

## **15.0 CHAPTERS 11 AND 15 AIR QUALITY IMPACT ASSESSMENT AND HUMAN HEALTH RISK ASSESSMENT**

### **15.1 Introduction and Current Site Setting**

There has been no change in the number or location of residential properties within 1 km of the integrated waste management facility (IWMF) site. The closest receptor downwind of the IWMF (southwesterly prevailing winds) is Woodhouse Farm – which will be redeveloped and brought into beneficial use to provide offices and an education centre for the IWMF site. The closest public footpath lies approximately 150 m to the east of the proposed stack location (Footpath No. 8).

There are three County Wildlife Sites located within a 3 km radius around the IWMF site and nine statutory nature conservation areas located within 10 km.

### **15.2 Updated Air Quality Baseline Conditions and Assessment 2015**

A review of baseline air quality conditions was undertaken by Fichtner Consulting Engineers Limited to support the Section 73 application for the Rivenhall Integrated Waste Management Facility and is presented within Supporting Information “S7.1 Assessment of Significance of Air Quality Effects” and “S7.2 Dispersion Modelling Assessment” – contained within this Addendum ES as Appendix A7.1 and A7.2 respectively.

### **15.3 Updated Human Health Baseline Conditions and Assessment 2015**

A review of baseline human health conditions was undertaken by Fichtner Consulting Engineers Limited to support the Section 73 application for the Rivenhall Integrated Waste Management Facility and is presented within Supporting Information “S9 Human Health Risk Assessment” – contained within this Addendum ES as Appendix A9.

### **15.4 Overview of Air Quality and Human Health Baseline Conditions and Updated Assessment 2015**

An overview of the updated Air Quality and Human Health baseline conditions and an assessment of the potential impacts of the IWMF to support the Regulation 22 additional information request is presented on the Fichtner Consulting Engineers Limited memorandum of 23 December 2015 (referenced S1552-0700-0015RSF) and contained within this Addendum ES immediately following this section as Appendix 15A.

This affirms that the original conclusions of the air quality assessment and human health risk assessment remain valid.

The maximum height of the IWMF stack will be 85 metres Above Ordnance Datum (AOD) i.e. a height of approximately 35 m above existing ground level, in accordance with Condition 56:

***Condition 56:*** Only one stack shall be erected on the site to service all elements of the IWMF. The height of the stack shall not exceed 85 m Above Ordnance Datum.

In addition, under the existing planning permission, Condition 17 requires the submission of a management plan for the combined heat and power (CHP) plant to ensure there is no visible plume from the stack:

***Condition 17:*** No development shall commence until a management plan for the CHP plant to ensure there is no visible plume from the stack has been submitted to and

*approved in writing by the Waste Planning Authority. The development shall be implemented in accordance with the approved plan.*

Alongside the Section 73 application the Submission of Details presented a CHP Management Plan that outlined the operational arrangements that would be employed at the IWMF to ensure no visible plume from the stack. This CHP Management Plan and its associated "Plume Visibility Analysis" are reproduced within this Addendum ES immediately following this section as Appendix 11B and 11C respectively.

### **15.5 Environmental Permit EPR/KP3035RY/A001 'Duly Made'**

On 24 September 2015 an Environmental Permit application was submitted to the Environment Agency on GFC's behalf by Fichtner Consulting Engineers Limited. The application is consistent with the IWMF's proposed integrated waste recovery, recycling and treatment operations.

The Environment Agency confirmed in its letter dated 9 December 2015 (contained within this Addendum ES as Appendix 3A in section 3 above) that the Environmental Permit Application Reference No: EPR/KP3035RY/A001 had been 'duly made' on 17 November 2015.

The final and agreed details of the Environmental Permit will demonstrate that the IWMF embodies Best Available Techniques (BAT) to prevent, and where this is not practicable, to reduce emissions and the impact on the environment as a whole to acceptable standards. The Environmental Permit application includes a detailed review of the Site proposals against the EA Guidance on BAT for the Sector and an Operational risk appraisal in accordance with the recently published (April 2014) guidance.

Whilst a full copy of the Environmental Permit Application is not submitted with this Regulation 22 Report, it contained the updated Section 73 information S7.1 Assessment of Significance of Air Quality Effects and S7.2 Dispersion Modelling Assessment (Appendix A7.1 and A7.2), together with an Abnormal Emissions Assessment and Greenhouse Gas Assessment.

The maximum height of the IWMF stack that is modelled within the Environmental Permit Application is 85 m Above Ordnance Datum.