Fitzroy Waterwatch In-stream Condition Assessment

Ecology – Aquatic Zone

Site Name:	
Recorder:	
Date: Time:	
Time:	

Category/Indicator	Score range	Calculate your score
AQUATIC VEGETATION	Max score 12	
Floating	Max score 4	
Submerged	Max score 4	
Emergent	Max score 4	
WEED COVERAGE & DISTRIBUTION	Max score -6	
Weed cover	Max score -3	
Weed distribution	Max score -3	
STREAM CONDITION + IN-STREAM HABITAT RAPID ASSESSMENT	Max score 16	
In-stream cover	Max score 4	
Bank stability and erosion (double weighting)	Max score 8	
In-stream habitat	Max score 4	
FITZROY WATERWATCH IN-STREAM CONDITION	Max total score 28	

Grade	А	В	С	D	Е
Score	28 - 24	23 - 19	12 – 18	5 – 11	0 - 4

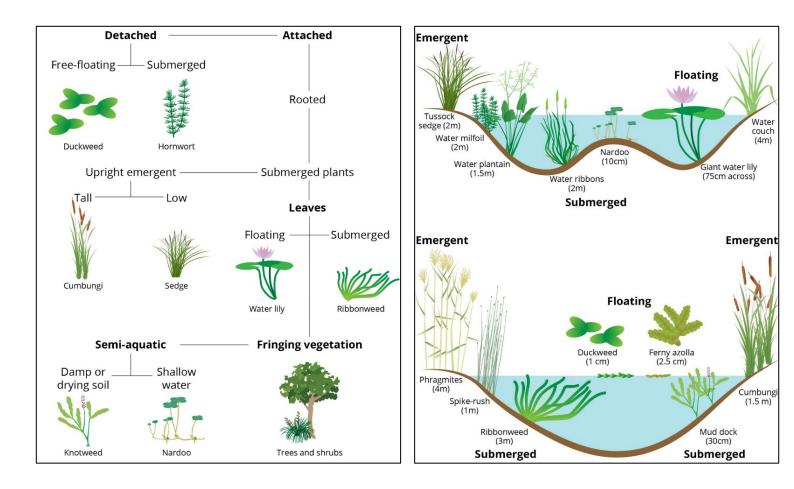




Ecology - Aquatic Zone

Aquatic vegetation

Aquatic plants can be found floating on the surface, growing beneath the water, or emerging from submerged and wet banks. See below for some examples of what these may look like and where you might see them growing.



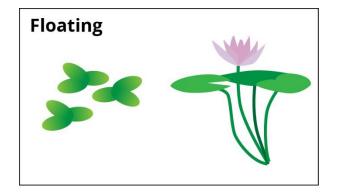
What kind of aquatic vegetation is there?

- 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)

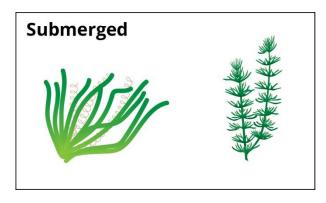


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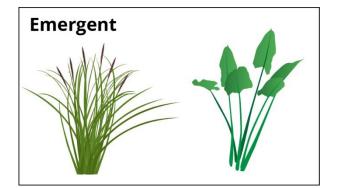
Ecology – Aquatic Zone



Score	Value	Mark
0	None	
2	Scattered	
4	Abundant	



Score	Value	Mark
0	None	
2	Scattered	
4	Abundant	



Score	Value	Mark
0	None	
2	Scattered	
4	Abundant	





Ecology – Aquatic Zone

Weed coverage & distribution

Priority Aquatic Weeds

Use these reference photos to help you identify priority aquatic 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.

Hymenachne (Hymenachne amplexicaulis)



Score	Value	Mark
	None	
	Scattered	
	Abundant	



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Para grass (Brachiaria mutica / Urochloa mutica)



Score	Value	Mark
	None	
	Scattered	
	Abundant	





Ecology – Aquatic Zone

Water Hyacinth (Pontederia crassipes / Eichhornia crassipes)







Score	Value	Mark
	None	
	Scattered	
	Abundant	



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Salvinia



Score	Value	Mark
	None	
	Scattered	
	Abundant	





Ecology – Aquatic Zone

Umbrella sedge (*Cyperus involucratus*)





Score	Value	Mark
	None	
	Scattered	
	Abundant	





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Other, please specify:

Name	None / Scattered / Abundant

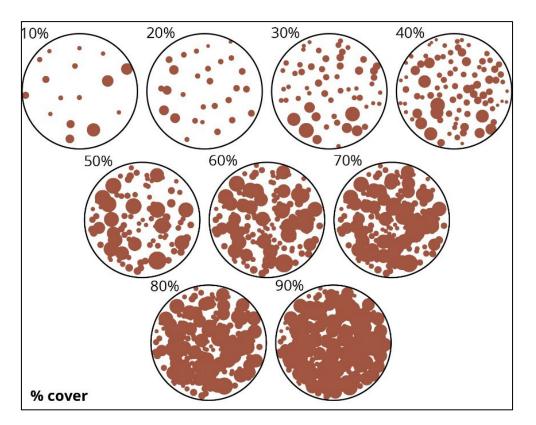




Ecology – Aquatic Zone

Weed coverage

Weed infestation, consider all weeds in aquatic zone:



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

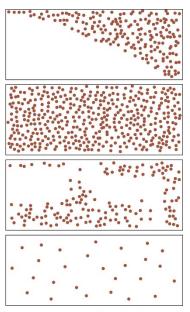




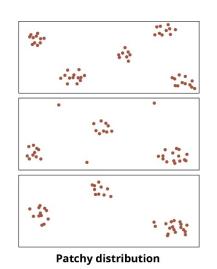
Ecology – Aquatic Zone

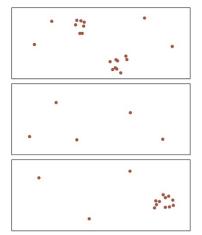
Weed distribution

Consider distribution of all weeds in the aquatic zone:



Continuous distribution





Scattered distribution

Score	Value	Mark
0	None	
1	Scattered	
2	Patchy	
3	Continuous	

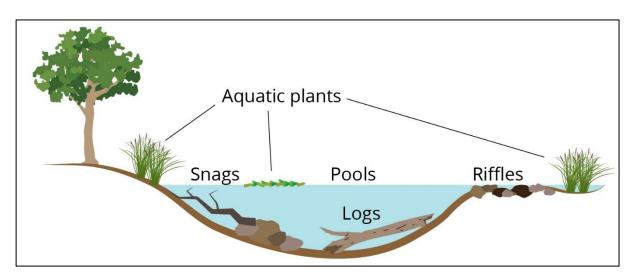




Ecology – Aquatic Zone

Stream Habitat Rapid Assessment

In-stream cover:



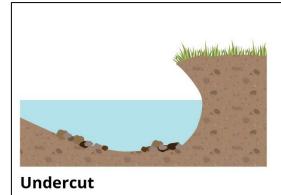
Score	Value	Mark
Excellent (4)	Abundant cover. Frequent snags, logs,	
	boulders with extensive areas of in-stream	
	vegetation and overhanging bank vegetation.	
Good (3)	A good coverage of snags, logs or boulders,	
	with considerable area of in-stream and	
	overhanging vegetation.	
Fair (2)	Some snags or boulders present and/or	
	occasional areas of in-stream or overhanging	
	vegetation.	
Poor (1)	Only slight in-stream cover. The stream is	
	largely cleared, with occasional snags and	
	very little in-stream or overhanging	
	vegetation.	
Very Poor (0)	No cover, no snags, boulders submerged, no	
	overhanging vegetation. No undercut banks.	
	Site may have infrastructure such as concrete	
	lining or crossing, drain etc.	

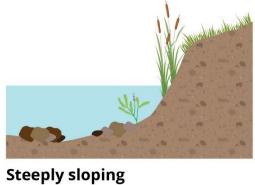


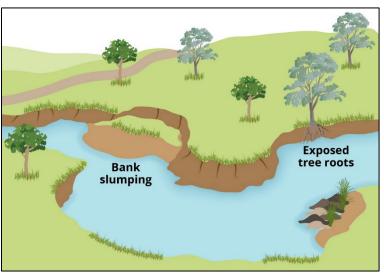


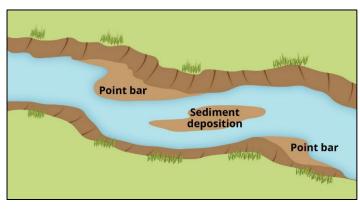
Ecology – Aquatic Zone

Bank erosion and stability







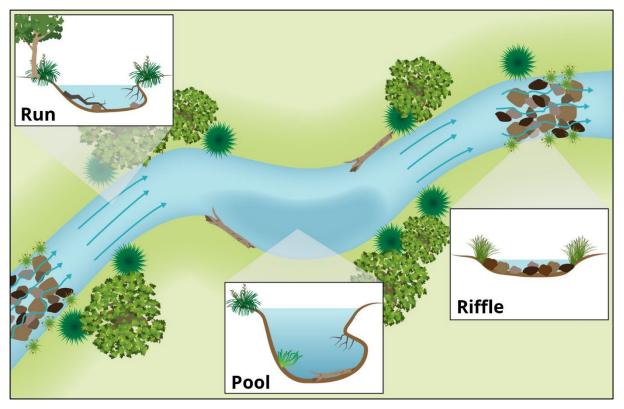


Score	Value	Mark
Excellent (8)	Stable: no erosion or sedimentation evident. No	
	undercutting of banks, usually, gentle bank	
	slopes, lower banks covered with root mat,	
	grasses or shrubs.	
Good (6)	Only spot erosion, little undercutting of bank,	
	good vegetation cover, usually gentle bank	
	slopes, no significant change to bank structure.	
Fair (4)	Localised erosion. Relatively good vegetation	
	cover. No continuous damage to bank structure	
	or vegetation.	
Poor (2)	Significant active erosion evident, especially	
	during high flows. Unstable excessive areas of	
	bare banks, little vegetation cover.	
Very Poor (0)	Extensive or almost continuous erosion. Over	
	50% of banks have some form of erosion; very	
	unstable with little vegetation cover.	

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In-stream habitat



Score	Value	Mark
Excellent (4)	Wide variety of habitats. Riffles, runs, and	
	pools present.	
Good (3)	Good variety of habitats. Some variation in	
	depth.	
Fair (2)	Some variety of habitats, occasional riffle or	
	bend. Some variation in depth.	
Poor (1)	Only slight variety of habitats. All riffles and	
	pools with slight variety of depth.	
Very Poor (0)	Uniform habitat. Straight stream, all shallow	
	riffles or pools, uniform depth, channelled	
	stream.	





Ecology – Aquatic Zone

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
А	I used expert knowledge and skills in this assessment,	
	completed assessment based on accepted methods	
	and using accepted equipment.	
В	High confidence in these results – I am an experienced	
	Waterwatch sampler or have other related experience,	
	completed assessment using correct equipment and	
	accepted methods	
С	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.