

**TONBRIDGE & MALLING BOROUGH COUNCIL**

**STREET SCENE and ENVIRONMENT SERVICES ADVISORY BOARD**

**05 March 2020**

**Report of the Director of Planning, Housing & Environmental Health**

**Part 1- Public**

**Matters for Information**

**1 PRIORY WOOD, TONBRIDGE – LANDFILL GAS INVESTIGATION UPDATE**

**SUMMARY**

**1.1 In August 2019 TMBC began a yearlong detailed landfill gas investigation at the Priory Wood site in Tonbridge which now comprises a public open space owned and maintained by the Council. Seventeen new boreholes were installed across the site and Methane and Carbon Dioxide levels have been monitored fortnightly since then. During installation the core samples of each borehole were also sent off for analysis. Soil analysis has identified made ground in all locations with one borehole recording a single shard of asbestos cement at 0.5m depth and another borehole recording high Hydrocarbon levels at 2.8-3m depth. Given these depths there is considered to be no risk to health whilst the areas remain undisturbed. The first quarter gas monitoring report has highlighted hot spots of methane and carbon dioxide across the site but there is no evidence that these gases are migrating off site.**

**1.2 Background**

**1.2.1 The site known as Priory Wood is a closed landfill site which now consists of a public open space that is popular with dog walkers. The site lies to the southeast of Deakin Leas in Tonbridge and is bordered on its eastern and southern sides by the Tonbridge to Hastings railway line and the A21 respectively (See attached plan in **Annex 1**). The site was quarried before accepting waste between approximately 1956 and 1975.**

**1.2.2 Gas monitoring has been undertaken by TMBC since 1988 at a selection of boreholes. Over time monitoring boreholes have become lost by overgrown vegetation or unusable due to ground movements breaking connections, and before commencement of this study only 2 remained along with an additional monitoring point on the gas pump.**

**1.2.3 Prior to the appointment of Ecologia Ltd to carry out the site survey, Leap Environmental Ltd carried out a desktop study of the Priory Wood site. That study found that whilst there were no current peaks in landfill gas levels recorded at Priory Woods, there was a lack of monitoring coverage given only two boreholes remained**

in use along with a monitoring point on the gas pump. The conclusions of the desktop study stated that there are potentially unacceptable risks from the perspective of Part 2A of the Environmental Protection Act 1990, relating primarily to elevated ground gas levels. It was recommended that due to the limitations in the data available, an intrusive investigation including the installation of new gas monitoring boreholes and an extended period of monitoring should be undertaken, to allow a robust gas risk assessment to be made.

- 1.2.4 Following a report to members in June 2019, Ecologia Ltd were appointed to carry out the detailed survey and began work in August 2019.

### **1.3 Current Progress**

- 1.3.1 Soil Sample analysis

- 1.3.2 During the installation of the new boreholes to a depth of 3m, core samples were taken for laboratory analysis. A plan of the site showing the borehole locations along with their reference numbers is shown in **Annex 2**. Highlights of findings include;

- Made ground encountered across the site as expected.
- Domestic waste recorded within all boreholes except WS1 – 3 and WS12.
- A hydrocarbon odour was recorded within WS10, WS16 and WS17.
- One piece of asbestos cement was encountered within WS4 at a depth of 0.5m below ground level.
- Three exceedances of hydrocarbon values for Public Open Spaces, all recorded within WS17 at a depth of 2.8 to 3 meters below ground level.

- 1.3.3 With reference to those findings listed in 1.3.2 it is the view of the Councils Contaminated Land officer that given the depths at which exceedances were noted, no further action in respect of these soil analysis findings need to be taken so long as there is no further disturbance of the top soil in those areas.

### **1.4 Gas Pump Servicing**

- 1.4.1 As part of the desktop study, Leap Environmental Identified that the gas pump installed as part of the original gas control measures on the site did not have a regular service contract. Landfill Systems Maintenance Ltd have now inspected the pump and advised it is in good working order. The company have been retained to carry out servicing in the future.

### **1.5 1<sup>st</sup> Quarter Gas Monitoring Results**

- 1.5.1 The first quarter results submitted by Ecologia detail the results of 6 monitoring rounds between 29 August and 7 November 2019.

- 1.5.2 During the 6 rounds, the following peak conditions were noted.
- The Maximum Carbon Dioxide concentration was 50.5% in WS5 during round 6 (7 November).
  - The maximum Methane concentration was 71.8% in WS9 during round 5 (29 October).
- 1.5.3 The results do not appear to show any correlation between changes in atmospheric pressure and concentrations in Methane or Carbon Dioxide.
- 1.5.4 The results show three potential areas (Hot Spots) of high levels of both Methane and Carbon Dioxide. These are located around WS4, WS5, WS9 and WS13. To the North West, East and South West of the site. All are to the East of the gas vent trench installed as part of the original remediation works in the early 1990's and there is no indication as this stage that gas is migrating across the site.
- 1.5.5 Although recorded concentrations are high in some locations, as there is no evidence of gas migration or elevated levels to the West of the gas vent trench towards residential properties on Deakin Leas, no further action other than the continuation of monitoring is recommended at this time.

## **1.6 Legal Implications**

- 1.6.1 Part 2A of the Environmental Protection Act 1990 places a duty on all local councils 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 council 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. By beginning this detailed study, we have been doing this in line with our Contaminated Land Inspection Strategy.
- 1.6.2 Having identified a potential issue at this location, it is our duty to carry out further investigations. The initial intent of this investigation is to demonstrate that 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. Should the investigation demonstrate high levels of gas production which are migrating from the site, then we will then need to assess whether the gas is capable of entering homes, so further monitoring inside dwellings may be required in the future, which the Council would be required to fund.
- 1.6.3 On the conclusions of investigations and in the context of advice from our consultants and expert legal advice the Council will need to consider whether the site should be 'declared' under part 2A of the Contaminated Land regime and, if appropriate, develop a remedial strategy with affected homeowners.

## **1.7 Financial and Value for Money Considerations**

- 1.7.1 No provision for the cost of these investigative works is, or could reasonably have been, specifically included in the Council's budget and funds for this initial study are being found from reserves. Should it be necessary to extend the nature of investigations to include residential properties then additional funds will need to be identified in due course.
- 1.7.2 The company retained 'Ecologia' have provided the cheapest quote and provided references including work for other Local Authorities, before work commenced.

## **1.8 Risk Assessment**

- 1.8.1 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 is to obtain sufficient data for a robust risk assessment to be created.

## **1.9 Policy Considerations**

This investigation is in line with the Council's 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>.

The Director of Planning, Housing & Environmental Health confirms that the proposals contained in the recommendation(s), if approved, will fall within the Council's Budget and Policy Framework.

Background papers:

Nil

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