
Report to Council

Date of Meeting: 10 March 2011

Subject: Alloa Wastewater Treatment Works

Report by: Head of Community & Regulatory Services

1.0 Purpose

- 1.1. To advise Council of the situation regarding odour complaints from discharges of waste into the River Forth at the Brothie Burn and detail the actions that are available to deal with the issue.

2.0 Recommendations

- 2.1. It is recommended that the Council notes the action taken by the Environmental Health Team to date insofar as the actions taken by Scottish Water under their Odour Improvement Plan are being monitored to establish their effectiveness.

3.0 Considerations

- 3.1. There are two organisations involved in discharging waste into the Forth at the vicinity of the Brothie Burn, Alloa Wastewater Treatment Works (WWTW) operated by Scottish Water and Kerry Bioscience, a yeast factory located in Menstrie which pipes effluent to the Brothie Burn at Alloa. The Brothie Burn discharges into the Forth at a point directly adjacent to the WWTW.
- 3.2. Since 1 January 2005, Environmental Health have recorded five complaints regarding odour from the area of this discharge. That is not to say the smell has only been experienced by local residents on five occasions as each complaint will involve a period of investigation during which time there may be multiple reports of odour. The complaints relate to five separate occasions resulting in the investigation of odour between lengthy periods of no reported odour. Other reports have been made directly to Scottish Water.
- 3.3. At the outset it is important to emphasise that there are no physiological risks to health from the odour, this type of complaint falls into the category of "nuisance" in that it may be unpleasant and interfere with peoples enjoyment of their property. The main impact on the locality is residents having to suffer periods of unpleasant odour, sometimes lasting several days and generally in the warmer weather when people would likely to be outside. Alloa Academy has reported the odour to Environmental Health on one occasion in August

2010 and the Head Teacher was interviewed. Although there was no suggestion that the teaching of pupils was adversely affected it was noted as unpleasant for the school at that time. The school has kept a log of odour occurrences since which has shown five occasions of odour in the area but nothing specific to affect the school. School administrative staff were unaware of any occasions where the odour was a significant problem since August. Environmental Health have monitored the school area as part of routine monitoring and no significant issues were found during the period since August.

- 3.4. Both organisations comply with consents to discharge waste into the river system issued by the Scottish Environmental Protection Agency (SEPA). These consents relate to chemical and bacterial quality of the effluent and not odour.
- 3.5. The Council had no power to deal with odour from WWTW's until the introduction of legislation in 2006. Prior to this, the approach taken was one of mediation between the complainants and Scottish Water along with persuasion of Scottish Water to take action to reduce odour.
- 3.6. Kerry Bioscience and Scottish Water blame each other's process for the odour issues in south Alloa. It is our belief that for the majority of the time the odour in the Alloa south area has been from the WWTW. It is likely that any potential odours from Kerry Bioscience's effluent are masked by this stronger odour.
- 3.7. The Water Services (Scotland) Act 2005 became law in 2006. This legislation has introduced a code of practice for the purpose of "assessing, controlling and minimising sewage nuisance". Scottish Executive guidance on this states, "the mere presence of an odour does not necessarily constitute a nuisance". Part of the legal test of nuisance includes a consideration of the financial implications of any actions needed to comply with the code of practice. This means that the council cannot require works of an unreasonably high cost to Scottish Water. Once a failure to comply with the code has been established the Council must serve an enforcement notice on Scottish Water.
- 3.8. In relation to any odour caused by Kerry Bioscience, the provisions of the Environmental Protection Act 1990 for statutory nuisance apply. The test for statutory nuisance invariably involves protracted investigations and evidence gathering. Once officers have evidence a statutory nuisance is occurring the Council must issue an abatement notice. However, we do need to prove that it is Kerry Bioscience that is causing the odour and where this is complicated by being masked by the WWTW it becomes very difficult to do so. In relation to nuisance caused by industrial, trade or business premises, it is a defence to show that best practical means were employed to prevent the nuisance. Best practical means includes the consideration of local conditions, available technology and, importantly, the cost to abate the nuisance.

Determining Responsibility for Odour

- 3.9. It is a requirement for the Council to prove who is responsible for an odour that is subject of an abatement notice under the Environmental Protection Act 1990 in the case of Kerry Bioscience or enforcement notice under the Water Services (Scotland) Act 2005 in the case of Scottish Water.

- 3.10. The effluent from Kerry Bioscience is piped underground to Alloa where it joins the Brothie Burn, still underground, near the site of the WWTW. Scottish Water effluent also discharges to the Brothie Burn underneath the WWTW and the combined effluent then discharges into the River Forth. Determining with enough assurance to satisfy a court which organisation is responsible for the odour is extremely difficult. However, investigations to date lead us to believe that the odour is primarily one of a "sewage" nature and we are pursuing the investigation in this vein.

Available Remedies

- 3.11. In relation to any odour from the Kerry Bioscience effluent, once the odour from the WWTW has been reduced to a level that no longer masks any smell from Kerry Bioscience and we can establish that odour is a statutory nuisance, the Council must issue an abatement notice on them. However, to date there is no evidence of a statutory nuisance from this effluent. If it were established at a future time, as noted above, Kerry Bioscience have a defence in law to demonstrate that they have used best practical means to control odour. This involves consideration of cost. If they establish this defence and appeal to the Sheriff, the Sheriff would overturn the notice and that would be the end of the Council's involvement in the case.
- 3.12. In relation to odour from the WWTW the Council needs to prove that Scottish Water are failing to comply with the Code of Practice on Sewage Nuisance. The same defences are available to Scottish Water, i.e. best practical means, and the notice can likewise be appealed to the Sheriff.

Current Position

- 3.13. The code of practice requires the production of an Odour Management Plan which may be phased in. However, when a nuisance exists, despite following the requirements of this plan, an Odour Improvement Plan must be prepared and this is what Scottish Water have done for Alloa WWTW. The plan is a structured and phased methodology as to how they intend to minimise odour from their works. As many of the improvements relate to civil engineering construction work there has been a long time-scale to reach completion of what is termed "Phase 1". The success or otherwise of Phase 1 determines progression to the next phase. As of autumn 2010, Scottish Water concluded all work contained in Phase 1. It has cost approximately £2,500,000 in odour suppression works at Alloa WWTW to date.
- 3.14 Scottish Water have requested a period of six months to ascertain if their efforts so far are sufficient to control the odour. This is due to end on 31 March 2011. As discussed above the legislation does not require a "gold plated" standard; it requires best practical means. The opinion of officers is that the request for six months to monitor the situation is not unreasonable and is in accordance with the principles in the Code of Practice on Sewage Nuisance. Monitoring by Environmental Health will continue beyond this period and further action will be taken if it is necessary. That will include investigating and dealing with complaints of odour within the six month period if they are significant in terms of strength or prolonged time. Monitoring to date, via a weekly visit, has so far revealed no issues although this is not unusual for the winter period.

- 3.15 Environmental Health carried out monitoring over the summer of 2010. The summer months are warm and still. Odours from the treatment works are likely to be their worst and historically it is the time of year when the most complaints occur. Odour was monitored during 24 days over July to September 2010. It was detected in the surrounding residential streets on five out of those 24 days. Of these five days, at least two were directly due to breakdowns at the treatment works. As discussed above, the situation is open to continuous review. However, the evidence to date, combined with the willingness of Scottish Water to take further control measures if necessary, would result in any formal action taken by the Council at this stage failing.

Future Actions

- 3.16 The Council has a duty to enforce the relevant legislation in regards to Alloa WWTW. Environmental Health will continue to respond to complaints as they are made and will also monitor the situation on site. If either during the trial six month period or at any future date it is established there is an odour nuisance, Scottish Water will need to undertake further control measures for their Alloa WWTW. Failure to do so will result in an enforcement notice.
- 3.17 It must be remembered that any notice is subject to the defences detailed above. This means that even in the face of odour complaints there may be no action that can be taken. It would also be unacceptable to the Courts for the Council to take formal action whilst Scottish Water are taking reasonable steps to abate the odour.
- 3.18 The potential is that odour in the area from Kerry Bioscience's effluence may become an issue when Scottish Water minimise odours from the WWTW. This would be dealt with by way of an investigation into statutory nuisance and the necessary actions taken in light of any such investigation.

4.0 Sustainability Implications

- 4.1. Nil.

5.0 Resource Implications

5.1. Financial Details

- 5.2. The full financial implications of the recommendations are set out in the report. This includes a reference to full life cycle costs where appropriate. Yes
- 5.3. Finance have been consulted and have agreed the financial implications as set out in the report. Yes
- 5.4. *Staffing*
- 5.5. There are no staffing implications.

6.0 Exempt Reports

6.1. Is this report exempt? Yes (please detail the reasons for exemption below) No

7.0 Declarations

The recommendations contained within this report support or implement our Corporate Priorities and Council Policies.

(1) **Our Priorities 2008 - 2011** (Please double click on the check box)

The area has a positive image and attracts people and businesses	<input type="checkbox"/>
Our communities are more cohesive and inclusive	<input type="checkbox"/>
People are better skilled, trained and ready for learning and employment	<input type="checkbox"/>
Our communities are safer	<input type="checkbox"/>
Vulnerable people and families are supported	<input type="checkbox"/>
Substance misuse and its effects are reduced	<input type="checkbox"/>
Health is improving and health inequalities are reducing	<input type="checkbox"/>
The environment is protected and enhanced for all	<input checked="" type="checkbox"/>
The Council is effective, efficient and recognised for excellence	<input checked="" type="checkbox"/>

(2) **Council Policies** (Please detail)

8.0 Equalities Impact

8.1 Have you undertaken the required equalities impact assessment to ensure that no groups are adversely affected by the recommendations?

Yes No

9.0 Legality

9.1 It has been confirmed that in adopting the recommendations contained in this report, the Council is acting within its legal powers. Yes

10.0 Appendices

10.1 Please list any appendices attached to this report. If there are no appendices, please state "none".

None

11.0 Background Papers

11.1 Have you used other documents to compile your report? (All documents must be kept available by the author for public inspection for four years from the date of meeting at which the report is considered)

Yes (please list the documents below) No

Author(s)

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Approved by

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