

PLANNING, DEVELOPMENT AND INFRASTRUCTURE ACT 2016

SECTION 130 – ESSENTIAL INFRASTRUCTURE

Development Number: 26016431

Applicant: ElectraNet and Australian Naval Infrastructure

Nature of Development: Construction of new and expanded substations, relocation and undergrounding of 275kV electricity transmission lines, and tree damaging activity

Background

Approximately eight years ANI contacted Port Adelaide Residents Environment Protection Group (PAREPG) and Friends of Port River (FPR) seeking regular engagement with us as part of their social licence. From December 2023, we met with ASA representatives and from May 2024 those meetings became monthly with ANI and ASA reps. It was therefore disappointing to find that while ANI is requiring ElectraNet to relocate its transmission lines, and upgrade its substation capacity, that ANI has not sought to brief PAREPG and FPR about this project's DA. FPR and PAREPG had our first meeting with ElectraNet, as ANI's client, during this notification period, after the DA has been developed and submitted.

Fyi Epic Energy has engaged with Green Adelaide, Trees for Life, FPR and PARPEG about relocation of their gas pipeline for the AUKUS development.

In assessing this project it's critical to consider tidal flows which generally vary between 0.2-0.3m and 2.7m (Figure 2)¹ along the Port River, storm surges, rising sea levels, the risk of further failure of the Mutton Cove seawall and the potential impact on the environment. This DA does not demonstrate sufficient understanding of these complexities.

Issues of Concern

Mutton Cove

In all the years we've engaged with ANI, Mutton Cove has been a constant topic of discussion. FPR (previously Estuary Care Foundation) and PAREPG have been very critical of the State Government's failure to maintain the seawall at Mutton Cove, leading to its first major breach in 2016, subsequent breaches and near breaches, and the erosion of the N, W and S banks of Mutton Cove since then. (See Figures 3 and 4 for main seawall breach)

Despite ANI, Flinders Ports, the City of Port Adelaide Enfield, and the Department of Environment, contributing \$20K each towards an analysis of coastal risks and identification of adaptation options, the 2021 report of that study has not been provided to the funding partners and the State Government has continued to allow the seawall and banks to fail.

Recent 2026 storms led to overtopping of the bank at the northern end, (Figure 5) there's ongoing collapse of the embankment on the west side (Figure 6) and there's extensive flooding at the southern end, together with stormwater ponding by the Lefevre substation (Figure 7) and east of tower D121984Q506 (Figure 8).

¹ Note: Figures 2 to 14 have been grouped together. Figure 1 is on pp3 of this document.

During our briefing with ElectraNet we were advised that a lay down area was anticipated east of the new substation and south of the SEA Gas pipeline (Figures 9 & 10), though there is no mention of this in the DA.

This DA advises that a new substation will be built adjacent to the Lefevre substation, two transmission towers will be removed in Mutton Cove (along western bank – Figures 11-13), there will be undergrounding of 275kV electricity transmission lines through Mutton Cove (south of the SEA Gas pipeline) and trees will be removed.

Along the Port River, and into Mutton Cove, (Figure 2 shows tides for some spring and summer months in 2026), there are relatively short periods and limited numbers of days when the area for trenching and material storage will not be abutting tidal inflows. It's not apparent that the following methods for undergrounding cable will be appropriate or effective.

“During construction:

- *Use of trench shoring to prevent trench/soil collapse.*
- *Use of geofabrics to prevent washing away or deterioration of controlled backfill and bedding materials*
- *Erosion and Sediment Control*

With significant amount of large soil movements associated with main cable trench and laying activities, soil management plans will be developed to provide a quick guide on site for the typical sediment control arrangement.

Under construction activities the following controls will be in place;

- *All spoil is to be swept at the end of each shift or when site conditions begin to deteriorate.*
- *Once excavated all spoil is to be placed into either a small truck/skip bin or a stockpile. Soil stock piles which are retained beyond a shift, or when inclement weather is imminent will be contained with erosion and sediment controls such as silt fence, sandbags or silt socks.*
- *In either circumstances, erosion and sediment controls are to be used at all times. Sediment control measures will consist of sand bags/silt socks/silt fences around the base of stockpiles and drains;*
- *If saw cutting techniques are to be used for the removal of asphalt it must be ensured that all saw cutting fluid is to be collected with a vacuum, and that stormwater drains are isolated with bunding controls (e.g. silt socks)”. (Development Application pp33)*

Impact on vegetation

We were pleased that the Succession Ecology report was provided to SCAP so that we could consider their proposals for trees to be retained, compared to the advice from URPS.

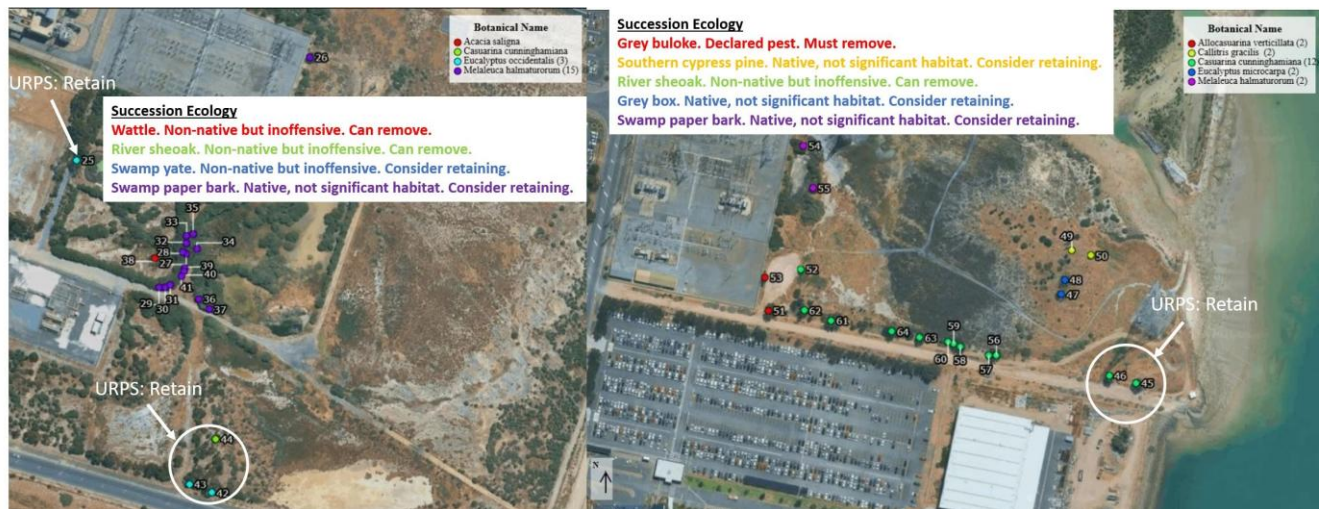


Figure 1: Comparison of URPS and Succession Ecology advice, from Facebook post by Alex Laratro

ANI advise that ElectraNet have a dedicated budget for revegetation as part of their program and we suggest SCAP ask them to outline their plans and whether they will undertake replacement planting or pay into a relevant tree fund, and if so which one.

FPR suggest SCAP also needs to be advised about plans for any lay down area, and how it will be revegetated after the project. (Figure 14)

Failure to consult relevant agencies

THE DA advises, that in URPS's opinion, no referral is needed to the Coast Protection Board or EPA and there is no mention of consultation with Green Adelaide (DEW).

The DA suggests that the Coastal zoning of Mutton Cove is "Not relevant. The Overlay covers a small portion of the project area/site where no works are proposed". FPR disputes that the impact on Mutton Cove is not relevant.

The DA suggest the Adelaide Dolphin Sanctuary Overlay is "Not relevant. The proposed works are land-based and are not expected to result in direct impacts to the Sanctuary or its values".

While the DA advises that the Overlay Hazards (Flooding) is relevant, it's not apparent how this project will ensure that there is no risk of seawater flooding to the ElectraNet infrastructure, nor how flooding when undertaking this project, or maintaining this infrastructure, will not adversely affect Mutton Cove.

Outcomes sought

What FPR want to see achieved is outlined below and recommends referral to the Coast Protection Board, the EPA and Green Adelaide to assist in advising SCAP:

- Development consistent with the environmentally sensitive nature of Mutton Cove and its Conservation zoning
- Development that takes account of sea level rise, storm surges and flooding risks and that does not further degrade the banks and structure of Mutton Cove
- How further deterioration of the western bank can be avoided during the removal of the 2 transmission towers in Mutton Cove
- How sediment can be prevented from flowing into Mutton Cove and the Port River

- How ElectraNet will ensure that any acid sulphate soils are managed appropriately
- How impacts on the coastal saltmarsh can be minimised during the trenching (up to 60m wide zone) and in the lay down area
- How Performance Outcome 2.3 will be achieved – “Surfaces exposed by earthworks associated with the installation of storage facilities, pipework, penstock, substations and other ancillary plant are reinstated and revegetated to reduce adverse visual impacts on adjacent land”
- Reduction in the number of trees to be removed, consistent with Succession Ecology advice (see Figure 1)
- Replacement planting, locally, if trees are removed and any payments as offsets to go to the City of Port Adelaide Enfield.

PORT ADELAIDE (OUTER HARBOR) – SOUTH AUSTRALIA

LAT 34° 46' S LONG 138° 28' E

Times and Heights of High and Low Waters

2026

Local Time

SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER			
Time	m	Time	m	Time	m	Time	m	Time	m	Time	m	Time	m	Time	m
1 0015 0.39 TU 1237 0.50 1828 2.28		16 0620 2.61 WE 1820 2.08		1 0611 2.64 TH 1816 1.85 2349 0.52		16 0042 0.51 FR 0715 2.58 1344 0.55 1924 1.85		1 0033 0.65 SU 0732 2.39 1411 0.84 1928 1.50		16 0123 0.76 MO 0758 2.32 1436 0.67 2024 1.67		1 0129 0.86 TU 0813 2.12 1450 0.80 2051 1.62		16 0222 0.81 WE 0835 2.23 1512 0.54 2127 1.88	
2 0029 0.44 WE 1303 0.57 1845 2.12		17 0009 0.41 TH 1300 0.61 1839 1.98		2 0629 2.59 FR 1825 1.72 2356 0.52		17 0100 0.56 SA 1403 0.65 1941 1.77		2 0050 0.72 MO 0752 2.18 1423 0.99 1936 1.44		17 0152 0.88 TU 0827 2.14 1514 0.80 2109 1.57		2 0215 1.01 WE 0845 1.88 1520 0.88 2204 1.64		17 0310 0.92 TH 0915 2.03 1549 0.65 2223 1.88	
3 0038 0.47 TH 0707 2.55 1327 0.67 1900 1.95		18 0026 0.45 FR 0704 2.51 1321 0.71 1855 1.88		3 0646 2.50 SA 1313 0.82 1829 1.62		18 0118 0.64 SU 0758 2.34 1426 0.78 1958 1.66		3 0103 0.88 TU 0805 1.89 1437 1.18 1855 1.34		18 0230 1.07 WE 0909 1.90 1622 0.97 2315 1.48		3 0337 1.21 TH 0936 1.59 1618 1.00		18 0423 1.05 FR 1011 1.78 1640 0.81 2341 1.89	
4 0045 0.50 FR 0728 2.52 1349 0.82 1910 1.77		19 0044 0.54 SA 0725 2.38 1344 0.87 1907 1.73		4 0004 0.56 SU 0802 2.32 1423 1.03 1915 1.52		19 0135 0.78 MO 0819 2.14 1454 0.98 2009 1.48		4 0015 1.12 WE 0653 1.58 1247 1.38 1609 1.43 2200 1.08		19 0419 1.33 TH 1106 1.60 1909 1.04		4 0023 1.71 FR 0813 1.23 1235 1.34 1849 1.09		19 0622 1.11 SA 1149 1.50 1758 0.99	
5 0053 0.57 SA 0749 2.12 1412 1.06 1901 1.56		20 0056 0.69 SU 0745 2.17 1407 1.10 1858 1.53		5 0102 0.68 MO 0805 2.03 1410 1.29 1801 1.49		20 0137 0.99 TU 0835 1.85 1545 1.26 1820 1.28 2334 1.14		5 0432 1.66 TH 1017 1.10 1608 1.66 2200 0.89		20 0227 1.69 FR 0853 1.14 1435 1.63 2050 0.91		5 0218 1.94 SA 0950 0.92 1528 1.43 2041 1.02		20 0122 1.97 SU 0856 0.93 1448 1.41 2001 1.09	
6 0047 0.68 SU 0803 2.12 1415 1.39 1719 1.48		21 0045 0.89 MO 0749 1.87 1400 1.42 1639 1.46 2315 0.97		6 0022 0.80 TU 0703 1.75 1216 1.40 1653 1.72 2325 0.75		21 0633 1.55 WE 1035 1.46 1525 1.60 2213 0.91		6 0413 1.97 FR 1032 0.75 1631 1.85 2216 0.75		21 0322 2.01 SA 0955 0.79 1554 1.80 2139 0.79		6 0321 2.19 SU 1031 0.65 1627 1.59 2137 0.92		21 0254 2.15 MO 1022 0.63 1645 1.53 2128 1.08	
7 0000 0.76 MO 0710 1.80 1147 1.59 1555 1.81 2305 0.63		22 0056 1.62 TU 1008 1.45 1528 1.80 2217 0.76		7 0549 1.76 WE 1100 1.10 1653 2.01 2312 0.59		22 0440 1.74 TH 1015 1.08 1608 1.91 2225 0.68		7 0426 2.25 SA 1056 0.50 1655 1.95 2233 0.66		22 0358 2.28 SU 1036 0.49 1641 1.90 2213 0.74		7 0405 2.39 MO 1106 0.45 1704 1.71 2217 0.84		22 0359 2.34 TU 1116 0.38 1739 1.62 2222 1.04	
8 0541 1.75 TU 1019 1.29 1611 2.17 2256 0.44		23 0440 1.76 WE 0951 1.10 1550 2.12 2221 0.53		8 0525 1.96 TH 1107 0.75 1711 2.20 2320 0.49		23 0440 2.03 FR 1037 0.74 1640 2.13 2244 0.53		8 0444 2.46 SU 1118 0.35 1715 1.98 2249 0.61		23 0428 2.48 MO 1113 0.29 1717 1.91 2240 0.73		8 0441 2.53 TU 1136 0.34 1735 1.79 2249 0.77		23 0446 2.50 WE 1200 0.23 1817 1.65 2302 0.97	
9 0516 1.89 WE 1029 0.94 1634 2.41 2306 0.34		24 0432 1.98 TH 1008 0.80 1614 2.35 2234 0.40		9 0525 2.17 FR 1124 0.51 1728 2.27 2329 0.46		24 0454 2.26 SA 1102 0.48 1706 2.22 2300 0.49		9 0502 2.60 MO 1140 0.28 1734 1.98 2304 0.58		24 0455 2.63 TU 1146 0.19 1748 1.85 2303 0.74		9 0513 2.61 WE 1204 0.28 1802 1.83 2319 0.72		24 0527 2.60 TH 1239 0.18 1846 1.64 2335 0.90	
10 0515 2.02 TH 1045 0.70 1654 2.50 2316 0.35		25 0441 2.14 FR 1028 0.59 1633 2.44 2246 0.36		10 0530 2.33 SA 1141 0.38 1741 2.25 2333 0.47		25 0508 2.43 SU 1127 0.31 1729 2.22 2315 0.49		10 0522 2.69 TU 1202 0.25 1754 1.96 2324 0.55		25 0522 2.72 WE 1220 0.18 1815 1.77 2326 0.74		10 0544 2.65 TH 1231 0.27 1828 1.85 2348 0.67		25 0602 2.66 FR 1312 0.20 1908 1.63	
11 0515 2.11 FR 1100 0.55 1707 2.48 2321 0.41		26 0449 2.26 SA 1045 0.45 1650 2.45 2256 0.37		11 0537 2.47 SU 1156 0.32 1751 2.20 2339 0.46		26 0522 2.57 MO 1151 0.22 1749 2.14 2329 0.51		11 0546 2.73 WE 1227 0.26 1817 1.94 2346 0.55		26 0552 2.76 TH 1255 0.23 1843 1.67 2349 0.74		11 0614 2.66 FR 1259 0.28 1853 1.87		26 0006 0.82 SA 0635 2.65 1340 0.28 1928 1.64	
12 0517 2.22 SA 1115 0.47 1716 2.41 2323 0.44		27 0458 2.38 SU 1104 0.36 1705 2.40 2306 0.38		12 0547 2.59 MO 1213 0.29 1804 2.14 2348 0.44		27 0540 2.68 TU 1218 0.20 1810 2.03 2344 0.54		12 0614 2.72 TH 1254 0.31 1843 1.90		27 0624 2.72 FR 1329 0.34 1907 1.59		12 0017 0.65 SA 0643 2.63 1325 0.32 1919 1.87		27 0037 0.76 SU 0705 2.57 1402 0.38 1945 1.70	
13 0522 2.36 SU 1130 0.42 1727 2.34 2329 0.42		28 0510 2.50 MO 1128 0.30 1723 2.31 2319 0.40		13 0605 2.68 TU 1234 0.30 1822 2.09		28 0602 2.75 WE 1247 0.24 1833 1.89		13 0012 0.57 FR 0642 2.66 1320 0.39 1909 1.85		28 0012 0.75 SA 0654 2.62 1358 0.49 1928 1.54		13 0046 0.65 SU 0711 2.57 1351 0.37 1945 1.86		28 0106 0.73 MO 0732 2.45 1417 0.47 2005 1.79	
14 0536 2.50 MO 1151 0.41 1742 2.26 2339 0.40		29 0529 2.60 TU 1154 0.31 1744 2.18 2332 0.45		14 0004 0.43 WE 0629 2.70 1259 0.36 1844 2.01		29 0000 0.58 TH 0628 2.74 1317 0.36 1854 1.74		14 0036 0.62 SA 0708 2.56 1345 0.48 1932 1.79		29 0033 0.76 SU 0721 2.48 1418 0.63 1946 1.55		14 0115 0.68 MO 0738 2.48 1415 0.42 2013 1.86		29 0137 0.73 TU 0756 2.30 1427 0.51 2030 1.92	
15 0557 2.58 TU 1215 0.45 1800 2.17 2353 0.39		30 0550 2.65 WE 1221 0.39 1803 2.01 2343 0.50		15 0023 0.46 TH 0653 2.66 1323 0.45 1905 1.93		30 0013 0.62 FR 0652 2.66 1343 0.52 1908 1.61		15 0100 0.68 SU 0732 2.45 1409 0.57 1955 1.74		30 0057 0.79 MO 0746 2.31 1432 0.73 2012 1.59		15 0145 0.74 TU 0804 2.37 1442 0.47 2045 1.87		30 0212 0.76 WE 0819 2.15 1440 0.51 2100 2.04	
				31 0022 0.64 SA 0713 2.55 1400 0.69 1918 1.54								31 0253 0.83 TH 0845 1.98 1459 0.51 2142 2.10			

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Datum of Predictions is Lowest Astronomical Tide

Times are in local standard time (UTC+09:30) or daylight savings time (UTC+10:30) when in effect

Moon Phase Symbols ● New Moon ○ First Quarter ○ Full Moon ● Last Quarter

Figure 2: Tide table Sept - December 2026



Figure 3: major (southern) seawall breach 18.6.2026



Figure 4: channel into Mutton Cove from major seawall breach 14.3.2026



Figure 5: seawater ponding after overtopping northern bank 18.6.2026



Figure 6: western bank 6.8.2026



Figure 7: channel of stormwater by Lefevre substation (on east side) 6.8.2026



Figure 8: stormwater ponding east of tower D121984Q506, 6.8.2026



Figure 9: Area south of SEA Gas pipeline, looking west 8.8.2026 – possible lay down area



Figure 10: Possible lay down area, seen from outside southern fence 8.8.2026



Figure 11: Most northerly transmission tower in Mutton Cove 26.7.2026 - to be removed



Figure 12: 2nd tower, from north, 26.5.2025 - to be removed



Figure 13: 2nd tower, from north, 6.7.2025 - to be removed

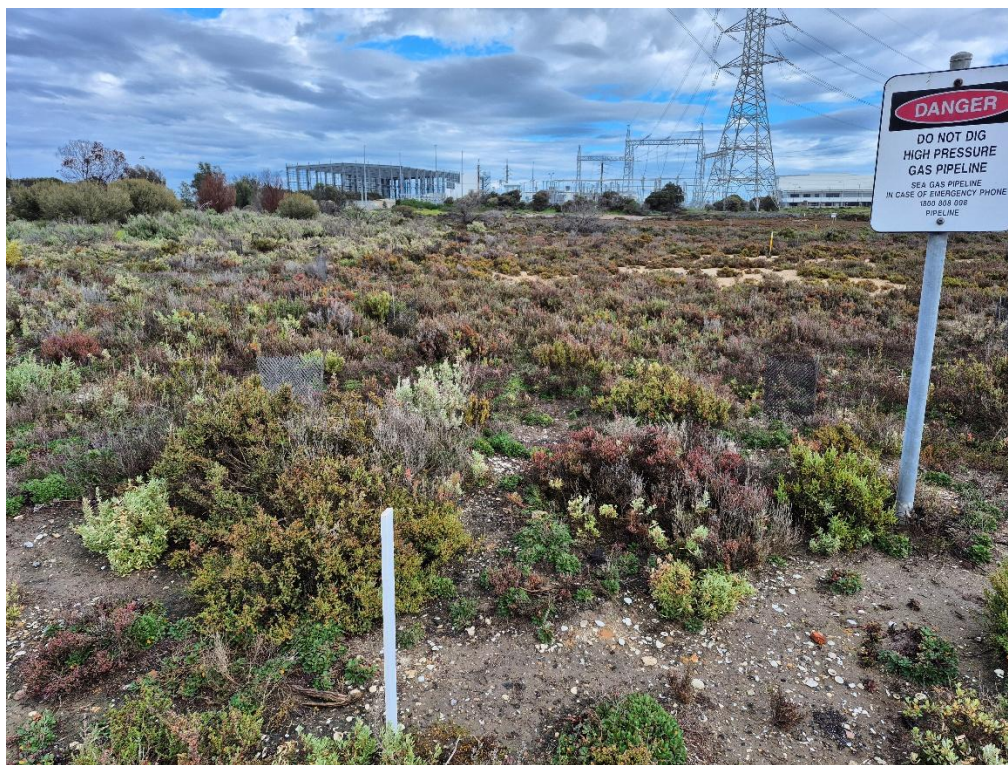


Figure 14: Existing vegetation south of SEA Gas pipeline