



Contractor



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Project **FORTH REPLACEMENT CROSSING**

Document title

**AIR QUALITY MONITORING REPORT  
OCTOBER 2018**

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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 report details the air quality monitoring that is currently being undertaken across the site and presents the monitoring results for October 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.



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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 October, 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 and during dry spells FCBC used a hand-held PM<sub>10</sub> device to monitor Air Quality levels in the area.



**Figure 1: Example of an Installed Frisbee Gauge Meter**

**Table 1: Air Quality Monitoring Locations**

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

### **3. AIR QUALITY MONITORING RESULTS**

#### **3.1. Frisbee Dust Deposition Results**

- 3.1.1.** The Frisbee dust deposition results for October 2018 have been presented in a chart and can be found in Appendix A. One collection was made in October; this occurred on the 17<sup>th</sup> October.
- 3.1.2.** The site action level for the dust deposition rate has been set at 250 mg/m<sup>2</sup>/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/m<sup>2</sup>/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 October 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 October can be found in Appendix B.



**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 PM<sub>10</sub> 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/m<sup>3</sup> and 30 µg/m<sup>3</sup>. The monitoring was undertaken within the area of earthworks so therefore in closer proximity to a dust source than any residential receptor. Photos of the monitoring can be found in Appendix C.

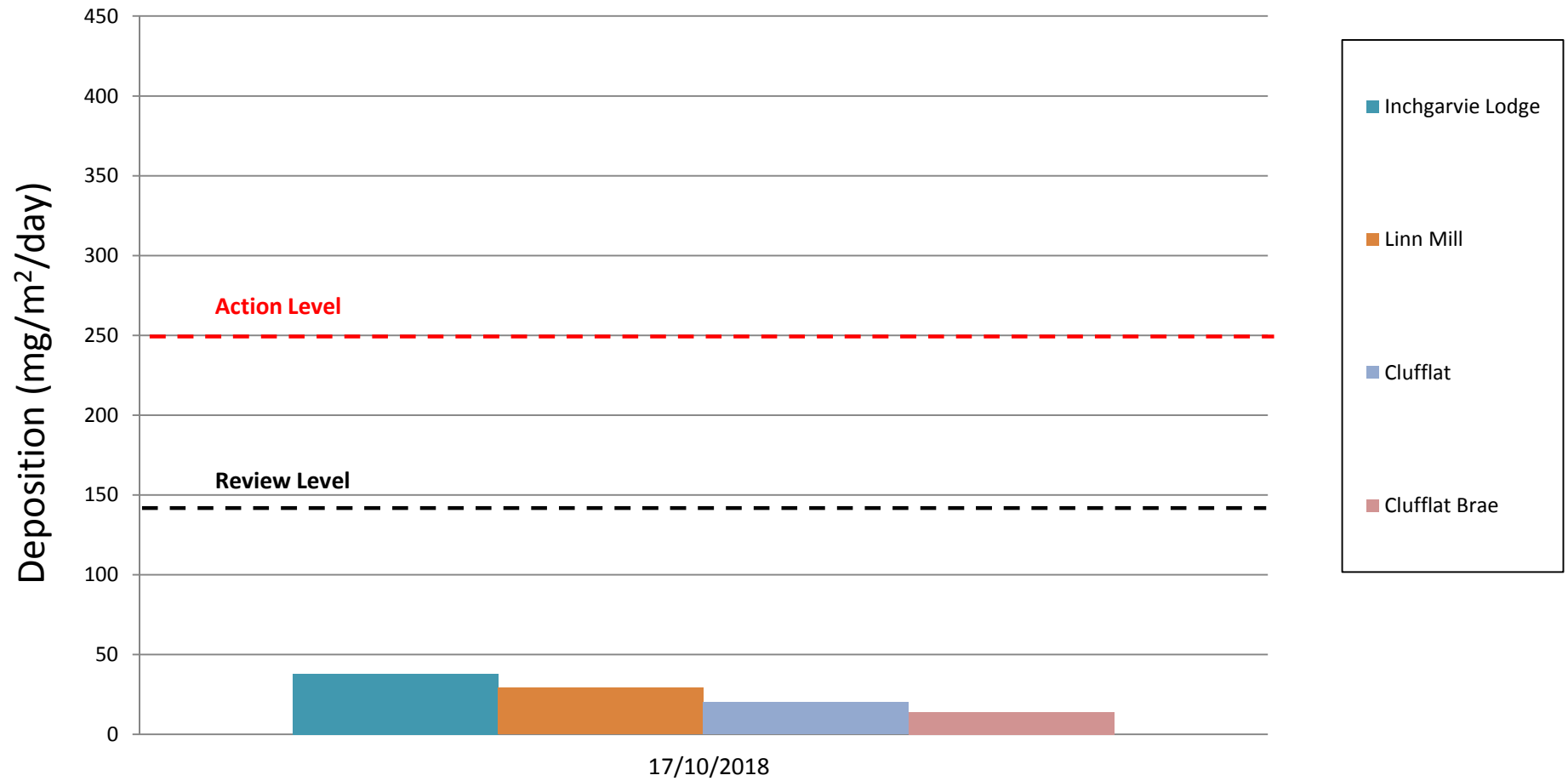




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## **APPENDIX A: FRISBEE GAUGE RESULTS**

# Frisbee Dust Deposition Results: October 2018





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## **APPENDIX B: DAILY DUST LOG**

### Daily Dust Log - South - October 2018

DATE	LOCATION	WIND	WIND DIRECTION	GROUND SURFACE	VISIBLE DUST	DUST DUE TO WORKS (if applicable)	CAUSES OF DUST (if applicable)	COMMENTS AND ACTIONS
01/10/2018	S	LIGHT	S	DRY	N			
02/10/2018	S	LIGHT	N	DAMP	N			
03/10/2018	S	LIGHT	N	DAMP	N			
04/10/2018	S	LIGHT	NE	DRY	N			
05/10/2018	S	LIGHT	SE	DRY	N			
06/10/2018								
07/10/2018								
08/10/2018	S	LIGHT	NE	WET	N			
09/10/2018	S	LIGHT	S	WET	N			
10/10/2018	S	LIGHT	NE	DRY	N			
11/10/2018	S	LIGHT	SE	WET	N			
12/10/2018	S	LIGHT	SE	WET	N			
13/10/2018								
14/10/2018								
15/10/2018	S	LIGHT	NW	DRY	N			
16/10/2018	S	LIGHT	S	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
17/10/2018	S	LIGHT	SW	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
18/10/2018	S	LIGHT	SW	DAMP	N			
19/10/2018	S	LIGHT	SW	DRY	N			
20/10/2018								
21/10/2018								
22/10/2018	S	LIGHT	SW	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
23/10/2018	S	LIGHT	SW	DRY	N			
24/10/2018	S	LIGHT	SW	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
25/10/2018	S	LIGHT	W	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
26/10/2018	S	LIGHT	NW	DRY	N			
27/10/2018								
28/10/2018								
29/10/2018	S	LIGHT	NE	DRY	N			observed works at area between the South Abutment and Society Road, No dust observed
30/10/2018	S	LIGHT	NE	DRY	N			
31/10/2018	S	LIGHT	S	DAMP	N			



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## **APPENDIX C: PHOTOGRAPHS**





