

Transport and Environment Committee

10.00am, Thursday, 5 October 2017

Seafield Waste Water Treatment Works – Council Odour Monitoring and Assessment Programme Update

Item number	8.5
Report number	
Executive/routine	
Wards	Citywide
Council Commitments	

Executive summary

At a meeting on [1 November 2016](#), the Committee instructed officers to continue, for one year, the Council's Seafield Waste Water Treatment Works (WWTW) Odour Monitoring and Assessment programme. This report provides an interim update on the number of odour complaints received from 1 March 2017 to 30 June 2017.

The Committee also requested that proposals be brought forward to make it easier for residents to report odour incidents to the Council

The report provides an update on the outcome of Veolia Water's action plan, designed to identify the source and chemical compounds of a burning odour that emanated from Seafield WWTW and affected local residents during May and June 2016.

Seafield Waste Water Treatment Works – Council Odour Monitoring and Assessment Programme Update

1. Recommendations

It is recommended that the Committee:

- 1.1 Notes the findings of the Council's monitoring and assessment programme over the period 1 March to 30 June 2017;
- 1.2 Notes the outcome and actions arising from an increase in odour complaints received by the Council during the period 17 April to 31 May 2017; and
- 1.3 Agrees that a leaflet will be designed for distribution to residents in the Leith Links area that will outline the importance of reporting odour release to the Council and will provide Council contact details to make it easier to register complaints.
- 1.4 Notes the Scottish Government has commissioned a review of Seafield WWTW

2. Background

- 2.1 The Water Services etc. (Scotland) Act 2005 places a duty on the Council to monitor compliance with the Sewerage Nuisance (Code of Practice) (Scotland) Order 2006 (the CoP) and to investigate complaints of sewerage nuisance.
- 2.3 Following the implementation of Scottish Water's Odour Improvement Plan in May 2011, the Council's monitoring programme commenced on 1 June 2011 in line with the CoP. Progress reports on the programme were made to Committee on 29 November 2011, 18 June 2012, 13 September 2012, 23 November 2012, 26 August 2014, 2 June 2015 and 1 November 2016.
- 2.4 This report provides an update on the findings of the Council's continuing odour monitoring and assessment programme from 1 March 2017 to 31 August 2017. It also includes information on the outcome of investigations by the Council and the Scottish Environmental Protection Agency (SEPA) into an increase of odour complaints from local residents during the period 17 April to 31 May 2017.

3. Main report

- 3.1 Table 1 (Appendix 1) provides the findings of the Council's Seafield Odour Monitoring and Assessment Programme, set out as six comparison periods

representing the warmer months of the year when residents are most likely to experience odour release.

- 3.2 Table 1 shows a significant increase in complaints from 17 April to 31 May 2017 with a total of 143 complaints received by the Council during that period. Table 2 (Appendix 2) further breaks this down. It shows the days between 7 March and 20 June 2017 on which complaints were received by the Council, and the numbers of complaints received on those days. The increased level of complaints can be attributed to two factors. During that period, the Council were notified by Veolia Water that a series of spillages of sludge between 30 April and 6 May 2017 had arisen from one of the six digesters on site (an area regulated by SEPA under a Waste Management Licence (WML)), and that steps were being taken by Veolia Water operations staff to clean the affected area and minimise any possible odour release.
- 3.3 As a result of the increased level of complaints, a number of visits to the WWTW by Council monitoring staff indicated that the extent of the spillage and the detection of associated offsite odours was likely to be a major contributory factor in the complaint surge. SEPA officers also attended the WWTW on 6 May 2017, noting the spillage. Their attending officer expressed an alternative opinion that the complaint surge related more to recent low flows of water into the sewerage network, with the result that any influent arriving at the WWTW would carry a far higher risk of odour due to length of time in the network.
- 3.4 As the increased complaint level continued after the digester spillage had been removed, it is likely that both the spillage and the low flows of influent combined, creating the levels of odour nuisance experienced by local residents during April/ May 2017.
- 3.5 The CoP recommends that where the odour source clearly falls within an area of the WWTW regulated under a WML, SEPA should assume the lead regulatory role. Accordingly, SEPA took enforcement action to address the digester spillage in the form of an Interim Compliance Assessment Report.
- 3.6 As a consequence of the impact of odour release on local residents in May 2017, Council Officers wrote to Veolia Water's Divisional Director (Appendix 3) expressing concerns and disappointment regarding the increase in odour complaints in May 2017 as a result of the spilled sludge from the digester. The letter also indicated to Veolia Water that, although an enforcement notice was not served on this occasion due to SEPA having primacy in this area, the Council would have no hesitation in taking enforcement action if steps were not taken to prevent further similar events.
- 3.7 At a Seafield WWTW stakeholder meeting on 19 May 2017, attended by elected members, local resident representatives, Council, Veolia Water and Scottish Water officials, the surge in complaints was discussed, aided by a presentation provided by Veolia's General Manager on the increased odour risk due to low influent flows during dry periods of weather.

- 3.8 Veolia Water have stated that it is statistically likely that such dry periods will occur in the future and therefore the Council is in discussion with Scottish Water on how they intend to minimise the risk of odour release at those times.
- 3.9 At a stakeholder meeting on 13 January 2017 Local Resident Representatives requested that the possibility of creating a single point of contact for registering complaints with the regulatory agencies should be explored. Discussions with SEPA, who have an existing free phone complaint service in place, indicated that the call flow system would be a barrier to complaints being received timeously by the Council and would lengthen the response times achieved by Council Scientific Services staff. It was agreed that the Council's main switchboard number would remain as the point of contact for local residents concerned about odour release from the WWTW, with any complaints relevant to SEPA being passed to them. In recognition of concerns raised at the stakeholder meeting on 19 May 2017 about reporting complaints, it was agreed that a leaflet would be distributed to approximately 4000 properties in the Leith Links area, designed to outline the importance of registering complaints with the Council and providing specific contact details to allow for easier reporting.

Previous Complaints-Burning odour 2016

- 3.10 In mid-April 2016, the Council began to receive complaints from local residents relating to what was described as a burning odour. Investigations by both SEPA and Council monitoring staff confirmed that the source originated in an area of the WWTW covered by a SEPA-enforced Waste Management Licence. As a result, Veolia Water drew up an action plan to address the issue and commissioned external consultants Odournet UK Ltd to carry out a comprehensive health impact assessment study in relation to the burning smell. The report, shared with the Council, SEPA and Health Protection Scotland, was finalised on 21 December 2016, and identified a siloxane filter that serves the WWTW biogas system within the WWTW. Odournet UK Ltd concluded in the report that although a number of potentially harmful compounds were identified within the emissions that occur during the siloxane filter purge cycle, the exposure levels that are predicted to occur around the site are well below the level which would pose a risk to the health of local residents.
- 3.11 On reviewing the Odournet report, Health Protection Scotland concluded that the predicted exposures at nearby residential areas were many orders of magnitude lower than health-based guidelines or environmental assessment levels, and this provided reassurance that the airborne chemical emissions from the process are unlikely to have an excessive additional direct impact on the health of local residents.
- 3.12 Intermediate actions taken by Veolia Water on the use of the siloxane filter have been successful, with very few complaints of burning odour being received by the Council since July 2016. Veolia Water have informed the Council that a permanent solution to the burning odour detected during the regeneration of the siloxane filter will be in place by August 2017.

Code of Practice Review 2016

- 3.13 Following representations from the Council to the Scottish Government asking for a review of the CoP to be undertaken, two odour control workshops were arranged jointly by the University of the West of Scotland and consultant firm Ricardo Energy and Environment, and were attended by the Council's WWTW lead regulatory officer, Scottish Water and Scottish WWTW operators. The report released on 7 February 2017 local residents have expressed disappointment that the review did not address the concerns voiced by local residents at Seafield Stakeholder meetings in relation to a review of the CoP.

Strategic Review 2017

- 3.14 At the Seafield Stakeholder meeting on 19 May 2017, as a result of the high levels of complaints in April and May 2017 and intervention by elected members it was noted that community representatives would meet with the relevant Scottish Government Minister. As a result of the meeting with the minister, the Scottish Government agreed to commission a full strategic review of Seafield WWTW and to look at operation, design and maintenance of the WWTW, the sewerage network feeding the WWTW, the effectiveness and implementation of the CoP, and to include consultation with all stakeholders, including the Council and local residents.
- 3.15 Draft terms of reference for the review have already been shared with the Council and local representatives, with consultancy firm Amec Foster Wheeler and Cranfield University jointly commencing the consultation. Consultants have interviewed relevant council officials as part of this consultation. On 5 September 2017 consultants also had a session with ward councillors and the convenor of transport and environment committee to ensure that members experience of this issue and concerns are reflected in the review. It is expected that the review will report to Minister by the end of October 2017. Members will be updated when a date for wider publication is known.

4. Measures of success

- 4.1 A decrease in the number of major odour emission events from Seafield WWTW and a reduction in complaints from the local community.
- 4.2 That Scottish Water continue to minimise odour release from Seafield WWTW in accordance with the Sewerage Nuisance (Code of Practice) (Scotland) Order 2006.

5. Financial impact

- 5.1 The cost of continuing to operate the current odour assessment and monitoring programme can be met from existing budgets.

6. Risk, policy, compliance and governance impact

- 6.1 Compliance with the Water Services etc. (Scotland) Act 2005 and the associated Sewerage Nuisance (Code of Practice) (Scotland) Order 2006.

7. Equalities impact

- 7.1 This report proposes no changes to current policies or procedures, and as such a full impact assessment is not required. The contents have no relevance to the public sector Equality Duty of the Equality Act 2010.

8. Sustainability impact

- 8.1 Scottish Water's Odour Improvement Plan is intended to reduce odour output from Seafeld WWTW to a level which will not constitute a sewerage nuisance, in accordance with the Sewerage Nuisance (Code of Practice) (Scotland) Order 2006.

9. Consultation and engagement

- 9.1 Community representatives, local MSPs and the Council are members of the Seafeld Stakeholder Liaison Group, which meets periodically with Scottish Water and Veolia Water to discuss the Council's role as regulator, actions proposed by Scottish Water and Veolia Water to minimise odour emissions, and any other issues relating to the impact of the works on the local community.

10. Background reading/external references

- 10.1 [Seafeld Waste Water Treatment Works – November 2016](#)
- 10.2 [Seafeld Waste Water Treatment Works- Monitoring of Scottish Water Odour Improvement Plan- June 2015](#)
- 10.3 [Seafeld Waste Water Treatment Works-Monitoring of Scottish Water Odour Improvement Plan- August 2014](#)
- 10.4 [Seafeld Waste Water Treatment Works - Monitoring of Scottish Water Odour Improvement Plan - November 2012](#)
- 10.5 [Seafeld Waste Water Treatment Works - Monitoring of Scottish Water Odour Improvement Plan - September 2012](#)
- 10.6 [Seafeld Waste Water Treatment Works - Odour Improvement Plan Update - June 2012](#)
- 10.7 [Seafeld Waste Water Treatment Works - Odour Improvement Plan Update - November 2011](#)

- 10.8 [Seafield Waste Water Treatment Works - Odour Improvement Plan Update November 2010](#)
- 10.9 [Seafield Waste Water Treatment Works - Odour Improvement Plan Update - November 2009](#)
- 10.10 [Seafield Waste Water Treatment Works - Odour Improvement Plan Update May 2008](#)

Paul Lawrence

Executive Director of Place

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11. Appendices

Appendix 1 – Table 1 Complaints received 2012 to 2017

Appendix 2 – Table 2 Complaints received 1 March to 31 August 2017

Appendix 3 – Letter to Veolia Water Divisional Director

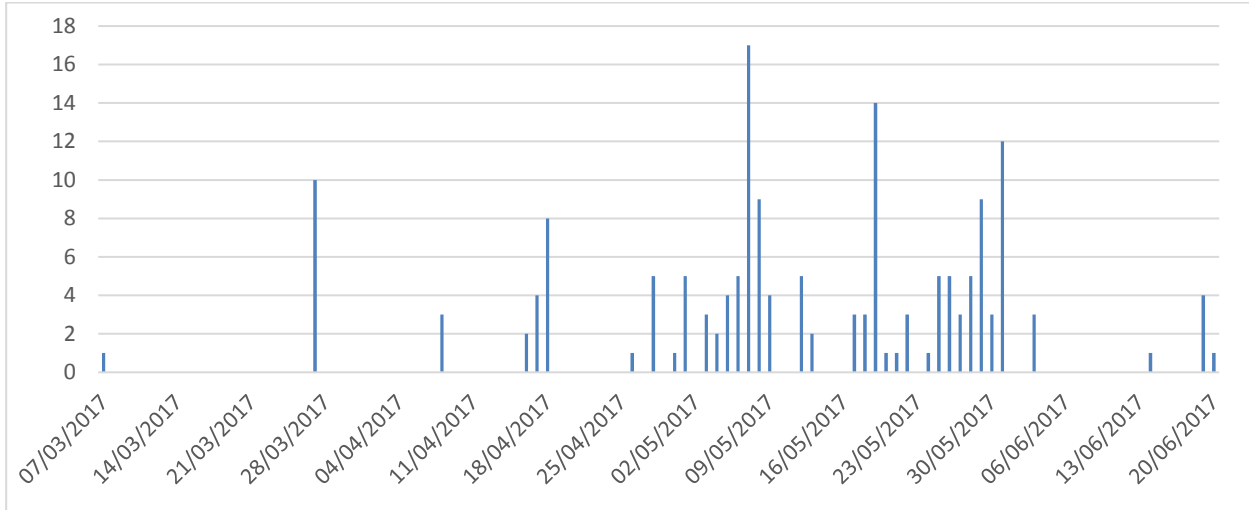
Appendix 1

Table 1: Complaints received 2012-2017

Monitoring Period	1 March 2012 to 31 Oct 2012	1 March 2013 to 31 Oct 2013	1 March 2014 to 31 Oct 2014	1 March 2015 to 31 Oct 2015	1 March 2016 to 31 Oct 2016	1 March 2017 to 31 August 2017
Complaints received	182	82	81	111	89	170
No. days where complaints were received	63	49	46	59	50	39
Complaint visits where Council staff detected moderate or strong odour	11	10	7	5	5	21
Days where 3+ complaints were received	16	6	8	12	12	26
No. individual households complaining	60	33	35	48	36	66
Major odour Incidents	4	0	1	1	1	1
Surveillance visits by Council staff to assess odours	452	124	93	73	83	42
Surveillance visits where Council staff detected moderate or strong odour	14	4	6	4	3	1

Appendix 2

Table 2- Daily total of complaints 7 March to 20 June 2017



Appendix 3

Date 18 May 2017

Your ref

Our ref SAW/EH/5/2017

Mark Wilson
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Dear Mr Wilson,

WATER SERVICES (SCOTLAND) ACT 2005

THE SEWERAGE NUISANCE (CODE OF PRACTICE) (SCOTLAND) ORDER 2006

I write to express concerns on behalf of the City of Edinburgh Council regarding a significant increase in odour complaints received by the Council in connection with Seafield Waste Water Treatment Works (WWTW) over the period 1 May 2017 to 8 May 2017.

During this period, the Council received 43 complaints from local residents, a number of which were verified by attending officers engaged in carrying out the Council's Monitoring and Assessment Programme over the period.

I note that through the daily odour review reports sent from Veolia Unit Controllers that mention was made of a spillage of sludge around the base of digester 2 on 30 April 2017 and that at that time, steps were being taken to resolve the cause.

With an awareness that there was a significant increase in complaint levels throughout the period referred to, the Council's Environmental Protection Team Leader, Stuart Graham visited the works at 13.00 on Friday 5 May 2017 in line with our regulatory duties under the above Act.

Mr Graham was accompanied by a duty controller and was shown what he considered to be a significant spillage which not only covered a large area at the base of digester 2 but had given rise to a quantity of sludge up the side of the digester to full height.

Mr Graham confirmed that he was of the opinion that the odour he had detected on Marine Esplanade off site was the same odour associated with the spilled material and that the complaints he had been investigating were in a direct line from the spill due to wind direction.

At the Seafield Liaison Group Meeting at Seafield WWTW on 11 May 2017, the general manager indicated that he felt it unlikely that the spillage was necessarily the source of the increased complaint but rather that it was due to dry weather conditions affecting the flow of influent into the works.

I must inform you that I am not willing to accept the latter explanation and that the Council feels that at the very least, the spillage was a major contributor to the odour release.

The legal standard for service of an enforcement notice is on the balance of probability and I would comment that, were this spillage not in an area where SEPA have primacy for enforcement action due to it being covered by a Waste Management Licence, it is likely that the Council would have served an enforcement notice.

Although the Code of Practice recommends that where the odour source falls within an area of the WWTW regulated by SEPA, it does not rule it out and I would have no hesitation in exercising our statutory enforcement powers should there be further such incidents and the following matters not be addressed.

Although I understand that some of these matters will be addressed in your response to SEPA's Interim Compliance Assessment Report of 15 May 2017, I would ask that you appraise the Council separately.

At the Liaison Group Meeting on 11 May 2017, it was clear that the cause of the repeated spillages from digester 2 were not known although attempts had been made to restart the process resulting in a number of spillages.

Can you please confirm in writing the steps that you propose to take, or have taken, to establish the cause and to prevent further, similar events?

Mr Graham noted that the area where the digester had spilled to was not impervious nor was there any visible bund to contain spilled sludge as required by the Code of Practice, therefore can you please advise me how you plan to address this matter at the base of all six digesters.

The Code of Practice requires that where cleaning operations are likely to lead to odour release, odour minimisation measures should be incorporated and therefore I would wish to have details of how any future digester spillages of this nature can be expediently addressed so that exposure of sludge to the air can be minimised?

I feel that the frequency, severity and extent of the spillage was not conveyed to the Council and that consideration must again be given to communicating levels of odour risks from operations or from unforeseen circumstances such as this event.

I note with disappointment that since the 1 March 2017 the Council has recorded 95 complaints and that it is highly likely that the statistics that will be presented to Committee in any end of year report will show significant increases in all areas and make it very difficult to argue that minimisation is being maintained.

In conclusion, whilst I accept that there may be disagreement about the relevant weighting of recent complaints from either the spillage or low flows, the number of complaints currently being received has all but eliminated the assertion that minimisation continues to be achieved and that the feeling of optimism in the past few years has greatly diminished.

Yours sincerely



Stephen Williamson
Environmental Health Manager