

Annexure

A

Buffer Assessment Criteria

Attachment 1 - Criteria and rules for assessment of risk

Measures of Consequence (Severity of Environmental Impact)

Level	Descriptor	Description	Examples/Implications
1	Major	<ul style="list-style-type: none"> Serious and/or long-term impact to the environment/public health and/or amenity Long term management implications 	<ul style="list-style-type: none"> Water, soil or air impacted seriously, possibly in the long term Limited damage to animals fish or birds or plants Many public complaints including odour and noise Contravenes the conditions of Councils licences, permits and the relevant environmental protection and management Acts Likely prosecution
2	Moderate	<ul style="list-style-type: none"> Moderate and/or medium-term impact to the environment/public health and/or amenity Some ongoing management implications 	<ul style="list-style-type: none"> Water, soil or air known to be affected, probably in the short term No damage to plants or animals Public unaware and no complaints to Council May contravene the conditions of Council's Licences and the relevant environmental protection and management Acts Unlikely to result in prosecution
3	Negligible	<ul style="list-style-type: none"> Very minor impact to the environment/public health and/or amenity Can be effectively managed as part of normal operations 	<ul style="list-style-type: none"> No measurable or identifiable impact on the environment/public health and /or amenity

Probability (Measure of Likelihood of Risk)

Level	Descriptor	Description
A	Very Likely	Common or repeating occurrence
B	Likely	Known to occur, or it has happened
C	Unlikely	Could occur in some circumstances, but not likely to occur

Risk Ranking Table

PROBABILITY	A	B	C
Consequence			
1	25	24	22
2	23	21	18
3	20	17	13

A risk ranking of 25-20 would normally be deemed as an unacceptable risk.

A risk ranking of less than 20 would normally be deemed as an acceptable risk.

Attachment 2 - extract of Table 1 page from Lovett, S. & Price, P. 2001, Managing Riparian Lands in the Sugar Industry: A Guide to Principles and Practices, Sugar Research & Development Corporation/Land & Water Australia, Brisbane. ISBN 0-9579313-0-1

Region and annual rainfall (mm/y)	Rainfall erosivity ¹	Soil erodibility ²	Slope ³	Expected soil loss ⁴ (t/ha/y)	Buffer width (m)	Perennial crops soil loss ⁴ (t/ha/y)	Buffer width (m)
Burdekin 500–1200	very high	low	low	15	5	1	2
			medium	36	23	2	2
			high	65	>30	3	2
		medium	low	29	15	1	2
			medium	71	>30	4	2
			high	130	>30	7	2
	medium	high	low	44	27	2	5
			medium	107	>30	5	6
			high	195	>30	10	10
		medium	low	8	2	0	2
			medium	20	13	1	2
			high	37	24	2	2
Brigalow 500–1200	medium	high	low	13	7	1	5
			medium	31	22	2	5
			high	56	>30	3	5
		medium	low	17	7	1	2
			medium	41	26	2	2
			high	74	>30	4	2
	high	high	low	25	15	1	5
			medium	61	>30	3	5
			high	112	>30	6	5
		medium	low	8	2	1	2
			medium	20	13	1	2
			high	37	24	2	2
South East 800–2000	medium	high	low	8	2	1	2
			medium	20	13	1	2
			high	37	24	2	2
		medium	low	17	7	1	2
			medium	41	26	2	2
			high	74	>30	4	2
	high	high	low	25	15	1	5
			medium	61	>30	3	5
			high	112	>30	6	5
		medium	low	8	2	1	2
			medium	20	13	1	2
			high	37	24	2	2

1. Rainfall erosivity R: low = 850, medium = 2000, high = 4000, very high = 7000, extreme = 9000. See map next page for details.
2. Soil erodibility K: high = 0.045, medium = 0.030, low = 0.015. For K you need to work out your soil type from local or national soil maps, or know the texture of the soil. Your local QDNRM office should be able to assist you. If not, conversion tables can be found on page 26–27 of the Karssies/Prosser report at the following website address: <http://www.clw.csiro.au/publications/technical99/tr32-99.pdf>
3. Slope S: high = 9%, medium = 6%, low = 2%.
4. Average cover of plant material over the area draining into the stream. Poor cover C = 0.2 (typical cover for conventional annual cover techniques); good cover C = 0.01 of drainage area (is representative of soil conservation techniques of minimum tillage, trash blanketing etc).

> = more than

Source: Karssies, L. & Prosser, I. 1999. *Guidelines for Riparian Buffer Strips for Queensland Irrigators*. CSIRO Land & Water Technical Report 32/99. Can also be found at the website <http://www.clw.csiro.au/publications/technical99/tr32-99.pdf>