.63</u>               |  |  |
| 2  | Div  | rersity   |  |  |                       |                           |  |  |
|    | а    | Habitat diversity   | # Habitats                                       | <u>Comments</u>  | <u>Index</u><br>Score | <u>Indicator</u><br>Score |  |  |
|    |      | Final score for habitat diversity   | 3  | _  |                       | 1.00                      |  |  |
|    | b    | Flora richness  | # Species  |  |                       |                           |  |  |
|    |      | No. submerged species   | 3  | - Lepilaena spp., Ruppia tuberosa.   | 3                     |                           |  |  |
|    |      | No. emergent species  | 0  | -  | 1                     |                           |  |  |
|    |      | No. fringing species  | 5  | - 3 species Tecticornia, 2 species Triglochin.   | . 1                   |                           |  |  |
|    |      | Final flora richness score  |  |  |                       | 1.67                      |  |  |
|    | С    | Fauna richness  | # Species  |  |                       |                           |  |  |
|    |      | Invertebrates   | 21   | <ul> <li>Species level identification of micro- and<br/>macro- invertebrates.</li> </ul> | 3                     |                           |  |  |
|    |      | Waterbirds  | 1  | - Silver gull.   | 2                     |                           |  |  |
|    |      | Other native wetland fauna observed   | 0  | -  | N/A                   |                           |  |  |
|    |      | Final fauna richness score  | -  |  |                       | 2.50                      |  |  |
|    |      | Final diversity score = averag  | e (habitat div                                   | versity, flora richness, fauna richness)   |                       | <u>1.72</u>               |  |  |
| 3  | Si   | gnificance  |  |  |                       |                           |  |  |
|    | •    | Does the wetland have a consumptive   | use value?                                       | -  |                       | ×                         |  |  |
|    | •    | Does the wetland have a recreational  |  | -  |                       | ×                         |  |  |
|    | •    | Does the wetland have a spiritual/philo   | osophical valu                                   | e? -   |                       | ×                         |  |  |
|    | •    | Does the wetland perform an ecosyste  | em service?                                      | -  |                       | ×                         |  |  |
|    | •    | Does the wetland have a scientific/edu  | ıcational value                                  | e? -   |                       | ×                         |  |  |
|    | •    | Does the wetland have a vegetation of value?                                      | onnectivity                                      | -  |                       | *                         |  |  |
|    | •    | Does the wetland have a representative  | eness value?                                     | ·<br>-   |                       | ×                         |  |  |
| -  |      |   | Fi   | nal Evaluation   |                       |                           |  |  |
| Α۱ | era/ | ge diversity and naturalness score  |  |  | 1.67                  | 7                         |  |  |
|    |      | wetland management category <i>(avera</i><br>.3 = Resource Enhancement, <1.67 = N |  | ss and diversity >2.3 = Conservation,  | Resource Enl          | nancement                 |  |  |
|    |      | wetland is in the Multiple Use category<br>ograded to Resource Enhancement ca     |  | ecosystem or human significance, then sapplicable?                                       | N/A                   | 1                         |  |  |
|    |      | vetland management category   | <b>J</b> ,                                       |  | Resource Enl          | nancement                 |  |  |
|    |      |   |  |  |                       |                           |  |  |

Site Name: Saline lake #2 off Mills Road

Site Code: ABP121 Latitude: Private property Longitude: Private property

Date Assessed: 24/09/2008, 16/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

## **Site Photos**

# Site summary

The vegetation at this naturally saline wetland appears to have been historically cleared. Little plant diversity and structure remains, along with significant weed invasion at higher elevations. Diversity of flora and fauna is low.



|    | Automatic Conservation category criteria evaluation  |                        |
|----|--|------------------------|
| 1  | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
| 2  | Does the wetland meet one of the following criteria?   | No                     |
|    | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>   | ×                      |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>   | ×                      |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | *                      |
|    | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *                      |
| 3  | Does the wetland meet <u>two</u> of the following criteria?  | No                     |
|    | • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u> :   |                        |
|    | • is the best known representative of the wetland group in the catchment   | ×                      |
|    | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×                      |
|    | <ul> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×                      |
|    | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | *                      |
|    | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>  | ×                      |
|    | The wetland supports cultural values that are based on natural attributes or functions.  | *                      |
| ls | the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?  | No                     |

| 4 N-  | A  | 5              | ite Evaluation                                     |              |                      |  |  |  |
|-------|--|----------------|--|--------------|----------------------|--|--|--|
| 1 Na  | turalness  |                |  | Index        | Indicator            |  |  |  |
| а     | Modification to Water Chemistry  | Reading        | <u>Comments</u>                                    | Score 2      | <u>Score</u>         |  |  |  |
|       | pH<br>Solinity (a/L)   | 9.0<br>55      | <del>-</del>                                       | 2<br>N/A     |                      |  |  |  |
|       | Salinity (g/L) Total Soluble N (μg/L)  | 1300           | -  | 2            |                      |  |  |  |
|       | Final Score for modification to water  |                |  | _            | 2.00                 |  |  |  |
| b     | Modification to vegetation   |                |  |              |                      |  |  |  |
| D     |  | Como roor      | uitment of Tecticornia and Frankenia occurring.    | 1.5          |                      |  |  |  |
|       | Regenerative capacity Weed invasion  |                | nificant at upper elevations.                      | 2.0          |                      |  |  |  |
|       | Structure  | ŭ              | ub layer missing entirely.                         | 1.0          |                      |  |  |  |
|       | State  |                | cies remaining showing signs of stress.            | 1.0          |                      |  |  |  |
|       | Final Score for modification to veget  | -              |  |              | 1.38                 |  |  |  |
| С     | Other disturbances   |                |  |              |                      |  |  |  |
|       | Adjustment to score  | - Road runs    | through the edge of the wetland.                   |              | 0.17                 |  |  |  |
|       | •  |                |  |              |                      |  |  |  |
|       | rinai naturainess score = ave  | rage (water c  | chemistry, vegetation) – other disturbances        |              | <u>1.52</u>          |  |  |  |
| 2 Di  | versity  |                |  |              |                      |  |  |  |
| а     | Habitat diversity  | # Habitats     | Comments   | Index        | Indicator            |  |  |  |
|       | Final score for habitat diversity  | 3              | <del></del>  | <u>Score</u> | <u>Score</u><br>1.00 |  |  |  |
| h     |  |                |  |              |                      |  |  |  |
| b     | Flora richness   | # Species      |  | •            |                      |  |  |  |
|       | No. submerged species  | 1<br>0         | - Lepilaena cylindrocarpa.                         | 3            |                      |  |  |  |
|       | No. emergent species No. fringing species                                      | 8              | - E.g. 5 species of <i>Tecticornia</i> .           | 1<br>1       |                      |  |  |  |
|       | Final flora richness score   | O              | - L.g. 3 species of Techcornia.                    | '            | 1.67                 |  |  |  |
| С     | Fauna richness   | # Species      |  |              |                      |  |  |  |
| C     |  | <del></del> -  | - Species level identification of micro- and       | _            |                      |  |  |  |
|       | Invertebrates  | 14             | macro- invertebrates.                              | 2            |                      |  |  |  |
|       | Waterbirds   | 0              | -  | 1            |                      |  |  |  |
|       | Other native wetland fauna observed  | 0              | -  | N/A          | 4.50                 |  |  |  |
|       | Final fauna richness score   |                |  |              | 1.50                 |  |  |  |
|       | Final diversity score = averag   | e (habitat div | versity, flora richness, fauna richness)           |              | <u>1.39</u>          |  |  |  |
| 3 S   | gnificance   |                |  |              |                      |  |  |  |
| •     | Does the wetland have a consumptive  | use value?     | -  |              | ×                    |  |  |  |
| •     | Does the wetland have a recreational   |                | -  |              | ×                    |  |  |  |
| •     | Does the wetland have a spiritual/phile  | -              | ue? -  |              | <b>x</b>             |  |  |  |
| •     | Does the wetland perform an ecosyste<br>Does the wetland have a scientific/edu |                | -  |              | ×                    |  |  |  |
| •     | Does the wetland have a scientific/edit  |                | -  |              |                      |  |  |  |
|       | value?   | •              | -  |              | ×                    |  |  |  |
| •     | Does the wetland have a representative   | veness value?  | ?<br>-   |              | ×                    |  |  |  |
|       |  | -              | inal Evaluation                                    |              |                      |  |  |  |
| Avera | ge diversity and naturalness score   |                | mar Evaluation                                     | 1.4          | 5                    |  |  |  |
|       | wetland management category (avera   | ge naturalne:  | ss and diversity >2.3 = Conservation,              |              | -                    |  |  |  |
|       | 2.3 = Resource Enhancement, <1.67 = I  |                |  | Multiple     | - 056                |  |  |  |
|       | wetland is in the Multiple Use category<br>pgraded to Resource Enhancement ca  |                | ecosystem or human significance, then sapplicable? | No           | •                    |  |  |  |
|       | wetland management category  |                |  | Multiple     | e Use                |  |  |  |
|       |  |                |  |              |                      |  |  |  |

Site Name: Smith Lake at Corberding Road

Site Code: ABP122 Latitude: Private property Longitude: Private property

Date Assessed: 25/09/2008, 23/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Freshwater basin

### **Site Photos**

### Site summary

This freshwater wetland retains good water quality and significant faunal diversity. Broods of Pink-eared Ducks and Black Swans were observed. One species of Declared Rare Flora was collected at this site. Little remnant vegetation remaining.







|   | Automatic Conservation category criteria evaluation  |                        |
|---|--|------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
| 2 | Does the wetland meet one of the following criteria?   | No                     |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>   | *                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×                      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|   | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.  | ×                      |
| 3 | <ul> <li>Does the wetland meet <u>two</u> of the following criteria?</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u>:</li> </ul>   | No                     |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x DRF but not</li> </ul>   | ×                      |
|   | more than 50% of wetland vegetation in 'Good' or better condition  | *<br>*                 |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>  | *                      |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute. Freshwater</li> </ul>   | ✓                      |
|   | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>  | ×                      |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | ×                      |
|   | the wetland extensition in a Composition extensive water of 16 years of without evaluation made 400  |                        |

|   |   | S               | Site Evaluation  |                   |                      |
|---|---|-----------------|--|-------------------|----------------------|
| 1 N   | aturalness  |                 |  |                   |                      |
|   |   | Dan eliner      | Community  | Index             | Indicator            |
| а   | Modification to Water Chemistry pH  | Reading<br>7.7  | <u>Comments</u>  | <u>Score</u><br>3 | <u>Score</u>         |
|   | Salinity (g/L)  | 1.8             | -  | 2                 |                      |
|   |   | 2500            | - High nitrogen levels probably from   | 1                 |                      |
|   | Total Soluble N (μg/L)  |                 | surrounding agriculture.   | 1                 | 0.00                 |
|   | Final Score for modification to water   | r cnemistry     |  |                   | 2.00                 |
| b   | Modification to vegetation  |                 |  |                   |                      |
|   | Regenerative capacity   | - Some recr     | uitment observed.  | 1.7               |                      |
|   | Weed invasion   | •               | amount of weeds.   | 1.0               |                      |
|   | Structure   |                 | round wetland, upper tree and shrub layer<br>or large areas.                             | 1.3               |                      |
|   | State   |                 | cies remaining are stressed.   | 1.0               |                      |
|   | Final Score for modification to vege  | etation         | •  |                   | 1.25                 |
| С   | Other disturbances  |                 |  |                   | ••••                 |
|   | Adjustment to score   |                 | -  |                   | 0.00                 |
|   | •   | , .             |  |                   |                      |
|   | Final naturalness score = ave   | erage (water d  | chemistry, vegetation) – other disturbances  | 3                 | <u>1.63</u>          |
| 2 D   | iversity  |                 |  |                   |                      |
| а   | Habitat diversity   | # Habitats      | <u>Comments</u>  | Index             | Indicator            |
|   | Final score for habitat diversity   | 5               | <del>-</del>   | <u>Score</u>      | <u>Score</u><br>2.00 |
| b   |   | # Species       |  |                   |                      |
| D   |   |                 | E. o. Elecchede beiebend   | 0                 |                      |
|   | No. submerged species   | 4               | - E.g. Eleocharis keigheryi.<br>- Chorizandra enodis.                                    | 3                 |                      |
|   | No. emergent species No. fringing species                                     | 1<br>6          | - Cnorizandra enodis E.g. Lobelia alata, Triglochin mucronata.                           | 2<br>2            |                      |
|   | Final flora richness score  | O               | - E.g. Lobella alata, Thylochin mucronata.   | 2                 | 2.33                 |
| _   |   | # C!            |  |                   |                      |
| С   | Fauna richness  | # Species       | On a single series in the office of a single series                                      |                   |                      |
|   | Invertebrates   | 47              | <ul> <li>Species level identification of micro- and<br/>macro- invertebrates.</li> </ul> | 2                 |                      |
|   | Waterbirds  | 8               | - Broods of Pink-eared Ducks and Black   | 2                 |                      |
|   | Other native wetland fauna observed   | 0               | Swans.   | N/A               |                      |
|   | Final fauna richness score  | U               | -  | IN/A              | 2.00                 |
|   |   |                 |  |                   |                      |
|   | Final diversity score = avera   | ge (habitat div | versity, flora richness, fauna richness)   |                   | <u>2.1</u>           |
| 3 5   | Significance  |                 |  |                   |                      |
| •   | Does the wetland have a consumptive   | e use value?    | -  |                   | ×                    |
| •   | Does the wetland have a recreational  | l value?        | -  |                   | ×                    |
| •   | 2000 tilo trottalla haro a opintaarpin  | •               | ie? -  |                   | ×                    |
|   |   |                 | -  |                   | *                    |
|   | 5   |                 | e: -   |                   | ×                    |
|   | value?  | Connectivity    | -  |                   | ×                    |
| •   | Does the wetland have a representat   | iveness value   | ?  |                   | ×                    |
|   |   |                 | inal Evaluation  |                   | -                    |
| ٩ve   | age diversity and naturalness score   | F               | mar Evaluation   | 1.8               | 7                    |
| nitia   | al wetland management category (avera<br>-2.3 = Resource Enhancement, <1.67 = |                 |  | Resource En       | hancement            |
| f the   | •   | y and has an    | ecosystem or human significance, then  | N/A               | <b>\</b>             |
|   |   |                 |  | Resource En       | hancement            |
| Final wetland management category Resource Enhancen |   |                 |  |                   | iancement            |

Site Name: Bradford Pool at Toodyay-Clackline Road

Site Code: ABP124 Latitude: Private property Longitude: Private property

Date Assessed: 30/09/2008, 21/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Freshwater basin but secondarily salinised

## **Site Photos**

# Site summary

Although this site has been affected by secondary salinisation, it still retains some values. Diversity of flora and fauna is moderate to good. Native and exotic fish were also observed.



|    | Automatic Conservation category criteria evaluation  |                        |
|----|--|------------------------|
| 1  | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul> | No<br>*<br>*<br>*<br>* |
| 2  | Does the wetland meet <u>one</u> of the following criteria?  • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the  | No                     |
|    | Bush Forever scale.  Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever.   | ×                      |
|    | scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the State Government.   | ×                      |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×                      |
|    | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | *                      |
| 3  | Does the wetland meet <u>two</u> of the following criteria?  • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i>   | No                     |
|    | scale <u>and</u> :  • is the best known representative of the wetland group in the catchment   | ×                      |
|    | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species.</li> </ul>   | ×                      |
|    | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>  | *<br>*                 |
|    | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×                      |
|    | <ul> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna<br/>listed by the State Government.</li> </ul>  | ×                      |
|    | The wetland supports cultural values that are based on natural attributes or functions.  | *                      |
| ls | the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?  | No                     |

|      |     |   | S               | ite Evaluation  |              |              |
|------|-----|---|-----------------|---|--------------|--------------|
| 1    | No  | turalness   |                 | L. diddion  |              |              |
| ١    | IVA | turamess  |                 |   | <u>Index</u> | Indicator    |
|      | а   | Modification to Water Chemistry   | Reading         | <u>Comments</u>   | Score 2      | <u>Score</u> |
|      |     | pH<br>Salinity (g/L)  | 6.8<br>6        | - Affected by secondary salinisation.   | 2<br>1       |              |
|      |     | Total Soluble N (μg/L)  | 1500            | - Affected by Secondary Saimisation.  | 3            |              |
|      |     | Final Score for modification to water   |                 |   | Ü            | 2.00         |
|      | b   | Modification to vegetation  |                 |   |              |              |
|      |     | Regenerative capacity   |                 | nt of Eucalyptus rudis and reeds/sedges   | 2.0          |              |
|      |     | Weed invasion   | observed.       | ver dominated by weeds.   | 1.5          |              |
|      |     | Structure   |                 | structure altered in some areas.  | 2.0          |              |
|      |     | State   | - Data missi    |   | 2.0          |              |
|      |     | Final Score for modification to veget   |                 | -9-   |              | 1.83         |
|      | С   | Other disturbances  |                 |   |              |              |
|      |     | Adjustment to score   |                 | -   |              | 0.00         |
|      |     | Final naturalness score = ave   | rage (water c   | hemistry, vegetation) – other disturbances                                      |              | <u>1.92</u>  |
| 2    | Div | versity   |                 |   |              |              |
| _    |     |   | # Llobitoto     | Comments  | <u>Index</u> | Indicator    |
|      | а   | Habitat diversity   | # Habitats<br>- | Comments  | Score        | Score        |
|      |     | Final score for habitat diversity   | 7               | - Good habitat diversity.   |              | 3.00         |
|      | b   | Flora richness  | # Species       | 5   |              |              |
|      |     | No. submerged species   | 4               | - Eleocharis acuta, Potomogeton pectinatus, Ruppia maritima, Typha domingensis. | 3            |              |
|      |     | No. emergent species  | 2               | - Baumea arthrophylla, Eucalyptus rudis.  | 2            |              |
|      |     | No. fringing species  | 4               | - E.g. Cotula coronopifolia, Sonchus hydrophilus, Triglochin mucronata.         | 2            |              |
|      |     | Final flora richness score  |                 | nyaropimas, rigiosimi masionata.  |              | 2.33         |
|      | С   | Fauna richness  | # Species       |   |              |              |
|      |     | Invertebrates   | 27              | - Species level identification of micro- and                                    | 2            |              |
|      |     |   |                 | macro- invertebrates Eurasian Coote nest and Black Duck                         |              |              |
|      |     | Waterbirds  | 6               | brood.  | 2            |              |
|      |     | Other native wetland fauna observed   | 2               | - 1 frog call heard, Western Minnow   | 3            |              |
|      |     | Final fauna richness score  |                 |   |              | 2.33         |
|      |     | Final diversity score = averag  | e (habitat div  | rersity, flora richness, fauna richness)  |              | <u>2.56</u>  |
| 3    | Si  | gnificance  |                 |   |              |              |
|      | •   | Does the wetland have a consumptive   |                 | -   |              | ×            |
|      | •   | Does the wetland have a recreational  |                 | -   |              | *            |
|      | •   | Does the wetland have a spiritual/philo   | -               | e? -  |              | ×            |
|      | •   | Does the wetland perform an ecosyste<br>Does the wetland have a scientific/edu                                  |                 | -<br><del>-</del>   |              | ×<br>×       |
|      | •   | Does the wetland have a vegetation c  | onnectivity     | <u>-</u>  |              | ×            |
|      | •   | value?  Does the wetland have a representative  | veness value?   | <u>-</u>  |              | ×            |
| _    |     |   | Fi              | nal Evaluation  |              | _            |
| Α١   | era | ge diversity and naturalness score  |                 |   | 2.24         | 1            |
|      |     | wetland management category (averages) wetland management category (averages) a Resource Enhancement, <1.67 = 1 |                 | ss and diversity >2.3 = Conservation,   | Resource Enl | nancement    |
| lf : | the |   | and has an      | ecosystem or human significance, then sapplicable?                              | N/A          | 1            |
|      |     | wetland management category   | <b>J</b> ,      |   | Resource Enl | nancement    |
|      |     | ,   |                 |   |              |              |

Site Name: Jaspers Lake at Dennis Road

Site Code: ABP125 Latitude: Private property Longitude: Private property

Date Assessed: 30/09/2008, 22/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Sumpland Biological classification: Naturally saline basin

Site Photos

## Site summary

This naturally saline wetland supports a moderate to high flora and fauna diversity. Water quality is relatively good apart from the elevated nitrogen levels. Vegetation condition was relatively good for most of the wetland, although some shrub death was evident along the southern boundary. Four species of Priority plants were collected.







| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul>   | No          |
|---|--|-------------|
| 2 | Does the wetland meet one of the following criteria?   | No          |
|   | • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br>Bush Forever scale.  | ×           |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul>  | ×           |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>  | *           |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | ×           |
| 3 | Does the wetland meet <b>two</b> of the following criteria?  | No          |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and:         <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 4 x P3 species.</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul> </li> </ul> | *<br>*<br>* |
|   | <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | *           |
|   | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×           |
|   | The wetland supports cultural values that are based on natural attributes or functions.  | *           |

|   |     |  | Sit             | e Evaluation   |                  |                      |  |  |
|---|-----|--|-----------------|--|------------------|----------------------|--|--|
| 1 | Na  | turalness  | 011             | e Evaluation   |                  |                      |  |  |
| ' | INA | turamess   |                 |  | Index            | Indicator            |  |  |
|   | а   | Modification to Water Chemistry  | Reading         | <u>Comments</u>  | <u>Score</u>     | <u>Score</u>         |  |  |
|   |     | pH<br>Salinity (g/L)   | 6.8<br>100      | -<br>-   | 3<br>N/A         |                      |  |  |
|   |     |  |                 | - High nitrogen levels probably from runoff  |                  |                      |  |  |
|   |     | Total Soluble N (μg/L)   | 3300            | from paddocks on northern side.  | 1                |                      |  |  |
|   |     | Final Score for modification to water  | chemistry       |  |                  | 2.00                 |  |  |
|   | b   | Modification to vegetation   |                 |  |                  |                      |  |  |
|   |     | Regenerative capacity  |                 | of Tecticornia observed.   | 2.0              |                      |  |  |
|   |     | Weed invasion  | •               | ent but not significant. structure mostly intact except on southern                      | 2.7              |                      |  |  |
|   |     | Structure  | boundary.       | structure mostly intact except on southern   | 2.3              |                      |  |  |
|   |     | State  | - Vegetation a  | at lower elevations stressed.  | 1.7              |                      |  |  |
|   |     | Final Score for modification to veget  | ation           |  |                  | 2.17                 |  |  |
|   | С   | Other disturbances   |                 |  |                  |                      |  |  |
|   |     | Adjustment to score  |                 | -  |                  | 0.00                 |  |  |
|   |     | Final naturalness score = ave  | rage (water ch  | emistry, vegetation) – other disturbances  | ;                | <u>2.08</u>          |  |  |
| 2 | Di۱ | versity  |                 |  |                  |                      |  |  |
|   | а   | Habitat diversity  | # Habitats      | <u>Comments</u>  | Index            | Indicator            |  |  |
|   | -   | Final score for habitat diversity  | 3               |  | <u>Score</u>     | <u>Score</u><br>1.00 |  |  |
|   | b.  | Flora richness   | # Species       |  |                  |                      |  |  |
|   | J   | No. submerged species  | 0               | _  | N/A              |                      |  |  |
|   |     | •  | -               | - Sarcocornia quiqueflora, Tecticornia aff   |                  |                      |  |  |
|   |     | No. emergent species   | 2               | halocnemoides.   | 3                |                      |  |  |
|   |     | No. fringing species   | 20              | - E.g. Angianthus micropodioides,<br>Blennospora phlegmatocarpa, Frankenia<br>glomerata. | 3                |                      |  |  |
|   |     | Final flora richness score   |                 |  |                  | 3.00                 |  |  |
|   | С   | Fauna richness   | # Species       |  |                  |                      |  |  |
|   |     | Invertebrates  | 11              | - Species level identification of micro- and   | 2                |                      |  |  |
|   |     | Waterbirds   | 1               | macro- invertebrates Grey Teal.  | 2                |                      |  |  |
|   |     | Other native wetland fauna observed  | 0               | -<br>-   | N/A              |                      |  |  |
|   |     | Final fauna richness score   |                 |  |                  | 2.00                 |  |  |
|   |     | Final diversity score = averag   | e (habitat dive | ersity, flora richness, fauna richness)  |                  | <u>2.00</u>          |  |  |
| 3 | Si  | gnificance   |                 |  |                  |                      |  |  |
|   | •   | Does the wetland have a consumptive  | use value?      | -  |                  | ×                    |  |  |
|   | •   | Does the wetland have a recreational   | value?          | -  |                  | ×                    |  |  |
|   | •   | Does the wetland have a spiritual/philo  | -               | ? -  |                  | ×                    |  |  |
|   | •   | Does the wetland perform an ecosyste<br>Does the wetland have a scientific/edu     |                 | -<br>2   |                  | ×                    |  |  |
|   | •   | Does the wetland have a scientific/edu   |                 |  |                  | *                    |  |  |
|   |     | value?   |                 | - Good vegetation connections with ne  | arby flat areas. | ✓                    |  |  |
|   | •   | Does the wetland have a representative   | eness value?    | -  |                  | ×                    |  |  |
|   |     |  | Fin             | al Evaluation  |                  |                      |  |  |
|   |     | ge diversity and naturalness score   |                 |  | 2.04             |                      |  |  |
|   |     | wetland management category <i>(avera</i><br>2.3 = Resource Enhancement, <1.67 = N |                 | s and diversity >2.3 = Conservation,   | Resource Enh     | ancement             |  |  |
|   |     | wetland is in the Multiple Use category<br>pgraded to Resource Enhancement ca      |                 | cosystem or human significance, then applicable?   | N/A              |                      |  |  |
|   |     | wetland management category  |                 |  | Resource Enh     | ancement             |  |  |
|   |     |  |                 |  |                  |                      |  |  |

Site Name: Lake Mokami at Erikin South Road

Site Code: ABP126 Latitude: -31.96197 Longitude: 117.93203 Date Assessed: 1/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

## **Site Photos**





This is a good condition naturally saline basin located within a nature reserve. Some tree death on the northern side of the lake suggests waterlogging problems.

Vegetation and invertebrate diversity were high. Vegetation was in good condition at higher elevations.







|    | Automatio conscitution dutegory official evaluation   |    |
|----|---|----|
| 1  | Is the wetland identified under any of the following agreements?  | No |
|    | Ramsar Convention on wetlands   | ×  |
|    | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×  |
|    | Directory of Important Wetlands   | ×  |
|    | <ul> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>   | ×  |
|    | World/National Heritage listings  | ×  |
| 2  | Does the wetland meet <b>one</b> of the following criteria?   | No |
|    | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>  | ×  |
|    | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×  |
|    | • Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.  | ×  |
|    | • The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.   | ×  |
| 3  | Does the wetland meet two of the following criteria?  | No |
|    | Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the <i>Bush Forever</i> scale and:  |    |
|    | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>  | ×  |
|    | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | ×  |
|    | <ul> <li>supports an identified occurrence of a Phony 1 of 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>  | *  |
|    | • The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute.   | *  |
|    | • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | ×  |
|    | The wetland supports cultural values that are based on natural attributes or functions.   | *  |
| ls | the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?   | No |

|  |   | Si   | te Evaluation  |                |                    |
|--|---|--|--|----------------|--------------------|
| ı  | Naturalness   |  |  |                |                    |
| а  | a Modification to Water Chemistry   | Reading  | <u>Comments</u>  | Index          | Indicator<br>Score |
|  | Hq  | 6.5  | -  | Score<br>2     | Score              |
|  | Salinity (g/L)  | 37   | <u>-</u>   | N/A            |                    |
|  | Total Soluble N (μg/L)  | 550  | -  | 3              |                    |
|  | Final Score for modification to water   | r chemistry                                      |  |                | 2.50               |
| b  | Modification to vegetation  |  |  |                |                    |
|  | Regenerative capacity   | <ul> <li>Moderate au<br/>species occu</li> </ul> | mount of regeneration of native vegetation   | 2.3            |                    |
|  | Weed invasion   | •  | ies present but not significant.   | 3.0            |                    |
|  | Structure   |  | d structural layers present, with some death.                                      | 2.7            |                    |
|  | State   | - Some Tection                                   | cornia species showing signs of stress.  | 2.0            |                    |
|  | Final Score for modification to vege  | etation  |  |                | 2.50               |
| C  | Other disturbances  |  |  |                |                    |
|  | Adjustment to score   |  | -  |                | 0.00               |
|  | Final naturalness score = ave   | erage (water ch                                  | hemistry, vegetation) – other disturbances   |                | <u>2.50</u>        |
| 2 0  | Diversity   |  |  |                |                    |
| а  | a <u>Habitat diversity</u>  | # Habitats                                       | Comments   | Index<br>Score | Indicator<br>Score |
|  | Final score for habitat diversity   | 5  | -  | Score          | 2.00               |
| b  | <u>Flora richness</u>   | # Species  |  |                |                    |
|  | No. submerged species   | 1  | - Ruppia maritima.   | 3              |                    |
|  | No. emergent species  | 1  | - Tecticornia halocnemoides.   | 2              |                    |
|  | No. fringing species Final flora richness score   | 11   | - E.g. 4 species <i>Tecticornia</i> .  | 2              | 2.33               |
| С  | Fauna richness  | # Species  |  |                |                    |
|  | Invertebrates   | 25   | - Species level identification of micro- and                                       | 3              |                    |
|  | Waterbirds  | 3  | macro- invertebrates Australian Shelduck, Grey Teal, Silver Gull.                  | 2              |                    |
|  | Other native wetland fauna observed   | 0  | - No other fauna observed.   | N/A            |                    |
|  | Final fauna richness score  |  |  |                | 2.50               |
|  | Final diversity score = avera   | ge (habitat dive                                 | ersity, flora richness, fauna richness)  |                | <u>2.28</u>        |
| 3 5  | Significance  |  |  |                |                    |
| •  | Does the wetland have a consumptive   |  | -  |                | ×                  |
| •  | Does the wetland have a recreational  |  | -  |                | <b>x</b>           |
|  | <ul><li>Does the wetland have a spiritual/phi</li><li>Does the wetland perform an ecosyst</li></ul> | •  | e?<br>- Quite a large wetland with dense stands o                                  | f              | ×                  |
|  | 2 Dood the Welland perform an ecosyst   | ioni sorvice .                                   | submerged vegetation – could perform a nu stripping or flood attenuation function. |                | Possibly           |
| •  | Does the wetland have a scientific/ed   |  | ? -  |                | ×                  |
| •  | <ul> <li>Does the wetland have a vegetation of value?</li> </ul>                                    | connectivity                                     | - Good vegetation connections to nearby fla  | t areas.       | ✓                  |
|  | Does the wetland have a representat   | iveness value?                                   | -  |                | ×                  |
| -  |   | Fir  | nal Evaluation   |                |                    |
| 4ve  | rage diversity and naturalness score  |  |  | 2.3            | 9                  |
|  | al wetland management category (avera<br>7-2.3 = Resource Enhancement, <1.67 =                      |  | s and diversity >2.3 = Conservation,   | Conserv        | ation              |
| If the wetland is in the Multiple Use category and has an ecosystem or human significance, then it is upgraded to Resource Enhancement category. Is this applicable? |   |  |  |                |                    |
|  | appraise to resource Elinancement co  | ategory. 15 tilis                                | applicable:  |                |                    |

Site Name: Saline lake at Ardath Road

Site Code: ABP127 Latitude: -31.9277 Longitude: 117.9727

Date Assessed: 1/10/2008, 13/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

# Site Photos

# Site summary

This is a naturally saline wetland with very high salinity. The high salinity results in poor invertebrate, macrophyte and therefore waterbird species diversity. Vegetation values are high and one species of Declared Rare Flora and two Priority species were recorded. The northern edge of the wetland is within a Registered Aboriginal Site.







| Automatio Conscivation Category Criteria Cvaluation  | _      |
|--|--------|
| 1 Is the wetland identified under any of the following agreements?   | No     |
| Ramsar Convention on wetlands  | ×      |
| State Government endorsed candidate sites for the Ramsar Convention on Wetlands  | *      |
| Directory of Important Wetlands  | ×      |
| <ul> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> </ul>  |        |
| World/National Heritage listings   | ×      |
| 2 Does the wetland meet one of the following criteria?   | No     |
| • Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the Bush Forever scale.   | ×      |
| <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×      |
| <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×      |
| <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>  | ×      |
| 3 Does the wetland meet <u>two</u> of the following criteria?  | Yes    |
| <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>  |        |
| <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>   | ×      |
| <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 1 x DRF, 2 x P3</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> </ul>  | √<br>* |
| <ul> <li>supports an identified occurrence of a Phony 1 of 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | ×      |
| <ul> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any<br/>other rare attribute.</li> </ul>  | ×      |
| • The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.  | ×      |
| • The wetland supports cultural values that are based on natural attributes or functions. Edge of wetland is within the boundary of a Registered Aboriginal Site (listed as a water source).   | ✓      |
| Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?   | Yes    |

|  |   |                | the Esselvention   |         |             |  |
|--|---|----------------|--|---------|-------------|--|
| 1 Na   | ituralness  | S              | ite Evaluation   |         |             |  |
| i Na   |   |                |  | Index   | Indicator   |  |
| а  | Modification to Water Chemistry   | Reading        | <u>Comments</u>  | Score   | Score Score |  |
|  | рН  | 6.3            | - LPalaha an Bana ayan faran ayaharalla an Bana  | 2       |             |  |
|  | Salinity (g/L)  | 140            | <ul> <li>Highly saline, even for a naturally saline wetland.</li> </ul>                                | N/A     |             |  |
|  | Total Soluble N (μg/L)  | 810            | -  | 3       |             |  |
|  | Final Score for modification to water   | chemistry      |  |         | 2.50        |  |
| b  | Modification to vegetation  |                |  |         |             |  |
|  | Regenerative capacity   | - Recruitmer   | nt of middle shrub layer observed.   | 1.7     |             |  |
|  | Weed invasion   | · ·            | sent but not significant.  | 3.0     |             |  |
|  | Structure   |                | tural layers present. on south-eastern and south-western side of                                       | 2.7     |             |  |
|  | State   | wetland stre   |  | 1.7     |             |  |
|  | Final Score for modification to veget   | ation          |  |         | 2.25        |  |
| С  | Other disturbances  |                |  |         |             |  |
|  | Adjustment to score   |                | -  |         | 0.00        |  |
|  | Final naturalness score = ave   | rage (water c  | hemistry, vegetation) – other disturbances   |         | <u>2.38</u> |  |
| 2 Di   | voreity   |                |  |         |             |  |
|  | versity   |                |  | Index   | Indicator   |  |
| а  | Habitat diversity   | # Habitats     | <u>Comments</u>  | Score   | Score       |  |
|  | Final score for habitat diversity   | 3              | -  |         | 1.00        |  |
| b  | Flora richness  | # Species      |  |         |             |  |
|  | No. submerged species   | 0              |  | N/A     |             |  |
|  | No. emergent species  | 1              | - Tecticornia halocnemoides.   | 2       |             |  |
|  | No. fringing species  | 10             | <ul> <li>E.g. Frankenia conferta, Blennospora<br/>phlegmatocarpa.</li> </ul>                           | 2       |             |  |
|  | Final flora richness score  |                |  |         | 2.00        |  |
| С  | Fauna richness  | # Species      |  |         |             |  |
|  | Invertebrates   | 5              | - Species level identification of micro- and   | 1       |             |  |
|  | Waterbirds 0  |                | nacro- invertebrates.  |         |             |  |
|  | Other native wetland fauna observed 0   |                | -  | N/A     |             |  |
|  | Final fauna richness score  |                |  |         | 1.00        |  |
|  | Final diversity score = average (habitat diversity, flora richness, fauna richness)   |                |  |         | <u>1.33</u> |  |
| 3 Si   | ignificance   |                | <u> </u>   |         |             |  |
| •  | Does the wetland have a consumptive   | use value?     | _  |         | ×           |  |
| •  | Does the wetland have a recreational  |                | <del>-</del>   |         | ×           |  |
| •  | Does the wetland have a spiritual/phile   | osophical valu | e? -   |         | ×           |  |
| •  | Does the wetland perform an ecosyste  |                | -  |         | ×           |  |
| •  | Does the wetland have a scientific/edu  |                |  |         | ×           |  |
| •  | Does the wetland have a vegetation c value?   | onnectivity    | <ul> <li>The wetland is in a nature reserve and he vegetation connections with other nearby</li> </ul> |         | ✓           |  |
| •  | Does the wetland have a representative  | veness value?  |  |         |             |  |
|  |   |                | -  |         | *           |  |
| Final Evaluation                             |   |                |  |         |             |  |
| Average diversity and naturalness score 1.85 |   |                |  |         |             |  |
|  | Initial wetland management category (average naturalness and diversity >2.3 = Conservation,<br>1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use) |                |  |         |             |  |
|  | wetland is in the Multiple Use category pgraded to Resource Enhancement ca  |                | ecosystem or human significance, then<br>s applicable?   | N/A     | 1           |  |
| Final  | wetland management category   |                |  | Conserv | ation       |  |
|  | <u> </u>  |                |  |         |             |  |

Site Name: Saline Lake at Cunderdin

Site Code: ABP128 Latitude: Private property Longitude: Private property

Date Assessed: 02/10/2008, 22/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa

Biological classification: Naturally saline basin

### **Site Photos**





Site summary



This wetland is degraded. Vegetation surrounding the

wetland appears to have been cleared historically and

currently has low diversity and little structure. Water was

very acidic, leading to poor invertebrate, macrophyte and

waterbird species diversity.

|   | Automatic Conservation category criteria evaluation  |                             |
|---|--|-----------------------------|
| 1 | <ul> <li>Is the wetland identified under any of the following agreements?</li> <li>Ramsar Convention on wetlands</li> <li>State Government endorsed candidate sites for the Ramsar Convention on Wetlands</li> <li>Directory of Important Wetlands</li> <li>Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998</li> <li>World/National Heritage listings</li> </ul>   | No<br>*<br>*<br>*<br>*<br>* |
| 2 | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the Bush Forever scale.</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and is identified as significant for its natural values in regional or sub-regional studies endorsed by the State Government.</li> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and supports an identified occurrence of a Threatened Ecological Community.</li> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed by the Australian or State Government.</li> </ul>  | No<br>x<br>x                |
| 3 | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever scale and: <ul> <li>is the best known representative of the wetland group in the catchment</li> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species</li> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community. Priority species recorded but not more than 50% of vegetation in "Good" or better condition.</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul> </li> <li>The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute.</li> <li>The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.</li> <li>The wetland supports cultural values that are based on natural attributes or functions.</li> </ul> | No  x x x x                 |
|   |  |                             |

|  |   | 9                         | Site Evaluation  |                       |                    |  |  |
|--|---|---------------------------|--|-----------------------|--------------------|--|--|
| 1 Na   | turalness   |                           |  |                       |                    |  |  |
| a  | Modification to Water Chemistry   | Reading                   | Comments   | Index                 | Indicator          |  |  |
| u  | рН  | 3.4                       | - Likely to be secondarily acidic.   | <u>Score</u><br>1     | <u>Score</u>       |  |  |
|  | Salinity (g/L)  | 120                       | -  | N/A                   |                    |  |  |
|  | Total Soluble N (μg/L)  | 2000                      | - Likely due to surrounding agricultural land,   | 2                     |                    |  |  |
|  | Final Score for modification to water   |                           | a lot of sheep manure on wetland edge.   | _                     | 1.50               |  |  |
| h  |   | Crieriistry               |  |                       | 1.50               |  |  |
| b  | Modification to vegetation  | 1 :441                    |  |                       |                    |  |  |
|  | Regenerative capacity Weed invasion   |                           | itment of native vegetation species occurring.  e weed species dominating.               | 1<br>1                |                    |  |  |
|  |   |                           | ub layer still present in very small areas,  | -                     |                    |  |  |
|  | Structure   |                           | neavily cleared.   | 1                     |                    |  |  |
|  | State  Final Searce for modification to years   |                           | wing moderate signs of stress.   | 2                     | 1.25               |  |  |
|  | Final Score for modification to vege  | alion                     |  |                       | 1.23               |  |  |
| С  | Other disturbances  |                           |  |                       |                    |  |  |
|  | Adjustment to score   | - No other p              | hysical disturbances at the wetland.   |                       | 0.00               |  |  |
|  | Final naturalness score = ave   | rage (water o             | chemistry, vegetation) – other disturbances  |                       | <u>1.38</u>        |  |  |
| 2 Div  | versity   |                           |  |                       |                    |  |  |
| а  | Habitat diversity   | # Habitats                | <u>Comments</u>  | <u>Index</u><br>Score | Indicator<br>Score |  |  |
|  | Final score for habitat diversity   | 4                         | -  |                       | 2.00               |  |  |
| b  | Flora richness  | # Species                 |  |                       |                    |  |  |
|  | No. submerged species   | 0                         | -  | N/A                   |                    |  |  |
|  | No. emergent species  | 1                         | - Tecticornia halocnemoides.   | 2                     |                    |  |  |
|  | No. fringing species  | 10                        | - E.g. 4 species Tecticornia.  | 2                     |                    |  |  |
|  | Final flora richness score  |                           |  |                       | 2.00               |  |  |
| С  | Fauna richness # Specie   |                           |  |                       |                    |  |  |
|  | Invertebrates 4   |                           | <ul> <li>Species level identification of micro- and<br/>macro- invertebrates.</li> </ul> | 1                     |                    |  |  |
|  | Waterbirds  |                           | -  | 1                     |                    |  |  |
|  | Other native wetland fauna observed   | 0                         | -  | N/A                   |                    |  |  |
|  | Final fauna richness score  |                           |  |                       | 1.00               |  |  |
|  | Final diversity score = averag  |                           | <u>1.67</u>  |                       |                    |  |  |
| 3 Si   | gnificance  |                           |  |                       |                    |  |  |
| •  | Does the wetland have a consumptive   |                           | -  |                       | *                  |  |  |
| •  | Does the wetland have a recreational value? -  Does the wetland have a spiritual/philosophical value? - |                           |  |                       | ×                  |  |  |
| •  | Does the wetland perform an ecosyste  | -<br>-                    |  | ×                     |                    |  |  |
|  | Does the wetland have a scientific/educational value?   |                           |  |                       | ×                  |  |  |
| •  | Does the wetland have a vegetation connectivity value?  |                           |  |                       | ×                  |  |  |
| •  | Does the wetland have a representation  | veness value              | ?  |                       | ×                  |  |  |
|  |   | Fi                        | inal Evaluation  |                       |                    |  |  |
| Average diversity and naturalness score 1.52   |   |                           |  |                       |                    |  |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use)  Multiple Use |   |                           |  |                       |                    |  |  |
| If the<br>it is u  | wetland is in the Multiple Use category<br>pgraded to Resource Enhancement ca                           | and has an tegory. Is thi | ecosystem or human significance, then s applicable?                                      | No                    | 1                  |  |  |
| Final  | wetland management category   |                           |  | Multiple              | Use                |  |  |
| T IIIGI  | manipe coo  |                           |  |                       |                    |  |  |

Site Name: Claypan at King Rocks Rd

Site Code: ABP130 Latitude: -32.32719 Longitude: 119.10227 Date Assessed: 14/10/2008 Personnel: SMJ, MTC, DLH, CJF Geomorphic wetland type: Playa Biological classification: Turbid claypan

# Site summary

This turbid claypan wetland has highly diverse communities of vegetation. It also supports significant numbers of Bullfrog tadpoles and has extensive vegetation connections with other nearby wetlands.

### **Site Photos**







### **Automatic Conservation category criteria evaluation**

|   | Automatic Conservation category criteria evaluation   |        |
|---|---|--------|
| 1 | Is the wetland identified under any of the following agreements?  | No     |
|   | Ramsar Convention on wetlands   | ×      |
|   | State Government endorsed candidate sites for the Ramsar Convention on Wetlands   | ×      |
|   | Directory of Important Wetlands   | ×      |
|   | Environmental Protection (South West Agricultural Zone Wetlands) Policy, 1998   | ×      |
|   | World/National Heritage listings  | ×      |
| 2 | Does the wetland meet one of the following criteria?  | Yes    |
|   | <ul> <li>Equal to or greater than 90% of the wetland supports native vegetation in 'Good' or better condition using the<br/>Bush Forever scale.</li> </ul>  | ✓      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> is identified as significant for its natural values in regional or sub-regional studies endorsed by the<br/>State Government.</li> </ul> | ×      |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale <u>and</u> supports an identified occurrence of a Threatened Ecological Community.</li> </ul>   | ×      |
|   | <ul> <li>The wetland supports a breeding, roosting, or refuge site or a critical feeding site for populations of fauna listed<br/>by the Australian or State Government.</li> </ul>   | ×      |
| 3 | Does the wetland meet two of the following criteria?  | Yes    |
|   | <ul> <li>Greater than 50% of the wetland has native vegetation in 'Good' or better condition using the Bush Forever<br/>scale and:</li> </ul>   |        |
|   | <ul> <li>is the best known representative of the wetland group in the catchment</li> </ul>  | ✓      |
|   | <ul> <li>supports an identified occurrence of a Declared Rare or Priority 1, 2, 3 or 4 flora species. 2 x P3</li> </ul>   | √<br>× |
|   | <ul> <li>supports an identified occurrence of a Priority 1 or 2 Ecological Community</li> <li>supports internationally, nationally or State-wide significant values, including geoheritage and geoconservation</li> </ul>   | *      |
|   | The wetland supports regionally rare or threatened natural water chemistry, hydrology, geomorphology or any other rare attribute. Freshwater  | ✓      |
|   | The wetland supports a breeding, roosting, refuge or critical feeding site for populations of Priority 1 or 2 fauna listed by the State Government.   | ×      |
|   | The wetland supports cultural values that are based on natural attributes or functions.   | ×      |

Is the wetland automatically a Conservation category wetland (If yes, no further evaluation needed)?

Yes

| Site Evaluation  |   |   |   |  |                       |                           |  |
|--|---|---|---|--|-----------------------|---------------------------|--|
| 1 Naturalness  |   |   |   |  |                       |                           |  |
| •  | Matu  |   |   |  | <u>Index</u>          | Indicator                 |  |
| a Modification to Water Chemistry pH   |   | Reading<br>8.2  | <u>Comments</u>   | Score<br>2   | <u>Score</u>          |                           |  |
|  | Salinity (g/L) 0.19   |   | -<br>-  | 3  |                       |                           |  |
|  |   | Total Soluble N (µg/L) 1000   |   | -  | 3                     |                           |  |
|  |   | Final Score for modification to water   | chemistry   |  |                       | 2.67                      |  |
|  | b   | Modification to vegetation  |   |  |                       |                           |  |
|  |   | Regenerative capacity   |   | on of the upper and middle shrub layers  | 2.7                   |                           |  |
|  | occu  |   | occurring.  | species present but not significant.   | 3.0                   |                           |  |
|  |   | Structure   |   | d structural layers present.   | 3.0                   |                           |  |
|  |   |   | •   | leuca and Tecticornia showing moderate signs   |                       |                           |  |
|  |   | State   | of stress.  | 3 3  | 2.0                   |                           |  |
|  |   | Final Score for modification to vege  | tation  |  |                       | 2.67                      |  |
|  | С   | Other disturbances  |   |  |                       |                           |  |
|  |   | Adjustment to score   | <ul> <li>There is a r</li> <li>the edge of t</li> </ul> | road running through what would have been he wetland                                       |                       | -0.17                     |  |
|  |   | Final naturalness score – aver  | J   | emistry, vegetation) – other disturbances  |                       | <u>2.50</u>               |  |
|  |   | r mar mataramess soore = aver   | age (water on   | company, vegetation, other distarbances  |                       | 2.00                      |  |
| 2  | Dive  | rsity   |   |  |                       |                           |  |
|  | а   | Habitat diversity   | # Habitats  | Comments   | <u>Index</u><br>Score | <u>Indicator</u><br>Score |  |
|  | -   | •   | 7   | - Many habitats present compared to a  | 3                     | 3.00                      |  |
|  |   | Final score for habitat diversity   |   | typical claypan.   |                       |                           |  |
|  | b   | Flora richness  | # Species   | Denote a seritima. Denote a serie  | 0                     |                           |  |
|  |   | No. submerged species   | 2   | - Ruppia maritima, R. polycarpa.   | 3<br>3                |                           |  |
|  |   | No. emergent species No. fringing species                                       | 1<br>12   | <ul><li>Glossostigma drummondii.</li><li>E.g. Blennospora phlegmatocarpa.</li></ul>        | 3                     |                           |  |
|  |   | Final flora richness score  | 12  | L.g. Dietinospora pinoginatocarpa.   |                       | 3.00                      |  |
|  | ^   | Fauna richnose  | # Species   |  |                       |                           |  |
|  | c <u>Fauna richness</u> #   |   | # Opecies   | - Species level identification of micro- and   | 3                     |                           |  |
|  |   | Invertebrates   | 34  | macro- invertebrates.  | N/A                   |                           |  |
|  |   | Waterbirds Other native wetland fauna observed                                  | 0<br>1  | Large numbers of Bullfrog tadpoles.  | 3                     |                           |  |
|  |   | Final fauna richness score  | '   | - Large numbers of builting taupoles.  | Ü                     | 3.00                      |  |
|  |   |   |   | sitv. flora richness. fauna richness)  |                       | 3.00                      |  |
| Final diversity score = average (habitat diversity, flora richness, fauna richness)  |   |   |   |  |                       |                           |  |
| 3  | Sigr  | nificance  Does the wetland have a consumptive u                                | Sauley as   | - This is a freshwater wetland but is not curre  | ently used as         |                           |  |
|  | -   | Does the Welland have a consumptive a   | oc value.   | a water supply to our knowledge.   | only acou ac          | ×                         |  |
|  | Does the wetland have a recreational value?   |   | -   |  | *                     |                           |  |
|  | •   | Does the wetland have a spiritual/philos  | -   | -  |                       | *<br>*                    |  |
|  | <ul> <li>Does the wetland perform an ecosystem service?</li> <li>Does the wetland have a scientific/educational value?</li> </ul> |   |   | _  |                       | ×                         |  |
|  | <ul> <li>Does the wetland have a vegetation connectivity</li> </ul>   |   |   | - This wetland has good vegetation connecti  | ons with the          | ✓                         |  |
|  | value?  • Does the wetland have a representativeness value?   |   |   | large saline wetland on the southern side.  - To our knowledge, this is the best condition | n turbid              | -                         |  |
|  |   | Doos the wettand have a representative  | icoo valut!   | claypan wetland in this catchment.   | i turbiu              | ✓                         |  |
| Final Evaluation   |   |   |   |  |                       |                           |  |
| Average diversity and naturalness score 2.76   |   |   |   |  |                       |                           |  |
| Initial wetland management category (average naturalness and diversity >2.3 = Conservation, 1.67-2.3 = Resource Enhancement, <1.67 = Multiple Use) |   |   |   |  |                       |                           |  |
|  |   | etland is in the Multiple Use category a<br>graded to Resource Enhancement cate |   |  | N/A                   |                           |  |
| Fir  | nal we  | etland management category  |   |  | Conservat             | ion                       |  |
|  |   |   |   |  |                       |                           |  |

# 3. Comparison of stage 1 and stage 3 assessments

Wetland evaluations can be undertaken at different scales, as outlined in *A framework for mapping, classification and evaluation of wetlands in Western Australia* ('the framework', Department of Environment and Conservation, 2007). A <u>stage 1 or 2</u> assessment is a regional-scale assessment of wetlands in a large area, using techniques and resources such as remote sensing, geographic information system (GIS) datasets and aerial photography. A <u>stage 3</u> assessment is a fine-scale assessment of individual wetlands with accurately defined boundaries, using field survey techniques such as invertebrate, waterbird and vegetation species richness assessments (e.g. Cale, *et al.*, 2004; Jones, *et al.*, 2009).

A stage 1 wetland evaluation methodology has been produced for the Avon NRM region by DEC (Jones, et al., 2008), and endorsed by the State Wetlands Coordinating Committee. This stage 1 wetland evaluation methodology was applied to all basin wetlands greater than one hectare, which were delineated using the mapping procedure produced by Lizamore (2008). The wetland mapping (Wetlands of the Wheatbelt and other prioritized areas) and stage 1 evaluation (Wheatbelt basin and granite outcrop wetland evaluations) datasets are available online through NatureMap <a href="http://naturemap.dec.wa.gov.au">http://naturemap.dec.wa.gov.au</a>.

Table 2 on the page following provides a comparison of the conservation significance categories assigned using the stage 1 and stage 3 wetland evaluation methodologies, at each of the 28 sampled sites. Different terminology was used in each methodology for the three conservation significance categories. Multiple Use (stage 3) roughly equates to Low (stage 1), Resource Enhancement (stage 3) roughly equates to Intermediate (stage 1) and Conservation (stage 3) roughly equates to High (stage 1). The stage 3 evaluation methodology uses on-ground data to assign a wetland management category to a site, while the stage 1 methodology uses only information that can be gathered from aerial photography, remote sensing and GIS layers. Consequently, the results of the stage 3 methodology will provide a more accurate evaluation of the values supported by the wetland at the time of the assessment.

As can be seen in Table 2, there is general agreement between the results of the stage 1 and stage 3 Avon wetland evaluation methodologies. Six of the wetlands assessed using the stage 3 methodology in spring 2008, have not been evaluated using the stage 1 methodology. This was because they were either missed during the mapping phase and were therefore not assessed, or more commonly, because they were smaller than one hectare. Of the 22 wetlands with stage 1 evaluations available, 18 (81%) were assigned the equivalent conservation significance category using both methodologies. Of the four that were different, 2 scored close to the cut-off for that particular wetland management category in the stage 3 evaluations (sitecode's 5004804/ABP113, 5004432/ABP115). Of the last two wetlands that scored differently, one was not picked up as 'fresh-subsaline' using remote sensing and therefore scored as 'low' (sitecode 5007328-9/ABP104), while the other one had the vegetation buffer and connectivity incorrectly attributed as intermediate, when in fact it should have been low (sitecode 5002644/ABP128). If these attributes were correct, this wetland would have been assigned to the low conservation significance category.

In summary, after comparison with evaluations produced using on-ground data, it appears that the stage 1 wetland evaluation methodology generally assigns wetlands to an appropriate conservation significance category.

Table 2 - Comparison between stage 1 and stage 3 wetland evaluation results. Text highlighted in red are wetlands where the two methodologies disagree.

| Stage 1<br>sitecode<br>(ID 2 New) | Stage 1 category | Stage 3 sitecode | Stage 3 category     | Stage 1<br>higher or<br>lower | Comments   |
|-----------------------------------|------------------|------------------|----------------------|-------------------------------|--|
| 5013819                           | High             | ABP032           | Conservation         | Same                          |  |
| N/A                               | N/A              | ABP041           | Conservation         | N/A                           | Wetland not mapped, but would have scored high if assessed for stage 1.  |
| N/A                               | N/A              | ABP101           | Resource Enhancement | N/A                           | Wetland not mapped, but nearby wetland (5018029) with similar features scored intermediate for stage 1.  |
| 5020831                           | High             | ABP102           | Conservation         | Same                          |  |
| 5017323                           | Intermediate     | ABP103           | Resource Enhancement | Same                          |  |
| 5007329/8                         | Low              | ABP104           | Resource Enhancement | Lower                         | This is the stage 1 category of the other half of this wetland located across the road, which was greater than 1 hectare (and therefore got evaluated for stage 1) and is very similar to the site sampled for the stage 3 evaluations. The remote sensing did not pick this wetland up as freshwater, which put it into the low category. |
| 5006663                           | Intermediate     | ABP105           | Resource Enhancement | Same                          |  |
| 5004196                           | High             | ABP106           | Conservation         | Same                          |  |
| 5005029                           | Low              | ABP109           | Multiple Use         | Same                          |  |
| 5005168                           | Low              | ABP110           | Multiple Use         | Same                          |  |
| 5005207                           | Low              | ABP111           | Multiple Use         | Same                          |  |
| N/A                               | N/A              | ABP112           | Conservation         | N/A                           | Wetland not mapped, but would have scored high if assessed for stage 1.  |
| 5004804                           | High             | ABP113           | Resource Enhancement | Higher                        | Stage 3 final score = 2.18. Very close to Conservation category.   |
| N/A                               | N/A              | ABP114           | Resource Enhancement | N/A                           | Can't identify wetland using aerial photography, too small to apply stage 1 assessment.  |
| 5004432                           | Low              | ABP115           | Resource Enhancement | Lower                         | Stage 3 final score = 1.78. Very close to Multiple Use category.   |
| 5013749                           | High             | ABP116           | Conservation         | Same                          |  |
| 5003726                           | Intermediate     | ABP117           | Resource Enhancement | Same                          |  |
| N/A                               | N/A              | ABP118           | Conservation         | N/A                           | Wetland not mapped, but nearby wetland (5007616) with similar features scored high for stage 1.  |
| 5007588                           | High             | ABP119           | Conservation         | Same                          |  |
| 5002205                           | Intermediate     | ABP120           | Resource Enhancement | Same                          |  |
| 5002206                           | Low              | ABP121           | Multiple Use         | Same                          |  |
| 5013471                           | Intermediate     | ABP122           | Resource Enhancement | Same                          |  |
| 5013688                           | Intermediate     | ABP124           | Resource Enhancement | Same                          |  |
| 5002748                           | Intermediate     | ABP125           | Resource Enhancement | Same                          |  |
| 5021934                           | High             | ABP126           | Conservation         | Same                          |  |
| 5021962                           | High             | ABP127           | Conservation         | Same                          |  |
| 5002644                           | Intermediate     | ABP128           | Multiple Use         | Higher                        | Mapping attribution error for vegetation buffer and connectivity (stage 1 assessment).   |
| N/A                               | N/A              | ABP130           | Conservation         | N/A                           | Can't identify wetland using aerial photography, too small to apply stage 1 assessment.  |

### 4. References

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