

APPENDIX D: Queensland sites rejected as reference sites for model development and the rationale for excluding them.

Model	Reason
Autumn Edge Coastal	
134.04	Elevated flow
150.04	Elevated flow
190.02	Indistinct habitat
190.04	Indistinct habitat
210.02	Border-line Reference
210.04	Border-line Reference
294.02	Lack of suitable habitat
417.06	Tidal
485.06	Local landuse impacts
590.06	Local landuse impacts
728.08	Local landuse impacts
764.08	Elevated flow
812.1	Not a stream- Brown Lake on Nth Stradbroke Island
814.1	Tidal
815.1	Tidal
816.1	Tidal
879.1	Lack of suitable habitat
Autumn Edge Western	
100.08	Sampling technique restricted - crocodiles
110.04	Low O/E ratio
111.04	Borderline reference
160.02	Low O/E ratio
254.02	Low O/E ratio
261.02	Unsuitable habitat
261.08	Low O/E ratio
265.06	Borderline reference
345.06	Low O/E ratio
352.06	Borderline reference
362.06	Borderline reference
422.06	Landuse impacts
723.1	Low O/E ratio
822.1	Low O/E ratio
Autumn Pool Coastal	
149.02	Sample dried out
152.04	Elevated flow
165.04	Elevated flow
Autumn Pool Coastal (continued)	

172.02	In-stream barrier
172.04	In-stream barrier
213.02	In-stream barrier
213.04	In-stream barrier
220.04	Lack of suitable habitat
243.02	Border-line Reference
244.02	Reduced pick time (not a good sample)
555.06	In-stream barrier
560.06	In-stream barrier
658.08	Lack of suitable habitat
665.08	Border-line Reference
674.08	Border-line Reference
735.08	Border-line Reference
Autumn Pool Western	
160.02	Border-line Reference
264.04	Border-line Reference
266.04	Lack of suitable habitat
362.06	Border-line Reference
374.06	Lack of suitable habitat
422.06	Local landuse impacts
633.08	Border-line Reference
635.08	Local landuse impacts
824.1	Recent elevated flow
861.1	Lack of suitable habitat
Autumn Riffle Coastal	
133.02	Border-line Reference
133.04	Border-line Reference
171.02	Classification outlier
181.02	Classification outlier
197.06	Flood damaged
244.02	Classification outlier
294.04	Elevated flow
452.06	Border-line Reference
461.08	Border-line Reference
675.08	Border-line Reference
702.08	Classification outlier
742.08	Border-line Reference
778.08	Border-line Reference
814.1	Classification outlier
854.1	Local landuse impacts

Autumn Riffle Western	
111.04	Border-line Reference
111.1	Border-line Reference
791.08	Local landuse impacts
797.08	Lack of suitable habitat
822.1	Not a natural riffle (rubble d/s culvert, naturally silty river)
828.1	Not a natural riffle (breach in weir wall)
912.1	Local landuse impacts
912.12	Local landuse impacts
Spring Edge Coastal	
29.01	Border-line Reference
147.01	Local landuse impacts
147.03	Local landuse impacts
168.01	Lack of suitable habitat
192.01	Border-line Reference
243.03	Border-line Reference
243.05	Border-line Reference
244.01	Sample dried out before processing
244.03	Indistinct habitat
244.05	Indistinct habitat
244.07	Indistinct habitat
419.07	Border-line Reference
459.07	Border-line Reference
462.07	Indistinct habitat
465.07	Local landuse impacts
673.09	Border-line Reference
812.11	Not a stream- Brown Lake on Nth Stradbroke Island
814.11	Tidal
816.11	Tidal
839.11	Border-line Reference
876.11	Tidal
877.11	Sampling technique restricted - crocodiles
Spring Edge Western	
103.01	Unsuitable habitats
104.03	Landuse impacts
160.01	council water point
160.01	council water point
254.03	Unsuitable habitats
257.05	recent elevated flow
259.01	Borderline reference
261.01	Unsuitable habitats

261.03	Unsuitable habitats
261.09	Unsuitable habitats
647.09	Classification outlier
Spring Edge Western (continued)	
649.09	Classification outlier
724.09	Unsuitable habitat
822.11	Classification outlier
825.11	Classification outlier
868.11	Unsuitable habitat
886.11	Impacted by Blue-Green Algae
899.11	Unsuitable habitat
908.09	Classification outlier
908.11	Classification outlier
Spring Pool Coastal	
117.03	Low O/E ratio
140.01	Sample combined with edge sample
142.03	Border-line Reference
171.01	Local landuse impacts
192.01	Classification outlier
242.01	Sandy, mobile bed
242.05	Sandy, mobile bed
270.03	Border-line Reference
674.09	Border-line Reference
813.11	Tidal influence at times
816.11	Tidal influence at times
833.11	Low O/E ratio
Spring Pool Western	
105.01	Lack of suitable habitat
105.07	Lack of suitable habitat
105.09	Lack of suitable habitat
105.11	Lack of suitable habitat
109.09	Should be in Riffle model (velocity recorded incorrectly)
160.01	Border-line Reference
266.09	Low taxa richness
600.09	Recent elevated flows
645.09	Border-line Reference
647.09	Low taxa richness
651.09	Low taxa richness
825.11	Low taxa richness
863.11	Low taxa richness

Spring Riffle Coastal	
22.03	Low O/E ratio
29.11	Border-line Reference
133.03	Border-line Reference
139.03	Border-line Reference
144.01	Low O/E ratio
Spring Riffle Run Coastal (continued)	
149.01	Sandy, mobile bed
149.03	Sandy, mobile bed
150.03	Classification outlier
218.03	Low O/E ratio
223.05	Low O/E ratio
244.03	Low O/E ratio
292.01	Border-line Reference
499.07	In-stream impacts - swimming hole
704.09	Border-line Reference
709.09	Low O/E ratio
731.09	Borderline reference
740.09	Channel recently changed course
743.09	Low O/E ratio
770.09	Low O/E ratio
778.09	Border-line Reference
786.09	Low O/E ratio
814.11	Classification outlier
876.11	Classification outlier
Spring Riffle Western	
101.01	Low OE ratio, Causeway
249.05	Lack of suitable habitat
601.09	Low OE ratio, Sand bed
906.09	Stream dry up to 1 month previous
Combined Edge Coastal	
243.03	Border-line Reference
294.01	Lack of suitable habitat
294.03	Lack of suitable habitat
462.06	Indistinct habitat
465.06	Local landuse impacts
728.08	Local landuse impacts
764.08	Elevated flow
812.1	Not a stream- Brown Lake on Nth Stradbroke Island
814.1	Classification outlier

816.1	Tidal
879.1	Lack of suitable habitat
Combined Edge Western	
160.01	Council water point
104.03	Landuse impacts
261.01	Unsuitable habitat
261.08	Unsuitable habitat
259.01	Borderline reference
103.01	Unsuitable habitat
Combined Edge Western (continued)	
100.08	Sampling technique restricted - Crocodiles
Combined Pool Coastal	
142.03	Border-line Reference
171.01	Local landuse impacts
172.01	In-stream barrier
213.01	In-stream barrier
213.03	In-stream barrier
220.01	Lack of suitable habitat
220.03	Lack of suitable habitat
220.06	Lack of suitable habitat
242.04	Sandy, mobile bed
658.08	Lack of suitable habitat
674.08	Border-line Reference
735.08	Border-line Reference
816.1	Tidal influence at times
Combined Pool Western	
105.03	Lack of suitable habitat
105.06	Lack of suitable habitat
105.08	Lack of suitable habitat
105.1	Lack of suitable habitat
105.12	Lack of suitable habitat
160.01	Border-line Reference
266.02	Lack of suitable habitat
266.04	Lack of suitable habitat
266.06	Lack of suitable habitat
266.08	Lack of suitable habitat
266.1	Lack of suitable habitat
633.08	Border-line Reference
635.08	Local landuse impacts
822.1	Classification outlier

824.1	Recent elevated flow
861.1	Lack of suitable habitat
Combined Riffle Run Coastal	
133.03	Border-line Reference
139.03	Border-line Reference
149.01	Sandy, mobile bed
149.03	Sandy, mobile bed
197.06	Flood damaged
292.01	Border-line Reference
294.04	Elevated flow
461.08	Classification outlier
675.08	Border-line Reference
Combined Riffle Coastal (continued)	
740.08	Channel recently changed course
778.08	Classification outlier
814.1	Classification outlier
854.1	Local landuse impacts
Combined Riffle Run Western	
101.01	Causeway
111.1	Border-line Reference
249.04	Lack of suitable habitat
601.08	Classification outlier
791.08	Local landuse impacts
905.12	Classification outlier
912.1	Local landuse impacts
912.12	Local landuse impacts
Autumn Edge Coastal	
29.02	Borderline reference
29.04	Borderline reference
29.08	Borderline reference
29.10	Borderline reference
113.02	Sandy, very mobile bed
113.04	Sandy, very mobile bed
113.08	Sandy, very mobile bed
115.02	Sandy bed
115.04	Sandy bed
115.06	Sandy bed
116.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
116.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions

Autumn Edge Coastal (continued)	
116.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
117.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
117.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
128.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
128.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
135.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
135.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
141.04	Borderline reference
141.08	Borderline reference
144.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
144.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
146.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
146.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
147.02	Elevated flow in one sample, reach impacts
147.04	Elevated flow in one sample, reach impacts
151.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
151.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
153.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
153.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
164.02	Stream impacts
164.04	Stream impacts
165.02	Sandy site, very mobile beds
165.04	Sandy site, very mobile beds
166.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
166.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
167.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
167.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
167.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
167.08	Sites showing large differences in macroinvertebrate assemblage between sampling occasions

Autumn Edge Coastal (continued)	
168.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
168.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
169.02	Borderline reference
169.04	Borderline reference
169.06	Borderline reference
177.08	Temperature very low, sample not active
178.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
178.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
185.08	Borderline reference
192.02	Borderline reference
192.04	Borderline reference
195.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
195.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
197.04	Site damage
197.06	Site damage
198.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
198.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
207.02	Borderline reference
207.04	Borderline reference
211.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
211.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
211.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
212.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
212.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
212.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
212.10	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
213.02	Borderline reference
213.04	Borderline reference
217.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
217.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
218.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
218.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions

Autumn Edge Coastal (continued)	
218.08	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
218.10	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
220.02	Elevated flows
220.04	Elevated flows
220.06	Elevated flows
225.04	Site difficult to sample - lots of bedrock
225.06	Site difficult to sample - lots of bedrock
227.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
227.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
232.02	Borderline reference
232.04	Borderline reference
238.02	Borderline reference
238.04	Borderline reference
238.08	Borderline reference
244.02	Bed movement
244.04	Bed movement
244.06	Bed movement
270.02	Borderline reference
270.04	Borderline reference
271.02	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
271.04	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
280.02	Borderline reference
280.04	Borderline reference
280.06	Borderline reference
282.02	Elevated flows
282.04	Elevated flows
283.02	Very rocky - difficult to sample
283.04	Very rocky - difficult to sample
283.06	Very rocky - difficult to sample
284.02	Rocky site - difficult to sample
284.04	Rocky site - difficult to sample
299.06	Same site but very different substrates recorded
299.08	Same site but very different substrates recorded
299.10	Same site but very different substrates recorded
419.06	Borderline reference
419.08	Borderline reference
458.06	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
458.08	Sites showing large differences in macroinvertebrate assemblage between sampling occasions
461.06	Borderline reference
461.08	Borderline reference
559.06	Elevated flow – pine plantations u/s
559.10	Elevated flow – pine plantations u/s

Autumn Edge Coastal (continued)	
665.08	Borderline reference
665.10	Borderline reference
719.08	Bedrock and sand beds - very mobile and depauperate habitat
719.10	Bedrock and sand beds - very mobile and depauperate habitat
755.08	Borderline reference
755.10	Borderline reference