

Ambient Air Monitoring

Background

A request was made by the Place Board to monitor ambient air in the Castletown ward in order to assess the impact of local industrial emissions; particularly volatile organic compounds and deposits.

Reports of offensive odour in the area have also been made by Castletown residents and the investigation will additionally focus on capturing an event in order to isolate the compounds involved and potentially identify the cause.

Monitoring Proposals

- **ThreeMonths' Passive Monitoring**

It is intended to expose four passive diffusion tubes for a period of one month for 3 consecutive months over the summer period in order to absorb volatile compounds in the locality. Following exposure, each of the tubes will be analysed and all compounds identified and quantified. The results for each location will then be compared

Location 1 – Local factory

Location 2 – Castle Ward residential – location in Hylton Castle Estate

Location 3 – Roker seafront residential.

Location 4 – Busy road residential- potentially North Bridge Street.

Two additional tubes could also be exposed in Castletown; one specifically during the factory shutdown fortnight and one when the local industries are operational in order to compare levels.

- **Pumped Grab Sample**

During the three month monitoring period equipment will be available to allow officers to respond to three incidents of reported local odours. On receiving a report equipment will be taken to the site of the odour report and the odour will be pumped into the absorbent and stored to allow subsequent analysis and quantification. This will allow the odour to be characterised to determine its potential source and assessed as to whether there are any known health impacts by comparing the levels of compounds to health or occupational standards.

- **Real time portable VOC monitoring**

A portable, total VOC monitor will be acquired for use in three separate weeks in the monitoring period. The equipment will be used to measure total VOCs at given points in a grid across Castletown, Town End Farm and Hylton Castle. In addition, measurements will be made at Roker seafront and at residential locations adjacent to busy roads to compare levels. There will be no identification of compounds in this test. However, the total VOC concentrations will be mapped for the area.

- **Assessment of Reported Deposits**

Reports of a sticky deposit affecting the area have been made. It is intended to expose 50 glass slides in a variety of horizontal locations for the three month period. The slides will be collected and washed with deionised water – any residual deposit will be assessed.

Total cost for three months' assessment £6,972.78