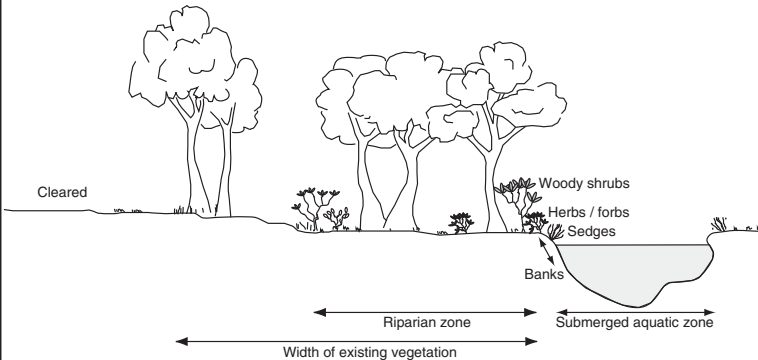


Riparian vegetation record sheet—Method 2

Date (dd/mm/yy) / / Monitor(s) _____
 Site code _____ Tributary name _____

The riparian zone is a band of vegetation along a stream or river that is directly linked to the stream. Riparian vegetation is dependent on the extra moisture provided by the waterbody, and provides leaf and branch litter to the stream. The riparian zone selected for assessment should be relatively homogenous and representative of the area. Highly disturbed riparian zones may be very thin and patchy.



1. Bank vegetation

Estimate the following measurements for both banks along the total length of your site (reach). The width of existing vegetation is measured away from the water's edge (capped at a maximum of 40 m for the score calculations). The fragmentation rating is calculated based on the density of the canopy.

| Left bank | Measurement | Right bank |
|-----------|----------------------------------|------------|
| | Width of existing vegetation (m) | |
| | Fragmentation rating (0 to 5) | |

The 0 to 5 scale of canopy fragmentation

- 5 = highly; 81–100%
- 4 = very; 61–80%
- 3 = moderately; 41–60%
- 2 = some; 21–40%
- 1 = minor; 1–20%
- 0 = none, continuous canopy

2. Vegetation cover

Using the 0 to 5 scale, rate the overall amount of cover for each vegetation class, plus the amount of that cover contributed by introduced plant species. Assess the left and right banks independently. If a vegetation class is present but an accurate estimate cannot be made, mark it by placing an 'X' in the corresponding box.

| Cover type | Left bank | | Right bank | |
|---|-------------|------------------|-------------|------------------|
| | Total cover | Introduced cover | Total cover | Introduced cover |
| Trees > 30 m | | | | |
| Trees 10–30 m | | | | |
| Woody shrubs > 2 m | | | | |
| Woody shrubs < 2 m | | | | |
| Vines | | | | |
| Rushes and sedges | | | | |
| Herbs and forbs | | | | |
| Grasses | | | | |
| Tree ferns | | | | |
| Ferns and bracken | | | | |
| Mosses | | | | |
| Palms | | | | |
| Freshwater wetland | | | | |
| Cover sums (sum the rating scores in each column) | | | | |

The 0 to 5 rating scale

- 5 = major, dominant; 81–100%
- 4 = common, abundant; 61–80%
- 3 = regular, frequent; 41–60%
- 2 = little, occasional; 21–40%
- 1 = present, rare; 1–20%
- 0 = absent

Visual guide to distribution ratings

5. Riparian zone disturbance score

Complete the following equations to derive the riparian vegetation disturbance score for the site. These equations will occasionally produce results greater than 100 or less than 1. In these circumstances, the results must be rounded down to 100 or up to 1.

| | | Calculations | |
|--|----------|----------------------|----------------------|
| | | Left bank | Right bank |
| Vegetation score (by bank) | | | |
| $Bank_{vegetation\ score} = Bank_{all\ cover\ sum} - (0.3 \times Bank_{introduced\ cover\ sum})$ | | | |
| $Bank_{all\ cover\ sum}$ | | <input type="text"/> | <input type="text"/> |
| $- (0.3 \times Bank_{introduced\ cover\ sum})$ | - | <input type="text"/> | <input type="text"/> |
| = $Bank_{vegetation\ score}$ | = | <input type="text"/> | <input type="text"/> |

Riparian zone disturbance score (by bank)

$Bank_{riparian\ zone\ disturbance\ score} = (2 \times Bank_{vegetation\ width}) - (2 \times Bank_{fragmentation\ rating}) + Bank_{vegetation\ score}$

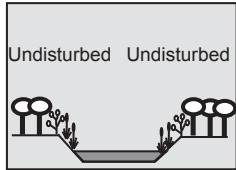
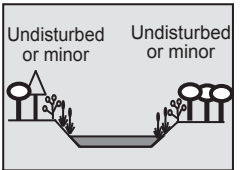
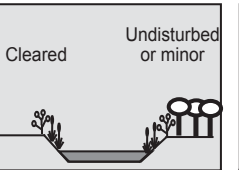
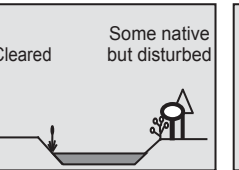
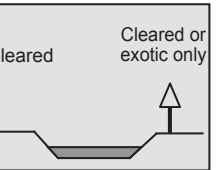
| | | | |
|---|----------|----------------------|----------------------|
| $(2 \times Bank_{vegetation\ width})$ | | <input type="text"/> | <input type="text"/> |
| $- (2 \times Bank_{fragmentation\ rating})$ | - | <input type="text"/> | <input type="text"/> |
| $+ Bank_{vegetation\ score}$ | + | <input type="text"/> | <input type="text"/> |
| $+ Bank_{regeneration\ score}$ | + | <input type="text"/> | <input type="text"/> |
| = $Bank_{riparian\ zone\ disturbance\ score}$ | = | <input type="text"/> | <input type="text"/> |

Riparian zone disturbance score (site)

$Site_{riparian\ zone\ disturbance\ score} = (Left_{riparian\ zone\ disturbance\ score} + Right_{riparian\ zone\ disturbance\ score}) \div 2$

| | |
|---|-------------------------------|
| Left riparian zone disturbance score | <input type="text"/> |
| + Right riparian zone disturbance score | + <input type="text"/> |
| ÷ 2 | ÷ 2 |
| = Site riparian zone disturbance score | = <input type="text"/> |

Note: Use the diagrams below to assist you to interpret your results by comparing them with your site.

| Excellent | Good | Moderate | Poor | Very poor |
|--|--|---|---|--|
|  |  |  |  |  |
| Native vegetation on both sides of the stream in an undisturbed state. Introduced plants are rare or insignificant. Representative of natural vegetation in excellent condition. Riparian zone width > 40 m. | Native vegetation on both sides of the stream in generally good condition with few introduced plants present. Any disturbance is minor. Riparian zone width < 40 m but still wide. | Both sides moderately disturbed by stock or through intrusion of introduced plants, or one side cleared and other side undisturbed native vegetation, or narrow width of native plants on both sides. | One bank cleared and other side moderate disturbance through intrusion of introduced plants or stock, or narrow riparian widths dominated by introduced plants. | Riparian vegetation is absent or severely reduced. Vegetation present is extremely disturbed—i.e. dominated by introduced plants. Native plants are rare or completely absent. |