

104 Market Street Wollongong NSW 2500 Australia

# MONTLY SITE INSPECTION REPORT

February 2021 J153825-04

# NSW Department of Education

# Cringila Public School 35 Sheffield St, Cringila NSW 2502

C107471: TO

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# **Document Control**

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1	Electronic	Greg Mott	Senior Group Leader – School Infrastructure NSW





# **Monthly Site Inspection Report**

**Cringila Public School** 

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# 1. Site Inspection Checklist (completed by Greencap consultant)

Inspection Item	Yes	No	Action Required
<ul> <li>Were all areas of the site inspected?</li> <li>(see Appendix B)</li> <li>1. North-western hotspot area</li> <li>2. Western carpark &amp; garden</li> <li>3. Basketball courts &amp; play area</li> <li>4. Northern &amp; southern grassed areas</li> </ul>	V		Continue inspections of all areas of the site on a regular basis (weekly inspections for the north-western hotspot, monthly for other areas). Make note of any areas that are inaccessible at time of inspection.
Was the exclusion zone fencing surrounding the north-western hotspot area intact?	V		Continue inspections of exclusion zone fencing on a weekly basis. If exclusion zone fencing is not intact, take a photo and mark the area of concern. Inform the School Principal.
Was any evidence of subsidence or slope failure observed within the north-western hotspot area?		~	Continue inspections of north-western hotspot area on a weekly basis. If evidence of subsidence or slope failure is observed, take a photo and undertake spot monitoring for gases of concern. Inform the Greencap Project Managers (Sydney & Wollongong).
Was any visual or olfactory evidence of combustion (e.g. fumes, smoke, sulphurous smell) observed within the north-western hotspot area?		~	Continue inspections of north-western hotspot area on a weekly basis. If visual or olfactory evidence of combustion is observed, take a photo and undertake spot monitoring for gases of concern. Inform the Greencap Project Managers (Sydney & Wollongong).
Was any evidence of deteriorating vegetation observed within the north-western hotspot area?		V	Continue inspections of north-western hotspot area on a weekly basis. If evidence of deteriorating vegetation is observed, take a photo and inform the Greencap Project Managers (Sydney & Wollongong).
Was weekly near-surface temperature monitoring conducted within the north- western hotspot area?	√		Continue near-surface temperature monitoring on a weekly basis. If monitoring identifies concerningly high temperatures or rapid change in the spatial extent of the underground hotspot, inform the Greencap Project Managers (Sydney & Wollongong).
Was weekly ambient air quality monitoring conducted within the north-western hotspot area?	~		Continue ambient air quality monitoring on a weekly basis. If monitoring identifies concentrations of hazardous gases in exceedance of assessment criteria, inform the Greencap Project Managers (Sydney & Wollongong).
Was weekly indoor air quality monitoring conducted within school buildings?	~		Continue indoor air quality monitoring on a weekly basis. If monitoring identifies concentrations of hazardous gases in exceedance of assessment criteria, inform the Greencap Project Managers (Sydney & Wollongong).
Was monthly subsurface gas monitoring conducted within installed gas wells and service pits?	~		Continue subsurface gas monitoring on a monthly basis. If monitoring identifies concentrations of hazardous gases in exceedance of assessment criteria, inform the Greencap Project Managers (Sydney & Wollongong).

If at any time a Critical Incident or emergency occurs, follow the protocols set out in **Section 9** of the Interim Site Management Plan (ISMP Version 3, December 2018).



### 2. Discussion

### 2.1 Near-surface Temperature Monitoring

Near-surface temperature monitoring results for the month of February indicated that the spatial extent of the northwest hotspot appears to remain localised.

No significant near-surface temperature variations were identified during the period of monitoring.

# 2.2 Ambient Air Quality Monitoring

Ambient air quality monitoring results for the month of February did not indicate the presence of monitored gases in elevated concentrations; even at the source (i.e. the subsurface hotspot vent source).

Gases commonly associated with combustion (e.g. carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), volatile organic compounds, sulphur dioxide (SO<sub>2</sub>), hydrogen sulphide (H<sub>2</sub>S), methane (CH<sub>4</sub> – LEL), oxygen (O<sub>2</sub>), nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>), were not detected at concentrations that pose a risk to human health in the North-Western Hotspot area, including locations surrounding the hotspot.

# 2.3 Indoor Air Quality Monitoring

Indoor air quality monitoring results for the month of February did not indicate the presence of monitored gases in elevated concentrations.

Carbon dioxide (CO<sub>2</sub>) concentrations are compared against the ASHRAE Standard 62-2010 *Ventilation for Acceptable Indoor Air Quality* (American Society of Heating, Refrigeration and Air-Conditioning Engineers). Carbon monoxide (CO) concentrations are compared against the National Environment Protection (Ambient Air Quality) Measure (EPA 2016). Concentrations of carbon dioxide and carbon monoxide did not exceed the thresholds set by the adopted guidelines.

# 2.4 Subsurface Gas Monitoring

Subsurface gas monitoring results for the month of February did not indicate the presence of monitored gases in dangerously elevated concentrations.

The calculated Gas Screening Values for methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) indicated a Characteristic Gas Situation of CS1 ("Very Low Risk") in all monitoring wells. Results also indicated that gas emissions from service pits were below relative criteria and indicative of background concentrations.

# **2.5 Remediation Works**

Synergy Resource Management, the contractor engaged to undertake the hotspot remediation, have commenced works within the area. To date, these works have involved the installation of equipment on site, the demolition of small structures from the bottom of the embankment, and the drilling of soil nails into the embankment to provide slope stabilisation. Photographs of the site during these works can be seen in **Appendix A**.

These works have led to some disturbance of the hotspot area, including the removal of a number of temperature monitoring points. Greencap recommends that all monitoring continue during remediation, as further disturbances to the hotspot will occur.

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# Appendix A – Site Photographs







# Appendix B – Site Map

