ASSESSMENT OF RIVERINE CONDITION
MAP SERIES

This document displays the following map series relating to the Riverine Condition of the Roper River Catchment.

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Map 11  State of the Reach Environs
Map 12  Channel Type Diversity
Map 13  Bank Stability
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Map 15  Cover and Structural Diversity of Riparian Vegetation
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Map 19  Cover and Distribution of *Hyptis suaveolens*
Map 20  Cover and Distribution of *Parkinsonia aculeata*
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Map 22  Cover and Distribution of Emergent Aquatic Vegetation
Map 23  Cover and Distribution of Floating Aquatic Vegetation
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Map 25  Overall Condition
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabilbi River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelp River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
5. Wilton River
   a. Below Mainoru River
   b. Above Mainoru River
6. Mainoru River
7. Jabilbi River
8. Flying Fox Creek
9. Mawok Creek
10. Strangways River
11. Chambers River
12. Elsey Creek
13. Waterhouse River

LEGEND
SITE LOCATION
REACH ENVIRON CATEGORY RATING (%)
Essentially Natural: 81 - 100
Some Modification: 61 - 80
Moderate Modification: 41 - 60
Major Modification: 21 - 40
Extreme Modification: 0 - 20
Site Not Assessed

5a Sub-section Number

NOTE
State of the Reach Environments:
The rating is based on an assessment of the land corridor along the survey reach and on the floodplain adjacent to the reach. The rating takes into account local land use and local disturbances along the reach environments.

TOP END WATERWAYS PROJECT
ROPER RIVER CATCHMENT
STATE OF THE REACH ENVIRON
Map 11
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabboi River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelps River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
   a. Below Mainoru River
   b. Above Mainoru River
5. Wilton River
   a. Below Mainoru River
   b. Above Mainoru River
   c. Jabboi River
   d. Flying Fox Creek
   e. Mawo Creek
   f. Strangways River
11. Chambers River
12. Eisey Creek
13. Waterhouse River

LEGEND

SITE LOCATION STABILITY CATEGORY RATING (%)
Stable 81 - 100
Limited Instability 61 - 80
Moderate Instability 41 - 60
Extensive Instability 21 - 40
Extreme Instability 0 - 20
Site Not Assessed

DOMINANT PROCESS AT EACH SITE
A Aggradation
Erosion (the dominant process at all sites, assessed, other than those with an 'A', is erosion)

Sa Sub-section Number
Catchment Boundary
Sub-catchment Boundary
Sub-section Boundary
River
Creek

NOTE
Bank Stability -
The ratings are determined from the recorded percentages of the banks on each side of the reach which are rated as stable. Upper banks are assigned a greater proportion of the score than lower banks. The dominant process at each site (erosion or aggradation) is recorded.

TOP END WATERWAYS PROJECT
ROPER RIVER CATCHMENT
BANK STABILITY

Map 13
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabboi River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelp River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
5. Wilton River
   a. Below Mainor River
   b. Above Mainor River
6. Mainor River
7. Jabboi River
8. Flying Fox Creek
9. Mawox Creek
10. Strangways River
11. Chambers River
12. Eisey Creek
13. Waterhouse River

LEGEND

SITE LOCATION RIPARIAN VEGETATION CATEGORY RATING (out of 10)

- Very High Cover/Diversity 9 - 10
- High Cover/Diversity 7 - 8
- Moderate Cover/Diversity 5 - 6
- Low Cover/Diversity 3 - 4
- Very Low Cover/Diversity 1 - 2
- Site Not Assessed

5a Sub-section Number

NOTE
Cover and Structural Diversity of the Riparian Vegetation - The ratings take into account:

a. The foliage cover or density provided by the overstorey, understorey and ground cover vegetation types or growth forms. The distinction between these three vegetation layers is:
   - Overstorey vegetation includes large trees (>30m tall), medium-sized trees (10-30m tall) and palms;
   - Understorey vegetation includes small trees (2-10m tall), regenerating trees (<2m tall), mangroves and woody shrubs (<2m tall);
   - Ground cover vegetation includes vines, rush/structures, forbs, salt marsh, fenns, grasses and Phragmites.

Both native and exotic vegetation species are included when calculating the covers. The extent of bare ground along the river banks within the riparian zone reduce the ratings.

b. The structural diversity or number of different growth forms present (e.g. trees of different height classes, palms, shrubs, vines, forbs, grasses, fenns, etc.).
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabboi River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelps River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
   a. Below Mainoru River
   b. Above Mainoru River
5. Wilton River
6. Mainoru River
7. Jabboi River
8. Flying Fox Creek
9. Mawok Creek
10. strangways River
11. Chambers River
12. Elsey Creek
13. Waterhouse River

LEGEND
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<th>RATING (out of 10)</th>
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NUMBER OF TYPES OF EXOTIC SPECIES
1 - 8 The number of different types of exotic species recorded at a site, if present.

5a Sub-section Number
--- Catchment Boundary
| Sub-section Boundary |
| River |
| Creek |

NOTE
Cover of Exotic Riparian Vegetation -
The ratings take into account the percentage cover recorded for exotic species within the riparian zone, averaged for both river banks at a site. The higher the percentage cover recorded for exotic species, or the higher the degree of invasion, the lower the rating. The number of different types of exotic species recorded at a site, if present, is shown.
- The maximum percentage cover recorded for exotic riparian vegetation was 34%.

0 20 40 60 80 100
Kilometres

TOP END WATERWAYS PROJECT
ROPER RIVER CATCHMENT

COVER OF EXOTIC RIPARIAN VEGETATION

Map 17
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabboi River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phep River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
   a. Below Mainhour River
   b. Above Mainhour River
6. Mainhour River
7. Jabboi River
8. Flying Fox Creek
9. Mawox Creek
10. Strangways River
11. Chambers River
12. Elsey Creek
13. Waterhouse River

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<td>16 - 20*</td>
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5a Sub-section Number

Catchment Boundary
Sub-catchment Boundary
Sub-section Boundary
River
Creek

NOTE
Passiflora foetida (Striking Passion Flower), a naturalised vine, was the major exotic species recorded throughout the catchment. Its distribution and the percentage cover recorded are shown. Percentage covers are averaged if the species is recorded for both river banks at a site.

* The maximum percentage cover recorded for Passiflora foetida was 20%.
Parkinsonia aculeata, a low tree, was the third major exotic species recorded throughout the catchment. Its distribution and the percentage cover recorded are shown. Percentage covers are averaged if the species is recorded for both river banks at a site.

- The maximum percentage cover for Parkinsonia aculeata was 5%
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jaboli River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelps River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
5. Wilton River
   a. Below Mannor River
   b. Above Mannor River
6. Mannor River
7. Jaboli River
8. Flying Fox Creek
9. Mawok Creek
10. Strangways River
11. Chambers River
12. Elsey Creek
13. Waterhouse River

LEGEND

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<td>Site Not Assessed</td>
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5a Sub-section Number
   Catchment Boundary
   Sub-catchment Boundary
   Sub-section Boundary
   River
   Creek

NOTE
Cover and Distribution of Submerged Aquatic Vegetation - The categories where covers were recorded include filamentous algae, Chara/Nitella, Vallisneria, Myriophyllum and other herb-like forms. No exotic species were recorded.
   - The maximum percentage cover recorded for submerged aquatic vegetation was 53%.
SUB-SECTIONS
1. Roper River
   a. Estuary
   b. Below Jabooli River
   c. Below 57-Mile Waterhole
   d. Red Lily Lagoon, 57-Mile Waterhole
   e. Below Waterhouse River
   f. Upper Roper Creek
2. Phelp River
3. Hodgson River
   a. Below Arnold River
   b. Above Arnold River
4. Arnold River
   a. Below Mainor River
   b. Above Mainor River
5. Wilton River
   a. Below Mainor River
   b. Above Mainor River
6. Mainor River
7. Jabooli River
8. Flying Fox Creek
9. Mawox Creek
10. Strangways River
11. Chambers River
12. Elsey Creek
13. Waterhouse River

LEGEND
SITE LOCATION INSTREAM / BANK HABITAT CATEGORY RATING (%)

- Very High Cover/Diversity 81 - 100
- High Cover/Diversity 61 - 80
- Moderate Cover/Diversity 41 - 60
- Low Cover/Diversity 21 - 40
- Very Low Cover/Diversity 0 - 20
- Site Not Assessed

5a Sub-section Number
--- Catchment Boundary
--- Sub-catchment Boundary
--- Sub-section Boundary
   - River
   - Creek

NOTE
Cover and Diversity of Instream and Bank Habitats - The ratings are based on a combination of the cover and diversity provided by instream organic debris (logs, branches, leaves/twigs, etc.), aquatic vegetation and other habitat types (such as rock, permanent pools) on the bed, as well as the cover and diversity provided by the canopy and other habitats (low vegetation, roots, bank overhang) along the river banks.

TOP END WATERWAYS PROJECT
ROPER RIVER CATCHMENT
COVER AND DIVERSITY OF INSTREAM AND BANK HABITATS

Map 24
**LEGEND**

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<th>SITE LOCATION</th>
<th>OVERALL CONDITION CATEGORY</th>
<th>RATING (%)</th>
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<td>Essentially Natural/ Stable, Very High Cover/ Diversity of Exotics Absent/Negligible</td>
<td>81 - 100</td>
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<td></td>
<td>Stable, Very High Cover/ Diversity of Exotics Absent/Negligible</td>
<td>61 - 80</td>
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<td>Moderate Modification/ Instability, Very Low Cover/ Diversity of Exotics</td>
<td>41 - 60</td>
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<tr>
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<td>Extreme Modification/ Instability, Very Low Cover/ Diversity of Exotics</td>
<td>21 - 40</td>
</tr>
<tr>
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<td>Extreme Modification/ Instability, Very Low Cover/ Diversity of Very High Cover for Exotics</td>
<td>0 - 20</td>
</tr>
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<td>Site Not Assessed</td>
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**NOTE**

Overall Condition - Provides an indication of the overall condition of the sites based on the following six components that were assessed:
- state of the reach environs
- bank stability
- bed stability
- cover and structural diversity of riparian vegetation
- cover of exotic riparian vegetation
- cover and diversity of in-stream and bank habitats

The rating for each component is combined equally to produce an Overall Condition Rating for each site.
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4. Select which pages you wish to print (see page no – bottom of the screen)
5. Select PROPERTIES tab
6. Select A4 portrait or landscape to suit the page
7. Change the resolution to suit
8. Press OK
9. Press OK to print