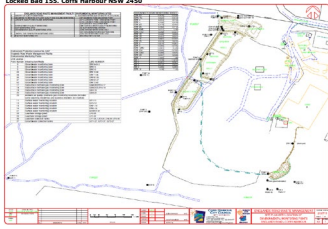


Englands Road Waste Management Facility Monitoring

Environment Protection Licence No. 6267 - Englands Road Waste Management Facility
 Link to Licence on EPA Website:
<http://www.epa.nsw.gov.au/australia/epa/ViewPEOLLicence.aspx?FOOD=3093348YBLD+1&LICID=6267>
 Coffs Harbour City Council
 Locked Box 155, Coffs Harbour NSW 2450



M2.5 - Air Monitoring Requirements

Frequency: Monthly
 Locations: Surface of the Landfill
 Pollutant: Methane
 As stipulated in the waste submission
 Unit of Measure: Parts per Million
 2,000 litres per million tonnage

Date	Location	Measurement	Notes
14/01/2024	Location 1	0	
14/01/2024	Location 2	0	
14/01/2024	Location 3	0	
14/01/2024	Location 4	0	
14/01/2024	Location 5	0	
14/01/2024	Location 6	0	
14/01/2024	Location 7	0	
14/01/2024	Location 8	0	
14/01/2024	Location 9	0	
14/01/2024	Location 10	0	

Date	Location	EPA Identification Number	Measurement	Notes
14/01/2024	Location 1	Point 19	0	
14/01/2024	Location 2	Point 20	0	
14/01/2024	Location 3	Point 17	0	
14/01/2024	Location 4	Point 18	0.1	
14/01/2024	Location 5	Point 19	0.1	
14/01/2024	Location 6	Point 20	0	
14/01/2024	Location 7	Point 17	0	
14/01/2024	Location 8	Point 18	0	
14/01/2024	Location 9	Point 19	0	
14/01/2024	Location 10	Point 20	0	
14/01/2024	Location 11	Point 17	0	
14/01/2024	Location 12	Point 18	0	

Date	Location	EPA Identification Number	Measurement	Notes
14/01/2024	Operational Office (Shed)	Point 25	0	
14/01/2024	Operational container (On-site shed)	Point 25	0	
14/01/2024	Truckwash (On-site shed)	Point 25	0	
14/01/2024	25 Englands Road (Reception Office)	Point 25	0	
14/01/2024	31 Englands Road (CRRP building)	Point 25	0	
14/01/2024	Offsite location A (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location B (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location C (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location D (Shed)	Point 25	0	
14/01/2024	Offsite location E (Shed)	Point 25	0	
14/01/2024	Offsite location F (Shed)	Point 25	0	
14/01/2024	Operational container (On-site shed)	Point 25	0	
14/01/2024	Truckwash (On-site shed)	Point 25	0	
14/01/2024	25 Englands Road (Reception Office)	Point 25	0	
14/01/2024	31 Englands Road (CRRP building)	Point 25	0	
14/01/2024	Offsite location A (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location B (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location C (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location D (Shed)	Point 25	0	
14/01/2024	Offsite location E (Shed)	Point 25	0	
14/01/2024	Offsite location F (Shed)	Point 25	0	
14/01/2024	Operational container (On-site shed)	Point 25	0	
14/01/2024	Truckwash (On-site shed)	Point 25	0	
14/01/2024	25 Englands Road (Reception Office)	Point 25	0	
14/01/2024	31 Englands Road (CRRP building)	Point 25	0	
14/01/2024	Offsite location A (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location B (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location C (Chwells)	Point 25	0	no records submitted and locked
14/01/2024	Offsite location D (Shed)	Point 25	0	
14/01/2024	Offsite location E (Shed)	Point 25	0	
14/01/2024	Offsite location F (Shed)	Point 25	0	

L2 - Water and Land Concentration Limits

Date	pH	NH4	NO3	Total Suspended Solids		Turbidity NTU
				mg/l	mg/l	
14/01/2024	8.91	4	8.897	118	214	
14/01/2024	8.8	4	8.829	130	170	
14/01/2024	8.8	4	8.886	44	26	
17/01/2024	7.128	33	7.320	137	210	
17/01/2024	7.128	33	7.292	34	15	
20/01/2024	7.66	34	8.89	88	116	
20/01/2024	7.66	34	8.937	86	109	
23/01/2024	7.627	49	7.789	89	102	
23/01/2024	7.627	49	7.817	44	83	
26/01/2024	7.63	30	7.84	41	48	
26/01/2024	7.584	18	7.299	57	72	
27/01/2024	7.466	22	8.1	16	24	
28/01/2024	7.773	28	8.225	16	20	
28/01/2024	7.9	69	7.7	184	130	
29/01/2024	7.466	22	7.71	77	146	
30/01/2024	7.466	22	7.71	75	109	
31/01/2024	7.22	48	8.49	85	85	
01/02/2024	7.394	41	8.201	134	210	
01/02/2024	7.394	41	7.776	22	75	
02/02/2024	7.955	24	7.43	48	86	
05/02/2024	7.8	48	7.428	117	100	
05/02/2024	7.931	38	7.4	30	75	
08/02/2024	7.4	49	7.547	82	120	
08/02/2024	7.466	41	7.710	42	80	
08/02/2024	7.466	41	8.1	39	76	
09/02/2024	7.615	28	7.858	177	100	
09/02/2024	7.52	28	7.88	25	23	
09/02/2024	7.52	28	8.1	86	91	
13/02/2024	7.3	22	7.4	14	76	
13/02/2024	7.42	30	7.4	104	280	
13/02/2024	7.300	24	7.507	23	80	

M2.3 - Water and Land Monitoring Requirements

Date	Alkalinity (Calcium Carbonate) mg/l	Ammonia mg/l	Chemical Oxygen Demand mg/l	Calcium mg/l	Chloride mg/l	Nitrate mg/l	pH	Potassium mg/l	Sodium mg/l	Sulphate mg/l	Total Suspended Solids mg/l	Turbidity NTU	Comments	
														mg/l
14/01/2024	181.9	3.11	80.815	48.189	0.04			15.494	81.352	44.8773	85	88		
14/01/2024							7.22					16	107	
14/01/2024							7.255					21	87	
14/01/2024							7.277					26	107	
14/01/2024							7.317					21	87	
14/01/2024							7.33					21	87	
14/01/2024							7.35					21	87	
14/01/2024							7.37					26	107	
14/01/2024							7.4					21	87	
14/01/2024							7.42					26	107	
14/01/2024							7.45					22	88	
14/01/2024							7.50					24	80	

M2.3 - Water and Land Monitoring Requirements

Date	Alkalinity (Calcium Carbonate) mg/l	Ammonia mg/l	Chemical Oxygen Demand mg/l	Calcium mg/l	Chloride mg/l	Nitrate mg/l	pH	Potassium mg/l	Sodium mg/l	Sulphate mg/l	Total Suspended Solids mg/l	Turbidity NTU	Comments	
														mg/l
14/01/2024	181.9	3.11	80.815	48.189	0.04			15.494	81.352	44.8773	85	88		
14/01/2024							7.22					16	107	
14/01/2024							7.255					21	87	
14/01/2024							7.277					26	107	
14/01/2024							7.317					21	87	
14/01/2024							7.33					21	87	
14/01/2024							7.35					21	87	
14/01/2024							7.37					26	107	
14/01/2024							7.4					21	87	
14/01/2024							7.42					26	107	
14/01/2024							7.45					22	88	
14/01/2024							7.50					24	80	

L042024	278.6	15.78	35	35,889	195.294	0.69	7.8	43.112	133.97	11.671	184	138
L052024							7.9	43.112	133.97	11.671	184	138
L062024							7.9	43.112	133.97	11.671	184	138
L132024							7.9	43.112	133.97	11.671	184	138
L142024							7.9	43.112	133.97	11.671	184	138
L152024							7.9	43.112	133.97	11.671	184	138
L162024							7.9	43.112	133.97	11.671	184	138
L172024							7.9	43.112	133.97	11.671	184	138
L182024							7.9	43.112	133.97	11.671	184	138
L192024							7.9	43.112	133.97	11.671	184	138
L202024							7.9	43.112	133.97	11.671	184	138
L212024							7.9	43.112	133.97	11.671	184	138
L222024							7.9	43.112	133.97	11.671	184	138
L232024							7.9	43.112	133.97	11.671	184	138
L242024							7.9	43.112	133.97	11.671	184	138
L252024							7.9	43.112	133.97	11.671	184	138
L262024							7.9	43.112	133.97	11.671	184	138
L272024							7.9	43.112	133.97	11.671	184	138
L282024							7.9	43.112	133.97	11.671	184	138
L292024							7.9	43.112	133.97	11.671	184	138
L302024							7.9	43.112	133.97	11.671	184	138
L312024							7.9	43.112	133.97	11.671	184	138
L322024							7.9	43.112	133.97	11.671	184	138
L332024							7.9	43.112	133.97	11.671	184	138
L342024							7.9	43.112	133.97	11.671	184	138
L352024							7.9	43.112	133.97	11.671	184	138
L362024							7.9	43.112	133.97	11.671	184	138
L372024							7.9	43.112	133.97	11.671	184	138
L382024							7.9	43.112	133.97	11.671	184	138
L392024							7.9	43.112	133.97	11.671	184	138
L402024							7.9	43.112	133.97	11.671	184	138

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 2
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 3 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L052024	87.5	0.00	0.00	15.244	83.1191	0.53	8.0	1.9675	52.8705	1.7043

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 4 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L102024	0.8	0.00	0.00	14.89	1211.9008	10.00	7.8	1.4875	770.74	103.1482

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 5 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L142024	87	0.00	0.00	4.587	175.304	0.71	8.4	0.9400	87.1425	0.608

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 33 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L1402024	171.3	0.00	0.00	25.813	181.281	10.00	7.6	1.8335	62.82	41.3804

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 36 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L1402024	17.4	0.00	0.00	0.001	160.808	0.01	7.4	0.836	263.73	15.3047

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 37 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L1052024	0.8	0.00	0.00	0.521	178.2236	10.00	8.0	1.4620	113.84	89.2216

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 3
 Groundwater 3 (40)
 Point 4: Groundwater 4
 Point 5: Groundwater 5
 Point 33: Groundwater 10
 Point 36: Groundwater 11
 Point 37: Groundwater 60
 Point 42: Groundwater 12

Point 42 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)
L1002024	68.8	0.00	0.00	37.005	158.4077	0.24	8.4	0.9900	67.93	1.0002

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 13
 Surface Water 2
 Point 13: Outlet point of surface water discharge pipe marked 600BCP
 Point 41: Outlet point of surface water discharge pipe marked 600BCP

Point 13 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)	Total Suspended Solids (mg/l)
L042024	18.8	0.00	0.00	2.000	42.5008	10.00	8.3	1.724	42.818	1.740	0.14	0.00

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 13
 Surface Water 2
 Point 13: Outlet point of surface water discharge pipe marked 600BCP
 Point 41: Outlet point of surface water discharge pipe marked 600BCP

Point 13 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)	Total Suspended Solids (mg/l)
L042024	24.1	0.00	0.00	32.011	120.1032	0.70	7.7	25.288	61.888	6.3104	0.10	0.00

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 monthly
 Locations: Point 41
 Surface Water 2
 Point 41: Outlet point of surface water discharge pipe marked 600BCP

Point 41 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)	Total Suspended Solids (mg/l)
L042024	18.8	0.00	0.00	2.000	42.5008	10.00	8.3	1.724	42.818	1.740	0.14	0.00

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 22
 Leachate pond 2 marked on site plan
 Point 22: Leachate pond 2 marked on site plan
 Point 23: All leachate collection tanks (L17)
 Point 26: All groundwater collection tanks (L17)

Point 22 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	188	185	185	185	188.204	185	181.8	8.0	188.208	188.21	14.061	188.21

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 22
 Leachate pond 2 marked on site plan
 Point 22: Leachate pond 2 marked on site plan
 Point 23: All leachate collection tanks (L17)
 Point 26: All groundwater collection tanks (L17)

Point 22 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	124.8	120.8	117	120.805	142.493	0.41	127.6	8.1	123.381	123.71	26.1001	123.71

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 26
 Leachate pond 2 marked on site plan
 Point 26: All groundwater collection tanks (L17)
 Point 27: All groundwater collection tanks (L17)
 Point 28: All groundwater collection tanks (L17)

Point 26 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	124.1	120.1	117	120.101	142.106	0.38	127.25	8.2	123.277	123.59	26.1482	123.59

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 27
 Leachate pond 2 marked on site plan
 Point 27: All groundwater collection tanks (L17)
 Point 28: All groundwater collection tanks (L17)
 Point 29: All groundwater collection tanks (L17)

Point 27 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	119.9	115.9	111	115.904	137.4138	0.33	119.36	8.0	119.729	119.948	15.114	119.948

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 28
 Leachate pond 2 marked on site plan
 Point 28: All groundwater collection tanks (L17)
 Point 29: All groundwater collection tanks (L17)
 Point 30: All groundwater collection tanks (L17)

Point 28 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	121	116.18	111	116.188	137.1268	0.36	119.65	8.0	120.218	120.71	15.114	120.71

M2.3 - Water and/or Land Monitoring Requirements
 Frequency: 6 Monthly
 Locations: Point 30
 Leachate pond 2 marked on site plan
 Point 30: All groundwater collection tanks (L17)

Point 30 Data	Alkalinity (Calcium Carbonate) (mg/l)	Ammonia (mg/l)	Biochemical Oxygen Demand (mg/l)	Calcium (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrogen (total) (mg/l)	pH	Potassium (mg/l)	Sodium (mg/l)	Sulphate (mg/l)	Total Kjeldahl Nitrogen (mg/l)
L042024	121	116.18	111	116.188	137.1268	0.36	119.65	8.0	120.218	120.71	15.114	120.71

Date	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit
04/02/2024	1883.2	100.01	2.2	115.166	181.2041	0.35	2.2816	1.4	135.244	100.00	0.003	208.2

M2.3 - Water and/or Land Monitoring Requirements

Point 27	Alkalinity (Calcium Carbonate)	Ammonia	Biochemical Oxygen Demand	Calcium	Chloride	Nitrate	Nitrogen (Total)	pH	Potassium	Sodium	Sulphate	Total Kjeldahl Nitrogen
04/02/2024	1789.9	220.18	2.1	105.126	156.8735	0.21	116.25	7.8	100.629	481.0	10.34	215.82

6. Monthly
 Point 27
 Locations
 Point 22
 Location point 2 marked on site plan
 Point 23
 Location point 3 marked on site plan
 Point 26
 All leachate collection tanks (L17)
 All groundwater collection tanks (G17)

G17.1

Point 27	Alkalinity (Calcium Carbonate)	Ammonia	Biochemical Oxygen Demand	Calcium	Chloride	Nitrate	Nitrogen (Total)	pH	Potassium	Sodium	Sulphate	Total Kjeldahl Nitrogen
04/02/2024	205.2	20.1	2.1	101.000	156.4016	0.20	114.25	8.1	100.00	424.00	10.000	215.82

Point 22
 All groundwater collection tanks (G17)

G17.2

Point 27	Alkalinity (Calcium Carbonate)	Ammonia	Biochemical Oxygen Demand	Calcium	Chloride	Nitrate	Nitrogen (Total)	pH	Potassium	Sodium	Sulphate	Total Kjeldahl Nitrogen
04/02/2024	131.2	2.80	2.1	117.372	132.2643	1.02	7.40	6.203	100.0	217.003	0.24	0.24

Point 22
 All groundwater collection tanks (G17)

G17.3

M2.3 - Water and/or Land Monitoring Requirements

Point 34	Nitrate	Groundwater 11
04/02/2024	0.00	