



Contractor



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Project **FORTH REPLACEMENT CROSSING**

Document title

**AIR QUALITY MONITORING REPORT
NOVEMBER 2018**

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Contents

- 1. Introduction**
- 2. Monitoring Equipment and Locations**
- 3. Air Quality Monitoring Results**
 - 3.1. Frisbee Dust Deposition Results**
 - 3.2. Daily Dust Log and Weekly Environmental Inspections**

Appendices:

Appendix A: Frisbee Dust Deposition Results

Appendix B: Daily Dust Log Summary



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1. INTRODUCTION

- 1.1.** Air quality monitoring is being undertaken by FCBC during the construction of the Forth Replacement Crossing and the associated road network. This final report details the air quality monitoring that is currently being undertaken across the site and presents the monitoring results for November and early December 2018.

- 1.2.** Air quality monitoring during this period has been undertaken in accordance with the Code of Construction Practice (CoCP) and the Dust and Air Quality Management Plan (DAQMP) contained within the Environmental Management Plan (EMP).

- 1.3.** The Queensferry Crossing opened to traffic at the end of August 2017. Therefore, the monitoring regime was reduced and a number of monitors removed.

- 1.4.** Due to the minor nature of work that remains to be undertaken on the project it was agreed that there is no longer a need to continue monitoring air quality. The final day of monitoring was the 5th December 2018.



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2. MONITORING EQUIPMENT AND LOCATIONS

2.1. Air quality is being monitored on site using Frisbee gauge dust deposition monitoring. Four Frisbee gauges are currently set up at sensitive locations across the site to measure dust deposition rates (Figure 1). Table 1 lists the air quality monitoring equipment present at each monitoring location, including the date it was installed.

2.2. Frequent environmental site inspections are also undertaken by members of the FCBC Environmental Department. These inspections include a dust check to assess the following:

- dust levels on site;
- suppression/dampening down; and
- transportation of materials.

2.3. During November, earthworks were carried out at the area between the South Abutment and Society Road to reinstate the area. FCBC undertook regular inspections of the work.



Figure 1: Example of an Installed Frisbee Gauge Meter

Table 1: Air Quality Monitoring Locations

Ref:	Monitoring Location	Monitoring Equipment	Installation Date	Activities in November 2018
M10	Inchgarvie Lodge	Frisbee	22/08/11	<ul style="list-style-type: none"> • South abutment works • Internal Bridge finishing Works • Earthworks at South abutment/Society Road
M11	Linn Mill	Frisbee	22/08/11	<ul style="list-style-type: none"> • South abutment works • Internal Bridge finishing Works
M12	Clufflat	Frisbee	29/08/11	<ul style="list-style-type: none"> • South abutment works • Internal Bridge finishing Works • Earthworks at South abutment/Society Road
M13	Clufflat Brae	Frisbee	21/09/11	



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3. AIR QUALITY MONITORING RESULTS

3.1. Frisbee Dust Deposition Results

3.1.1. The Frisbee dust deposition results for November 2018 have been presented in a chart and can be found in Appendix A. Three collections were made in November/December; these occurred on the 7th and 21st November, with the final collection on the 5th December.

3.1.2. The site action level for the dust deposition rate has been set at 250 mg/m²/day. Exceedances of this level are treated as a potential incident and a review of the works in the vicinity of the site is instigated. A lower site review level has been set at 140 mg/m²/day. Where concentrations exceed the lower review threshold the site works are reviewed to ensure good practice is implemented; it is essentially a warning that additional controls may be required.

3.1.3. During November and early December there were no exceedances of either the site review or action levels.

3.2. Daily Dust Log and Environmental Inspections

3.2.1. A summary of the daily dust log for November and early December can be found in Appendix B.



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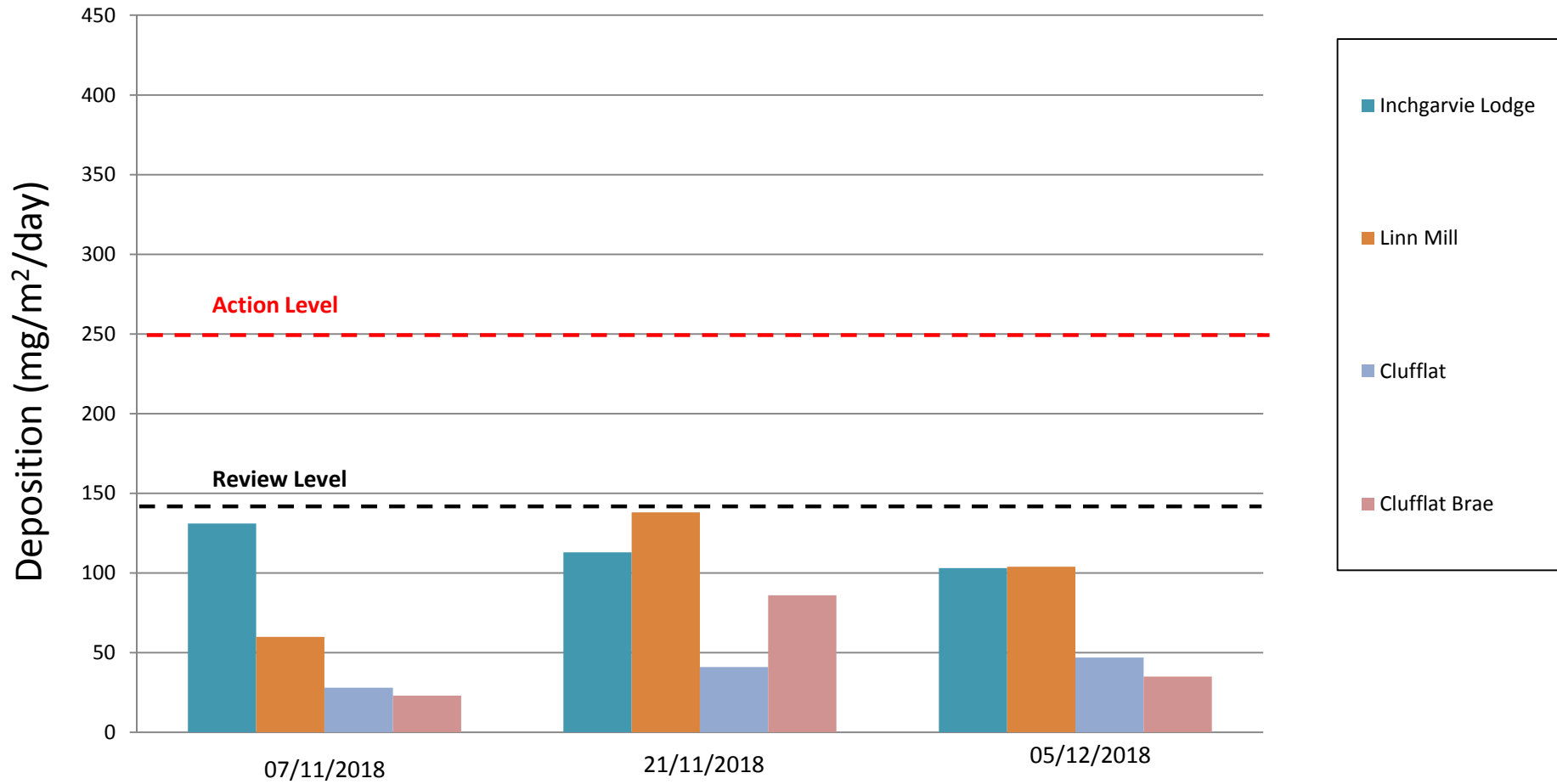
3.2.2. During this period, full environmental inspections were also undertaken across the site and covered areas where works were being carried out. Extra inspections were carried out at the area between the South Abutment and Society Road whilst earthworks were being undertaken. A hand-held PM₁₀ monitor was also used to measure levels of fine particulates during these inspections. It was noted that there were no visible signs of dust and levels on the device were low, between 7µg/m³ and 30 µg/m³. The monitoring was undertaken within the area of earthworks, so therefore in closer proximity to a dust source than any residential receptor.



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APPENDIX A: FRISBEE GAUGE RESULTS

Frisbee Dust Deposition Results: November 2018





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APPENDIX B: DAILY DUST LOG

Daily Dust Log - South - November 2018

DATE	LOCATION	WIND	WIND DIRECTION	GROUND SURFACE	VISIBLE DUST	DUST DUE TO WORKS (if applicable)	CAUSES OF DUST (if applicable)	COMMENTS AND ACTIONS
01/11/2018	S	LIGHT	S	WET	N			
02/11/2018	s	LIGHT	S	DAMP	N			
03/11/2018								
04/11/2018								
05/11/2018	S	LIGHT	S	DAMP	N			
06/11/2018	S	LIGHT	S	DRY	N			
07/11/2018	S	LIGHT	SW	DAMP	N			Observed works at area between the South Abutment and Society Road. No dust observed.
08/11/2018	S	LIGHT	SW	DAMP	N			
09/11/2018	S	LIGHT	S	DAMP	N			
10/11/2018								
11/11/2018								
12/11/2018	S	LIGHT	SW	WET	N			
13/11/2018	S	LIGHT	S	DAMP	N			
14/11/2018	S	LIGHT	SW	DAMP	N			
15/11/2018	S	LIGHT	SW	DRY	N			Observed works at area between the South Abutment and Society Road. No dust observed.
16/11/2018	S	LIGHT	SW	DRY	N			
17/11/2018								
18/11/2018								
19/11/2018	S	LIGHT	NW	DAMP	N			Observed works at area between the South Abutment and Society Road. No dust observed.
20/11/2018	S	LIGHT	NW	DAMP	N			
21/11/2018	S	LIGHT	NW	WET	N			
22/11/2018	S	LIGHT	S	DAMP	N			
23/11/2018	S	LIGHT	NW	DAMP	N			
24/11/2018								
25/11/2018								
26/11/2018	S	LIGHT	W	DAMP	N			
27/11/2018	S	LIGHT	SW	DAMP	N			
28/11/2018	S	LIGHT	SW	DAMP	N			
29/11/2018	S	LIGHT	S	DAMP	N			
30/11/2018	S	LIGHT	W	DAMP	N			

Daily Dust Log - South - December 2018

DATE	LOCATION	WIND	WIND DIRECTION	GROUND SURFACE	VISIBLE DUST	DUST DUE TO WORKS (if applicable)	CAUSES OF DUST (if applicable)	COMMENTS AND ACTIONS
01/12/2018								
02/12/2018								
03/12/2018	S	LIGHT	S	DRY	N			
04/12/2018	S	LIGHT	S	DAMP	N			
05/12/2018	S	LIGHT	SW	WET	N			