

NEWCASTLE-UNDER-LYME BOROUGH COUNCIL

EXECUTIVE MANAGEMENT TEAM'S REPORT TO CABINET

6 June 2023

Report Title: Walleys Quarry – Odour Issues

Submitted by: Chief Executive

Portfolios: Environment & Recycling; One Council, People & Partnerships

Ward(s) affected: All

Purpose of the Report

To update Cabinet on the latest position regarding the problematic odours in the Borough associated with Walleys Quarry including progress in relation to agreement reached following mediation with the operator.

RECOMMENDATIONS

Cabinet is recommended to:

- 1. Note the contents of this update report.**

Reasons

To ensure Cabinet is kept updated on the ongoing work regarding the problem odours associated with Walleys Quarry landfill. To note the current odour complaint and data available, which shows an improvement in the odour issue.

1. Background

- 1.1 For a number of years, parts of the borough have suffered from foul odours from the Walleys Quarry Landfill Site in Silverdale operated by Walleys Quarry Ltd, part of the RED Industries group of companies. The Environment Agency (EA) is the lead regulator for such sites, testing and enforcing compliance with the permit under which the site operates. The Council also has a role in influencing the operation and performance of such sites, where an operator fails to comply with actions required under an abatement notice issued by the Council in relation to any statutory nuisance caused by the site.
- 1.2 In March 2021, Council held an extraordinary meeting to receive the report of the Economy, Environment and Place Scrutiny Committee review into the Walleys Quarry issues, and to debate a motion demanding the immediate suspension of operations and acceptance of waste at the Walleys Quarry Landfill site.
- 1.3 Cabinet has received monthly updates on the issues relating to the odours, and Council has also been regularly updated.

2. Statutory Nuisance

- 2.1 Following extensive work, officers determined that the odours from the Walleys Quarry site amounted to a Statutory Nuisance and, on 13 August 2021, served an Abatement Notice on Walleys Quarry Ltd. (WQL).

- 2.2 The Abatement Notice afforded WQL a period of 5 months to abate the nuisance, with this timeframe being informed by discussion on the nature and extent of potential works required at the site with colleagues from the Environment Agency and with our own landfill and odour experts.
- 2.3 On 2 September 2021, WQL lodged an appeal against the Abatement Notice with the Magistrates Court. This has the effect of “stopping the clock” on the 5 month timeframe to abate the nuisance.
- 2.4 At the Cabinet meeting on 18 October 2022, Members received a report detailing the outcome of a mediation process that had been undertaken. The mediation process was guided by the former Supreme Court Judge and environmental law specialist the Right Honourable Lord Carnwath of Notting Hill. As a result of that process, the Council and WQL were able to agree terms for a settlement which enabled WQL to withdraw their appeal against the notice.
- 2.5 On 6 October 2022, His Honour District Judge Grego approved the settlement that the parties had reached, and issued a court order upholding the Abatement Notice and dismissing WQL’s appeal.
- 2.6 The 5 month compliance period ended at midnight on 5 March 2023 meaning that the notice can be enforced, should there be evidence to substantiate a breach and Walleys Quarry Ltd are not following best practice in operating the landfill site.
- 2.7 The Council will continue to assess the prevalence of odours off site. In the event that there are further instances of statutory nuisance identified which amount to a breach of the Abatement Notice, the Council’s Enforcement Policy will guide the process to be followed [Reference: [Environmental Health enforcement policy – Newcastle-under-Lyme Borough Council \(newcastle-staffs.gov.uk\)](https://www.newcastle-staffs.gov.uk/environmental-health-enforcement-policy)]. This would determine what action the Council would take, and whether that would be formal or informal. Enforcement is usually considered sequentially but should the circumstances or nature of the breach be such, escalation direct to prosecution is possible. The Council would need to obtain the consent of the Secretary of State before it is able to prosecute an offence of breaching an abatement notice, as the site is permitted by the Environment Agency.
- 2.8 Progress with key elements of the settlement agreement

As part of the Agreement, Council officers, including the Chief Executive are meeting with senior representatives of Walleys Quarry Limited (WQL) to ensure that all aspects of the agreement are implemented. Meetings are taking place on a regular basis with the outcome to date including:

- a. WQL have published a comprehensive set of its operational plans on its website in a publicly accessible format. [Reference: <https://walleysquarry.co.uk/site-permits-and-policies#MGMTPlans>]
- b. WQL notify any operational changes that may impact on odour emissions from the site. Notifications are published on the WQL ‘Latest Information’ webpage. In February advance notice was given by WQL of the installation of new vertical wells that had the potential to create short-lived odour emissions. [Reference: <https://walleysquarry.co.uk/#information>]
- c. A set of standard key performance indicators in a score card format monitor the performance of the operator. Further detail is provided in Section 6.
- d. The last Liaison Committee meeting took place on 16th March 2023 and a publically viewable recording of the meeting is available at the link below. Updates were provided

by Walleys Quarry Limited, Environment Agency, Staffordshire County Council, Borough Council, Silverdale Parish Council and resident representatives.

[Reference: <https://www.newcastle-staffs.gov.uk/walleys-quarry/latest-walleys-quarry-liaison-committee-video>] The next meeting is planned for June 2023.

- e. The agreement requires WQL to notify the Council of any written amendments to the listed Operational Plans/Procedures within 48 hours of such notification by the Environment Agency, and this has occurred in line with the agreement.
- f. In April 2023, Officers undertook a site visit and inspection of the landfill site, looking at the current on site operations.

3. **Complaint Data**

3.1 Below is a schedule of complaints received by the Council and by the Environment Agency over the last 3 months, on a weekly basis. Complaints rise and fall broadly in line with the H2S levels recorded at the four monitoring stations around the site, with higher levels of H2S generally causing more annoyance in the community. Historical complaint data is attached to this report as Appendix 1.

	Complaints to NuLBC	Complaints to Environment Agency
February 2023	13	66
30/01/23- 05/02/23		
06/02/23-12/02/23	26	115
13/02/23-19/02/23	7	39
20/02/23- 26/02/23	3	15
March 2023	7	13
27/2/23 – 05/03/23		
06/03/23 – 12/03/23	12	74
13/03/23 – 19/03/23	23	63
20/03/23 – 26/03/23	19	56
27/03/23 – 02/04/23	51	103
April 2023	45	152
03/04/23 – 09/04/23		
10/04/23-16/04/23	11	64
17/04/23-23/04/23	48	101
24/04/23 – 30/04/23	148	278
May 2023		
01/05/23 – 07/05/23	50	150
08/05/23 – 14/05/23	53	164
15/05/23 – 21/05/23	147	320
22/05/23 – 28/05/23	90	210

3.2 There are a number of odour events where complaints have increased (10 complaints and above):

- 07 & 08 April
- 17 April
- 22 April
- 24 to 29 April
- 01 & 02 May
- 09 May
- 15 to 23 May
- 25 & 26 May

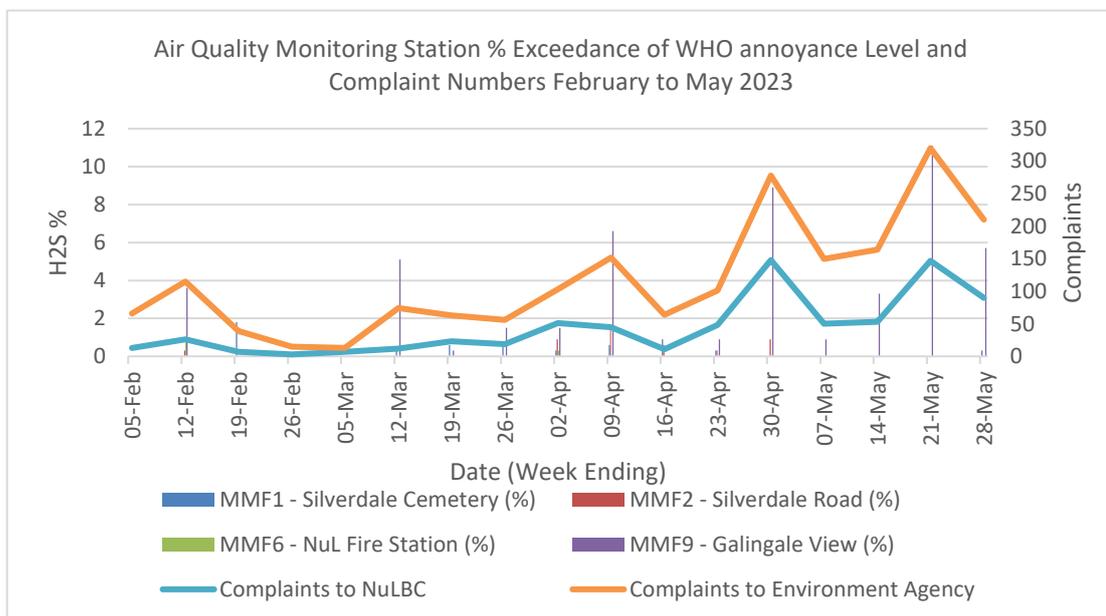
The highest number of odour reports during this two month period was received on 25 April 2023 when the Council received 47 complaints. The longest period where complaints have been consistently above 10 complaints was from 15 to 23 May 2023 (9 days).

4. Air Quality Monitoring Stations

- 4.1 The Council, Staffordshire County Council, and the Environment Agency are jointly funding a campaign of air quality monitoring utilising four static air monitoring stations. Data from these stations is reviewed to provide information in relation to two standards relating to Hydrogen Sulphide (H₂S) – the WHO Health threshold and the WHO odour annoyance guideline, with this analysis published by stakeholders.
- 4.2 Over the last 3 months, no H₂S concentrations were above the World Health Organisation’s health threshold (150 µg/m³, 24-hour average). H₂S levels were above the odour annoyance guideline level (7 µg/m³, 30-minute average) for the following percentages of each week. Historical data is attached to this report in Appendix 2.

Location	MMF1 - Silverdale Cemetery (%)	MMF2 - Silverdale Road (%)	MMF6 - NuL Fire Station (%)	MMF9 - Galingale View (%)
February 2023				
30/01/23- 05/02/23	0	0	0	0
06/02/23-12/02/23	0	0.3	0.9	3.6
13/02/23-19/02/23	1.8	0	0	0
20/02/23- 26/02/23	0	0	0	0
March 2023				
27/2/23 – 05/03/23	0	0	0	0
06/03/23 – 12/03/23	0.3	0	0	5.1
13/03/23 – 19/03/23	0.6	0	0	0.3
20/03/23 – 26/03/23	0.6	0	0	1.5
27/03/23 – 02/04/23	0.3	0.9	0.3	1.5
April 2023				
03/04/23 -09/04/23	0.6	1.5	0	6.6
10/04/23-16/04/23	0.9	0.6	0	0
17/04-23/04/23	0.3	0.3	0	0.9
24/04/23 – 30/04/23	0	0.9	0	8.9
May 2023				
01/05/23 – 07/05/23	0	0	0	0.9
08/05/23 – 14/05/23	0	0	0	3.3
15/05/23 – 21/05/23	0	0	0	11.1
22/05/23 – 28/05/23	0.3	0	0	5.7

4.3 The complaint and air quality data has been combined and shown in the graph below. The complaint numbers and % exceedance of the WHO annoyance level shows good correlation.



4.4 Each monitoring station (MMF) records the percentage exceedance over a week, which results in 16 readings over a 4 week period. In April, 0% was recorded for 37.5% of the time, a figure of <1% exceedance was recorded for 43.75% of the time and >1% exceedance was recorded for 18.75%. The peak % exceedance was for 8.9%, this is the highest level recorded since January 2023. It was noted that at MMF6 the Fire station consistently recorded 0% exceedance.

4.5 The EA reported in relation to the peak during week commencing 24 April that ‘MMF 9 recorded H2S concentrations above the World Health Organisation odour annoyance guideline value for periods on Monday, Tuesday and Friday evenings. We are investigating whether this was related to weather conditions or whether sources of fugitive releases increased during this period’.

4.6 In May the percentage of time above the World Health Organisation odour annoyance guideline level is exceeded each week at MMF9. This is a change in terms of trending as previously the percentage exceedance fluctuated across all four monitoring stations.

5. Environment Agency Regulatory and Enforcement Action

5.1 The Environment Agency has continued to provide weekly updates on their regulatory activity on the Walleys Quarry Landfill Citizens Space website. Please note that the EA have launched a brand new website for people interested in the regulation of Walleys Quarry Landfill Site. This will be replacing Citizen Space and can be accessed here: <https://engageenvironmentagency.uk.engagementhq.com/hub-page/walleys-quarry-landfill>.

These updates reflect regular EA officer presence at the site to review progress with the Contain Capture Destroy strategy. Extracts from the recent weekly updates are summarised below:

EA Site Visits –

28 April 2023 - unannounced inspection to assess general compliance with Walleys Quarry Ltd's environmental permit. Officers detected no odours either on or off-site during that inspection.

11 May 2023 - unannounced site inspection to assess general compliance with permit conditions, with a focus on landfill gas infrastructure.

18 May 2023 – site inspection with a focus on progress made in relation to infrastructure and to investigate potential fugitive emissions sources. Officers discussed increases of H₂S in MMF data in April and potential sources of fugitive emissions. No odour issues were identified during the inspection.

21 May 2023 – off-site odour monitoring assessment on the morning of 21 May 2023. Officers detected landfill gas odour at a distinct level of intensity at 3 locations. Officers are currently investigating to try and identify the cause.

Gas Capture - Data relating to the gas utilisation plant (GUP) the extraction rate and H₂S concentrations are recorded as follows:

News in Brief Date	Extraction Rate (m ³ /hr)	Hydrogen Sulphide Level at GUP (ppm)
06 April	3200	2190
14 April	3104	1850
21 April	3250	2520
27 April	3150	2430
05 May	3200	1920
11 May	3280	2090
18 May	3080	3840
25 May	3100	2060
01 June	3332	1990

During May the concentration of hydrogen sulphide increased significantly at the GUP to 3840 ppm at the GUP. The latest news update from the EA reports show that the level has reduced to 1990ppm.

EA Enforcement Action – “Following an audit in Spring 2022 which identified two major non-compliances, Walleys Quarry Ltd (WQL) submitted revised waste pre-acceptance and acceptance procedures, which we agreed in July 2022. After a period to allow for implementation onsite we audited compliance with these procedures for fines, classified as EWC 19 12 12, accepted between 1 August 2022 and 9 September 2022.

The audit identified two non-compliances with waste acceptance and management system permit conditions, which have been assessed as having a potentially significant impact on quality of life if not addressed promptly and adequately (Common Incidence Classification Scheme (CCS) 2). These are:

1. We are satisfied that WQL has accepted fines where the producer of the waste has not demonstrated that these fulfil relevant waste acceptance criteria, as appropriate basic characterisation was not completed. Supporting evidence of the basic characterisation, which is completed and provided by waste producers, did not demonstrate that the waste was non-hazardous and that it did not contain gypsum-based/high sulphate-bearing materials.
- The root cause of this non-compliance is WQL's failure to follow its agreed waste acceptance procedures, which form part of its written management system.

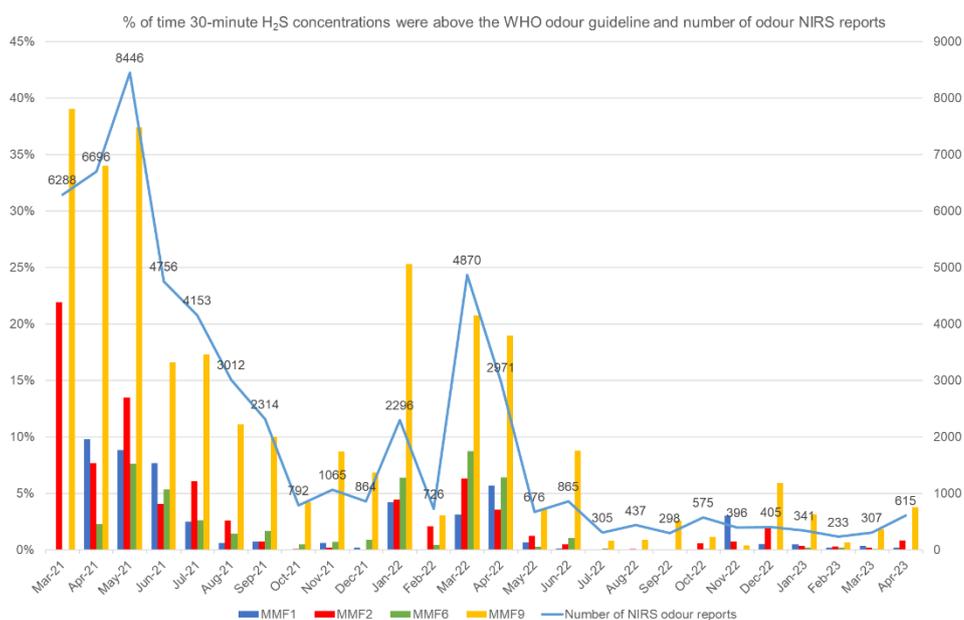
These non-compliances are recorded in a Compliance Assessment Report (CAR), which will be sent to WQL on Friday 05 May 2023. In the CAR we explain why we have assessed the reasonably foreseeable impact as significant. A high level of hydrogen sulphide (H₂S) in landfill gas is indicative of gypsum-based and/or other high sulphate-bearing materials in the deposited waste mass. The gas management procedures and infrastructure WQL has in place, measures we have required it to take, will mitigate high levels of H₂S. However, there remains the potential for fugitive emissions from the site. Such emissions are very difficult to mitigate unless the whole site has been permanently capped.

A Regulation 36 Enforcement Notice requiring WQL to comply with its waste acceptance procedures in future will be issued shortly after the CAR. The Notice will require WQL to complete waste stream authorisation assessments for fines it intends to accept, which consider total sulphate test information and the tonnage of the batch characterised. The audit and service of an Enforcement Notice are part of our ongoing regulation of the site, which is underpinned by our strategy to Contain, Capture and Destroy landfill gas to reduce emissions of H₂S at Walleys Quarry. This has been effective overall, and we will work to ensure progress is maintained.”

EA Plan to reduce hydrogen sulphide emissions - The latest plan (third review) has been published and is available as a link on the following page.
<https://engageenvironmentagency.uk/engagementhq.com/our-strategy>

April odours

The EA recognise ‘that there has been a noticeable increase in odour complaints towards the end of April. We are currently investigating whether this was related to weather conditions or whether sources of fugitive releases increased during this period. The graph below shows us the percentage of time H₂S concentrations were above the World Health Organisations (WHO) odour annoyance guideline value at each Mobile Monitoring Facility (MMF) between March 2021 and April 2023. This updates the graph recently provided as part of our community newsletter’.



6. NUL April & May Odour Complaints

- 6.1 Through April & May the complaint and monitoring data has increased on the previous month's data. In response to this matter the Council has undertaken the following actions:
- Analysed the complaint data and meteorological conditions in order to prioritise and undertake visits to monitor and assess the odour;
 - Completed odour monitoring during the day-time and out of hours;
 - During the out of hours visits Officers have contacted some complainants and visited to assess the odour in their property;
 - Officers have liaised with the operator and shared the results of the odour assessments in a timely manner to facilitate their own investigations
 - Undertaken a joint odour monitoring visit on 21 May 2023 with the Environment Agency
 - Worked with the EA to complete a review of data and information;
 - Worked with partner agencies with regard to health;
 - Liaised with Walleys Quarry Limited to request data and their investigations.
- 6.2 Prioritisation will be on identifying the root cause of the recent odour events. This investigation is ongoing. Officers will continue to witness odour events and work with partners. No conclusions will be made in relation to breaches of the abatement notice or any future enforcement action, until investigations have been completed.
- 6.3 In June, the leader will chair a meeting with leaders of partners organisations to ensure that the communities concerns regard the site are updated. Agencies will provide details of current activities. Newcastle will be committing to ongoing investigation.

7. Key Performance data

- 7.1 Through the settlement agreement both Walleys Quarry Ltd and the Council have developed key performance indicators in relation to relevant data from each organisation. These key performance indicators are shown in Appendix 3 and 4.
- 7.2 The data from the Council covers the period from February to May 2023, and provides complaint numbers, air quality data, H2S and officer assessments. Some of the data for May is unavailable and will be updated in subsequent reports.
- 7.3 The data from Walleys Quarry Limited covers the period April 2023 and provides data on waste acceptance, odour management, landfill operations, landfill gas management, leachate management and information relating to the EA regulator as the primary regulator of the site. The data is supported by explanatory notes, which will be contained within Appendix 4.

8. Proposal

- 8.1 **Cabinet is recommended to note the contents of this update report.**

9. Reasons for Proposed Solution

- 9.1 To ensure Cabinet is kept updated of the ongoing work to address the issues associated with the odours from Walleys Quarry landfill and to keep under review opportunities to further action.

10. Options Considered

- 10.1 To provide regular updates to Council.

11. Legal and Statutory Implications

11.1 Part III of the Environmental Protection Act 1990 is the legislation concerned with statutory nuisances in law. This is the principal piece of legislation covering the Council's duties and responsibilities in respect of issues relating to odour nuisance:-

- The Environmental Protection Act 1990, section 79 sets out the law in relation to statutory nuisance. This is the principal piece of legislation covering the Council's duties and responsibilities in respect of issues relating to odour nuisance.
- The relevant part of Section 79 defines a statutory nuisance as any smell or other effluvia arising on industrial, trade or business premises which is prejudicial to health or a nuisance. The Council is responsible for undertaking inspections and responding to complaints to determine whether or not a statutory nuisance exists.
- Where a statutory nuisance is identified or considered likely to arise or recur, section 80 of the Act requires that an abatement notice is served on those responsible for the nuisance. The abatement notice can either prohibit or restrict the nuisance and may require works to be undertaken by a specified date(s).
- It is then a criminal offence to breach the terms of the abatement notice. Because the site is regulated by the Environment Agency under an Environmental Permit, the council would need to obtain the consent of the Secretary of State before it is able to prosecute any offence of breaching the abatement notice.
- The Act provides powers in respect of a breach. If a person on whom an abatement notice is served, without reasonable excuse, contravenes or fails to comply with any requirement or prohibition imposed by the notice, they shall be guilty of an offence. If this is on industrial, trade or business premises shall be liable on conviction to a unlimited fine. It is a defence that the best practicable means were used to prevent, or to counteract the effects of, the nuisance.

12. Equality Impact Assessment

12.1 The work of the Council in this regard recognises that the problematic odours in the area may impact on some groups more than others. The work is focussed on minimising this impact as soon as possible.

13. Financial and Resource Implications

13.1 Dedicated officer resource has been allocated to continue the Council's work regarding Walleys Quarry Landfill.

13.2 From April 2023 there is £100k reserved for legal action associated with Walley Quarry landfill site. In the event that formal action is required, a separate report will be brought to full Council to approve additional funds.

14. Major Risks

14.1 A GRACE risk assessment has been completed including the following main risks:

- Failure to achieve a reduction in odour levels;
- Community dissatisfaction at odour levels;
- The ability to take enforcement action against abatement notice;
- Failure to evidence a breach of the abatement notice;

- Secretary of State refuses permission to undertake prosecution proceedings.

14.2 Controls have been identified and implemented in order to control these risks, the main controls include:

- Provisions in settlement agreement ensures greater transparency for public;
- Provisions in settlement agreement ensures regular meetings with Walleys Quarry which enable issues to be discussed;
- Dedicated officer resource for Walleys Quarry work has been secured;
- Continued air quality monitoring provision;
- Robust procedure for investigating complaints with experienced officers;
- Specialist expert advice maintained;
- Multi-Agency partnership working continues.

15. Unsustainable Development Goals (UNSDG)



16. Key Decision Information

16.1 As an update report, this is not a Key Decision.

17. Earlier Cabinet/Committee Resolutions

17.1 This matter has been variously considered previously by Economy, Environment & Place Scrutiny Committee, Council and Cabinet on 21 April 2021, 9th June 2021, 7th July 2021, 21st July 2021, 8th September 2021, 13th October 2021, 3rd November 2021, 17th November, 1st December 2021, 12th January 2022, 2nd February 2022, 23rd February 2022, 23rd March 2022, 20th April 2022, 7th June 2022, 19th July 2022, 6th September 2022, 18th October 2022, 8th November 2022, 6th December 2022, 10th January 2023, 7th February 2023, 13th March 2023, 5th April 2023.

18. List of Appendices

- 18.1 Appendix 1. Historical Complaint data
- 18.2 Appendix 2. Historical Monitoring Station data
- 18.3 Appendix 3. NUL Key Performance Data
- 18.4 Appendix 4. WQL Key Performance Data

Appendix 1. Historical Complaint Data

	Complaints to NuLBC	Complaints to Environment Agency
January 2022 3/1/22- 9/1/22	73	352
10/1/22 -16/1/22	258	1045
17/1/22 -23/1/22	134	651
24/1/22 – 30/1/22	25	139
February 2022 31/1/2 – 6/2/22	16	64
7/2/22 – 13/2/22	31	120
14/2/22 – 20/2/22	49	166
21/2/22 – 27/2/22	40	264
March 2022 28/2/22 – 6/3/22	118	571
7/3/22 – 13/3/22	72	285
14/3/22 – 20/3/22	224	1126
21/3/22 – 27/3/22	412	1848
28/3/22 – 3/4/22	243	1072
April 2022 4/4/22 -10/4/22	132	895
11/4/22 – 17/4/22	156	752
18/4/22 – 24/4/22	65	310
25/4/22 – 1/5/22	49	213
May 2022 2/5/22 – 8/5/22	39	193
9/5/22 – 15/5/22	35	160
15/5/22 – 21/5/22	43	134
22/5/22 – 29/5/22	20	81
June 2022 30/5/22 – 5/6/22	27	169
6/6/22 – 12/6/22	42	234
13/6/22 – 19/6/22	25	263

20/6/22 – 26/6/22	28	208
26/6/22 – 2/7/22	9	54
July 2022 3/7/22 – 9/7/22	4	34
10/7/22 – 16/7/22	14	72
17/7/22 – 23/7/22	21	52
24/7/22 – 30/7/22	12	93
August 2022 31/7/22 – 6/8/22	22	124
7/8/22 – 13/8/22	32	133
14/8/22 – 21/8/22	11	79
22/8/22 – 28/8/22	12	89
29/8/22 – 4/9/22	10	30
September 2022 5/9/22 – 11/9/22	9	64
12/9/22 – 18/9/22	13	83
19/9/22 – 25/9/22	14	79
26/9/22 – 2/10/22	13	58
October 2022 3/10/22 – 9/10/22	42	102
10/10/22 – 16/10/22	52	165
17/10/22 – 23/10/22	73	186
24/10/22 – 30/10/22	30	82
November 2022 31/10/22 – 6/11/22	27	116
7/11/22 – 13/11/22	23	86
14/11/22 – 20/11/22	60	113
21/11/22- 27/11/22	28	70
28/11/22 – 4/12/22	19	47
December 2022 5/12/22 – 11/12/22	43	163
12/12/22 – 18/12/22	22	114
19/12/22 – 25/12/22	12	45
26/12/22 – 01/01/23	11	39
January 2023	12	32

02/01/23 – 08/01/23		
09/01/23 – 15/01/23	13	25
16/01/23 – 22/01/23	47	118
23/01/23 – 29/01/23	51	149
February 2023 30/01/23- 05/02/23	13	66
06/02/23-12/02/23	26	115
13/02/23-19/02/23	7	39
20/02/23- 26/02/23	3	15
March 2023 27/2/23 – 05/03/23	7	13
06/03/23 – 12/03/23	12	74
13/03/23 – 19/03/23	23	63
20/03/23 – 26/03/23	19	56
27/03/23 – 02/04/23	51	103
April 2023 03/04/23 – 09/04/23	45	152
10/04/23-16/04/23	11	64
17/04/23-23/04/23	48	101
24/04/23 – 30/04/23	148	278
May 2023 01/05/23 – 07/05/23	50	150
08/05/23 – 14/05/23	53	164
15/05/23 – 21/05/23	147	320
22/05/23 – 28/05/23	90	210

Appendix 2. Historical Monitoring Station Data - Weekly percentage of time that each monitoring station location has recorded hydrogen sulphide concentrations above WHO odour annoyance guideline level (7 µg/m³).

Location	MMF1 - Silverdale Cemetery (%)	MMF2 - Silverdale Road (%)	MMF6 - NuL Fire Station (%)	MMF9 - Galingale View (%)
19/4/21 – 25/4	18	8	4	21
26/4 – 2/5	4	10	13	35
3/5 – 9/5	6	21	6	48
10/5 – 16/5	15	20	1	10
17/5 – 23/5	1	9	10	53
24/5 – 30/5	7	15	16	47
31/5 – 6/6	30	1	6	18
7/6 – 13/6	1	10	10	19
14/6 – 20/6	11	7	9	13
21/6 – 27/6	2	1	4	12
28/6 – 4/7	1	8	8	10
5/7 – 11/7	5	18	3	17
12/7 – 18/7	0.4	2.4	2.1	23
19/7 – 26/7	3.6	0	3.6	16
27/7 – 1/8	1.8	1.5	11	26
2/8 – 8/8	1	4	5	10
9/8 – 15/8	0.3	7	3	6
16/8 – 22/8	1	1	4	6
23/8 – 29/8	0	0	1.5	17
30/8-5/9	0	0	0.3	2.1
6/9 -12/9	0	1	13	18
13/9 – 19/9	0	0.6	7.3	11.7
20/9- 26/9	3	2	6	11
27/9-3/10	0	0	0	0.3
4/10 – 10/10	0	0	0.3	5
11/10 – 17/10	0	0.5	1.5	9
18/10-24/10	0	0	0	1.5
25/10-31/10	0	0	0	0
1/11 – 7/11	2.9	0	3.3	13.5
8/11 – 14/11	0	0	1	10
15/11 – 21/11	0	0	0	1.2
22/11-28/11	0	0	0	11
29/11-5/12	0.6	0.9	0	9
6/12 – 12/12	0.6	0	0.9	2.4
13/12-19/12	0.9	0	3	18.5
20/12-26/12	0	0	0	3
27/12-2/1	0	0	0	2.4
3/1-9/1	1.2	0	2.1	16.2
10/1-16/1	14.9	11.9	21.4	53.3
17/1-23/1	6	7	10	41
24/1 – 30/1	0	0	0	5.1
31/1-6/2	0	0	0	0

7/2 – 13/2	0	0	0.9	2.4
14/2 – 20/2	0	3.6	0.3	2.4
21/2 – 27/2	0	4.8	0.6	8.0
28/2 – 6/3	2.4	0	0.3	15
7/3 – 13/3	0.3	3.3	4.2	6.0
14/3-20/3	3.3	8.1	10.8	21.2
21/3-27/3	6.8	10.1	21.1	43.2
28/3 – 3/4	1.9	9.3	18.8	25.2
4/4-10/4	1.8	2.5	6.1	26.0
11/4 – 17/4	11.9	6.6	9.6	19.7
18/4 - 24/4	7.1	1.8	2.7	10.4
25/4 -1/5	5.1	0	1.5	9.0
2/5 – 8/5	2.7	4.8	n/a	n/a
9/5 – 15/5	0.9	1.2	0	1.8
15/5 – 21/5	0.6	2.1	0	2.7
22/5 – 29/5	0.3	0	0	0.9
30/5 – 5/6	0.3	0	1.2	7.4
6/6 – 12/6	0.3	0.6	2.1	3.6
13/6 – 19/6	0	0.6	0.6	11
20/6 – 26/6	0	0.9	0.3	15.5
26/6 – 2/7	0	0	0	0
3/7 – 9/7	0	0	0	0
10/7 – 16/7	0	0	0	0.9
17/7 – 23/7	0	0	0.3	1.5
24/7 – 30/7	0	0	0.3	1.2
31/7 – 6/8	0	0	0	1.5
7/8 – 13/8	0	0	0	1.8
14/8 – 21/8	0	0	0	0.6
22/8 – 28/8	0	0.3	0	0
29/8 – 4/9	0	0	0	0
5/9 – 11/9	0	0	0	4.2
12/9 – 18/9	0	0.3	0	2.9
19/9 – 25/9	0	0	0	1.8
26/9 – 2/10	0	0	0	4.2
3/10 - 9/10	0	0.4	0	3.7
10/10 – 16/10	0	1.9	0	0
17/10 – 23/10	0	0.6	0.3	1.5
24/10 – 30/10	0	0	0	0
31/10 – 6/11	0	2.2	0	1.8
7/11 – 13/11	0	0	0	0
14/11 – 20/11	4.5	1.2	0	0
21/11 - 27/11	4.5	0	0	0
28/11 – 4/12	0	0	0	0.6
5/12 – 11/12	1.5	5.1	0	14.3
12/12 – 18/12	1.2	3.6	0	11.6
19/12 – 25/12	0.6	0	0	0
26/12 – 01/01	0	0	0	0

02/01 – 08/01	1.8	1.2	0	0
09/01 – 15/01	0	0.3	0	0
16/01 – 22/01	0.3	0.3	0	11.1
23/01 – 29/01	0	0	0	4.8
30/01- 05/02	0	0	0	0
06/02-12/02	0	0.3	0.9	3.6
13/02-19/02	1.8	0	0	0
20/02- 26/02	0	0	0	0
27/2 – 05/03	0	0	0	0
06/03– 12/03	0.3	0	0	5.1
13/03 – 19/03	0.6	0	0	0.3
20/03 – 26/03	0.6	0	0	1.5
27/03 – 02/04	0.3	0.9	0.3	1.5
03/04-09/04	0.6	1.5	0	6.6
10/04-16/04	0.9	0.6	0	0
17/04-23/04	0.3	0.3	0	0.9
24/04-30/04	0	0.9	0	8.9
01/05–07/05	0	0	0	0.9
08/05–14/05	0	0	0	3.3
15/05– 21/05	0	0	0	11.1
22/05–28/05	0.3	0	0	5.7

Appendix 3 – NUL Key Performance Indicators

NULBC		Information	Measurement	Feb 2023	March 2023	April 2023	May 2023
KPI 1	COMPLAINTS	Complaints reported to NULBC	Number	47	108	253	353
				Number of unique properties = 25	Number of unique properties = 55	Number of unique properties = 203	Number of unique properties = 276
				Rating 0 = 0 complaints	Rating 0 = 0 complaints	Rating 0 = 0 complaints	Rating 0 = 0 complaints
				Rating 1 = 1 complaints	Rating 1 = 1 complaint	Rating 1 = 0 complaint	Rating 1 = 0 complaints
				Rating 2 = 1 complaints	Rating 2 = 0 complaints	Rating 2 = 1 complaints	Rating 2 = 8 complaints
				Rating 3 = 11 complaints	Rating 3 = 16 complaints	Rating 3 = 40 complaints	Rating 3 = 39 complaints
				Rating 4 = 8 complaints (17%)	Rating 4 = 35 complaints (32.4%)	Rating 4 = 57 complaints (22.5%)	Rating 4 = 64 complaints (18.1%)
				Rating 5 = 10 complaints (21.3%)	Rating 5 = 26 complaints (24.1%)	Rating 5 = 71 complaints (28.1%)	Rating 5 = 118 complaints (33.4%)
				Rating 6 = 16 complaints (34%)	Rating 6 = 30 complaints (27.8%)	Rating 6 = 84 complaints (33.2%)	Rating 6 = 124 complaints (35.1%)
				% of complaints reporting odour entering the property = 35 complaints (74.5%)	% of complaints reporting odour entering the property = 84 complaints (77.8%)	% of complaints reporting odour entering the property = 194 complaints (76.7%)	% of complaints reporting odour entering the property = 315 complaints (89.2%)
				% of complaints reporting health effects = 36 complaints (76.6%)	% of complaints reporting health effects = 78 complaints (72.2%)	% of complaints reporting health effects = 200 complaints (79.1%)	% of complaints reporting health effects = 235 complaints (66.6%)

KPI 2		Complaints reported (daytime 07:00-23:00)	Number	41	82	199	271
KPI 3		Complaints reported (night-time 23:00-07:00)	Number	6	26	54	82
KPI 4		Highest number of complaints during the period	Date (number of complaints)	06/02/23 (9 complaints) 07/02/23 (9 complaints)	27/03/23 (31 complaints)	25/04/23 (47 complaints)	21/05/23 (34 complaints)
		Information	Measurement				
KPI 5	AIR QUALITY	Percentage exceedance Odour Annoyance Guideline (Hydrogen Sulphide 30 minute average)	%	0.2	0.3	0.2	Awaiting data
				0.3	0.2	0.8	
				0.2	0.1	0.3	
				0.7	2	3.8	
KPI 6		Monthly Average H ₂ S	ug/m3 over the month	0.7	1	1.1	Awaiting data
				0.8	0.9	0.9	
				0.6	0.6	0.5	
				0.8	0.7	1.2	
KPI 7	H ₂ S PEAK LEVEL	Level measured	ug/m3	MMF1	17.18 (10/03)	32.85 09/04	Awaiting data

		over a 5 minute period Date & Time		19.6 (15/02 01:20)	22:35)	04:40)	
				MMF2 14.55 (07/02 18:15)	19.43 (27/03 19:00)	20.50 (25/04 06:00)	
				MMF6 11.25 (07/02 20:15)	11.05 (27/03 05:45)	6.47 (04/04 05:30)	
				MMF9 11.17 (06/02 23:20)	32.30 (08/03 02:55)	58.83 (25/04 23:10)	
		Information	Measurement				
KPI 8	OFFICER ASSESSMENTS	Odour Rating - Officer odour assessment (5 minute)	Max Odour Rating	KPI not reported as the monitoring time < 5 minutes for each assessment	7 assessments on 27/03	8 assessments 04/04 1 assessment 06/04 1 assessment 08/04 12 assessments 27/04 3 assessments 29/04	4 assessments 5/05 1 assessment 6/05 2 assessments 13/05 2 assessments 18/05 1 assessment 19/05 17 assessments 21/05 2 assessments 25/05