

Lota Creek 3 (site ID = Lota3) Saltmarsh and Marine Couch

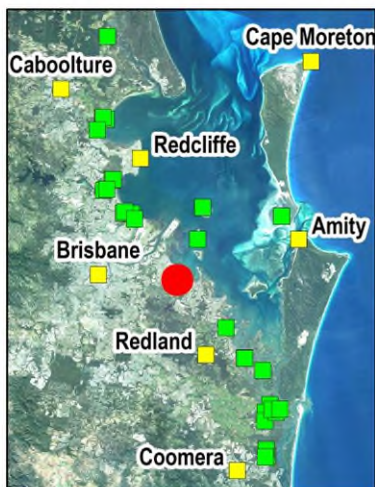
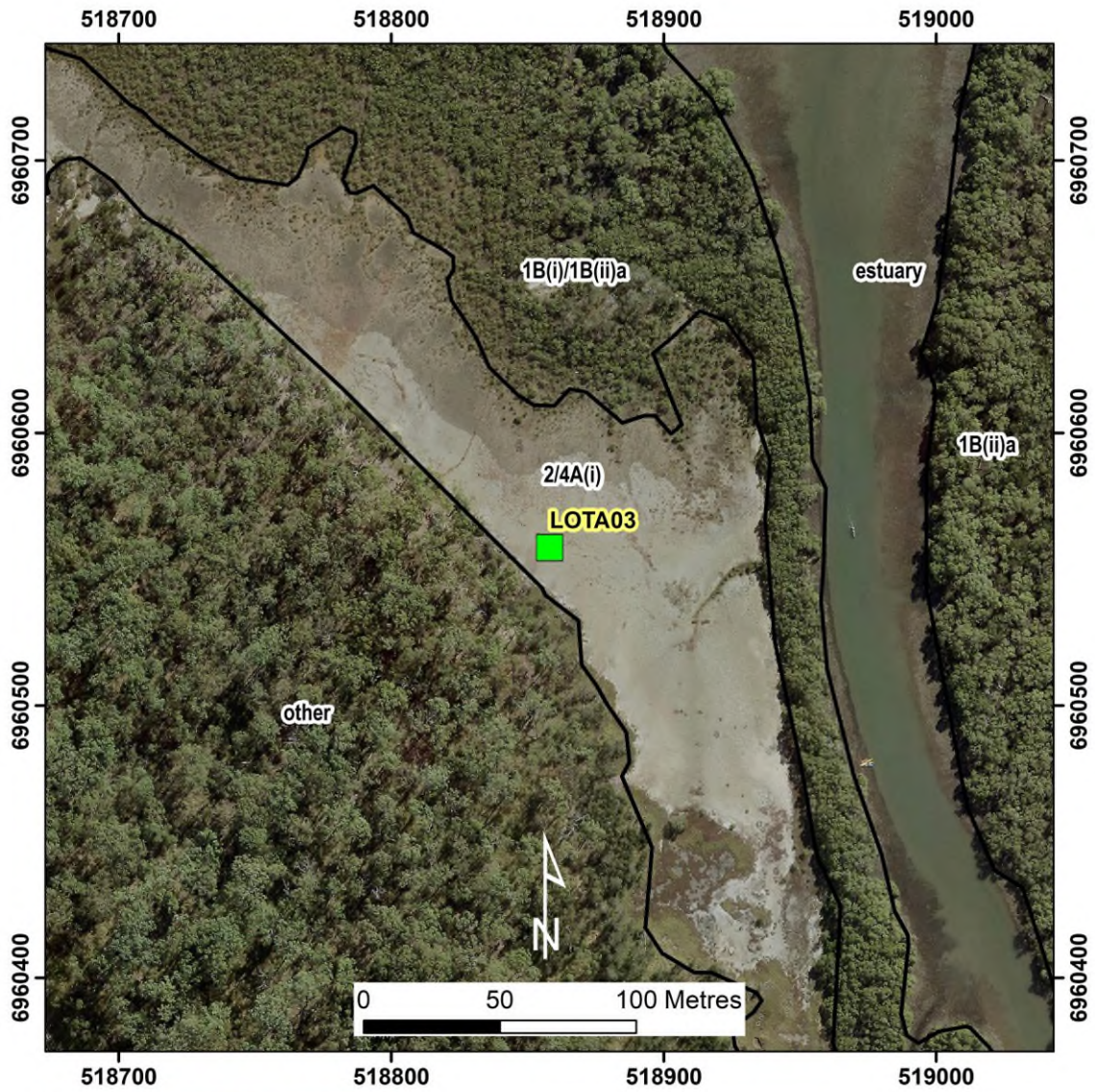


Table 1. Queensland Biodiversity Ecological Information System (QBEIS) temporal assessment for site Lota Creek 3.

Date	12.08.2016	25.10.2019	19.08.2022
E Spp.			
T1 Spp.	<i>Casuarina glauca</i>	<i>Casuarina glauca</i>	<i>Casuarina glauca</i>
T1 Med Canopy Height	5.5	5.5	5.6
T1 Range low	4	3.5	3.5
T1 Range High	7.7	6.6	6.6
T1 Crown Cover	8	8	8
T1 Stem Count			
T2 Spp.			
T2 Med Canopy Height			
T2 Range low			
T2 Range high			
T2 Crown Cover			
T2 stem count			
S1 Spp.		<i>Excoecaria agallocha</i> <i>Casuarina glauca</i>	<i>Excoecaria agallocha</i> <i>Casuarina glauca</i>
S1 Med Canopy Height		1.1	2.2
S1 Range low		1	2
S1 Range high		1.7	2.5
S1 Crown Cover		+	+
S1 stem count			
S2 Spp.		<i>Casuarina glauca</i> <i>Aegiceras corniculatum</i>	<i>Casuarina glauca</i> <i>Aegiceras corniculatum</i>
S2 Med Canopy Height		0.45	0.45
S2 Range low		0.4	0.4
S2 Range high		0.5	0.5
S2 Crown Cover		+	+
S2 stem count			
G Spp.	<i>Sporobolus virginicus</i> <i>Suaeda australis</i> <i>Salicornia quinqueflora</i> <i>Avicennia marina</i> subsp. <i>Australasica</i>	<i>Sporobolus virginicus</i> <i>Suaeda australis</i> <i>Sesuvium portulacastrum</i> <i>Salicornia quinqueflora</i>	<i>Sporobolus virginicus</i> <i>Suaeda arbusculoides</i> <i>Juncus kraussii</i> <i>Suaeda australis</i> <i>Schinus terebinthifolius</i>

	<i>Suaeda arbusculoides</i>		<i>Myoporum debile</i> <i>Aegiceras corniculatum</i> <i>Salicornia quinqueflora</i> subsp. <i>quinqueflora</i>
G Med Canopy Height	0.05	0.05	0.05
G Range low	0.05	0.05	0.05
G Range high	0.1	0.1	0.1
G Cover	30	30	11
Individual Covers	20, 10, +, +	+, 7, 2	2; +; +; 8; +; +; +, 1

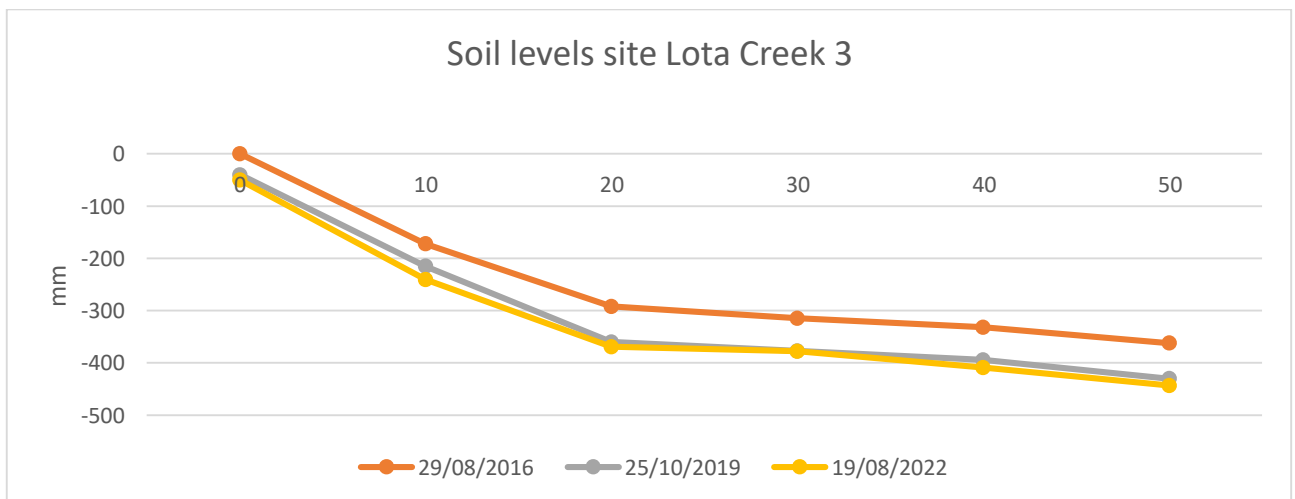


Figure 3. Soil surface elevation measurements (mm) are taken across the QBEIS sites using dumpy level.

Summary

1. T1 includes *Casuarina glauca* on the edge of the salt marsh.
2. S1 including *Excoecaria agallocha* and *Casuarina glauca* on the edge of the salt marsh in 2019.
3. S1 height doubles from 2019 to 2022.
4. S2 includes *Casuarina glauca* and *Aegiceras corniculatum* colonising the edge of the salt marsh in 2019.
5. S2 shrub height and cover remain stable over the years.
6. Ground layer diverse with *Sporobolus virginicus*, *Suaeda australis*, *Salicornia quinqueflora*, *Avicennia marina* subsp. *australasica* and *Suaeda arbusculoides* in 2016 retaining only *Sporobolus virginicus*, *Suaeda australis* and *Sesuvium portulacastrum* in 2019 and in 2022 quite a large change in species composition with *Sporobolus virginicus*, *Suaeda arbusculoides*, *Juncus kraussii*, *Suaeda australis*, *Schinus terebinthifolius*, *Myoporum debile* and *Aegiceras corniculatum*.

7. Ground layer height is stable over the years with ground cover reducing almost three (3) fold from 30% in 2016 to 11% in 2022.
8. Soil max range level reduced by 4 mm to 34mm with erosion of up to 10mm.
9. Soil levels over the period have eroded across the site.



Figure 4. Photograph of Site Lota 3 Saltmarsh and Marine Couch, communities 3A(i) and 4A(i).