

TELFORD & WREKIN COUNCIL

**CABINET – 9TH JUNE 2009
COUNCIL - 25TH JUNE 2009**

**STONEY HILL CLOSED LANDFILL SITE – SUMMARY REPORT AND
MANAGEMENT PLAN**

REPORT OF HEAD OF MOBILITY & DEVELOPMENT

1.0 PURPOSE

- 1.1 To raise awareness of the issues relating to Stoney Hill closed landfill site and to present budget costs for further essential works for the site to improve the management of leachate and gas produced by the site for the protection of the local residents and the environment.
- 1.2 To seek approval for investment to address the issues raised in the report and to allow the Council to fulfil its obligations in line with its corporate priorities relating to the environment.

2.0 RECOMMENDATIONS

- 2.1 That Cabinet recommend to Council to allocate capital funding of around £444,500 over the next two years 2009/2010 and 2010/2011 to address the priority works as detailed in paragraph 5;
- 2.2 That Cabinet recommend to Council to allocate an additional £350,000 of capital funding to support an Invest to Save opportunity for the long term management of leachate at the site, should this option prove viable following further investigation;
- 2.3 That Cabinet recommend to Council that additional revenue funding is allocated to allow for the monitoring and management of the site as detailed in paragraph 5.7.

3.0 SUMMARY

The Site

- 3.1 Stoney Hill Landfill site is located off Jiggers Bank Roundabout in the west of Telford at the Junction of the A4169 (Ironbridge Bypass) and the A5223.

- 3.2 The report entitled 'Position Statement & Management Plan' dated May 2009, prepared by Chris Butler, Engineering Services, concludes that it is necessary for a capital investment of around £800k in Stoney Hill Landfill site (in addition to the routine on-going management and maintenance costs), to carry out essential work to meet the current environmental standards.

4.0 PREVIOUS MINUTES

None.

5.0 INFORMATION

Contamination Designation

- 5.1 Investigations and research through "Part 2A" has been completed to determine the impacts upon the environment and to humans. In accordance with Part 2A, as defined in Defra Circular 01/2006 and the criteria set out in the Environmental Protection Act (EPA) 1990, it is considered based upon the existing information that 'significant pollution linkages' **do not** exist with which to determine the site as contaminated land at the present time. However, it is the Council's opinion that the site is of such environmental importance that the following issues need to be addressed in a proactive manner:

1. A methodology needs to be adopted whereby the leachate levels within the landfill are lowered.
2. Implementation of the Site Management Plan dated May 2009.
3. The issue of excessive lateral gas migration from the landfill.
4. Replacement of the elevated flare by a ground flare in accordance with EA guidelines.

- 5.2 These and other management tasks have been included in the 'Position Statement & Management Plan' for the site. Each task has been set a priority status. The four tasks listed above have been assigned high priority status.

Five Year Management Plan:

- 5.3 Following a thorough review of the existing information, the findings of which are included in the 'Position statement & Management Plan' (currently DRAFT), Telford & Wrekin Council, consider that there are a number of issues relating to the landfill which need to be addressed.
- 5.4 Although the site is not to be designated under Part IIa of the EPA, it is important that those tasks listed in Appendix 1 (of this report) are carried out in a programmed manner to comply with other regulatory authorities requirements (i.e. Environmental Health and the Environment Agency). These tasks constitute the strategic tasks which

form the recommendation in the 'Position Statement & Management Plan' for the landfill site.

6.0 BACKGROUND

The Site:

- 6.1 Stoney Hill Landfill is a former open-cast coal working site which was issued a waste disposal licence in 1984 to accept controlled waste. The site was operated by Shropshire County Council in the period 1985 to 1991.
- 6.2 The types of controlled waste received included domestic, commercial, industrial, medical/surgical/ veterinary wastes, and "difficult wastes." Between 501 and 1000 BSE carcasses (with heads/spinal columns removed) were also deposited. Monsanto chemicals company tipped industrial chemical wastes under license, however there are also unsubstantiated allegations of illegal tipping of "unclassified chemicals sludge" by Monsanto.
- 6.3 The site passed to Telford & Wrekin Council on becoming a Unitary Authority in 1998. Engineering Services manage the site on behalf of Telford & Wrekin Council. The site is regulated by Environmental Health and the Environment Agency.

Landfill Infrastructure:

- 6.4 The site was originally controlled by a passively-vented gas system, although gas migration towards the two nearest properties was confirmed in 1992 and an active flare system was installed.
- 6.5 The current gas extraction system was installed in 1993 to address local gas migration and was considered the best available technique at the time. (This is the system now requiring replacement).
- 6.6 The current leachate extraction system pipework was upgraded in 2000 and the leachate tank replaced in 2006. The system now needs replacement to allow a greater volume of leachate to be extracted from the landfill.
- 6.7 Pumping trials were carried out in 2008 which confirmed that some, albeit minimal, drawdown of the leachate was feasible given the small pump size used. Bigger pumps and associated infrastructure are required to reduce the leachate levels to acceptable levels.

Current Site Management Regime:

- 6.8 **Leachate:** The site has five leachate extraction wells. Leachate is collected and tankered off-site for treatment and disposal. Current

leachate levels are too high and therefore these levels need to be reduced by increased pumping.

- 6.9 **Gas Collection:** The site features two surface-laid gas collection mains. Replacement of the easterly gas line in August 2007 has seen an improvement in the quality of the gas arriving at the flare. Replacement of the westerly line is therefore required.
- 6.10 **Flare:** The existing flare operates at too low a temperature to adequately destroy any volatile trace gases. This incomplete combustion of the gases, can cause trace gas production as a secondary concern. The flare needs to be replaced.

7.0 EQUALITY AND DIVERSITY

- 7.1 These proposals do not adversely affect any particular group in the community and would be of general benefit. Engineering Services are currently completing an Equality Impact Assessment for the site.

8.0 ENVIRONMENT IMPACT

- 8.1 Stoney Hill site has been assessed under part IIa of the EPA and has **not** been designated as contaminated land.
- 8.2 Mitigation measures dealing with gas migration from the landfill and elevated leachate levels within the landfill are high priority tasks. Additionally, the replacement of the gas flare is required.

9.0 LEGAL COMMENTS

- 9.1 When the site was transferred from Shropshire County Council to Telford & Wrekin Council, the Council provided an indemnity, effective from February 2004, in favour of the County Council in respect of any past, present or future claims. Liability for the site therefore rests with the Borough Council.
- 9.2 As landowner the Council has a duty of care in respect of those entering into our land and also in respect of neighbouring land. Therefore, even if the land is not to be designated under Part IIA Environmental Protection Act 1990 as contaminated land, the Council will still have a statutory and common law duty to ensure reasonable measures are put in place to minimise the risk to occupiers/visitors and neighbouring landowners.
- 9.3 If the current situation is not addressed (i.e. gas migration & elevated leachate), then it is possible that over a period of time, the necessary pollutant linkage will be formed and the site will be liable to be designated as contaminated land under Part IIA Environmental Protection Act 1990. Any such land must be entered onto a public

register and such designation may have a detrimental effect on land values in the neighbouring areas in addition to the impacts set out in 5.6.

- 9.4 If the pollution involves pollution of the ground water then the land will be designated a special site under the Contaminated Land (England) Regulations 2000 and enforcement in respect of the site will pass to the Environment Agency.
- 9.5 If at a point in the future, the land were to be designated as contaminated land, the Council would need to enter into a voluntary scheme of remediation. The scheme would be agreed by the Environmental Health Department unless the site was designated as a special site (i.e. if ground waters were polluted) whereby the scheme would have to be agreed by the Environment Agency.

10.0 LINKS WITH CORPORATE PRIORITIES

- 10.1 The issue impacts upon the corporate priority to promote a safe, clean and sustainable environment. Elements of the proposed works are required to comply with current Health & Safety Regulations.
- 10.2 A detailed assessment of the site has confirmed that significant investment is required over the next five years to meet environmental standards.

11.0 OPPORTUNITY AND RISKS

- 11.1 Stoney Hill Landfill site is included on the Environment Services portfolio risk register. The risk rating is reported as High (i.e. scores 9 on the risk matrix). It is anticipated that this rating can be reduced to 7 through the effective management of the site as detailed in the 'Position statement & Management Plan'.
- 11.2 Although not designated under Part IIa, there are a number of risks associated with the former landfill site.

These risks fall into the following groups:

- A. Impact upon the environment in the form of polluting ground waters and surface waters should the Authority not be capable of significantly lowering leachate levels within the landfill.
- B. Harm (or significant possibility of significant harm) to local residents by migration of gases.

12.0 FINANCIAL IMPLICATIONS

Capital

- 12.1 The delivery of the essential elements as described within this report will require a capital investment of around £444,500 over the next two years (2009/10 – 2010/2011). It is anticipated that approximately 50% of this spend will be in the current financial year 2009/10. No allocation has been made for this expenditure within the existing capital programme.

Invest to Save

- 12.2 The capital estimate above includes provision for the investigation and assessment of options for the long term management of leachate at the site. Should a viable option be identified it is proposed that a further capital investment of around £350,000 is made available over the next two years (2009/10 -2010/2011) for the installation of an automated leachate pumping system. This would generate a saving of £50,000 saving per annum in offsite tankering costs and a pay back period of 7 years on the capital investment.

Revenue

- 12.3 The proposed revenue costs are dependant upon the viability of the 'Invest to save' proposal. Should it be determined that pumping is not a viable option then the increased tankering costs needed to reduce the leachate levels would be £75,000 per annum making the overall running costs for the site to be of the order of £173,000 p.a. – an increase of £101,000 on the current revenue budget allocation.
- 12.4 However should the pumping option be a viable proposal then the revenue costs for the disposal of the leachate is estimated at this stage to be £25,000 per annum making the overall running costs of the site £123,000 per annum, and thus generating an 'invest to save' saving of £50,000 pa.
- 12.5 These do not include the costs of borrowing which at 9% equate to £9,000 pa per £100,000 borrowed.
- 12.6 No provision has been made within future budgets for the additional expenditure over the existing running costs of £72,000 per annum.

13.0 WARD IMPLICATIONS

- 13.1 Horsehay & Lightmoor ward, and Ironbridge Gorge ward are immediately affected. Responsibility for site management rests with the Environment & Regeneration Portfolio, whilst Adult Social Care Portfolio is the regulatory authority.

14.0 BACKGROUND PAPERS

- 14.1 A significant number of reports, letters etc. have been prepared for Stoney Hill Landfill Site. The key documents have all been included in full in the Stoney Hill Landfill 'Position Statement & Management Plan' prepared by Telford & Wrekin Council Engineering Services Department.

Recommendations in this report and the Management Report are based, in part, on discussions with and correspondence received from Environmental Health.

This report has been prepared by Engineering Services (Chris Butler, Neal Rushton, Declan Kearney) in their role as Site Managers (Telephone 01952 384855).

Appendix 1

Tasks 1 to 8 listed below constitute the strategic tasks which form the overall management plan for the landfill site.

Task 1: Lower Leachate Levels in the Landfill: Potential leachate disposal to Severn Trent's Foul water System:

A review of the method of disposal and possible need for pre-treatment to determine the way forward and to implement same.

Task 2: Lower Leachate Levels in the Landfill through continued disposal by tanker:

Task to be continuous until Task 1 is complete.

Task 3: Replace and modernise Gas Flare system:

The current gas flare does not meet current legislation and guidelines. The elevated flare needs to be replaced by a ground flare.

Task 4: Proposed Investigation Works:

Ground investigation works are necessary to address potential constraints outside the landfill site.

Task 5: Monitoring Installations and Leachate Pumps:

It is considered that an assessment of the current landfill installations is required in order to establish what instrumentation needs renewal, replacement or decommissioning and to action same.

Task 6: Data Collation – Chemical Analyses:

To produce a comprehensive database of chemical analysis results.

Task 7: Data Collation - Mine-entries:

To produce a comprehensive database of past mining records.

Task 8: Routine Telford & Wrekin Council On-Going Management:

Telford & Wrekin Council has a duty to manage Stoney Hill Landfill site indefinitely. This responsibility currently sits with Engineering Services. Adequate resources are needed for this function.

Budget costs for these works are presented in Section 5.7, i.e. Financial Implication.