# Fitzroy Waterwatch
# Riparian Condition Assessment
## Ecology – Riparian Zone

| Site Name: | |
|---|---|
| | |
| Recorder: | |
| | |
| Date: | |
| Time: | |

| Category/Indicator | Score range | Calculate your score |
|---|---|---|
| **VEGETATION COVER** | **Max score of 20** | |
| Canopy | Max score 5 | |
| Midstory | Max score 5 | |
| Understory | Max score 5 | |
| Ground | Max score 5 | |
| **WEED COVERAGE & DISTRIBUTION** | **Max score of -10** | |
| Weed cover | Max score -5 | |
| Weed distribution | Max score -5 | |
| **WOODY DEBRIS** | **Max score of 8** | |
| Standing dead trees | Max score 2 | |
| Hollow bearing trees | Max score 2 | |
| Fallen logs | Max score 4 | |
| **FITZROY WATERWATCH RIPARIAN CONDITION** | **Max total score 28** | |

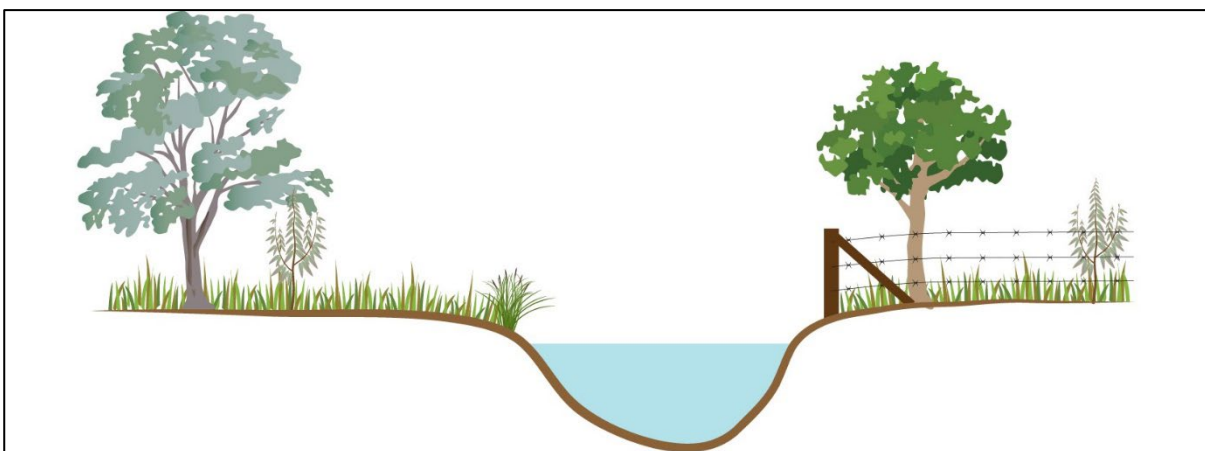| Grade | A | B | C | D | E |
|---|---|---|---|---|---|
| Score | 28 - 24 | 23 - 19 | 12 – 18 | 5 – 11 | 0 – 4 |

The riparian zone is the unique area where land and waterway join. You will find unique vegetation types and density which change as you move away from the riparian zone and onto the land. The size of every riparian zone is different, you will usually see a distinct difference in vegetation where the riparian zone ends, and land (terrestrial) vegetation starts.
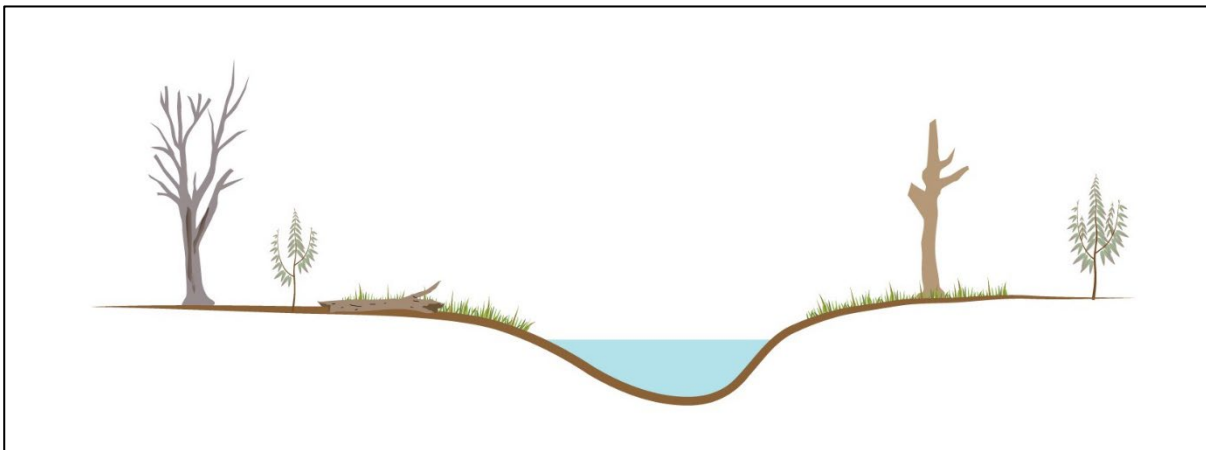
## Riparian Rapid Assessment

i.   Look upstream and downstream of your sampling site up to 100m.
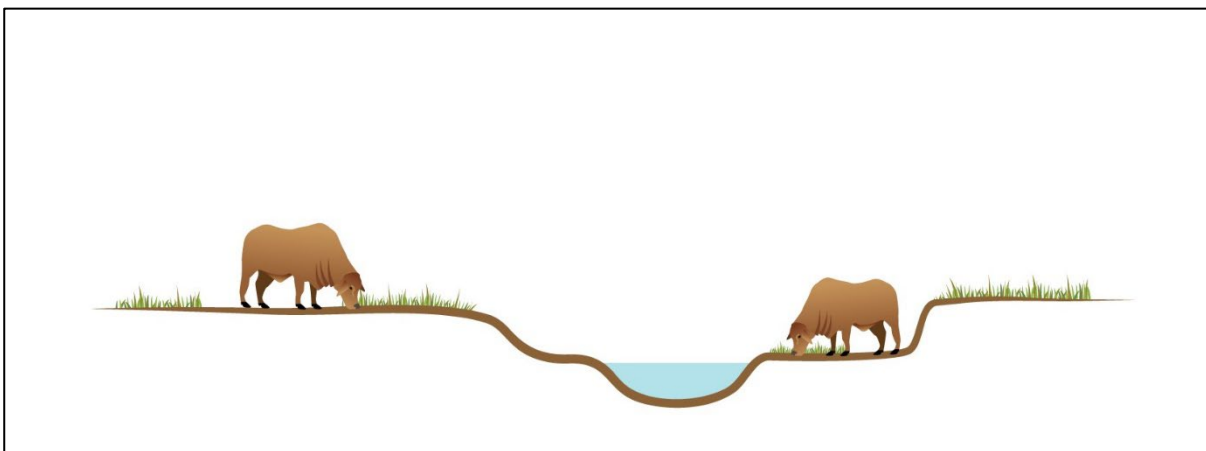ii.  Consider both native and exotic species (weeds are assessed in the following category)
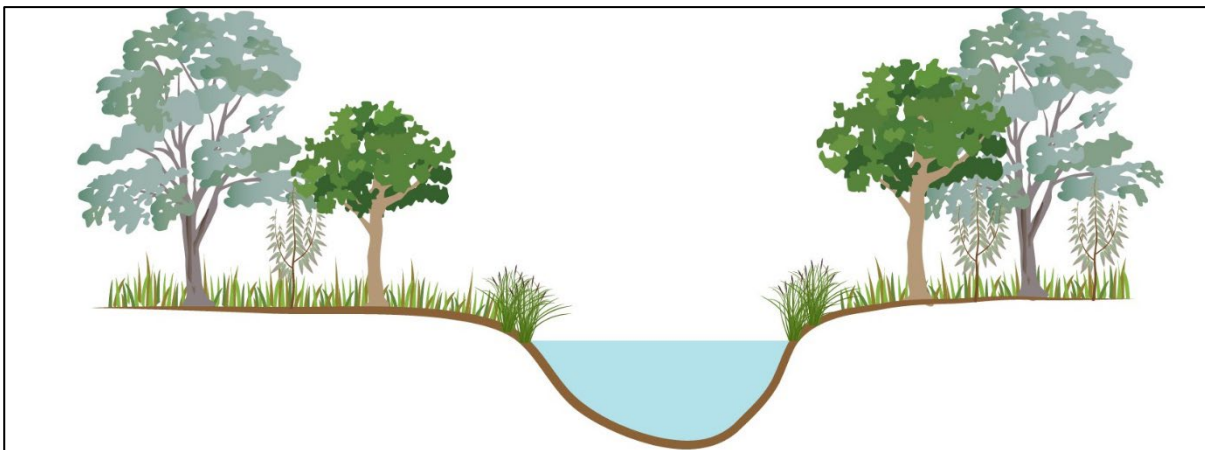


| Good | Mark |
|---|---|
| Native vegetation along entire stretch<br>Distinct tree, shrub, and grass layers of native vegetation<br>Area protected from human use, e.g. fences and no pollution present | |

| Moderate/Average | Mark |
|---|---|
| Vegetation patchy<br>Distinct vegetation layers not visible<br>Many weeds<br>Some bank erosion<br>Some human use of area evident e.g. drains or stock access | |



| Poor | Mark |
|---|---|
| Little native vegetation<br>Exotic trees present<br>Some trees have dead limbs or look unhealthy<br>Weeds<br>Human use obvious e.g. drains, vegetation removal, stock access | |

| Very Poor | Mark |
|---|---|
| Erosion across a wide area<br>Little vegetation or none<br>Bank erosion evident<br>Many changes caused by human use | |

## Riparian vegetation cover

Riparian zone vegetation is made up of multiple layers, changing in height and vegetation type from the canopy down to the water. The canopy is the leaves and branches of tall woody trees, under the canopy is the midstory, which is smaller woody trees and large shrubs, followed by the understory made up of shrubs, large herbs, large soft stemmed plants, and finally groundcover which will be grasses, sedges, and herbs.
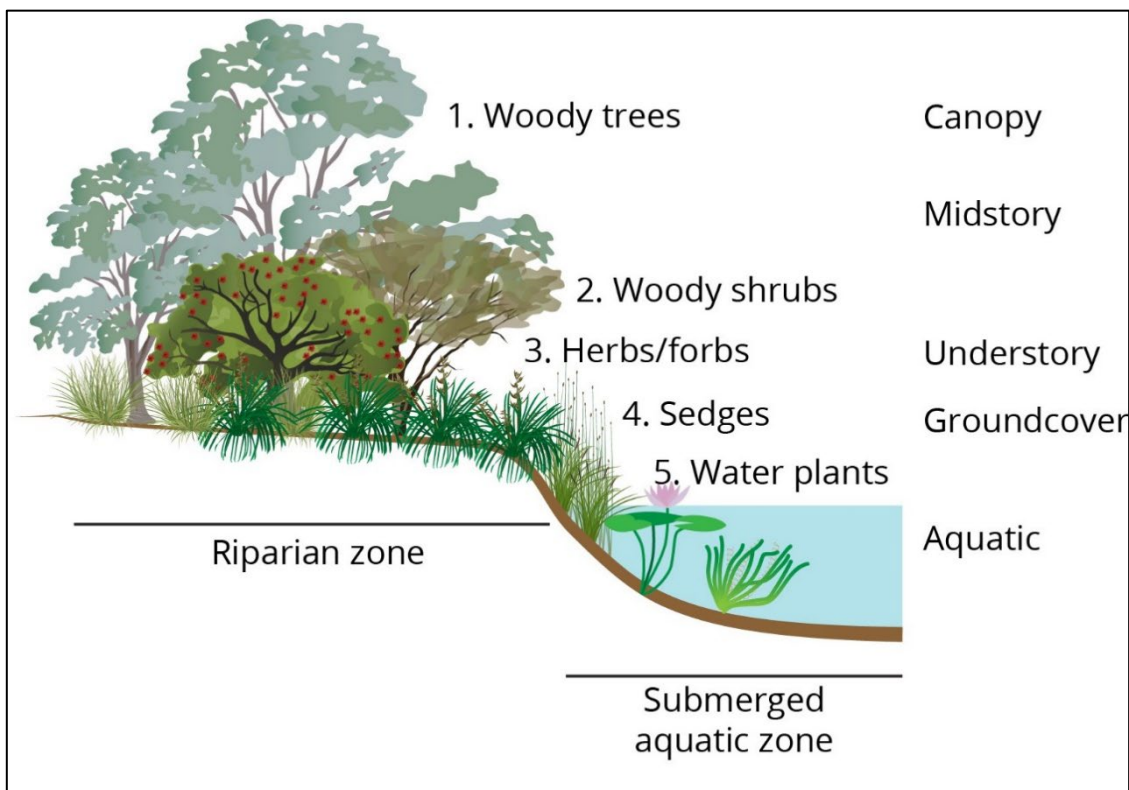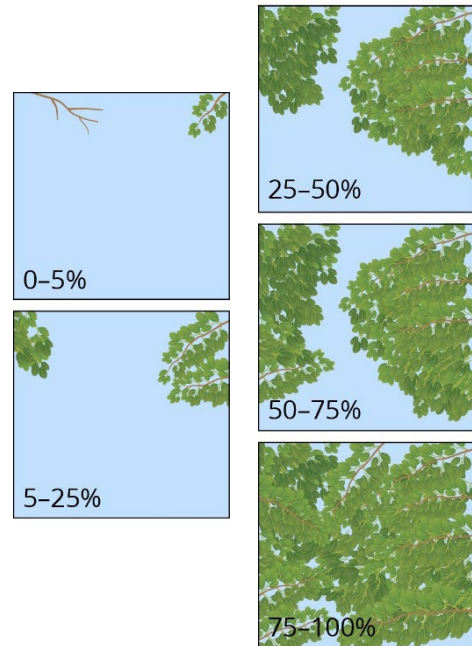


See below some guides to help you assess vegetation coverage in each story of the riparian zone.

i.     Look upstream and downstream of your sampling site up to 100m.
ii.    Consider both native and exotic species (weeds are assessed in the following category)

Canopy cover (>5m tall):

| Score | Value | Mark |
|-------|-------|------|
| 0 | None | |
| 1 | <5% | |
| 2 | 5% – 25% | |
| 3 | 25-50% | |
| 4 | 50-75% | |
| 5 | 75-100% | |

Midstory cover (1.5-5m tall):

| Score | Value | Mark |
|-------|-------|------|
| 0 | None | |
| 1 | <5% | |
| 3 | 5- 30% | |
| 5 | >30% | |

Understory cover (<1.5m tall):

| Score | Value | Mark |
|-------|-------|------|
| 0 | None | |
| 1 | <5% | |
| 3 | 5- 30% | |
| 5 | >30% | |

Groundcover:

| Score | Value | Mark |
|-------|-------|------|
| 0 | None | |
| 1 | <30% | |
| 3 | 30% – 60% | |
| 5 | >60% | |



*Reference image for measuring Canopy cover*
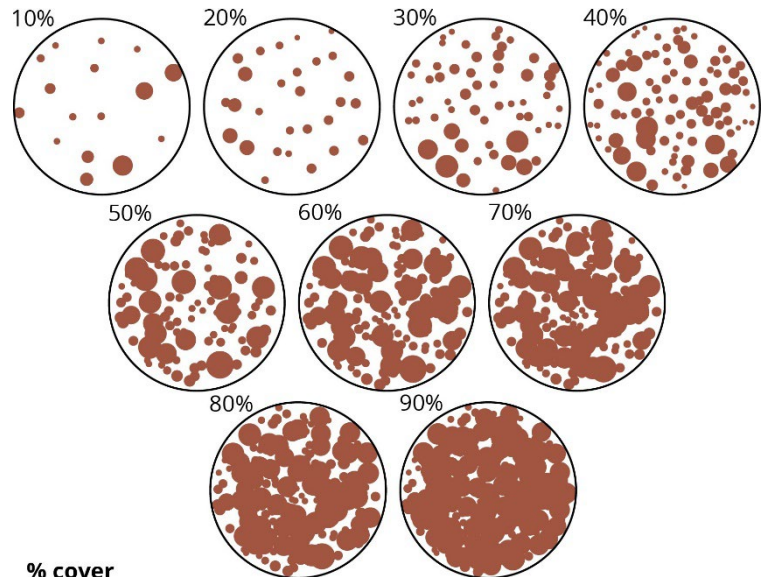


% cover

*Reference image for measuring vegetation coverage in Mid, Under and Ground stories*

# Weed coverage & distribution

### Priority Riparian Weeds

Use these reference photos to help you identify priority riparian weeds. The **Weed Scan App** is an easy tool for plant identification, give it a go to identify as many weeds as you can at your site.

### Lantana



| Score | Value | Mark |
|---|---|---|
|  | None |  |
|  | Scattered |  |
|  | Abundant |  |

**Singapore daisy** (*Sphagneticola trilobata*)



| Score | Value | Mark |
|---|---|---|
|  | None |  |
|  | Scattered |  |
|  | Abundant |  |

**Prickly acacia** (*Vachellia nilotica*)







| Score | Value | Mark |
|---|---|---|
| | None | |
| | Scattered | |
| | Abundant | |

**Rubber vine** (*Cryptostegia grandiflora*)





| Score | Value | Mark |
|-------|----------|------|
|  | None |  |
|  | Scattered |  |
|  | Abundant |  |

**Cat's claw creeper** (*Dolichandra unguis-cati*)







| Score | Value | Mark |
|---|---|---|
|  | None |  |
|  | Scattered |  |
|  | Abundant |  |

**Parkinsonia** (*Parkinsonia aculeata*)





| Score | Value | Mark |
|-------|-----------|------|
|       | None      |      |
|       | Scattered |      |
|       | Abundant  |      |

**Leucaena** (*Leucaena leucocephala*)





| Score | Value | Mark |
|-------|-------|------|
|  | None |  |
|  | Scattered |  |
|  | Abundant |  |

Other, please specify:

| Name | None / Scattered / Abundant |
|---|---|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Weed coverage

Weed infestation, consider all weeds in riparian zone:
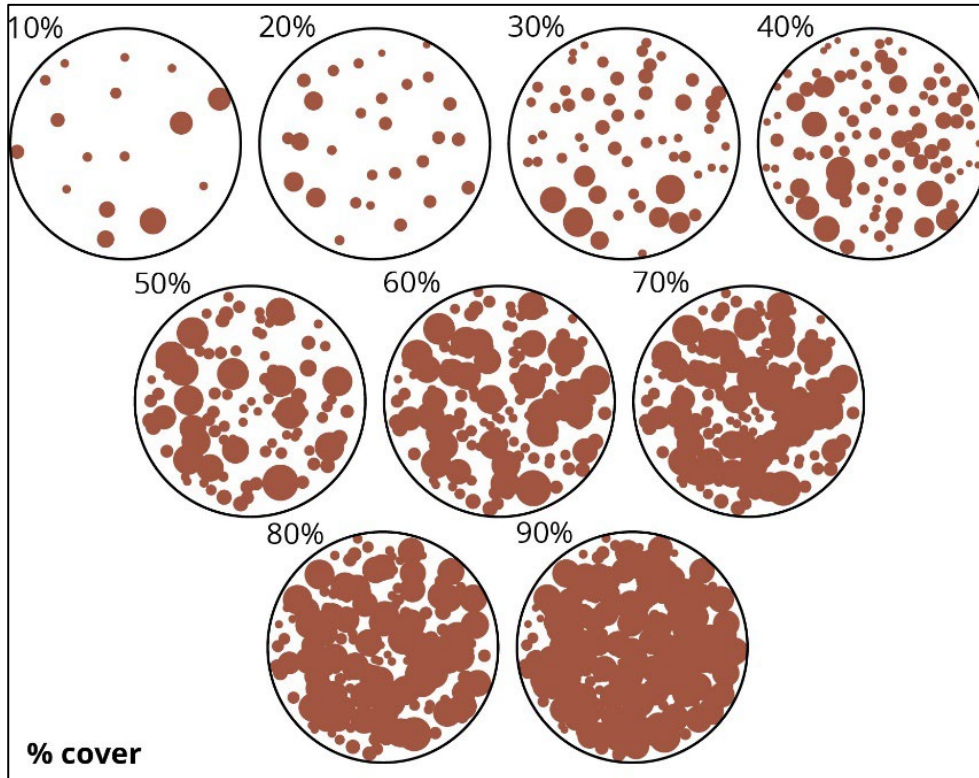


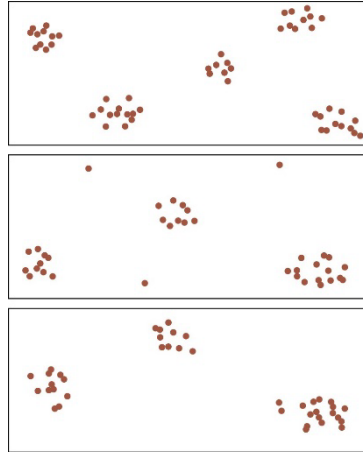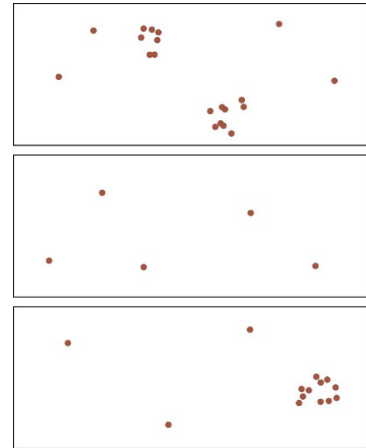| Score | Value | Mark |
|-------|-------|------|
| 0 | None | |
| 1 | <30% vegetation are weeds | |
| 2 | 30-60% vegetation are weeds | |
| 3 | >60% vegetation are weeds | |

## Weed distribution

Consider distribution of all weeds in the riparian zone:
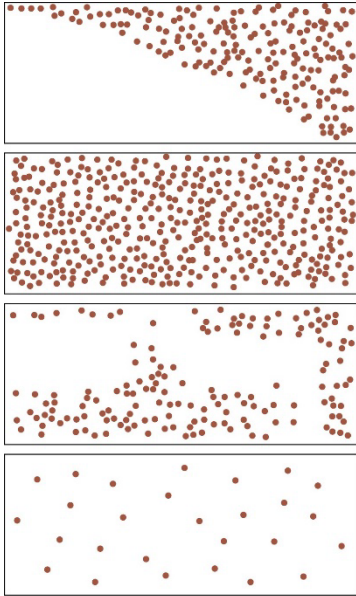


**Continuous distribution**

**Patchy distribution**

**Scattered distribution**

| Score | Value | Mark |
|---|---|---|
| 0 | None | |
| 1 | Scattered | |
| 2 | Patchy | |
| 3 | Continuous | |

**Woody Debris**

Standing dead trees

| Score | Value | Mark |
|-------|---------|------|
| 0 | Absent | |
| 2 | Present | |

Hollow bearing trees

| Score | Value | Mark |
|-------|---------|------|
| 0 | Absent | |
| 2 | Present | |

Fallen logs

| Score | Value | Mark |
|-------|-----------|------|
| 0 | Absent | |
| 2 | Scattered | |
| 4 | Abundant | |

**Evidence of degradation from human or introduced animal use:**

- ☐ Litter
- ☐ In-stream pollution (such as oil slicks)
- ☐ Drains, crossings, bridges etc. within 100m
- ☐ Vegetation clearing
- ☐ Damage to banks and vegetation by feral or introduced animals (e.g. cattle, pigs, horses)

**Observation of native aquatic and riparian species (by sight or sound):**

- ☐ Birds
- ☐ Waterbirds
- ☐ Fish
- ☐ Amphibians
- ☐ Mammals
- ☐ Reptiles

**Confidence in assessment**

| Score | Value | Mark |
|-------|-------|------|
| A | I used expert knowledge and skills in this assessment, completed assessment based on accepted methods and using accepted equipment. | |
| B | High confidence in these results – I am an experienced Waterwatch sampler or have other related experience, completed assessment using correct equipment and accepted methods | |
| C | Moderate confidence in these results – Completed assessment using correct equipment and methods | |
| D | Low confidence in these results – Incomplete assessment or potentially inaccurate results | |
| E | Unknown confidence in these results – These results should be double checked | |

**Observations:**

Add your observations such as the flow/water level in the waterway, the weather, any notes you have about the data you've recorded or pictures you've uploaded, as well other observations such as siting aquatic wildlife.