COASTWIDE CIVIL

SHELL COVE BOATHARBOUR - STAGE 2

MONTHLY MONITORING SUMMARY

August, 2015

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1. Preliminaries

1.1. Background

This project involves the construction of a boat harbour consisting of inner and outer harbour basins located behind an existing beach dune system in what is currently a degraded swamp, and an access channel across the beach. Included in the boat harbour project are:

- inner and outer harbour basins;
- boardwalk/promenade surrounding the inner and outer harbours;
- regional boat launching ramp located in the outer harbour;
- 470m long rock breakwater on the northern side of the access channel;
- 282m long rock groyne on the southern side of the access channel;
- dune construction and beach nourishment;
- land platform works for hotel, shopping centre, residential development, marina support facilities and dry boat storage surrounding the boat harbour;
- a staged 300 berth floating marina in the inner harbour;
- vessel fuelling facilities and sewage pump out facilities in the outer harbour; and
- a boat lift and hardstand area for vessel maintenance.

The works are to be conducted over multiple stages. Coastwide Civil have won the contract to conduct Stage 2 works.

The main components of Stage 2 works are:

- Excavation of the remainder of the Boatharbour which was not excavated in Stage 1
- Surcharging (and removal) of the P2B Surcharge Area and any incomplete portions of the P3 Surcharge Area
- Removal of the surcharge material from Surcharge P1A, P1B and P2A
- Construct edge treatment for the Boatharbour
- Install boardwalk piles
- Construct boat ramp in the Outer Harbour

1.2. Introduction

This document provides a summary of monthly environmental performance on site. It includes the following:

- Section 2 outlines monitoring requirements as per the conditions of the Environmental Protection Licence (EPL), the Site Environmental Management Plan (SEMP) and the Construction Environmental Management Plan (CEMP);
- Sections 3 to 5 detail the results of environmental monitoring undertaken on site; and
- Results of any lab testing are included as Appendix B. A copy of rainfall monitoring results for the month is attached as Appendix C.

On 04/08/15, the conditions of the EPL were updated. As part of this update, changes to monitoring requirements for the site were made. Section 2 of this document has been updated to include the new monitoring requirements. Monitoring requirements prior to this date were included in the July 2015 Monthly Monitoring Summary.

2. Monitoring Requirements

2.1. Water Quality

Water Quality Inbound and Outbound Channels

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426, Section 2, P1.3

Station no.	Location	Testing Required
10	Upstream Location – Runoff into site from West	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour
11	Upstream Location– Runoff into site from North	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour
12	Shellharbour Swamp – Discharge into near shore zone	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour
14	Upstream Location – Runoff into site from South	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour
20	Beach Zone Rectangular Pond – Discharge into near shore zone	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour
21	Southern Channel – Downstream of Precinct B1 and C1	Oil and Grease, pH, Total Suspended Solids, Turbidity and Colour

Monitoring Requirements
As nominated in EPL 12426, Section 5, M2.
No limit values for monitoring of inflows and outflows are specified in the EPL.

Station no.	Testing Requirement	Compliance Criteria	Frequency
10,11,12,14, 20,21	Oil and Grease	Not specified in EPL	Special Frequency 2 – daily if turbidity >5NTU at MP8,9,12, otherwise weekly
	pH	Not specified in EPL	
	Total Suspended solids	Not specified in EPL	
	Turbidity	Not specified in EPL	

Near Shore Monitoring

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426, Section 2, P1.3 for MP8, 9 and 12, Section 8 E1.3 for MP20:

Station no.	Location	Testing Required
8	Surf zone, 100m south of groyne	Colour, Turbidity
9	Surf zone 100m north of breakwater	Colour, Turbidity
12	Surface Water leaving site into the near shore zone	Colour, Turbidity
20	Beach zone rectangular pond	Colour, Turbidity

Monitoring Requirements
Limit criteria for points 8 and 9 are as established in the SEMP Section 7.4.4. The EPL establishes a 5 NTU turbidity trigger value at points 8, 9, 12 and 20 to initiate monitoring at monitoring points 10-14 as per special frequency 2.

Station no.	Testing Requirement	Compliance Criteria	Frequency
8,9,12,20	Turbidity	<5 NTU	Special Frequency 1 – weekly during dry weather, daily during wet weather (>20mm rainfall within 24 hours in rain gauge), daily during any water break out on site Daily during marine works
	Colour	Visual Assessment	

Storage Pond Monitoring

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426, Section 2, P1.3:

Station no.	Location	Testing Required
7	Storage Pond (location of this discharge point was altered in the 04/08/15 amendment to the EPL)	Oil and Grease, Suspended Solids, Acidity, Turbidity, Nitrate, Nitrogen (Ammonia), Biochemical Oxygen Demand (BOD)

Monitoring Requirements
As nominated in EPL 12426, Section 5, M2 for monitoring requirements and Section 3, L2 for concentration limits:

Station no.	Testing Requirement	Compliance Criteria	Frequency
7	Oil and Grease	Not visible	Prior to any release into the clean water system. Daily during any discharge from the storage pond.
	Suspended Solids	<50 mg/L	
	Acidity	4.0 – 8.5 pH	
	Turbidity	Not specified in EPL /CEMP	
	Nitrate	Not specified in EPL /CEMP	
	Nitrogen (Ammonia)	Not specified in EPL /CEMP	
	Biochemical Oxygen Demand (BOD)	Not specified in EPL /CEMP	

2.2. Noise

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426, Section 2, P1.4:

Station no.	Location
17	Southernmost property on Boollwarroo Parade
18	Nearest residence on Mary, William or Sophia Streets
19	Nearest residence on Whitsunday or Apollo Drives

Monitoring Requirements

As nominated in EPL 12426, Section 3, L4:

"For any exceedance of the background noise level by more than 10 dB(A) the licensee must undertake community liaison and consultation in order to identify and implement any additional reasonable and feasible noise mitigation options.

L4.2 5dB(A) must be added to the measured noise levels if the noise is substantially tonal or impulsive in character."

Table 4.6 of the CEMP summarises noise trigger values based on background levels determined by Wilkinson Murray in 2005 as:

Parameter	Trigger Value	Measurement Location
Construction Noise	LAeq,15 min: 52 dBA	Nearest residence on Boollwarroo Parade
	LAeq,15 min: 44 dBA	Nearest residence on Mary, William or Sophia Streets
	LAeq,15 min: 44 dBA	Nearest residence on Whitsunday or Apollo Drives

2.3. Air Quality

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426 Section 2, P1.1:

Station no.	Location
1	Southernmost property on Boollwarroo Parade
2	Nearest residence on Mary, William or Sophia Streets
3	Nearest residence on Whitsunday or Apollo Drives

Monitoring Requirements
Compliance limit criteria are not specified in the EPL. As per SEMP, Section 8:

Station no.	Testing Requirement	Compliance Criteria	Frequency
1,2,3	Dust	<4g / m^2 / month, or <2g / m^2/ month over background levels	Monthly

2.4. Vibration

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
Monitoring Points are not specified in the EPL. Points as nominated in SEMP Section 8 are:

Station no.	Location
1	Southernmost property on Boollwarroo Parade
2	Nearest residence on Mary, William or Sophia Streets
3	Nearest residence on Whitsunday or Apollo Drives

Monitoring Requirements
As per CEMP, Section 4.7.4:

Station no.	Testing Requirement	Compliance Criteria	Frequency
1,2,3	vibration	Vibration dose: <0.4 $m/s^{1.75}$	Once during initial stages of work by plant likely to cause vibration

2.5. Blasting

Monitoring Locations – See Appendix A - Site Map for location of monitoring points
As nominated in EPL 12426 Section 5, M7.1:

Station no.	Location
1	Southernmost property on Boollwarroo Parade
2	Nearest residence on Mary, William or Sophia Streets
3	Nearest residence on Whitsunday or Apollo Drives

Monitoring Requirements
As nominated in EPL 12426 Section 3 L5.1 – 5.4 and Section 5, M7.2:

Station no.	Testing Requirement	Compliance Criteria	Frequency
1,2,3	vibration	<5mm/s for 95% of blasts <10mm/s for all blasts	During each blast
1,2,3	overpressure	<115 dB for 95% of blasts <120 dB for 100% of blasts	During each blast

2.6. Acid Sulphate Soils

Monitoring Requirements
As nominated in EPL 12426 Section 4, O5.11-5.14:

"Any acid sulphate soils disturbed during the project must be managed in accordance with the document titled "ACID SULPHATE SOIL MANUAL, ASSMAC 1998".

From the time when the acid sulphate soil is exposed to the atmosphere:
a) the licensee must complete a log of odour observations. These observations must continue for a duration of 20 consecutive days and be used to assess compliance with the odour condition/s of this licence and to assess the risks of odours impacting residential areas under worst-case wind conditions.
b) the licensee has 30 days to submit the log of odour observations to the EPA together with an assessment of actual and potential odour impacts on the nearest residential areas.

3. Water Quality

3.1. Near Shore Monitoring – Monitoring Points 8, 9, 12 and 20

Test Results

Test frequency: Special Frequency 1 (Weekly in dry weather, daily in wet weather and daily during break out). To be completed daily during marine works.

Date	Pollutant	Point 8	Point 9	Point 12	Point 20
31/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	**10.67**	**9.78**	**9.38**	**6.41**
28/08/2015	*Colour*	Clear	Clear	Clear	Light Brown
	Turbidity	**29.22**	**8.59**	**9.45**	**178**
27/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	**22.25**	**13.09**	**54**	**182**
26/08/2015	*Colour*	Clear	Clear	Light Brown	Light Brown
	Turbidity	**12.93**	**23.9**	**101**	**155**
25/08/2015	*Colour*	Clear	Clear	Light Brown	Light Brown
	Turbidity	**17.85**	**5.98**	**122**	**156**
24/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	1.98	2.17	2.72	4.71
21/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.94	**10.88**	4.55	2.41
20/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.17	3.08	4.38	2.1
19/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	2.13	1.32	1.74	2.11
18/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.91	2.56	4.10	1.3
17/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	1.74	2.52	3.91	3.66
14/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.21	2.29	3.23	0.52
13/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.49	4.31	4.86	4.08
12/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.39	3.73	1.8	1.38
11/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	4.39	3.9	2.42	2.07
10/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.47	2.81	2.92	1.96
07/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.90	3.24	2.29	2.02
06/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	3.12	2.87	2.45	1.94

Date	Pollutant	Point 8	Point 9	Point 12	Point 20
05/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	**5.72**	4.80	2.91	2.09
04/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	4.81	3.47	3.68	1.92
03/08/2015	*Colour*	Clear	Clear	Clear	Clear
	Turbidity	4.66	3.75	2.22	0.88
CEMP Compliance Limit	*Turbidity*	**5**	**5**		
EPL Special Frequency 2 Trigger Value	*Turbidity*	**5**	**5**	**5**	

Comments on Results

- The 5 NTU trigger value was exceeded on a number of occasions at MP8, MP9, MP12 and MP20.
    - 304mm of rainfall were measured between 24/08/15 – 28/08/15, including 215mm on 25/08/15 and 66mm on 26/08/15. This was measured as a 1 in 10yr ARI rainfall event.
    - Turbidity was raised from 25/08/15 to 31/07/15 at MP8, MP9, MP12 and MP20. Turbidity at these points is attributable to rainfall, and a high volume of stormwater flows through site.
    - Turbidity at offshore points MP8 and MP9 remained significantly lower than the outbound channels MP12 and MP20.
    - Turbidity in the northern channel (MP12) was lower than in the southern channel (MP20). This is attributable to the larger volume of water and the turbidity of inflows into the southern channel. Inflows from the landscape mound to the south and the B1C1 subdivision area to the west were quite turbid. Sediment basins at both of these locations overflowed due to the 10 year event. See section 3.2 for further detail.

3.2. Surface Water: Inbound flow– Monitoring Points 10, 11, 14, 21 and Outbound Flow – Monitoring Points 12 and 20

Test Results

Test frequency: Special Frequency 2 (Weekly, or daily when turbidity at MP8, 9 or 12 is greater than 5 NTU)

Date	Pollutant	Point 10	Point 11	Point 14	Point 21	Point 12	Point 20	Point 7
31/08/15	*Oil and Grease*	Not visible	Not visible	No water flowing	Not visible	Not visible	Not visible	Not visible
	pH	8.10	7.73		9.22	7.81	7.83	8.22
	Total Suspended Solids (mg/L)	8	8		16	7	5	13
	Turbidity (NTU)	8.89	8.48		25.72	9.38	6.41	8.86
	Colour	Clear	Clear		Clear	Clear	Clear	
28/08/15	*Oil and Grease*	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible
	pH	7.85	8.02	7.60	8.34	7.93	7.86	7.89
	Total Suspended Solids (mg/L)	6	14	138	33	8	87	
	Turbidity (NTU)	15.14	27.59	228	57	9.45	178	25.47
	Colour	Clear	Clear	Light brown	V. light brown	Clear	Light brown	
27/08/15	*Oil and Grease*	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible
	pH	8.05	7.94	7.75	7.86	7.22	7.55	7.55
	Total Suspended Solids (mg/L)	10	13	60	61	32	55	
	Turbidity (NTU)	20	34.92	289	104	54	182	20.32
	Colour	Clear	Light brown	Brown	Light brown	Clear	Clear	
26/08/15	*Oil and Grease*	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible	No discharge
	pH	7.73	7.89	7.61	7.69	7.39	7.77	
	Total Suspended Solids (mg/L)	9	56	684	9	121	75	
	Turbidity (NTU)	21.17	69	729	94	101	155	
	Colour	Clear	V. Light Brown	Dark brown	Light brown	Light brown	Light brown	
25/08/15	*Oil and Grease*	Not visible	Not visible	Not visible	Not visible	Not visible	Not visible	No discharge
	pH	8.32	7.70	8.24	7.83	7.40	7.48	
	Total Suspended Solids (mg/L)	13	58	1,640	456	91	125	
	Turbidity (NTU)	24.01	79	887	601	122	156	
	Colour	V. Light brown	Light brown	Dark brown	Brown	Light brown	Light brown	

Date	Pollutant	Point 10	Point 11	Point 14	Point 21	Point 12	Point 20	Point 7
21/08/15	*Oil and Grease*	No water flowing	No water flowing	No water flowing	No water flowing	Not visible	Not visible	No discharge
	pH					7.26	8.18	
	Total Suspended Solids (mg/L)					15	8	
	Turbidity (NTU)					4.55	2.41	
	Colour					Clear	Clear	
13/08/15	*Oil and Grease*	No water flowing	Not visible	No water flowing	No water flowing	Not visible	Not visible	Not visible
	pH		7.97			7.92	8.05	7.87
	Total Suspended Solids (mg/L)		11			4	3	7
	Turbidity (NTU)		8.24			3.23	0.52	14.98
	Colour		Clear			Clear	Clear	
05/08/15	*Oil and Grease*	Not visible	Not visible	No water flowing	Not visible	Not visible	Not visible	No discharge
	pH	8.60	7.76		8.44	7.67	8.08	
	Total Suspended Solids (mg/L)	3	5		22	5	3	
	Turbidity (NTU)	3.59	5.40		22.61	2.91	2.09	
	Colour	Clear	Clear		Clear	Clear	Clear	

Comments on Results

- Northern channel opening (MP12):
  - Opened mechanically 05/08/15 and closed naturally the next day.
  - Opened mechanically 13/08/15 and closed 17/08/15.
  - Opened mechanically 18/08/15 and closed naturally the next day.
  - Opened naturally 20/08/15 and closed naturally 24/08/15.
  - Opened naturally 25/08/15 and closed naturally 28/08/15.
  - Opened mechanically 31/08/15 and closed naturally the next day.
- Southern channel opening (MP20):
  - Opened mechanically 05/08/15 and closed naturally the next day.
  - Opened mechanically 13/08/15 and closed naturally 17/08/15.
  - Opened mechanically 18/08/15 and closed naturally the next day.
  - Opened naturally 21/08/15 and closed naturally the next day.
  - Opened naturally 25/08/15 and closed naturally 31/08/15.
  - Opened mechanically 31/08/15 and closed naturally the next day.
- Notable Rainfall Events:
  - 304mm measured between 24/08/15 – 28/08/15 (3.5mm on 24/08/15, 215mm on 25/08/15, 66mm on 26/08/15, 18.5mm on 27/08/15, 1mm on 28/08/15)
  - Full rainfall records included in Appendix C
- Turbidity was elevated at all points from 25/08/15 to 31/08/15, but reduced quickly as the week went on and rainfall decreased. A 1 in 10 year rainfall event was recorded from 25/08/15 to 26/08/15. This resulted in turbid inflows from upstream, particularly from the B1C1 Subdivision site to the west (upstream of MP21).

3.3. Storage Pond – Monitoring Point 7

Test Results

Test frequency: Daily during discharge.

	Pollutant						
Date	Oil and Grease	pH*	Total Suspended Solids (mg/L)	Turbidity* (NTU)	Biochemical Oxygen Demand (BOD) (mg/L)	Nitrate (mg/L)	Nitrogen (Ammonia) (mg/L)
31/08/2015	Not Visible	8.22	13	8.86	<1.0	0.403	0.090
28/08/2015	Not Visible	7.89	Awaiting results	25.47	Awaiting results	Awaiting results	Awaiting results
27/08/2015	Not Visible	7.55	Awaiting results	20.32	Awaiting results	Awaiting results	Awaiting results
19/08/2015	Not Visible	8.33	12	11.07	<1	<0.005	0.038
18/08/2015	Not Visible	8.23	15	16.54	<1	<0.005	0.038
17/08/2015	Not Visible	7.41	16	27.2	<1	<0.005	0.015
14/08/2015	Not Visible	8.08	6	6.87	<1	0.161	0.009
13/08/2015	Not Visible	7.87	7	14.98	<1	<0.005	0.008
03/08/2015	Not visible	7.91	13	23.82	<1	0.017	0.057
EPA Discharge Criteria		**4.0 – 8.5**	**50**	-	-	-	-

**Tests undertaken on site by Coastwide Civil*

Remarks

- Discharge commenced 03/08/15 for one day.
  - All monitoring results are compliant with discharge criteria.
- Discharge commenced 13/08/15 and ended 19/08/15.
  - All monitoring results are compliant with discharge criteria.
- Discharge commenced 27/08/15 and was ongoing at the end of the month.
  - All site based monitoring and received lab testing results are compliant with discharge criteria.
  - Lab testing results for 27/08/15 and 28/08/15 were not received in time for inclusion with this report. These results will be included in the September 2015 monthly report.
- On 04/08/15, the EPL was amended to move the location of MP7. The previous storage pond has been decommissioned as it will impede construction of the P2B Surcharge Area in the near future. A new pond has been constructed within the P1A/P1B surcharge area. The EPA has approved discharge from this new pond and all discharges after 04/08/15 are from this new location. See Appendix A for the location of the new pond and MP7 discharge point.

4. Air, Noise and Vibration Testing

4.1. Noise Testing

Test Results

Test frequency: Weekly

Date	Location	Time	Measured Noise Levels	Observed Noise Sources and notes (sound levels in dB)	Estimated L_{Aeq} Contribution	CEMP Trigger Value
25/08/15	Noise monitoring could not be undertaken in the week 24/08/15 – 28/08/15 due to ongoing heavy rain and wind.					
18/08/15	MP17	2:00pm – 2:15pm	L_{A10} = 65.2 L_{A90} = 51.7 **L_{Aeq} = 65.8** L_{max} = 86.6 L_{min} = 49.1	Vehicles: 21 No., Av: 78.16 Site noise: 8 No., Av: 51.64 Passing cars and site noise were the dominant noise sources. Dump trucks and trommel could be heard but were no louder than background noise. Site contribution = L_{Aeq} – 10dB	**55.8**	**52.0**
	MP18	2:20pm – 2:35pm	L_{A10} = 57.0 L_{A90} = 51.0 **L_{Aeq} = 55.0** L_{max} = 73.0 L_{min} = 48.2	Wind: 8 No., Av: 59.91 Birds: 4 No., Av: 57.88 Cars: 67.6, 63.2 Dog: 4 No., Av: 59.53 Site noise: 4 No., Av: 54.73 Wind, cars birds and dogs were the main noise sources. Some site noise was audible but no louder than background noise. Site contribution = L_{Aeq} – 10dB	**45.0**	**44.0**
	MP19	2:40pm – 2:55pm	L_{A10} = 49.4 L_{A90} = 43.3 **L_{Aeq} = 48.9** L_{max} = 67.6 L_{min} = 40.8	Wind: 13 No., Av: 52.42 Cars: 10 No., Av: 61.57 Site noise inaudible. Site contribution = L_{A90} – 10dB	**33.3**	**44.0**

Date	Location	Time	Measured Noise Levels	Observed Noise Sources and notes (sound levels in dB)	Estimated L_{Aeq} Contribution	CEMP Trigger Value
12/08/15	MP17	10:20am – 10:35am	L_{A10} = 62.4 L_{A90} = 51.3 **L_{Aeq} = 61.3** L_{max} = 85.5 L_{min} = 46.7	Site noise: 10 No., Av: 56.11 Vehicles: 14 No., Av: 74.22 Car alarm: 3 No., Av: 84.4 Passing cars and site noise were the main noise sources. Loader and dump truck on site could be heard throughout monitoring. A car alarm went off towards the end of the monitoring period. Site contribution = L_{Aeq} – 6dB	**55.3**	**52.0**
	MP18	10:40am – 10:55am	L_{A10} = 52.6 L_{A90} = 43.0 **L_{Aeq} = 49.6** L_{max} = 70.7 L_{min} = 39.8	Aeroplane: 9 No., Av: 56.11 Birds: 15 No., Av: 54.80 Site noise: 53.6, 55.1 Birds and aeroplane were the dominant noise sources. Site noise was audible only a few times during monitoring. Site contribution = L_{Aeq} – 10dB	**39.6**	**44.0**
	MP19	11:00am – 11:15am	L_{A10} = 49.5 L_{A90} = 41.9 **L_{Aeq} = 50.7** L_{max} = 72.0 L_{min} = 38.5	Vehicles: 7 No., Av: 66.05 People: 7 No., Av: 52.23 Birds: 6 No., Av: 57.40 Site noise inaudible. Site contribution = L_{A90} – 10dB	**31.9**	**44.0**
05/08/2015	MP17	2:30 pm – 2:45pm	L_{A10} = 62.4 L_{A90} = 51.9 **L_{Aeq} = 60.7** L_{max} = 78.1 L_{min} = 48.7	Vehicles: 14 No., Av: 72.06 Site noise: 4 No., Av: 56.28 Wind: 9 No., Av: 57.51 Aeroplane: 5 No., Av: 63.1 Main noise sources were wind and passing cars. Site noise audible but no louder than ambient noise. Site contribution = L_{Aeq} – 10dB	**50.7**	**52.0**
	MP18	2:50pm – 3:05pm	L_{A10} = 54.5 L_{A90} = 48.8 **L_{Aeq} = 52.5** L_{max} = 68.9 L_{min} = 46.1	Wind: 8 No., Av: 54.89 Site noise: 4 No., Av: 50.05 Birds: 11 No., Av: 55.72 Main noise sources were wind gusts and birds. Site noise occasionally audible but no louder than ambient noise. Site contribution = L_{Aeq} – 10dB	**42.5**	**44.0**
	MP19	3:10pm – 3:25pm	L_{A10} = 56.8 L_{A90} = 46.2 **L_{Aeq} = 54.3** L_{max} = 70.8 L_{min} = 44.2	Wind: 4 No., Av: 55.95 Aeroplane: 11 No., Av: 62.75 People: 4 No., Av: 56.7 Vehicles: 8 No., Av: 63.8125 Site noise inaudible. Site contribution = L_{A90} – 10dB	**36.2**	**44.0**

Comments on Results

- At MP17, weekly L_{Aeq} exceeded the trigger value on 12/08/15, 18/08/15
- At MP18, weekly L_{Aeq} exceeded the trigger value on 18/08/15,
- At MP19, weekly L_{Aeq} did not exceed the trigger value.
- Consultation with the community about the project has been ongoing. A community newsletter is being distributed monthly, explaining current works on site. The newsletter contains contact information to allow any residents to communicate concerns about noise levels.
- No complaints have been received in this month about noise levels.

4.2. Air Quality

Test Results
Test frequency: Monthly

Date	Pollutant	Point 1	Point 2	Point 3
24/07/14 – 25/08/15	*Ash Content (g/m^2/ month)*	1.0	1.1	1.0
	Combustible Matter (g/m^2/ month)	0.1	0.2	<0.1
	Total dust (g/m^2/ month)	**1.1**	**1.3**	**1.0**
SEMP Compliance Limit	***Total dust (g/m^2/ month)***	**4.0**	**4.0**	**4.0**

Comments on Results

- Dust results were below compliance limits.

4.3. Vibration

Test Results
Test frequency: During initial stages of potentially vibratory work

No testing has been required this month.

4.4. Blasting

Test Results
Test frequency: During each blast

Comments on Results

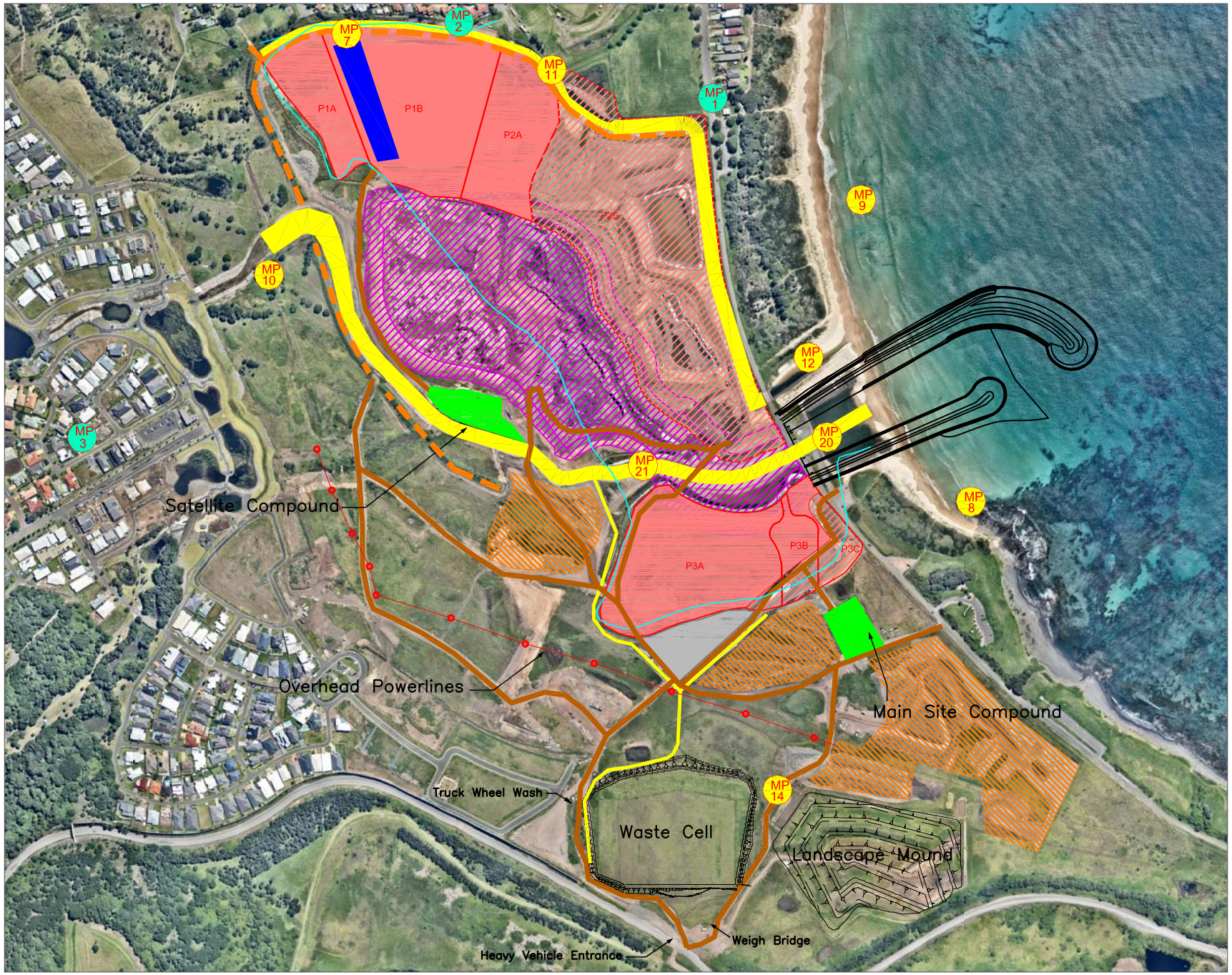
- No blasting has been undertaken this month. The last blast was Blast 41 in July 2015.

5. Acid Sulphate Soils

5.1. Odour Monitoring

The monitoring of odour from any encountered Acid Sulphate Soil areas is ongoing as per the requirements of the EPL. Completed odour monitoring logs have been forwarded to the EPA as required.

Appendix A – Site Map



Legend

- Site Haul Roads
- Clean Water Diversion System
- Noise Bund
- Overhead Power Line
- ASS Risk Map Area
- MP 1 — Environmental Monitoring Point Location
- Completed Stage 1 Surcharge Mounds
- Stage 2 Surcharge Mounds
- Harbour Excavation
- Site Compound Areas
- Stage 2 Trommel Area
- Stockpile Areas
- Storage Pond

Note: MP1, MP2 and MP3 are also identified as MP17, MP18 and MP19 respectively for the purpose of noise monitoring.

Rev.	Date	Author	
6	10/08/15	N Chalk	
5	07/07/15	N Chalk	
4	15/01/15	N Chalk	
3	19/08/14	N Chalk	
2	13/05/14	N Chalk	
1	31/03/14	N Chalk	
0	24/03/14	N Chalk	

Firm Name and Address

COASTWIDE CIVIL

Project Name and Address

Shell Cove Boatharbour (Stage 2)
Boollwarroo Pde, Shellharbour, NSW

Title

Stage 2 Construction Plan

Appendix B
– Lab Testing Results

RESULTS OF WATER ANALYSIS

1 sample supplied by Coastwide Civil Pty Ltd on the 10th August, 2015 - Lab. Job No. E3618

Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**

(19 Croome Lane, ALBION PARK NSW 2527).

PARAMETER	METHODS REFERENCE	Sample 1 MP7 03/08/15
	Job No.	*E3618/1*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	13
BIOCHEMICAL OXYGEN DEMAND$_5$ (mg/L O_2)	APHA 5210-B	<1
NITRATE (mg/L N)	APHA 4500 NO_3^--F	0.017
NITRITE (mg/L N)	APHA 4500 NO_2^--I	0.001
AMMONIA (mg/L N)	APHA 4500 NH_3-H	0.057

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
3. Analysis conducted between sample arrival date and Report provision date
4. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
5. **.. Denotes not requested**

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checked: .....
Graham Lancaster
Laboratory Manager

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Tel. 02 6620 3678, website: scu.edu.au/eal

RESULTS OF WATER ANALYSIS

5 samples supplied by Coastwide Civil Pty Ltd on the 10th August, 2015 - Lab. Job No. E3619
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527)

PARAMETER	METHODS REFERENCE	Sample 1 MP10 05/08/15	Sample 2 MP11 05/08/15	Sample 3 MP12 05/08/15	Sample 4 MP20 05/08/15	Sample 5 MP21 05/08/15
	Job No.	*E3619/1*	*E3619/2*	*E3619/3*	*E3619/4*	*E3619/5*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	3	5	5	3	22

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
3. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
4. Analysis conducted between sample arrival date and Report provision date

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Laboratory Manager

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RESULTS OF WATER ANALYSIS

2 samples supplied by Coastwide Civil Pty Ltd on the 17th August, 2015 - Lab. Job No. E3787
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527).

PARAMETER	METHODS REFERENCE	Sample 1 MP7 13/8/15	Sample 2 MP7 14/8/15
	Job No.	*E3787/1*	*E3787/2*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	7	6
BIOCHEMICAL OXYGEN DEMAND$_5$ (mg/L O_2)	APHA 5210-B	<1.0	<1.0
NITRATE (mg/L N)	APHA 4500 NO_3^--F	<0.005	0.161
NITRITE (mg/L N)	APHA 4500 NO_2^--I	<0.001	0.030
AMMONIA (mg/L N)	APHA 4500 NH_3-H	0.008	0.009

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
3. Analysis conducted between sample arrival date and Report provision date
4. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
5. .. Denotes not requested

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RESULTS OF WATER ANALYSIS

3 samples supplied by Coastwide Civil Pty Ltd on the 17th August, 2015 - Lab. Job No. E3788
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527)

PARAMETER	METHODS REFERENCE	Sample 1 MP11 13/8/15	Sample 2 MP12 13/8/15	Sample 3 MP20 13/8/15
	Job No.	*E3788/1*	*E3788/2*	*E3788/3*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	11	4	3

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
3. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
4. Analysis conducted between sample arrival date and Report provision date

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Laboratory Manager

RESULTS OF WATER ANALYSIS

3 samples supplied by Coastwide Civil Pty Ltd on the 24th August, 2015 - Lab. Job No. E3961

Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**

(19 Croome Lane, ALBION PARK NSW 2527).

PARAMETER	METHODS REFERENCE	Sample 1 MP7 17/08/15	Sample 2 MP7 18/08/15	Sample 3 MP7 19/08/15
	Job No.	*E3961/1*	*E3961/2*	*E3961/3*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	16	15	12
BIOCHEMICAL OXYGEN DEMAND$_5$ (mg/L O_2)	APHA 5210-B	<1.0	<1.0	<1.0
NITRATE (mg/L N)	APHA 4500 NO_3^--F	<0.005	<0.005	<0.005
NITRITE (mg/L N)	APHA 4500 NO_2^--I	<0.001	0.014	0.053
AMMONIA (mg/L N)	APHA 4500 NH_3-H	0.015	0.038	0.038

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre)= 1000 ppb (part per billion)
2. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
3. Analysis conducted between sample arrival date and Report provision date
4. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
5. **.. Denotes not requested**

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RESULTS OF WATER ANALYSIS

2 samples supplied by Coastwide Civil Pty Ltd on the 24th August, 2015 - Lab. Job No. E3962
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527)

PARAMETER	METHODS REFERENCE	Sample 1 MP12 21/08/15	Sample 2 MP20 21/08/15
	Job No.	*E3962/1*	*E3962/2*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	15	8

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
3. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
4. Analysis conducted between sample arrival date and Report provision date

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Graham Lancaster
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RESULTS OF WATER ANALYSIS

24 samples supplied by Coastwide Civil Pty Ltd on the 31st August, 2015 - Lab. Job No. E4152
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527)

PARAMETER	METHODS REFERENCE	Sample 1 MP10 25/08/15	Sample 2 MP11 25/08/15	Sample 3 MP12 25/08/15	Sample 4 MP14 25/08/15	Sample 5 MP20 25/08/15	Sample 6 MP21 25/08/15	Sample 7 MP10 26/08/15	Sample 8 MP11 26/08/15	Sample 9 MP12 26/08/15	Sample 10 MP14 26/08/15	Sample 11 MP20 26/08/15	Sample 12 MP21 26/08/15
	Job No.	*E4152/1*	*E4152/2*	*E4152/3*	*E4152/4*	*E4152/5*	*E4152/6*	*E4152/7*	*E4152/8*	*E4152/9*	*E4152/10*	*E4152/11*	*E4152/12*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	13	58	91	1,640	125	456	9	56	121	684	75	9

PARAMETER	METHODS REFERENCE	Sample 13 MP10 27/08/15	Sample 14 MP11 27/08/15	Sample 15 MP12 27/08/15	Sample 16 MP14 27/08/15	Sample 17 MP20 27/08/15	Sample 18 MP21 27/08/15	Sample 19 MP10 28/08/15	Sample 20 MP11 28/08/15	Sample 21 MP12 28/08/15	Sample 22 MP14 28/08/15	Sample 23 MP20 28/08/15	Sample 24 MP21 28/08/15
	Job No.	*E4152/13*	*E4152/14*	*E4152/15*	*E4152/16*	*E4152/17*	*E4152/18*	*E4152/19*	*E4152/20*	*E4152/21*	*E4152/22*	*E4152/23*	*E4152/24*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	10	13	32	60	61	55	6	14	8	138	87	33

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
3. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
4. Analysis conducted between sample arrival date and Report provision date

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Laboratory Manager

RESULTS OF WATER ANALYSIS

5 samples supplied by Coastwide Civil Pty Ltd on the 7th September, 2015 - Lab. Job No. E4342
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527).

PARAMETER	METHODS REFERENCE	Sample 1 MP7 31/8/15	Sample 2 MP7 1/9/15	Sample 3 MP7 2/9/15	Sample 4 MP7 3/9/15	Sample 5 MP7 4/9/15
	Job No.	*E4342/1*	*E4342/2*	*E4342/3*	*E4342/4*	*E4342/5*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	13	11	19	17	16
BIOCHEMICAL OXYGEN DEMAND$_5$ (mg/L O_2)	APHA 5210-B	<1.0	<1.0	<1.0	<1.0	<1.0
NITRATE (mg/L N)	APHA 4500 NO_3^--F	0.403	0.397	0.342	0.347	0.375
NITRITE (mg/L N)	APHA 4500 NO_2^--I	0.004	0.006	0.005	0.007	0.006
AMMONIA (mg/L N)	APHA 4500 NH_3-H	0.090	0.097	0.107	0.050	0.091

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
3. Analysis conducted between sample arrival date and Report provision date
4. ** denotes these test procedure or calculation are as yet not NATA accredited but quality control data is available
5. .. Denotes not requested

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checked: .....
Graham Lancaster
Laboratory Manager

RESULTS OF WATER ANALYSIS

25 samples supplied by Coastwide Civil Pty Ltd on the 7th September, 2015 - Lab. Job No. E4343
Analysis requested by Nick Chalk. **Your Project: Shell Cove Boat Harbour**
(19 Croome Lane, ALBION PARK NSW 2527)

PARAMETER	METHODS REFERENCE	Sample 1 MP10 31/8/15	Sample 2 MP11 1/9/15	Sample 3 MP12 2/9/15	Sample 4 MP20 3/9/915	Sample 5 MP21 4/9/15	Sample 6 MP10 31/8/15	Sample 7 MP11 1/9/15	Sample 8 MP12 2/9/15	Sample 9 MP20 3/9/915	Sample 10 MP21 4/9/15	Sample 11 MP10 31/8/15	Sample 12 MP11 1/9/15
	Job No.	*E4343/1*	*E4343/2*	*E4343/3*	*E4343/4*	*E4343/5*	*E4343/6*	*E4343/7*	*E4343/8*	*E4343/9*	*E4343/10*	*E4343/11*	*E4343/12*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	8	8	7	5	16	7	10	14	16	24	4	13

PARAMETER	METHODS REFERENCE	Sample 13 MP12 2/9/15	Sample 14 MP20 3/9/915	Sample 15 MP21 4/9/15	Sample 16 MP11 31/8/15	Sample 17 MP12 1/9/15	Sample 18 MP12 2/9/15	Sample 19 MP20 3/9/915	Sample 20 MP21 4/9/15	Sample 21 MP10 31/8/15	Sample 22 MP11 1/9/15	Sample 23 MP12 2/9/15	Sample 24 MP20 3/9/915	Sample 25 MP21 4/9/15
	Job No.	*E4343/13*	*E4343/14*	*E4343/15*	*E4343/16*	*E4343/17*	*E4343/18*	*E4343/19*	*E4343/20*	*E4343/21*	*E4343/22*	*E4343/23*	*E4343/24*	*E4343/25*
TOTAL SUSPENDED SOLIDS (mg/L)	GFC equiv. filter - APHA 2540-D	6	24	17	6	16	7	12	18	4	14	6	88	13

Notes:

1. 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 μg/L (micrograms per litre)= 1000 ppb (part per billion)
2. For conductivity - 1 dS/m = 1 mS/cm = 1000 μS/cm
3. Analysis performed according to APHA, 2012, "Standard Methods for the Examination of Water & Wastewater", 22nd Edition, except where stated otherwise.
4. Analysis conducted between sample arrival date and Report provision date

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checked: .....
Graham Lancaster
Laboratory Manager

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EW1511450**	Page	: 1 of 2
Client	: **COASTWIDE CIVIL**	Laboratory	: Environmental Division NSW South Coast
Contact	: Nick Chalk	Contact	: Glenn Davies
Address	: 19 Croome Lane Albion Park 2527	Address	: 1/19 Ralph Black Drive, North Wollongong, 2500
E-mail	: nick@coastwidecivil.com.au	E-mail	: glenn.davies@alsglobal.com
Telephone	: +61 4256 1499	Telephone	: 02 42253125
Facsimile	: ----	Facsimile	: W 02 42253128 N 02 44232083
Project	: Shell Cove Marina	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 25-Aug-2015 17:00
C-O-C number	: ----	Date Analysis Commenced	: 28-Aug-2015
Sampler	: ----	Issue Date	: 02-Sep-2015 16:03
Site	: ----		
		No. of samples received	: 3
Quote number	: ----	No. of samples analysed	: 3

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Barbara Coupland	Quality Officer	Newcastle - Inorganics

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.

- Analysis as per AS3580.10.1-2003. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.

Analytical Results

Sub-Matrix: **DEPOSITIONAL DUST** (Matrix: **AIR**)			Client sample ID	**MP1 24/07/2015 - 25/08/2015**	**MP2 24/07/2015 - 25/08/2015**	**MP3 24/07/2015 - 25/08/2015**	**----**	**----**
			Client sampling date / time	[25-Aug-2015]	[25-Aug-2015]	[25-Aug-2015]	----	----
Compound	*CAS Number*	*LOR*	*Unit*	**EW1511450-001**	**EW1511450-002**	**EW1511450-003**	**--------**	**--------**
				Result	Result	Result	Result	Result
EA120: Ash Content								
Ash Content	----	0.1	g/m².month	**1.0**	**1.1**	**1.0**	**----**	**----**
Ash Content (mg)	----	1	mg	**18**	**20**	**18**	**----**	**----**
EA125: Combustible Matter								
Combustible Matter	----	0.1	g/m².month	**0.1**	**0.2**	<0.1	**----**	**----**
Combustible Matter (mg)	----	1	mg	**3**	**4**	<1	**----**	**----**
EA141: Total Insoluble Matter								
Total Insoluble Matter	----	0.1	g/m².month	**1.1**	**1.3**	**1.0**	**----**	**----**
Total Insoluble Matter (mg)	----	1	mg	**21**	**24**	**18**	**----**	**----**

Appendix C
– Site Rainfall Measurements

Rainfall Monitoring Sheet

Project: Shell Cove Boatharbour, Stage 2

Day	Date	Time of reading	Rainfall (mm)	Inspected by
Saturday	01/08/2015	9:00 AM	*	*
Sunday	02/08/2015	9:00 AM	*	*
Monday	03/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Tuesday	04/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Wednesday	05/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Thursday	06/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Friday	07/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Saturday	08/08/2015	9:00 AM	*	*
Sunday	09/08/2015	9:00 AM	*	*
Monday	10/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Tuesday	11/08/2015	9:00 AM	**0.0**	Milan Boroja
Wednesday	12/08/2015	9:00 AM	**0.0**	Milan Boroja
Thursday	13/08/2015	9:00 AM	**0.0**	Milan Boroja
Friday	14/08/2015	9:00 AM	**0.0**	Milan Boroja
Saturday	15/08/2015	9:00 AM	*	*
Sunday	16/08/2015	9:00 AM	*	*
Monday	17/08/2015	9:00 AM	**0.0**	Milan Boroja
Tuesday	18/08/2015	9:00 AM	**0.0**	Sean Jolliffe
Wednesday	19/08/2015	9:00 AM	**0.0**	Milan Boroja
Thursday	20/08/2015	9:00 AM	**0.0**	Milan Boroja
Friday	21/08/2015	9:00 AM	**0.0**	Milan Boroja
Saturday	22/08/2015	9:00 AM	*	*
Sunday	23/08/2015	9:00 AM	*	*
Monday	24/08/2015	9:00 AM	**3.5**	Milan Boroja
Tuesday	25/08/2015	9:00 AM	**215.0**	Milan Boroja
Wednesday	26/08/2015	9:00 AM	**66.0**	Milan Boroja
Thursday	27/08/2015	9:00 AM	**18.5**	Milan Boroja
Friday	28/08/2015	9:00 AM	**1.0**	Milan Boroja
Saturday	29/08/2015	9:00 AM	*	*
Sunday	30/08/2015	9:00 AM	*	*
Monday	31/08/2015	9:00 AM	**0.0**	Sean Jolliffe