



Warrell Creek to Nambucca Heads Pacific Highway Upgrade Project

ENVIRONMENT PROTECTION AUTHORITY MONTHLY REPORT

May 2019

Pacifico Project Number: WC2NH



A team consisting of RMS and Pacifico (ACCIONA Ferrovial JV) to upgrade the Pacific Highway at Warrell Creek to Nambucca Heads

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1.0 Introduction

Environmental Protection Licence (EPL) 20533 was issued to ACCIONA Infrastructure for the Warrell Creek to Nambucca Heads Pacific Highway Upgrade project on the 16th December 2014. Condition R1.8 of the EPL requires the licensee to provide the EPA with a monthly report containing the following information:

- a) details of all non-compliances with the conditions of this licence and measures taken, or proposed, to prevent a recurrence of such a non-compliance; and
- b) details of all discharges from the sediment basins where the water quality results exceed the limits prescribed by Condition L2.4 including the results of rainfall measurements to demonstrate compliance with Condition L2.5; and
- c) details of results of any acoustic investigation made in relation to Condition L4.2d); and

The report referred to in this condition must be received by the EPA within 10 working days of the end of each month.

This document has been prepared to fulfil the requirements of Condition R1.8.

1.1 Description of Works

The project's construction activities during May 2019 included the following:

- Defect works
- Landscaping
- Clean up of RMS residual land
- Installation and maintenance of Erosion and Sediment Controls

Works scheduled for next month includes the following:

- Defect works
- Landscaping
- Clean up of RMS residual land
- Bald Hill Road Roundabout repairs
- Installation and maintenance of Erosion and Sediment Controls

1.2 Consultation Activities

The project's consultation activities during May 2019 included the following:

Other Consultation Activities:

No notifications made to the community.

On-site meetings:

Onsite meetings were held with community members in May 2019 regarding proposed property adjustments, property adjustment inspections, boundary fencing, construction impacts, vegetation, flooding and other various matters.

At House Noise Treatments

The at house noise treatment program is currently being managed by RMS and is not part of the ACCIONA (Pacífico) Scope of Works and Technical Criteria.

Upcoming Community and stakeholder activities:

- Property adjustment works, liaising with stakeholders for fencing and driveway works
- Responding to community issues and concerns
- Out of Hours works at Bald Hill roundabout

2.0 Weather

2.1 Discussion

The automatic recording weather stations at the main site compounds (North and South) records rainfall totals daily at 9AM. The total rainfall received for the month is summarized below:

Table 2 – Rainfall recorded at the two weather stations operated by Pacifico

Rainfall (1/05/2019 – 31/05/2019)		
Location	Total monthly rainfall	Total days rainfall
North (Nursery Road)	28.4 mm	8
Albert Drive Compound (South)	14 mm	8

Rainfall received at the north and south weather stations was lower than the May monthly average of 128.3 mm at South West Rocks (Smokey Cape Lighthouse). A summary of weather conditions recorded over the month for Smoky Cape by the Bureau of Meteorology is detailed below in Table 2.3.

Daily summaries for rainfall received in May 2019 at the Albert Drive Compound and Nursery Road weather stations are shown below in Table 2.1 and 2.2.

Table 2.1 – Rainfall recorded at Albert Drive Southern Compound Automated Weather Station

May 2019

Date	Time	TOTAL Rain Gauge (mm)
01-05-19	9:00:00	
02-05-19	9:00:00	
03-05-19	9:00:00	
04-05-19	9:00:00	
05-05-19	9:00:00	
06-05-19	9:00:00	
07-05-19	9:00:00	
08-05-19	9:00:00	
09-05-19	9:00:00	
10-05-19	9:00:00	
11-05-19	9:00:00	
12-05-19	9:00:00	
13-05-19	9:00:00	
14-05-19	9:00:00	
15-05-19	9:00:00	
16-05-19	9:00:00	
17-05-19	9:00:00	
18-05-19	9:00:00	
19-05-19	9:00:00	
20-05-19	9:00:00	
21-05-19	9:00:00	
22-05-19	9:00:00	
23-05-19	9:00:00	
24-05-19	9:00:00	
25-05-19	9:00:00	
26-05-19	9:00:00	
27-05-19	9:00:00	
28-05-19	9:00:00	
29-05-19	9:00:00	
30-05-19	9:00:00	
31-05-19	9:00:00	

Table 2.2 – Rainfall recorded at the Northern (Nursery Road) Automated Weather Station

May 2019

Date	Time	TOTAL Rain Gauge(mm)
01-05-19	9:00:00	0.2
02-05-19	9:00:00	0
03-05-19	9:00:00	0
04-05-19	9:00:00	0
05-05-19	9:00:00	6.6
06-05-19	9:00:00	0
07-05-19	9:00:00	0
08-05-19	9:00:00	0
09-05-19	9:00:00	0
10-05-19	9:00:00	0.4
11-05-19	9:00:00	0
12-05-19	9:00:00	0
13-05-19	9:00:00	0
14-05-19	9:00:00	0
15-05-19	9:00:00	0
16-05-19	9:00:00	2.8
17-05-19	9:00:00	17.8
18-05-19	9:00:00	0
19-05-19	9:00:00	0
20-05-19	9:00:00	0.2
21-05-19	9:00:00	0
22-05-19	9:00:00	0.2
23-05-19	9:00:00	0
24-05-19	9:00:00	0.2
25-05-19	9:00:00	0
26-05-19	9:00:00	0
27-05-19	9:00:00	0
28-05-19	9:00:00	0
29-05-19	9:00:00	0
30-05-19	9:00:00	0
31-05-19	9:00:00	0

Table 2.3: Weather conditions reported at the Smoky Cape by the Bureau of Meteorology Station (ID: 059030)

**South West Rocks, New South Wales
May 2019 Daily Weather Observations**

Observations from Smoky Cape Lighthouse.

Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9 am					3 pm				
		Min	Max				Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP	Temp	RH	Cld	Dir
		°C	°C	mm	mm	hours	km/h	local	°C	%	g th	km/h	hPa	°C	%	g th	km/h	hPa	
1	We	17.9	25.0	0.4					20.4	85	7	NNW	9						
2	Th	19.0	24.1	0					20.6	87	8	NNW	15						
3	Fr	19.1	23.0	0					21.4	78	8	N	19						
4	Sa	17.8	20.5	0.4					19.4	83	8	SW	7						
5	Su	13.5	22.7	3.4					16.8	66	3	SW	9						
6	Mo	13.5		0					16.5	65	2	SW	15						
7	Tu		24.6	0															
8	We	14.6	26.0	0					19.2	41	0	WNW	19						
9	Th	13.1	24.2	0					16.8	52	3	SW	4						
10	Fr	15.8	24.3	0					20.6	70	3	N	13						
11	Sa	11.4	20.4	0					13.8	47	3	SW	22						
12	Su	12.4	23.3	0					15.2	58	3	SW	24						
13	Mo	13.6	22.6	4.8					16.2	94	7	SW	9						
14	Tu	15.5	24.7	5.4					19.0	83	7	W	2						
15	We	15.4	24.3	0					17.8	73	6	SW	13						
16	Th	15.2	21.6	19.0					17.8	78	6	WSW	11						
17	Fr	16.0	25.2	1.0					18.8	73	7	SW	4						
18	Sa	15.9	24.2	0					18.0	76	2	SW	4						
19	Su	15.0	23.9	0					18.0	78	3	SW	7						
20	Mo	16.0		0					17.6	74	6	SW	13						
21	Tu		25.7	0															
22	We	15.9	25.2	0					20.0	81	3	N	4						
23	Th	15.9	24.4	0					16.7	76	1	SW	2						
24	Fr	15.8	25.0	0					20.9	70	2	W	4						
25	Sa	15.6	25.0	0					20.6	71	3	Calm							
26	Su	16.6	26.0	0					19.9	41	2	W	15						
27	Mo	17.9	24.1	0					19.5	46	7	WNW	15						
28	Tu	10.0	21.9	0					11.7	48	0	W	31						
29	We	10.9	21.7	0					14.4	50	0	WSW	33						
30	Th	12.4	20.0	0					13.6	60	6	SW	13						
31	Fr	8.2	19.7	0					9.7	51	0	WSW	26						
Statistics for May 2019																			
Mean		14.8	23.6						17.6	67	4		12						
Lowest		8.2	19.7	0					9.7	41	0		Calm						
Highest		19.1	26.0	19.0					21.4	94	8	WSW	33						
Total				34.4															

IDCJDW2123 201905 Prepared at 13:00 UTC on Friday 7 June 2019

3.0 Surface Water Monitoring

RMS is responsible for surface water quality monitoring post opening of the project to traffic (29th June 2018).

4.0 Sediment Basin Water Monitoring

No licensed sediment basins remain on the EPL 20533.

5.0 Noise Monitoring

During the operational phase of the project noise monitoring is conducted as required for Out of Hours (OOH) works and in relation to complaints. No out of hour works were undertaken or complaints received about construction works.

Refer to section 9.0 below for acoustic investigations.

6.0 Vibration Monitoring

Vibration monitoring was not undertaken in the reporting period. No vibration complaints were received during the reporting period.

7.0 Dust Monitoring

The last round of dust monitoring for the WC2NH project concluded on the 26/10/2018.

The two dust gauges were replaced by those associated with the Macksville Hospital Development (MHD) and DDG results will be relevant to the EPL 21155 issued to ACCIONA on 10th October 2018 for bulk earthworks associated with the MHD.

8.0 Groundwater Monitoring

RMS is responsible for groundwater quality monitoring post opening of the project to traffic (29th June 2018).

9.0 Acoustic Investigations

No acoustic investigations occurred during the month of May 2019 as no out of hours works occurred and no construction noise complaints received during the month of May 2019.

10.0 Complaints

10.1 Summary of Environmental Complaints

No construction environmental complaints were received during the reporting period.

Further to last months update regarding an oyster farmer at Nambucca River query, water quality monitoring results have been received from Mrs Wood Dam. RMS has passed this information onto James Ford (Oyster Farmer) with the results showing low levels of nutrients. Refer to Attachment A for results and comparison to ANZECC Criteria and 80th and 20th percentile values.

11.0 Non-Compliance

11.1 Summary of Non-compliances

No non-compliances occurred during the reporting period.

Attachment A

Table 1 – ALS results – Mrs Wood s Basin

Analytical Results

Sub Matrix: WATER (Matrix: WATER)		Client sample ID: Mrs Woods Basin			---	---	---	---
Client sampling date / time		07-May-2019 00:00			---	---	---	---
Compound	CAS Number	LGP	Unit	EB1911431-091	---	---	---	---
Result								
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	0.02	---	---	---	---
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-85-0	0.01	mg/L	<0.01	---	---	---	---
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-85-8	0.01	mg/L	<0.01	---	---	---	---
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	---	0.01	mg/L	<0.01	---	---	---	---
EK061G: Total Kjeldahl Nitrogen by Discrete Analyser								
Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.5	---	---	---	---
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
Total Nitrogen as N	---	0.1	mg/L	0.5	---	---	---	---
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	---	0.01	mg/L	0.03	---	---	---	---
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	---	---	---	---

Table 2 – Comparison of Mrs Woods Basin to ANZECC Criteria and 80th and 20th percentile values

Mr Wood Property

Location	Units	Levels of Concern		Nambucca RiverUpstream		Mrs Woods Basin
		ANZECC 2000 95% species protected				
Freshwater / Estuarine		ANZECC 2000 95% species protected				
Date of Sampling	07-05-19					
Time of Sampling		Freshwater	Marine			
Comments						
Type				80th %ile	20th %ile	Result
Laboratory data						
Nutrients						
Total Phosphorus	mg/L	0.05	0.03	0.07	0.02	0.03
Phosphate (reactive phosphorus)	mg/L	-	-	0.029	0.01	<0.01
Total Nitrogen	mg/L	0.5	0.3	0.46	0.2	0.5
Total Kjeldahl Nitrogen	mg/L	-	-	0.3	0.2	0.5
Nitrate	mg/L	0.7	-	0.04	0.01	<0.01
Nitrite	mg/L	-	-	0.02	0.01	<0.01