

Wickham Wool Store Fire – Air Monitoring Program

A significant fire occurred at the former wool store buildings in Wickham on 1 March 2022. The fire was extinguished by Fire and Rescue NSW on 3 March 2022. A substantial multi-agency effort has been undertaken to respond to the fire and undertake clean-up activities associated with suspected asbestos containing debris.

This included an Air Monitoring Program which was undertaken whilst clean-up activities occurred from March to July 2022.

Further asbestos air monitoring will be undertaken in accordance with this Program, subject to certain weather conditions, after the clean-up, to provide ongoing assurance to local residents in areas impacted by the Wool Store Fire.

Introduction

An Emergency Operation Centre was established on 2 March 2022 to coordinate the ongoing multi-agency response to the incident. NSW Police initially led the incident response, with support from Fire and Rescue NSW, the Environment Protection Authority (EPA), Public Works Advisory, NSW Health, SafeWork NSW and the City of Newcastle Council.

On 16 March 2022, the Emergency Operation Centre transitioned to a Recovery Coordination Committee chaired by City of Newcastle Council, working with the EPA, Public Works Advisory, NSW Health and SafeWork NSW.

The Emergency Operations Centre was advised by Fire & Rescue NSW that the smoke plume fall-out was beyond the Wool Store Fire site in a north-westerly direction. This was modelled and based on relevant Bureau of Meteorology data as well as being verified by site inspections by Fire & Rescue NSW and other agencies. Further, the Environment Line received reports that fire debris, including suspected asbestos debris had travelled by air and landed in Wickham, Islington, Maryville, Georgetown, Mayfield, Tighes Hill and Waratah.

Asbestos containing materials were widely produced in Australia between the 1940s and 1980s. Respirable airborne asbestos fibres that are breathed in can pose a long-term health risk. Wetting of asbestos can prevent fibres from becoming airborne. Background levels in urban areas are typically <0.01 fibres/ml of air.

Daily airborne asbestos monitoring was established in affected areas from the day of the fire and continued until clean-up activities were completed in July 2022.

Based on the airborne asbestos monitoring results and site assessments to date, there has been no asbestos fibre detections above the limit of reporting (<0.01 fibres/ml of air) and no evidence to indicate that the community has been exposed to respirable airborne asbestos fibres above normal background levels from the Wool Store Fire. Air monitoring results during the period March to July 2022 can be found in **Appendix 1**.

Due to ongoing La Nina conditions, the east coast of Australia experienced large unseasonal rainfall events in 2022 which assisted in reducing the risk of potential asbestos fibres from the Wickham Wool Store Fire becoming airborne.

The Local Recovery Committee will conduct further reassurance asbestos air monitoring, post the clean-up activities, to confirm there is no increase above background asbestos levels in the impacted area and surrounding vicinity. This monitoring will be undertaken during Spring and Summer.

This program will provide reassurance to the community by monitoring the surrounding area impacted by the fire throughout 2022 and into 2023 as the weather begins to warm and/or become increasingly dry.

This program is a sub-plan under the Emergency Asbestos Management Plan (EAMP) developed by the Wickham Wool Store Fire Local Recovery Committee.

Methodology

Reassurance asbestos air monitoring will be event based. It will be undertaken up to four times in response to windy, dry conditions between July 2022 and February 2023.

Air monitoring will be undertaken using portable machines which will be specially deployed for 8 hours in the following locations:

- Milford Street
- Annie Street
- Norfolk Avenue
- Estell Street
- Islington Park

- Fern Street
- Rawson Street
- Waratah Park

The above streets have been identified as they were in close proximity to the fire and in line with the smoke plume during the fire. Further locations may be considered dependent upon weather conditions at the time of monitoring. Specific locations for placement of the air monitoring in the above locations will be determined by the independent licensed asbestos assessor.

Trigger criteria:

Windy conditions, where there has been 3 or more days of no rain and moderate breeze (>20km/hour) forecasted, will trigger the deployment of up to 10 air monitors in the above 8 locations across a 3km distance to the north east of the former Wool Store in the areas originally impacted by the smoke plume. Monitors will also be deployed to the south of the Wool Store if recommended by the independent licensed asbestos assessor.

A sample will be collected by drawing a measured quantity of air through a membrane filter using a sampling pump. Any breathable fibres are then sized and counted in accordance with a technical criteria, using specialist analytics equipment. The results will be shown as fibres per millilitre of air or below the limit of reporting if applicable.

The above trigger criteria will be implemented up to 4 times. This is to ensure varied hot dry windy conditions and wind directions have been examined.

Investigation Protocol

Once a sampling event is triggered, if fibres that have been sized and counted in accordance with the technical criteria and are detected above 0.01 fibres/ml of air, the filter sample will be sent to another National Association of Testing Authorities, Australia (NATA) accredited laboratory for further analysis to determine fibre type.

If asbestos fibres are confirmed, an assessment of the nearby area of the monitors will be undertaken to establish if other activities have taken place which may have caused the detection (renovations, illegal dumping of waste etc).

If asbestos containing debris is found on public land removal will be undertaken or addressed via the unexpected finds protocol under the existing Wickham Wool Store EAMP.

All airborne asbestos monitoring will be conducted by a licensed asbestos assessor in accordance with the “Membrane Filter Method for Estimating Airborne Asbestos Fibre” [NOHSC: 3003 (2005)] (Membrane Filter Method) with analysis undertaken by a NATA accredited laboratory.

Reporting

All sampling event results will be collated by the Environment Protection Authority (EPA) and published on the City of Newcastle webpage (www.newcastle.nsw.gov.au/wickhamfire). Results will be reported to the Newcastle Community Consultative Committee on the Environment, which is managed by the EPA.

Roles and Responsibilities

- Weather forecast observations – Environment Protection Authority
- Deploying air monitors – Licenced asbestos assessor and Environment Protection Authority
- Analysis of results – NATA accredited laboratory
- Collating results – Environment Protection Authority
- Reporting results – City of Newcastle

Appendix 1 – Air Monitoring Results to 23 July 2022

Air Monitoring Results to date			
Date	Monitoring Locations	Number of monitors in the community	Results
13 July 2022	Islington, Maryville, Wickham	20	Below detection limit
12 July 2022	Islington, Maryville, Wickham	19	Below detection limit
11 July 2022	Islington, Maryville, Wickham	20	Below detection limit
10 July 2022	Islington, Maryville, Wickham	18	Below detection limit
9 July 2022	Islington, Maryville, Wickham	18	Below detection limit
8 July 2022	Islington, Maryville, Wickham	20	Below detection limit
7 July 2022	Islington, Maryville, Wickham	20	Below detection limit
6 July 2022	Islington, Maryville, Wickham	20	Below detection limit
5 July 2022	Islington, Maryville, Wickham	20	Below detection limit
4 July 2022	Islington, Maryville, Wickham	20	Below detection limit
3 July 2022	Islington, Maryville, Wickham	18	Below detection limit
2 July 2022	Islington, Maryville, Wickham	18	Below detection limit

1 July 2022	Islington, Maryville, Wickham	14	Below detection limit
30 June 2022	Islington, Maryville, Wickham	22	Below detection limit
29 June 2022	Islington, Maryville, Wickham	22	Below detection limit
28 June 2022	Islington, Maryville, Wickham	22	Below detection limit
27 June 2022	Islington, Maryville, Wickham	22	Below detection limit
26 June 2022	Islington, Maryville, Wickham	18	Below detection limit
25 June 2022	Islington, Maryville, Wickham	18	Below detection limit
24 June 2022	Islington, Maryville, Wickham	21	Below detection limit
23 June 2022	Islington, Maryville, Wickham	22	Below detection limit
22 June 2022	Islington, Maryville, Wickham	22	Below detection limit
21 June 2022	Islington, Maryville, Wickham	22	Below detection limit
20 June 2022	Islington, Maryville, Wickham	22	Below detection limit
19 June 2022	Islington, Maryville, Wickham	18	Below detection limit
18 June 2022	Islington, Maryville, Wickham	17	Below detection limit
17 June 2022	Islington, Maryville, Wickham	21	Below detection limit

16 June 2022	Islington, Maryville, Wickham	22	Below detection limit
15 June 2022	Islington, Maryville, Wickham	22	Below detection limit
14 June 2022	Islington, Maryville, Wickham	22	Below detection limit
13 June 2022	Islington, Maryville, Wickham	18	Below detection limit
12 June 2022	Islington, Maryville, Wickham	18	Below detection limit
11 June 2022	Islington, Maryville, Wickham	18	Below detection limit
10 June 2022	Islington, Maryville, Wickham	22	Below detection limit
9 June 2022	Islington, Maryville, Wickham	22	Below detection limit
8 June 2022	Islington, Maryville, Wickham	22	Below detection limit
7 June 2022	Islington, Maryville, Wickham	22	Below detection limit
6 June 2022	Islington, Maryville, Wickham	22	Below detection limit
5 June 2022	Islington, Maryville, Wickham	18	Below detection limit
4 June 2022	Islington, Maryville, Wickham	18	Below detection limit
3 June 2022	Islington, Maryville, Wickham	22	Below detection limit
2 June 2022	Islington, Maryville, Wickham	22	Below detection limit

1 June 2022	Islington, Maryville, Wickham	22	Below detection limit
31 May 2022	Islington, Maryville, Wickham	22	Below detection limit
30 May 2022	Islington, Maryville, Wickham	22	Below detection limit
29 May 2022	Islington, Maryville, Wickham	18	Below detection limit
28 May 2022	Islington, Maryville, Wickham	18	Below detection limit
27 May 2022	Islington, Maryville, Wickham	26	Below detection limit
26 May 2022	Islington, Maryville, Wickham	26	Below detection limit
25 May 2022	Islington, Maryville, Wickham	26	Below detection limit
24 May 2022	Islington, Maryville, Wickham	16	Below detection limit
23 May 2022	Islington, Maryville, Wickham	21	Below detection limit
22 May 2022	Islington, Maryville, Wickham	18	Below detection limit
21 May 2022	Islington, Maryville, Wickham	18	Below detection limit
20 May 2022	Islington, Maryville, Wickham	26	Below detection limit
19 May 2022	Islington, Maryville, Wickham	26	Below detection limit
18 May 2022	Islington, Maryville, Wickham	26	Below detection limit

17 May 2022	Islington, Maryville, Wickham	26	Below detection limit
16 May 2022	Islington, Maryville, Wickham	26	Below detection limit
15 May 2022	Islington, Maryville, Wickham	18	Below detection limit
14 May 2022	Islington, Maryville, Wickham	18	Below detection limit
13 May 2022	Islington, Maryville, Wickham	26	Below detection limit
12 May 2022	Islington, Maryville, Wickham	26	Below detection limit
11 May 2022	Islington, Maryville, Wickham	26	Below detection limit
10 May 2022	Islington, Maryville, Wickham	26	Below detection limit
9 May 2022	Islington, Maryville, Wickham	26	Below detection limit
8 May 2022	Islington, Maryville, Wickham	18	Below detection limit
7 May 2022	Islington, Maryville, Wickham	18	Below detection limit
6 May 2022	Islington, Maryville, Wickham	26	Below detection limit
5 May 2022	Islington, Maryville, Wickham	25	Below detection limit
4 May 2022	Islington, Maryville, Wickham	25	Below detection limit
3 May 2022	Islington, Maryville, Wickham	26	Below detection limit

2 May 2022	Islington, Maryville, Wickham	26	Below detection limit
1 May 2022	Islington, Maryville, Wickham	18	Below detection limit
30 April 2022	Islington, Maryville, Wickham	18	Below detection limit
29 April 2022	Islington, Maryville, Wickham	29	Below detection limit
28 April 2022	Islington, Maryville, Wickham	28	Below detection limit
27 April 2022	Islington, Maryville, Wickham	29	Below detection limit
26 April 2022	Islington, Maryville, Wickham	26	Below detection limit
25 April 2022	Islington, Maryville, Wickham	18	Below detection limit
24 April 2022	Islington, Maryville, Wickham	18	Below detection limit
23 April 2022	Islington, Maryville, Wickham	18	Below detection limit
22 April 2022	Islington, Maryville, Wickham	26	Below detection limit
21 April 2022	Islington, Maryville, Wickham	26	Below detection limit
20 April 2022	Islington, Maryville, Wickham	26	Below detection limit
19 April 2022	Islington, Maryville, Wickham	26	Below detection limit
18 April 2022	Islington, Maryville, Wickham	18	Below detection limit

17 April 2022	Islington, Maryville, Wickham	18	Below detection limit
16 April 2022	Islington, Maryville, Wickham	18	Below detection limit
15 April 2022	Islington, Maryville, Wickham	18	Below detection limit
14 April 2022	Islington, Maryville, Wickham	26	Below detection limit
13 April 2022	Islington, Maryville, Wickham	26	Below detection limit
12 April 2022	Islington, Maryville, Wickham	26	Below detection limit
11 April 2022	Islington, Maryville, Wickham	26	Below detection limit
10 April 2022	Islington, Maryville, Wickham	23	Below detection limit
9 April 2022	Islington, Maryville, Wickham	22	Below detection limit
8 April 2022	Islington, Maryville, Wickham	26	Below detection limit
7 April 2022	Islington, Maryville, Wickham	26	Below detection limit
6 April 2022	Islington, Maryville, Wickham	26	Below detection limit
5 April 2022	Islington, Maryville, Wickham	26	Below detection limit
4 April 2022	Islington, Maryville, Wickham	26	Below detection limit
3 April 2022	Islington, Wickham	19	Below detection limit

2 April 2022	Islington	19	Below detection limit
1 April 2022	Islington, Maryville, Wickham	21	Below detection limit
31 March 2022	Hamilton North, Islington, Maryville, Tighes Hill, Wickham	34	Below detection limit
30 March 2022	Islington, Maryville, Mayfield, Wickham	32	Below detection limit
29 March 2022	Islington, Maryville, Tighes Hill, Wickham	34	Below detection limit
28 March 2022	Islington, Maryville, Wickham	34	Below detection limit
27 March 2022	Islington	19	Below detection limit
26 March 2022	Islington, Maryville, Wickham	33	Below detection limit
25 March 2022	Islington, Maryville, Wickham	28	Below detection limit
24 March 2022	Islington, Maryville, Wickham	34	Below detection limit
23 March 2022	Islington, Maryville, Wickham	36	Below detection limit
22 March 2022	Islington, Maryville, Wickham	33	Below detection limit
21 March 2022	Georgetown, Islington, Maryville, Wickham	38	Below detection limit
20 March 2022	Georgetown, Islington, Maryville, Waratah, Wickham	29	Below detection limit
19 March 2022	Georgetown, Islington, Maryville, Waratah, Wickham	29	Below detection limit

18 March 2022	Georgetown, Islington, Maryville, Waratah, Wickham	34	Below detection limit
17 March 2022	Islington, Mayfield, Tighes Hill, Wickham	30	Below detection limit
16 March 2022	Georgetown, Islington, Mayfield, Wickham	38	Below detection limit
15 March 2022	Islington, Mayfield, Waratah, Wickham	33	Below detection limit
14 March 2022	Islington, Georgetown, Waratah, Wickham, Hamilton North	43	Below detection limit
13 March 2022	Islington, Georgetown, Waratah, Wickham, Hamilton North	36	Below detection limit
12 March 2022	Islington, Georgetown, Waratah, Wickham	39	Below detection limit
11 March 2022	Islington, Georgetown, Waratah, Wickham	32	Below detection limit All clear
10 March 2022	Islington, Waratah, Wickham, Georgetown	35	Below detection limit
9 March 2022	Islington, Maryville, Waratah, Wickham	31	Below detection limit
8 March 2022	Islington, Maryville, Waratah, Wickham	26	Below detection limit
7 March 2022	Islington, Wickham, Tighes Hill, Maryville, Waratah	34	Below detection limit
6 March 2022	Islington, Maryville, Wickham	26	Below detection limit
5 March 2022	Islington, Wickham, Tighes Hill, Maryville	26	Below detection limit

4 March 2022	Islington, Wickham, Tighes Hill	27	Below detection limit
3 March 2022	Islington, Wickham	8	Below detection limit
2 March 2022	Islington, Wickham	13	Below detection limit