

TONBRIDGE & MALLING BOROUGH COUNCIL

STREET SCENE and ENVIRONMENT SERVICES ADVISORY BOARD

03 September 2018

Report of the Director of Planning, Housing & Environmental Health

Part 1- Public

Matters for Information

1 FORMER JOCO PIT – LANDFILL GAS INVESTIGATION

SUMMARY

1.1 In February 2018 the Council began a detailed landfill gas investigation at the former Jocopits site in Borough Green in response to sustained elevated Methane and Carbon Dioxide readings at one monitoring borehole. The initial investigation established elevated levels were restricted to the single borehole (BH2). The gas risk for the majority of the site has been confirmed as ‘very low’ to ‘low’ with only BH2 where elevated levels were discovered and BH201 installed 1 meter away from BH2 presenting a ‘moderate’ risk. As such the site does not need to be declared as a ‘Special Site’ under Part 2A of the Environmental Protection Act 1990.

1.2 Background

1.2.1 The site formerly known as Joco Pit is a closed landfill site which now consists of the residential roads Tolsey Mead and Eaglestone Close in Borough Green. The site lies to the north of Borough Green, on the east side of Wrotham Road.

1.2.2 In 1991 eight borehole monitoring points were installed across the site, as part of a joint initiative between the Council and KCC. Over the years all but two of the boreholes became unusable but the Council continued to monitor for landfill gas. In June 2017 officers noticed concentrations of landfill gas noticeably higher than those recorded in recent years at one of the two remaining boreholes (BH2). Concentrations did not fall as expected, but an increasing trend appeared.

1.2.3 Leap Environmental Limited were employed to undertake a desktop study which concluded further investigation was needed to establish whether there were potentially unacceptable risks from the perspective of Part 2A of the Environmental Protection Act 1990, relating to ground gases. In February 2018 following resident’s consultation, eight additional boreholes were installed across the site which were initially fitted with continuous gas analysers to provide data for 1 month. This was then followed by spot monitoring weekly for a further 2 months.

- 1.2.4 At the end of enhanced monitoring, no elevated methane or carbon dioxide levels were established in the new boreholes and the investigation concluded that the gas risk characterisation for the site was 'very low' to 'low'. This was conveyed to Street Scene Board members in a briefing note dated 25 July 2018 (copy attached in **Annex 1**) as well as to all residents on the Jocopit site.
- 1.2.5 Whilst imminent risk has been ruled out, following Leap Environmental's advice, officers have continued to monitor all site boreholes monthly for the past 12 months with no fluctuations in gas levels of note.
- 1.2.6 In addition, whilst pursuing the investigation into gas levels in the original borehole BH2, which continue to be elevated, officers followed Leap Environmental advice and arranged the installation of a further borehole (BH201) just 1 meter away from BH2, and for soil vapour sampling to be undertaken from BH2.

1.3 Final conclusions

- 1.3.1 Standard monitoring across the site has now been ongoing for the past year without incident, and the gas risk for the majority of the site remains 'very low' to 'low' with the exception of BH2 and BH201 which have been characterised as 'moderate' risk due to identified methane and carbon dioxide levels.
- 1.3.2 To further investigate this risk, soil vapour gas samples have also been taken on four occasions over the past year from BH2 (and once from BH201). Soil vapour sampling aids in the determination of the exact properties of the gas being produced. The results of the vapour sampling suggest the gas levels in BH2 are more likely to be hydrocarbon in nature rather than from landfill. This would fit with BH2 and BH201's locations in the road at Tolsey Mead where they may act as a sump to any petrol/diesel spills in wet weather.
- 1.3.3 Site specific assessment criteria for vapours were determined by Leap based on national guidance, and none of the recorded concentrations within BH2 and BH201 exceeded these criteria. The location of BH2 and BH201 are also in the road and not within the boundary of any dwelling.
- 1.3.4 Taking all factors into account, Leap have concluded that evidence to date demonstrates that the site does not need to be classed as a 'special site' under Part 2A of the Environmental Protection Act 1990. However, monitoring on a quarterly basis should continue to ensure the gas regime beneath the site remains the same as/is no worse than that recorded during the past 18 months.
- 1.3.5 The Council has at its disposal monitoring equipment and sufficient staffing resource to carry this ongoing monitoring out in house at this time.
- 1.3.6 A copy of the Updated Gas and Soil Vapour Risk Assessment dated 24th June, can be supplied upon request.

1.4 Lessons Learned

- 1.4.1 The Council has been monitoring land fill gas levels at the former Jocopits site since 1991 however over the years it allowed monitoring locations to dwindle from 8 to just 2 as boreholes became lost through roadworks and overgrown vegetation, and broken due to earth movements. In hindsight this is because no elevated gas levels of concern were noted and it was not deemed necessary to renew the lost/broken sites. Unfortunately with the discovery of elevated gas levels in one borehole a lack of site coverage meant that no detailed risk assessment could be produced without further monitoring locations being installed.
- 1.4.2 To avoid such reactive measures at the Priory Wood site in Tonbridge (a former landfill now a public open space) where we have also monitored gas levels since the late 1980's and which is owned by the Borough Council, we have undertaken to renew lost/broken monitoring boreholes there. Works are about to begin at the time of writing, and it is envisaged monitoring at the site will continue as a precaution for many years to come. The owners of a much smaller site referred to as Paris Farm near Hadlow which is wholly privately owned, but where the Council has also monitored over the years will also be contacted outlining our actions at Jocopits and Priory Wood.
- 1.4.3 Going forward as it is a recommendation of the Leap report to continue monitoring at the former Jocopits site, and officers will make the case for renewing boreholes, should those installed in 2018 become unusable.
- 1.4.4 On commencement of this detailed investigation, given the location and the number of residents potentially exposed, an internal steering group was set up including members of the EP Team, The Directors of PHEH and SSL, officers from Finance and Media Comms as well as a representative from our consultants. This group proved invaluable in drawing all aspects of the investigation together and ensuring residents were kept well informed of the nature of the investigation and its outcomes. Its success can be judged by the fact that less than a dozen residents emailed the Council with any specific concerns.

1.5 Legal Implications

- 1.5.1 Part 2A of the Environmental Protection Act 1990 places a duty on all Local Authorities to investigate where land in its area might have been contaminated because of the way it was used in the past or how it is currently used. The Authority then has to put any sites they find in order of priority based on the risk they might cause to human health or the wider environment. This has been done in line with our Contaminated Land Inspection Strategy.
- 1.5.2 Having identified a potential issue with landfill gas at this location, we have investigated and established there are no significant issues that can be reasonably identified, in which case no further action need be taken other than an appropriate regime of future monitoring. On Leap Environmental advice we will now continue

on a quarterly basis with some flexibility to increase should unusual concentrations be detected again.

1.6 Financial and Value for Money Considerations

- 1.6.1 No provision for the cost of these investigative works was, or could reasonably have been, specifically included in the Council's budget and funds for this study have been found from reserves. Ongoing generic monitoring costs will be met from the existing contaminated land budget. However, should it be necessary to investigate future instances of elevated gas levels, or monitoring boreholes become unusable and require replacement then additional funds will need to be identified.
- 1.6.2 On this occasion the Director of Planning Housing and Environmental Health sought a waiver of the Councils Procurement Rules in line with Rule 13 of the Councils Contracts Procedure Rules due to the urgent nature of these works.
- 1.6.3 The company retained Leap Environmental Ltd have an excellent track record in assisting Local Authorities with contaminated land investigations and recently undertook work for Tunbridge Wells Borough Council at the former Halls site in Paddock Wood.

1.7 Risk Assessment

- 1.7.1 Part of the investigation into potential contaminated land required under Part 2A of the Environmental Protection Act 1990 includes the creation of a detailed risk assessment for the site. The purpose of these works was to obtain sufficient data for a valid risk assessment to be created.

1.8 Policy Considerations

This investigation is in line with the Councils Contaminated Land inspection strategy updated in 2016 which can be found online at <https://www.tmbc.gov.uk/services/environment-and-planning/pollution/pollution-control-contaminated-land>.

Background papers:

Nil

contact: Linda Hibbs
Crispin Kennard

Eleanor Hoyle
Director of Planning, Housing and Environmental Health