

Aycliffe Quarry Landfill Update 06 September 2024

Engineering work

Recent engineering works on the site have continued to focus on the completion of capping on the plateaus of cells 2 and 3. To date 39,000 square metres have been completed. This work is due for completion by the end of September. Following completion additional gas extraction wells will also be drilled in this area.

Whilst these areas were not the source of elevated emissions over the winter they do still require capping and the completion of this work will further improve gas control across the site. Gas extraction rates on the site have increased from 250 cubic metres per hour last autumn to 1175+ cubic metres per hour now.

The works to re-profile and cap the steep sided flanks of cells 2, 3 and 4 were completed in May. We are satisfied that these works have been successful and emissions from these areas have significantly reduced.

The site operator is continuing to complete the infill of waste in cell 5. This cell will likely be completed later this year. We expect some additional gas extraction infrastructure to be installed here next month and are currently discussing the detail of this with the operator. In preparation for the completion of cell 5, the site operator is now developing an adjacent new cell 6. Development of the cell consists of the installation of a welded geomembrane liner with a geo textile protection layer above. Completion of this work is expected in the autumn.

Odour monitoring

We have been undertaking daily odour monitoring checks in August, at locations around the landfill site and other notable sites locally. Our findings from this work indicated that occasional odours associated with the landfill were noted at locations close to the site. However, these were not picked up further afield and were mild when noticed. Odours associated with another waste treatment plant were evident in locations on Aycliffe Industrial Estate. Odours associated with the sewage treatment works close to Aycliffe village were recorded. Although neither of these odour sources were picked up around areas of housing.

The fixed air monitoring unit continues to record key gases on a 24/7 basis from a location close to the site. The air quality data collected during this period of study is defined as "raw". This means it has not been subjected to all quality control or assurance checks (QA/QC) and thus carries undefined levels of uncertainty.

Typically, at the end of a defined study period, the data will pass through the data ratification process where we can consider the QA/QC for the data set as a whole. These checks include but are not limited to; cross checking for any anomalies, applying drift corrections from the bi-weekly precision checks and checking the data for any underlying trends. All these aspects are assessed to understand the uncertainties of the final values. This process demands a high level of resource and is more efficient and better able to assess the data quality when conducted over a longer time. As such we will produce an interim report to detail the findings from the first 3 months of monitoring. This report should be ready towards the end of September and will be published via this page.

We continue to assess the site regularly, in terms of both its odour and gas management and other requirements and will continue to require improvements be made where required to reduce the site's impact on the environment.

Why can I smell something one day and not another?

This is primarily to do with the weather. Landfill sites are generally totally open to the atmosphere and the elements, unlike a lot of other industries we regulate. Therefore, they are more reactive to a change in weather conditions. For example, a change in wind speed or direction can affect where or when an odour might be noticeable. If odour is evident on a landfill site it is generally more noticeable in cooler and more still conditions, particularly if the source of the odour is landfill gas. Atmospheric pressure also affects landfill gas, falling pressure can lead to a greater emission of landfill gas from uncapped areas.

The areas on site where odour may be generated also change over time as more waste is brought into the site and cells are progressed. Effectively the site evolves and changes shape/form over time. Therefore, the measures needed to mitigate odorous emissions now might not necessarily be the same as those required in 3 months, 6 months etc. It is for this reason primarily that it is important that landfill site operators constantly keep under review their odour and gas management arrangements and keep looking to develop their control measures to keep pace with their site's progression.

The following aerial images detail progress with the capping works in cells 2/3

