

**Hull Waste Water
Treatment Works
(Saltend Site) Review
Panel Report**

**Report of the
Review Panel**

November 2015

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Chairman's Introduction

Odour emissions, sewage smells, call them what you will, they are locally known as the 'Saltend Pong', and typically they waft for week after week over the communities and workplaces of South West Holderness Ward during the best part of every summer. They come from Yorkshire Water's Waste Water Treatment Works at Saltend near Hedon and they have become a fact of local life over the past ten years or so resulting in a recurring blight on the residents of South West Holderness as well as those working at or near the Saltend Chemical Park.

Environmental officers spent many hours carrying out investigations in line with the recommended Code of Practice from DEFRA in order to determine whether or not a statutory nuisance existed. Following this work, an abatement notice was served in August 2015 which was not appealed by Yorkshire Water.

It is encouraging that Yorkshire Water has at this stage confirmed their intention to put the situation at Saltend to rights, and the Panel is heartened by these comments; however, it remains to be seen whether or not Yorkshire Water will carry out the works promised and whether they will have the desired effect.

I wish to place on record my thanks to the Panel Members for their time and effort, and for their probing questions, not only of the Yorkshire Water team, but also of other participants. Also to Nigel Leighton and Paul Abbott, who sat with us throughout the whole process and helped enormously with their knowledge and expertise.

I also wish to thank the local residents who took the time to come and speak to us and let us know how the problems at the Saltend site have affected their lives. We also received useful contributions from the Beverley and Holderness MP Graham Stuart, and ward members. And not to be forgotten the expert help, advice, and lasting patience, and for her organisational skills, note taking, report writing and general guidance from Overview and Scrutiny Team Leader, Jane Stewart.

This Review Panel will remain in existence during the forthcoming months in order that we can monitor progress at the site, and in turn provide an ongoing report to Overview and Scrutiny. We will certainly still be around next July and August to see the outcome of Yorkshire Water's endeavours.



Councillor John Dennis
Chairman of the Hull Waste Water Treatment Works (Saltend Site) Review Panel

1 Executive Summary

Why the review took place

- 1.1 The Hull Waste Water Treatment Works at Saltend was required as a result of the European Waste Water Directive and was granted planning approval on 21 October 1997. It began operation in two stages, being fully operational in 2002. The Saltend site is designed to offer biological treatment of sewage from Hull and the surrounding areas including Hedon and Preston.
- 1.2 For many years, there have been complaints regarding odours from the works. Originally these occurred sporadically throughout the year; however, since 2011 there had been a concentration of complaints associated with the period when loads coming into the site peak, known by Yorkshire Water as “peak load season”(usually six weeks in July – August each year), and referred to by residents as the “pea season”.
- 1.3 The issues at the Saltend site seemed to have improved in 2012/13 and 2013/14, but this year, due to the high chemical oxygen demand (COD) levels in the sewage arriving at Saltend, the stench from the site was greater than ever. This led to the highest number of complaints about the site being received, together with a petition of over 1,300 signatures which was presented to the Council in August 2015. This requested East Riding of Yorkshire Council to issue an immediate abatement order against Yorkshire Water under the 1990 Environmental Protection Act.
- 1.4 The Review Panel has been convened to look at the plans Yorkshire Water has in the short-term and medium term to address the issues at the plant, particularly in light of the abatement notice which has now been issued.
- 1.5 Reference is made in this report to the effluent created by a pea processing plant during the pea (or peak) season. The Panel wishes to make it clear that Yorkshire Water admits full responsibility for the ongoing odours and that the pea processing plant is acting within its consent and is not held to be responsible in any part for the odours being generated at the Saltend site.

What the review looked at

- 1.6 The review looked at the ongoing issues at the Saltend site, including public health implications. Discussions then took place with Public Protection Officers at the Council and senior representatives from Yorkshire Water in an attempt to understand the problems, why they have not been addressed and what needs to happen to ensure the stench from the site during peak load season which was at its most evident this year, does not occur again. The Panel also spoke to residents, the portfolio holder with responsibility for public protection, local ward councillors, the local Member of Parliament (MP) and Public Health England in order to gain a greater understanding of the effects the odours were having on local people.

What the review found

- 1.7 The review found that in 2015, the Council and Yorkshire Water received more complaints than in previous years and that these were mainly (but not entirely) made during the peak load season.
- 1.8 Residents complained that during the peak season, windows had to be closed, garden use and enjoyment curtailed, barbeques and outdoor eating prevented, washing was not able

to be hung out, people did not want to go out to walk or jog, and going to bed at night with open windows only made people feel ill and physically sick when they woke up.

- 1.9 Although there were no public health implications evidenced, it was clear to the Panel that anxiety and distress were being caused to some local residents because of the stench that they were being forced to endure resulted in their enjoyment of the summer being spoiled.
- 1.10 The Panel found that there was inconsistency in permitting around waste treatment works and felt that this needed government led intervention to bring about legislative change.
- 1.11 The Council issued an abatement notice in August 2015, which required Yorkshire Water to prevent the nuisance from re-occurring by 1st July 2016. Yorkshire Water informed the Panel that they were in the process of developing short-term plans to satisfy the requirements of the abatement notice and the Panel requested that these plans clearly show that Yorkshire Water had a detailed understanding of the effluent discharges, including peaks and troughs that could occur.
- 1.13 In October 2015, Yorkshire Water announced plans to invest £30m in the Saltend site to tackle the odour problems. The Panel welcomes this news and hopes that Yorkshire Water's action plan brings about a satisfactory result for the residents affected, although at this stage (November 2015), the outcome remains unknown. As a result, the Panel has agreed to meet in February 2016 to review progress and then again just prior to the peak load season.

2 Reasons for the Review

- 2.1 At its meeting on 30 July 2015, the Overview Management Committee recommended that an urgent review panel be convened to look into the foul odours emanating from the Saltend site.
- 2.2 The Panel visited the Saltend site on 18 August and in addition, has held five meetings in order to gather information and the views of the people affected.

3 Financial Implications of the Review

- 3.1 There are minor financial implications for the Council from this review, which relate to staff required to monitor against compliance with the Abatement Notice. There is also a monetary cost associated with the recommendation to subject all proposals from Yorkshire Water to technical scrutiny by an appropriate expert.

4 Methodology

- 4.1 The membership of the Panel was set at six members (four Conservatives, one Labour and one Independent). The scope for the review outlined the issues that the Panel would consider. A copy of the original scope can be found at Appendix A.
- 4.2 The Review Panel commenced in August 2015. The Panel met on four occasions and also took part in a site visit to the Saltend site.
- 4.3 The Panel heard from the following people and organisations:

Residents

- Lead petitioner and two local residents

Yorkshire Water

- Richard Flint, Chief Executive
- Charlie Haysom, Director of Service Delivery
- Nevil Muncaster, Director of Asset Management
- Ben Roche, Head of Energy and Recycling
- Beth Jones, Head of Asset Planning
- Dafydd Williams, Public Affairs Manager
- Paul Carter, Public Affairs Advisor
- Tom Bellringer – Product and Processing Manager
- James Moore – Engineer (Asset Planning)
- Nick Topham, Programme Director
- Gary Booth, Asset Solutions Manager

Public Health England

- Nicholas Aigbogun, Consultant in Communicable Disease Control
- Jamie Bond, Environmental Public Health Scientist

East Riding of Yorkshire Council Officers

- Nigel Leighton, Director of Environment and Neighbourhood Services
- Tim Allison, Director of Public Health
- Paul Abbott, Public Protection Services Group Manager
- Andy Wainwright, Strategic Development Services Manager

MPs, Portfolio Holders and Ward Councillors

- Graham Stuart, MP for Beverley and Holderness
- Councillor Shaun Horton, Portfolio Holder for Community Involvement and Local Partnerships
- South East Holderness Ward Councillors – Councillor Hodgson speaking on behalf of himself and Councillors Cracknell and Healing
- South West Holderness Ward Councillors – Councillor Bryan speaking on behalf of himself and Councillor Steel

- 4.4 The aim of the review was to hold Yorkshire Water to account over the foul odours emitting from the Saltend site and investigate the plans Yorkshire Water had to provide and implement solutions both in the immediate and medium term so that residents did not have to suffer from the foul odours in the future.
- 4.5 The Review Panel consisted of: Councillors Dennis as the Chair (Conservative), Barrett (Conservative), Mathieson (Independent), Matthews (Conservative), Moore (Labour) and Wilkinson (Conservative).

5 Summary of Recommendations

Number	Recommendation	Responsible Organisations
1 Page 11	That officers from the Public Protection Team be thanked for the many hours they have invested in their work with Yorkshire Water at the waste water treatment works at Saltend.	N/A
2 Page 11	That the Council monitor the situation at the waste water treatment works at Saltend to ensure the requirements of the Abatement Notice are met.	ERYC
3 Page 11	That the Council take appropriate action should the nuisance not be resolved.	ERYC
4 Page 15	That Hull City Council be requested to support East Riding of Yorkshire Council in its endeavour to resolve the nuisance being created at the Saltend plant.	Hull City Council
5 Page 17	That with regard to future waste water treatment works, Yorkshire Water be able to clearly demonstrate issues around flows between traders and the site had been addressed to ensure septicity issues have been taken into consideration.	Yorkshire Water
6 Page 17	That with regard to future waste water treatment works, Yorkshire Water be able to clearly demonstrate detailed understanding of the effluent discharges into that site, together with any peaks and troughs in discharges that could occur.	Yorkshire Water
7 Page 19	That this Panel write to the Secretary of State to request the introduction of permitting for waste water treatment works by DEFRA.	ERYC
8 Page 19	That this Panel write to other interested parties, such as local authorities and MPs, seeking support for the introduction of permitting for waste water treatment works by DEFRA	ERYC
9 Page 22	That Yorkshire Water liaise more closely with industrial customers, including any relevant processing plants, to monitor effluent flows and to enable pre-warnings of higher loads to be received and that all relevant information be reported to the Council.	Yorkshire Water
10 Page 25	That future applications for major developments at waste water treatment works be submitted to expert technical consultants to ensure any odour control proposals are robust.	ERYC
11 Page 26	That Yorkshire Water supply details of their proposed action plan investigations, feasibilities, options and work programme to ensure the requirements of the abatement notice can be met and that these details be supplied before 1 February 2016.	Yorkshire Water
12 Page 26	That Yorkshire Water demonstrate that independent assessments have been made of their proposed action plan and that these are deemed to be robust.	Yorkshire Water
13 Page 26	That the Panel reconvene after Yorkshire Water's action plan is received and appraised and again prior to the peak season to determine whether the plan has been or is being completed successfully.	ERYC

6 The Site

- 6.1 The Saltend site was granted planning approval on 21 October 1997. It began operation in two stages, being fully operational in 2002.

Waste Water Treatment Works, Saltend



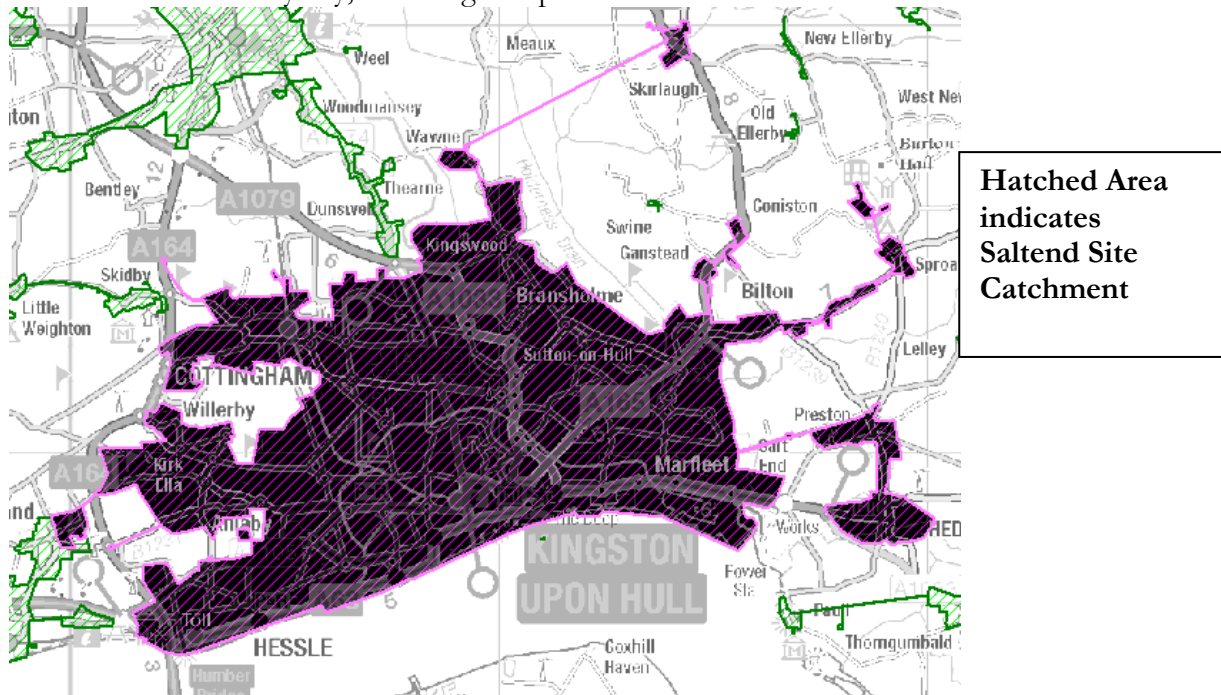
Sequence Batch
Reactors (SBR)

Lamellas

Inlet Works

Sludge Treatment
Facility

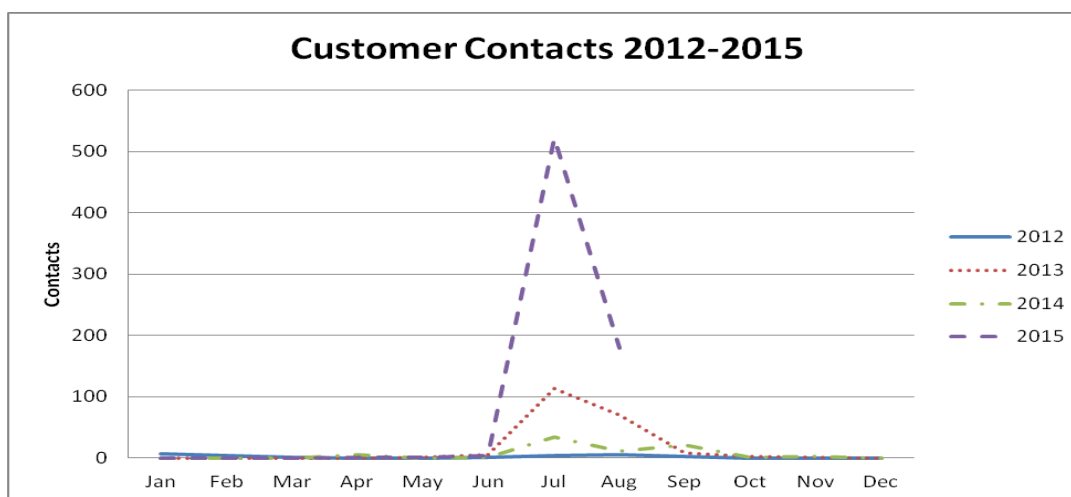
- 6.2 The site serves a population equivalent of 1.1 million and treats approximately 40 million gallons of waste water every day, including complex trade effluent.



Hatched Area
indicates
Saltend Site
Catchment

7 Complaints

- 7.1 Complaints concerning the odours from the Saltend site occur sporadically all year round; it is true to say, however, that the vast majority are received during the peak season.
- 7.2 The effluent coming from pea processing plant during peak season can generate high levels of hydrogen sulphide, which is a colourless, highly flammable gas with a characteristic foul odour of rotten eggs. Some common names for the gas include sewer gas, stink damp, swamp gas and manure gas. It is primarily the release of hydrogen sulphide gases during the treatment processes of the sewage at the Saltend site which have created such problems for residents living near the site over the years, who told the Panel that it was impossible during the peak season to sit in the garden, have barbecues or garden parties, put washing out or leave the windows open.
- 7.3 From 2007 – 2010 complaints received jointly by Yorkshire Water and the Council about the Saltend site numbered between 20 and 50 per month throughout each of those years. In 2011, however, figures rose sharply to approximately 175 complaints. The second Odour Control Unit was installed in 2011 and the number of complaints from residents between 2012 and 2014 dropped again to almost zero for 44 weeks of the year, with minimal complaints during the peak season.
- 7.4 Both this year and in previous years, the Council met with Yorkshire Water prior to the peak season and received assurances from Yorkshire Water’s specialists that the problems that had arisen in the past during the peak season would not reoccur. Despite these assurances, 2015 saw some of the worst problems in the history of the site with Yorkshire Water and the Council jointly receiving over 500 complaints from residents. These were followed in August 2015 with a petition to the Council of approximately 1,300 signatures.



Abatement Notice

- 7.5 In 2015, Public Protection officers responded to complaints received by the Council by carrying out investigations in line with the recommended Code of Practice from DEFRA. The assessments were carried out in order to determine whether or not a statutory nuisance existed. There is a duty on local authorities to issue an Abatement Notice when satisfied that a statutory nuisance exists or may occur or recur.

7.6 The code states that:

“A statutory nuisance from odour is an odour arising on industrial, trade or business premises that has been assessed by an Environmental Health Practitioner as being “prejudicial to health or a nuisance”. In effect, a statutory nuisance is such that it prevents someone from enjoying his own property (nuisance) or has prejudicial health effects on a normally healthy person or persons in the area. Statutory nuisance does not *depend* on the number of complaints, though this is likely to be a factor the Environmental Health Practitioner takes into account in making his assessment. A statutory nuisance may be found to exist, or be likely to occur or recur, with only one complaint, or even none.

7.7 The term “offensiveness” of an odour encompasses the factors that determine whether an odour has an objectionable or offensive impact. It includes the frequency, intensity (and therefore concentration), duration, hedonic tone/character, along with the location. Once the odour detection threshold has been exceeded (on an individual level) the offensiveness of a particular odour will be related to its perceived intensity and its hedonic tone.”

7.8 In 2015, as the peak season commenced, the Council received a number of complaints and commenced an investigation. Assessments began on 14 July 2015.

7.9 A schedule of morning and evening visits was carried out in response to the complaints because it was frequently noted that complainants referred to odour problems out of office hours. Officers frequently visited in pairs to allow for balanced, corroborated but independent assessments of the odours at varying locations downwind from the works. A total of around 280 assessments of the odours were made.

7.10 Consideration was given to the levels of odour that would constitute a statutory nuisance with categories of intensity and persistence as follows:

Persistence

0. No Odour
1. Very Transient (effort required to pick odour up)
2. Transient (odour present but only in occasional whiffs)
3. Persistent (easily detectable for more than occasional whiffs - identified as coming from works)
4. Very Persistent (no respite from the odour)

Intensity (assuming detectable, if not then mark as zero)

0. No odour
1. Very faint odour
2. Faint odour
3. Distinct odour
4. Strong odour
5. Very strong odour
6. Extremely strong odour

7.11 It was determined that where odours in the vicinity of the works were assessed at scores of 3 or more for intensity and 3 or more for persistence it was evidence that contributed to a finding of nuisance. Further from the works a combination of 2 or more and 3 or

more for the two factors was considered to be sufficient.

- 7.12 The indicated assessments were done wherever the odour plume from the plant was accessible, often from highways and not always in residential areas. The assessments demonstrated the ability of the odour to travel significant distances from the plant, thus having the capacity to affect inhabitants of a wide area.
- 7.13 Officers reviewed the results of the survey on 13 August having gathered approximately one month's worth of odour assessment results. It was determined in the opinion of all officers present that the odours amounted to a statutory nuisance. Appendix B provides details of the assessments.
- 7.14 Having concluded that the odours from the works did amount a statutory nuisance; officers exercised their delegated powers on 17 August 2015 with the service of an Abatement Notice. The notice simply requires Yorkshire Water to prevent the nuisance from recurring by 1st July 2016; it has no impact on this year's issues.
- 7.15 The Act includes rights of appeal against an Abatement Notice. When meeting the Panel on 4 September, the Chief Executive stated that Yorkshire Water would not be appealing the Abatement Notice.
- 7.16 The Panel thanked the Public Protection Team for the many hours that they had invested in gathering the evidence that led to the Abatement Notice and also when working with Yorkshire Water to provide assistance in improving the management of the site.

Recommendation 1	That officers from the Public Protection Team be thanked for the many hours they have invested in their work with Yorkshire Water at the waste water treatment works at Saltend.
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- 7.17 The Panel fully supported the Council's decision to issue an Abatement Notice to Yorkshire Water and was of the opinion that the Council should monitor the situation at the Saltend site.
- 7.18 Officers explained that if the requirements of the Abatement Notice were not met, the Council's powers were limited to prosecution in the Magistrate's Court and a fine of up to £20,000. If the matter was referred to the High Court, higher fines could be issued. The Panel felt that the Council should take appropriate action if the statutory nuisance arose again in 2016.

Recommendation 2	That the Council monitor the situation at the waste water treatment works at Saltend to ensure the requirements of the Abatement Notice are met.
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Recommendation 3	That the Council take appropriate action should the nuisance not be resolved.
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8 Public Health Issues

- 8.1 The Panel welcomed Dr Tim Allison, Director of Public Health from East Riding of Yorkshire Council, Dr Nicholas Aigbogun, Consultant in Communicable Disease Control, North Yorkshire and the Humber Health Protection Team, Public Health England and Jamie Bond, Environmental Public Health Scientist, Environmental Hazards and Emergencies Department, Centre for Radiation, Chemical and Environmental Hazards, Public Health England.
- 8.2 Mr Aigbogun informed the Panel that Public Health England first found out about the issues at the Saltend site at the end of June 2015 when comments on social media were picked up by Public Health England. Public Health England then checked if any local people had complained to their GP or healthcare provider about being ill due to the Saltend site. They found no complaints. They also checked their records to see if any calls had come directly to Public Health England, but there had been none.
- 8.3 Mr Aigbogun got in touch with Yorkshire Water and they said this was an ongoing issue which had been occurring for at least four to five years. Yorkshire Water had recently tried to invest more in the plant and as far as they were aware the concentration of chemicals was not high enough to have any direct health implications on residents. Public Health England then spoke to the Director of Public Health at the Council and discovered from him that the odour issues might be unpleasant, but there were no definitive records that people had become unwell.
- 8.4 Mr Bond informed the Panel that there was very little evidence to show exposure to odour created a health risk from a toxicological point of view. The evidence indicated in this case that there was no direct harm taking place to residents. However, the implications for residents' mental health, such as stress or depression, were also mentioned.
- 8.5 The odours emanating from the Saltend site came from hydrogen sulphide which was being generated from the effluent. Mr Bond said that hydrogen sulphide usually created short-term health problems such as watering eyes. He was asked whether there would be any other airborne pathogens coming out of Saltend and he felt that this would not be the case. Hydrogen sulphide dispersed quickly so any health issues would probably only take place in people who worked at the site itself. Yorkshire Water had a health and safety responsibility to their workers on the site and the Council was aware of the fact that in one of the process buildings on site, Yorkshire Water had needed to provide extractive ventilation due to health and safety concerns.
- 8.6 Mr Aigbogun said some people were more predisposed to odours and the effects of these on their physical and mental health. This often depended on their age and gender and whether they had any long term conditions. If any resident felt that their health problems were linked to odours from the site then they should speak to their healthcare provider and these would be followed up by Public Health England.
- 8.7 The Director of Public Health said that they had no evidence that the levels of conditions such as asthma and chronic obstructive pulmonary disease were any greater in the area around Saltend than anywhere else within the East Riding.

9 Views of Interested Parties

9.1 As part of the review, the Panel was keen to learn how the Saltend site impacted on local residents. The views of the local MP, the Council's Portfolio Holder with responsibility for Public Protection and ward councillors were also sought.

Local Residents

9.2 Resident A stated that he had lived in Hedon for eleven years, approximately one mile from the plant which lay directly to the west of his house. He had many years' experience working in the building and civil engineering industry, so he did understand some of the technical issues that Yorkshire Water had been struggling to deal with.

9.3 Ever since he had lived in Hedon he had been plagued with foul odours coming from the Saltend plant. He had previously corresponded with both Yorkshire Water and the Council about these issues and had pushed hard in the past for an Abatement Notice to be issued. The Public Protection Services Group Manager informed the Panel that evidence had never confirmed the existence of statutory nuisance in previous investigations.

9.4 He stated that if he had known at the time there was an odour issue with Saltend which affected the town of Hedon as it currently did, he would not have bought a house in Hedon. He was of the firm belief that the issues had affected the local property market in relation to demand for people moving into this area and relocating within it.

9.5 Resident A felt the odours this summer were the final straw and the community was at last prepared to speak up publically and take direct action.

9.6 In 2011, two directors from Yorkshire Water visited Resident A's property to offer their apologies and to tell him about the £3.5m investment Yorkshire Water was due to make in the installation of new and additional odour control units. They stated that whilst the new units would not completely eradicate odours, properties in surrounding towns and villages would not suffer with odours anymore. In the view of Resident A, this turned out to be wrong.

9.7 At that meeting with Yorkshire Water, Resident A suggested that Yorkshire Water should consider three things:

- Severely dilute the pea effluent at its source and before it was discharged into the sewerage system. It was his understanding that Yorkshire Water granted and charged customers for effluent licences and could therefore regulate them. Yorkshire Water had clearly ignored this suggestion and the issues that have been suffered in 2015 had been caused by the strength and quantity of the pea effluent killing the bacteria. Resident A felt that failing to take action to dilute or even refuse effluent licences was an act of gross negligence on Yorkshire Water's part and would remain so until they had a plant capable of dealing with it. He felt that the effluent could be removed from the site in tankers and spread on the land as an organic fertiliser, much in the same way pig slurry was spread - *In response to these suggestions made by Resident A, Yorkshire Water commented that unfortunately they would not deliver benefits. Diluting the pea effluent would not solve the problem as it was the load which caused the issue and diluting the effluent would not change the load. In addition, pre-treated waste could not be spread as fertiliser; farm waste (pig slurry) was regulated differently*

- House the offending pieces of plant or equipment in sealed buildings, which in the event of an issue would not have any odour impact on the environment. In these sealed buildings mechanical extraction could be used in conjunction with carbon filters. Resident A recalled at the meeting that this was rejected at the meeting by the two Yorkshire Water Directors purely on the grounds of excessive cost. Resident A said he would strongly suggest that with cost not now being an issue, his suggestion was revisited with the use of independent consultant engineers
- Compensation for the community via financial support and sponsorship to local organisations such as sports clubs. Yorkshire Water did take this idea on board and eventually paid a sum into a community fund. Resident A felt this should have been tenfold the amount as Yorkshire Water had effectively got away with minimal financial impact and continued to “fob off the community, the Council and the politicians, all of whom had been made to look foolish”.

9.8 Resident A said his experience of the in 2015 was very similar to the majority of local residents. For six weeks on and off, depending on the wind direction, there were extremely unpleasant sewerage odours which were much stronger than he could ever recall and which occurred at different times of the day and night.

9.9 In the height of summer windows had to be closed, garden use and enjoyment curtailed, barbeques and outdoor eating prevented, washing was not able to be hung out, people did not want to go out to walk or jog, and going to bed at night with open windows only made people feel ill and physically sick when they woke up and found the house reeking of the stench from Saltend. Resident A stated, however, he was delighted that the Council was addressing the matter and had issued the Abatement Notice. He felt that this problem needed to be eradicated once and for all and Yorkshire Water needed to be held accountable with financial penalties being agreed and imposed should there ever be a reoccurrence. Only when there were severe consequences would they take this matter seriously and make the required investment and changes that were needed.

9.10 Resident B stated that she had been very happy living where she did until the problems at Saltend occurred. She had originally opposed the plant being built, but had been assured at that time there would be no problems. She informed the Panel that the odour coming from the site made her physically sick. She had considered moving, but her house had been devalued and she couldn't afford to. A member of her family had since moved to Hornsea because of the problems at Saltend.

9.11 She too, in 2011, had received a visit from directors at Yorkshire Water. She had asked why Yorkshire Water hadn't managed the amount of effluent that came into the site. She said that the Yorkshire Water directors told her that they hadn't accounted for the pea season in their calculations. She had been reassured that the investment would eradicate the problem and indeed the problem was reduced with that investment for a number of years. She then decided that she would stay where she was and she upgraded her property. Then in 2015 the pea season was worse than ever. She was now wondering whether she should move; however, she was doubtful about being able to sell her home at the price she would require.

9.12 Resident B told the Panel that the situation at the plant was ruining her life and she was sure there would be many similar stories from other residents in Hedon.

Petition Representative – Resident C

- 9.13 Resident C informed the Panel that there had been a reoccurrence of odours that weekend (19-20 September 2015) so Yorkshire Water’s short term plans were not working, despite the fact that the pea season had finished. He stated that Hull Council seemed to have “washed their hands of the problem” and were blaming the East Riding for the problems with the Saltend site. As a result, some East Hull residents were very concerned about this. The Public Protection Services Group Manager reassured resident C that odour assessments had been carried out in Hull as well as the East Riding, depending on the direction of the wind.

Recommendation 4	That Hull City Council be requested to support East Riding of Yorkshire Council in its endeavour to resolve the nuisance being created at the Saltend plant.
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- 9.14 Resident C said he had lived for eleven years in Hedon and the problem had been occurring for much of that time. Things were getting worse and this year things came to a head, which is why he had started a petition. This had proceeded very well and he had received an excellent response. The smells were appalling and were ruining lives, with people having to cancel parties and not being able to enjoy the summer months outside in their gardens and some residents were feeling physically sick. He felt this was all connected to the Saltend plant. A lot of people were passionate about the problems and wanted to see the problems sorted out once and for all.

Portfolio Response

- 9.15 The Panel received in writing the portfolio response from Councillor Horton, Portfolio Holder with responsibility for public protection.
- 9.16 Councillor Horton stated that his concern was for the residents in the locality of the waste water treatment works. Serious problems with odours from this site had caused distress and blighted the lives for many over a number of years. The route forward for any solution needed to satisfy as fully as possible the issues residents have with this facility. Councillor Horton felt this was an unacceptable problem that had gone on too long and residents had to be supported.
- 9.17 Councillor Horton informed the Panel that this year, from around the beginning of July, the Council started to receive complaints about odours and the numbers very quickly escalated. The Council reacted in a very thorough manner, instigating odour monitoring visits in the areas around the site – Preston, Hedon, Greatfield Estate and the industrial areas around the site (around 280 locations, taking approximately 200 hours of officer time). The Council concluded that a nuisance was occurring and an Abatement Notice was served upon Yorkshire Water requiring them to prevent a recurrence of the nuisance.
- 9.18 Councillor Horton felt that the Council was right to take this action, residents naturally looked towards their local authority to do something, but the Council had limited powers. There did not seem to be a clear system with powers to deal with the odour problems in a pro-active way and Councillor Horton expressed the wish that the Panel looked into this in order to make suggestions or recommendations as to how this might be improved. In addition, the Council had, by setting up the Review Panel, shown its determination to get to grips with the problem and hopefully the outcome would create a

better understanding of how and why the problems were happening and what could be done to solve the problems.

- 9.19 The problem appeared to be primarily the result of the peak season in the summer months, but as this was an issue that Yorkshire Water was aware of in advance, Councillor Horton felt the most important question was why they were unable to fully deal with it. The site had now existed for some time and there were clearly capacity issues. Councillor Horton also felt there were operational shortcomings – for example, could there be a better working between Yorkshire Water and its industrial customers in terms of managing the flow of waste and/or pre-treating waste at the factory level?
- 9.20 Councillor Horton also questioned whether the £17.5 million of investment to upgrade the plant which had been allocated over the next five years was enough to solve the current problems and be able to deal with further as yet unanticipated problems.
- 9.21 Councillor Horton stated that he appreciated there was complexity to the workings of the treatment works, but hoped discussions with Yorkshire Water would lead to a full and open understanding of the technical and operational issues involved, which when published would lead to a wider and better understanding for all.

South West Holderness Ward Councillors

- 9.22 The Panel welcomed Councillor Bryan who was speaking on behalf of the residents of South West Holderness.
- 9.23 Councillor Bryan had been expressing concerns to the Council since 2008 over the odour coming from the Saltend site. Councillor Bryan had had regular meetings since 2009 with staff at a senior level from Yorkshire Water, including the new Chief Executive, to discuss ongoing problems, and although he had been reassured many times in the past, he did not think that the situation had improved and indeed had got worse this year.
- 9.24 In 2015, Councillor Bryan had received a large number of complaints from residents who were unable to spend time in their gardens in the summer or leave their windows open due to the terrible odour coming from the plant during the pea season. The main problems now seemed to occur during the pea season alone and it was his opinion the plant was not suitable to take the increase in effluent that was coming from the pea processing plant
- 9.25 Councillor Bryan informed the Panel that he was frustrated as he felt that the Council didn't seem to be intervening and Yorkshire Water did not have control of the site. Councillor Bryan also felt that Yorkshire Water had not been pushed enough until residents created the recent media campaign which had forced Yorkshire Water to address the issue.
- 9.26 Councillor Bryan felt legal powers needed changing so that it would be possible to be more proactive and clear over what could be done to deal with problems such as the ones at Saltend.

South East Holderness Ward Councillors

- 9.27 The Panel welcomed Councillor Hodgson who was speaking on behalf of residents from South East Holderness.
- 9.28 The problem at Saltend had migrated and Councillor Hodgson said a lot of residents

were concerned about the Hollym site which was due to be relocated because the issues at Saltend had caused so many problems that Yorkshire Water had lost the trust of the community. Yorkshire Water's first consultation had seen around eighty signatures from residents expressing their serious concerns. It was clearly evident there was a lot of negative public feeling towards Yorkshire Water.

- 9.29 Councillor Hodgson stated he was also aware that the plant at Beverley was under discussion. Officers and the Panel felt that it was important that Yorkshire Water learnt lessons from the Saltend site to ensure that the issues that had arisen there did not arise anywhere else.

Recommendation 5	That with regard to future waste water treatment works, Yorkshire Water be able to clearly demonstrate issues around flows between traders and the site had been addressed to ensure septicity issues have been taken into consideration.
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Recommendation 6	That with regard to future waste water treatment works, Yorkshire Water be able to clearly demonstrate detailed understanding of the effluent discharges into that site, together with any peaks and troughs in discharges that could occur.
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- 9.30 The plant was apparently sized correctly and Councillor Hodgson had not seen evidence that the site should not be able to manage the processes when he had undertaken a site visit. However, Yorkshire Water had dealt with the smaller issues and not addressed the more serious ones.
- 9.31 Councillor Hodgson had examined the sequence batch reactors and the biology and the reasons for the stench and, although he understood that the tanks couldn't be pressurised, he felt that they could be tented with extraction equipment put in. He informed the Panel that at that point, and to his knowledge, Yorkshire Water had not considered this as an option.
- 9.32 Councillor Hodgson said that Yorkshire Water had come under a great deal of criticism with regard to the flooding that had taken place in the East Riding and their reputation had been seriously damaged over that matter. This, in conjunction with the problems at Saltend, had resulted in the public having no confidence in Yorkshire Water.

Graham Stuart MP for Beverley and Holderness

- 9.33 Mr Stuart informed the Panel that in his view the review was extremely welcome. He had received a number of emails over the years from residents complaining about the foul smells emanating from the Saltend site. These emails clearly demonstrated the sense of despair residents were feeling about the situation and the frustration that nothing seemed to be happening to solve the problem.
- 9.34 In August 2007, Mr Stuart wrote to the DEFRA Secretary requesting a meeting to discuss the plant. This followed a Council meeting where members were asked to take action to address horrendous odour problems. This meeting took place in January 2008 with a number of Ward Councillors and representation from Preston Parish Council.

In October 2007, Mr Stuart tabled an early day motion (2045) urging Ministers at DEFRA to put pressure on water companies to ensure that appropriate measures were in

place to control the design and operation of the Saltend plant and similar plants in the future.

- 9.35 In July 2013, Mr Stuart wrote to the Council asking them to consider a financial penalty for Yorkshire Water if they failed to control odours. The Director of Environment and Neighbourhood Services confirmed that statutory nuisance action under the Environmental Protection Act 1990 was under constant consideration with officers making frequent site visits. It was confirmed that there was no mechanism to issue financial penalties and the only action available to the Council was to confirm statutory nuisance and issue an Abatement Notice.
- 9.36 Mr Stuart explained that he had met recently with one of the Yorkshire Water directors and had been told that there would be a 20% greater than normal increase in effluent during the 2015 pea season. It was Mr Stuart's understanding that the increase had actually been around 60% and Yorkshire Water had failed to make contingency plans for this. In addition, if the amount of effluent caused the bacteria to die, then he could not understand why Yorkshire Water had not prepared for this in advance. He felt that the company had not invested sufficiently, and as a result residents had paid the price.
- 9.37 Members informed Mr Stuart that Ofwat regulated the amount of funding that Yorkshire Water received. Mr Stuart informed the Panel that his understanding was that Yorkshire Water had sufficient financial headroom and he didn't think that there was an issue with regard to the financial aspects of this issue. However, he felt that there was a reluctance on the part of Yorkshire Water to make sufficient investment.
- 9.38 In response to the comments made by Mr Stuart, officers from the Council explained that the Council did log and respond to service requests and complaints from residents. The Director of Environment and Neighbourhood Services stated that there had been peaks and troughs with regard to complaints over the years. Yorkshire Water had made significant investment in 2010/2011 and the Council had hoped that this would provide a solution, and indeed there were less complaints for the following two years. The Council took on board the comments made by Mr Stuart, and stated that the work involved in gathering sufficient evidence to issue an Abatement Notice was a complex process and it was only because of the many hours that had been invested by the Council that it had been possible to issue an Abatement Notice this year.
- 9.39 Members discussed the fact that there was inconsistency around permitting of waste water treatment works. Local companies, such as Waste Wise, which was a leading waste management recycling and composting company, required permitting; however waste water treatment works were not regulated in the same manner. As a result, members felt this was something that Government needed to explore. Under the current system of regulations, the Council could only act reactively and had very limited powers. It was felt, however, that new regulations should be drafted to enable Ofwat to impose financial penalties, although currently they didn't have the statutory powers to do so. Members felt that this was something that should be addressed at a national level as there was an obvious gap in the powers available with regard to controlling waste water treatment works.

9.40 If a permitting regime was put in, that would create standards of controls and limits which would help in the future to prevent the problems that were occurring at Saltend. Statutory nuisance was reactive and responsive, as opposed to permitting which would be able to prevent the problems from occurring in the first place and would act as a permanent control. The nature of the type of work carried out by such plants meant that they could not be closed down, but financial penalties would create a financial incentive to ensure problems did not occur.

Recommendation 7

That this Panel write to the Secretary of State to request the introduction of permitting for waste water treatment works by DEFRA.

9.41 Mr Stuart said this was something that should be taken forward and he as the Local MP would do all that he could to help. It was obvious to him that an entirely new regime needed exploring and this review could be the starting point to change the national system. There was a possibility that Councils could work together, possibly with the Local Government Association to lobby Central Government and change the current legislation. This would also be beneficial to local residents around Saltend who would then see that something was being done about the situation.

Recommendation 8

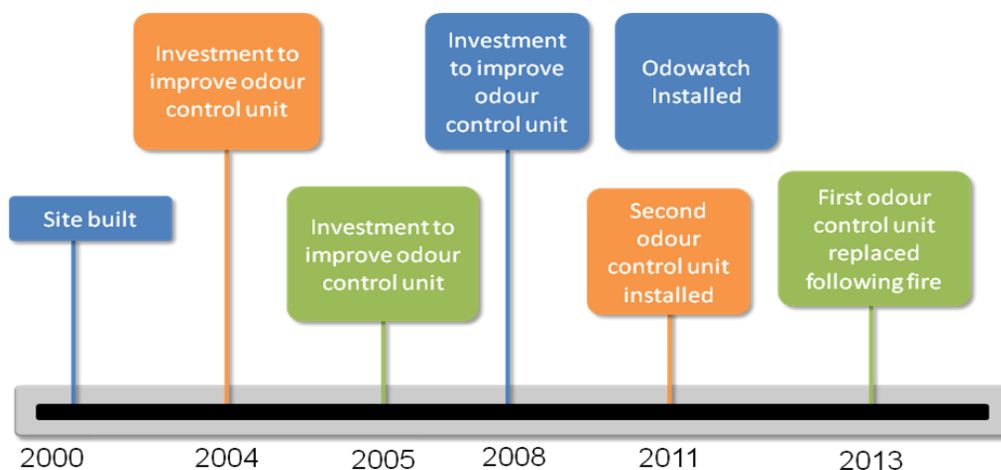
That this Panel write to other interested parties, such as local authorities and MPs, seeking support for the introduction of permitting for waste water treatment works by DEFRA.

10 Response by Yorkshire Water

September 2015

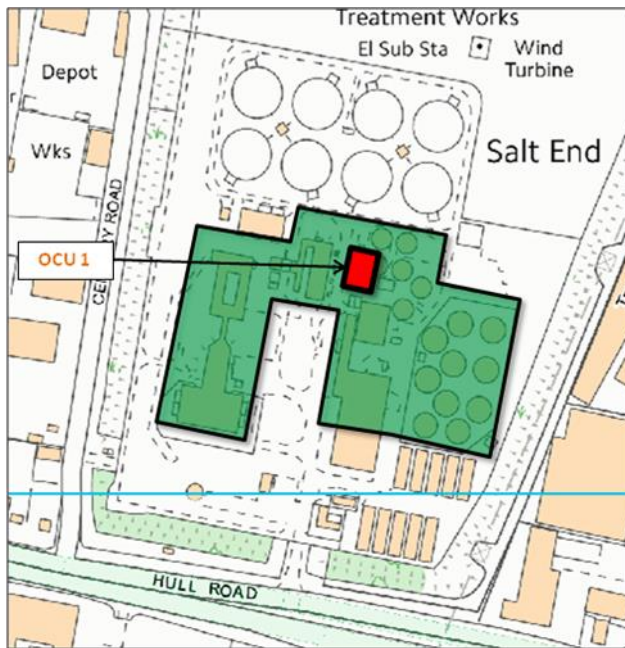
- 10.1 The following senior representatives from Yorkshire Water attended a meeting of the Panel on 4 September 2015:
- Richard Flint, Chief Executive
 - Charlie Haysom, Director of Service Delivery
 - Nevil Muncaster, Director of Asset Management
 - Ben Roche, Head of Energy and Recycling
 - Beth Jones, Head of Asset Planning
 - Dafydd Williams, Public Affairs Manager
 - Paul Carter, Public Affairs Advisor
- 10.2 The Chief Executive commenced Yorkshire Water's presentation by stating that that performance of the site in terms of odour was not what anybody would want and the company truly understood the frustration and anger of residents. The Chief Executive then informed the Panel that he wished to register both his own and the company's apologies for the problems at Saltend. Yorkshire Water remained committed to resolving the problem of the foul odours.
- 10.3 Yorkshire Water had been investing for many years in improving this site and over the last three years had changed the day-to-day management of the site, including installing a dedicated site manager and having in place a complete inventory of spare parts. In addition, the company had invested £3.5 million in an odour control unit.
- 10.4 The result of these efforts was that for 44 weeks of the year Yorkshire Water received very few odour complaints. The focus now needed to concentrate on tackling the odours during the peak period when Yorkshire Water continued to receive complaints. The peak period lasted for around six weeks and began at the start of July.
- 10.5 Yorkshire Water (regulated by OFWAT) had invested £10.5 million in the site in recent years, reducing odour complaints from all year round to a 6-8 week period when loads coming into the site peak.

Previous Investment in the Saltend WWTW Site



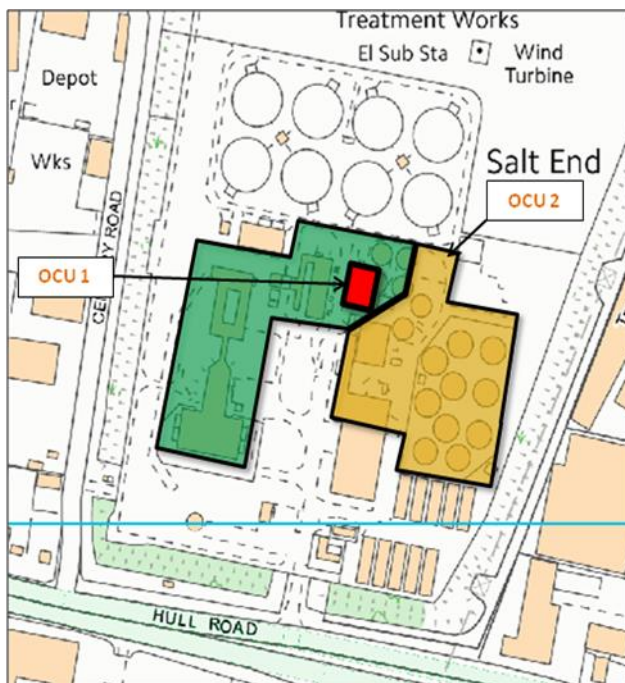
- 10.6 Yorkshire Water informed the Panel that a number of improvements had been made to the Saltend site since it was built in 2000.

Odour Control 2000 – October 2011



- 10.7 On the commission of the site in 2000, not all sludge and treatment processes were odour controlled. Following this, in 2004, 2005 and 2008, enhancements were made to the Odour Control Unit. In addition, between 2000 and 2011, there were enhancements to the chemical scrubber, rebalancing to maximise the removal of the highest odour sources and the addition of a ‘carbon filter final polishing stage’. There was also an assessment of odour control provision to comply with the approved code of practice. In 2009, Yorkshire Water submitted a proposal to OFWAT to fund second Odour Control Unit.

October 2011 – June 2013



- 10.8 In the period April 2010 – October 2011 the second Odour Control Unit was installed and the number of complaints from residents dropped for 44 weeks of the year to almost zero. In the pea seasons between 2012 – 2013, there were minimal complaints and in 2014, complaints rose to just over 100.
- 10.9 Other work in this period included the reallocation of odour sources across Odour Control Units, dispersion modelling was undertaken in line with the approved code of practice, Odowatch was introduced and an odour management plan for the site was implemented.
- 10.10 In June 2013, the first odour control unit was replaced after suffering catastrophic fire damage.

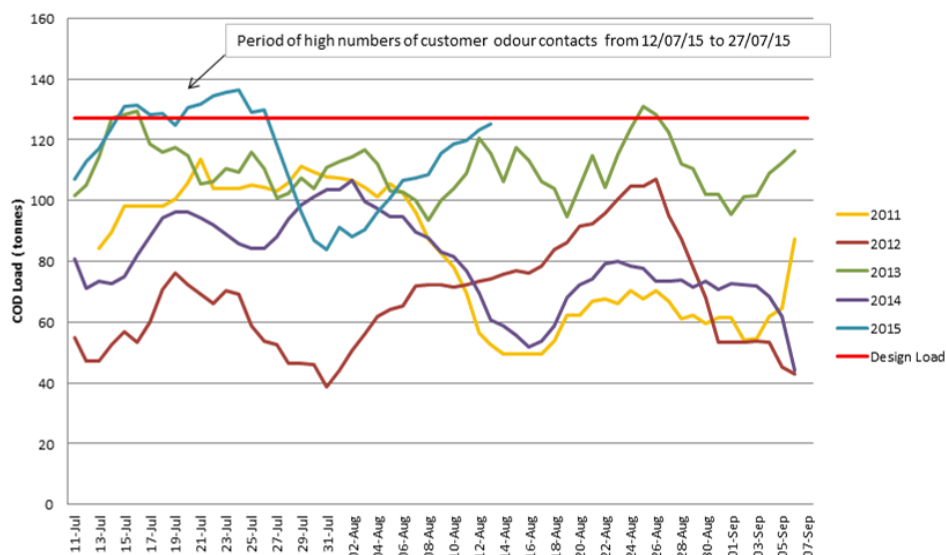
Preparation for 2015

- 10.11 Prior to the 2015 pea season, Yorkshire Water carried out “extensive” pre-peak load preparations building on the plan from 2014. An extra £250,000 was also invested, ensuring all kit on site was prepared.
- 10.12 Yorkshire Water shared its plans prior to peak load season with East Riding Council and dialogue remained ongoing. Yorkshire Water also worked closely with industrial customers to understand the likely loads coming into the site during peak load season.
- 10.13 The Panel noted the comments made by Yorkshire Water, but felt that, although there had been pre-season discussions between the Council, Yorkshire Water and the pea processing plant, Yorkshire Water should liaise more closely with its industrial clients to monitor effluent flows and to enable pre-warnings of higher loads to be received which should then be fed back to the Council.

Recommendation 9	That Yorkshire Water liaise more closely with industrial customers, including any relevant processing plants, to monitor effluent flows and to enable pre-warnings of higher loads to be received and that all relevant information be reported to the Council.
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- 10.14 In 2015, there was a significant increase in load coming into the site compared to previous years.

Rolling daily average Load (7 Day) Hull WWTW - 5th July to 31st August



- 10.15 Chemical Oxygen Demand (COD) levels in the region of 40 tonnes were due to domestic users; figures above that were the result of industry use and it was this usage that fluctuated throughout the year. The design capacity of the site was based on an understanding of the trades and discharges of its portfolio of customers in 1999-2000, together with an adherence to industry best practice. However, the daily loads coming into the site were the main factor within the peak load season.
- 10.16 Yorkshire Water stated that with regard to the consents issued to traders, the total amount had increased slightly by 6% since the site was built, which resulted in the net difference remaining virtually the same. These consents had been designed to ensure that the full portfolio of traders and domestic usage was achievable on a daily basis with regard to load.
- 10.17 However, 15 years later, Yorkshire Water now dealt with a different portfolio which resulted in 2015 having peaks which lasted longer than in previous years and which went above the design of the site. Although the site was equipped to deal with these peaks to a certain extent, if they lasted too long (which happened this year), then the bacteria began to die and the process was compromised.
- 10.18 The Panel expressed concerns over the levels of consents issued by Yorkshire Water as members considered it was apparent that the consents exceeded the capacity of the plant to deal with them.
- 10.19 Yorkshire Water explained that 46 key actions had been carried out to ready the site for the peak load season this year. However, 2015 saw unprecedented loads which had taken the site consistently above its design capacity for the first time. This had a big impact on the biological treatment and resulted in odour problems as the biology was unable to treat the loads.
- 10.20 Since 14 July, Yorkshire Water had been bringing in the equivalent of 17 tanker loads a day of healthy bacteria to help improve the treatment process. Yorkshire Water also introduced additional dosing of chemicals to help reduce the load on the biological treatment. This had cost the company approximately £200,000.
- 10.21 Whilst highly concentrated loads continued to come into the site, Yorkshire Water's ability to improve the biology was limited but by bringing in the tankers of healthy

bacteria, further deterioration was prevented. As a result, Yorkshire Water informed the Panel that future plans must ensure that the site's sustainability was more robust in the future in order to ensure that the bacteria did not die because once this started, it was difficult to recover the process.

Original Proposals for Future Investment

- 10.22 Peak load season ended on 23rd August 2015. Yorkshire Water had continued with its recovery plan since then and had seen significant improvements in the treatment process since the loads reduced.
- 10.23 The Panel was informed that a detailed review with leading industry experts took place 19 – 21 August looking at all possible options for preventing odour issues in order to find the best solution.
- 10.24 The review identified a number of steps that could be taken to increase the treatment capacity of the plant in order to help deal with high loads including:
- Installation of additional enhanced chemical dosing in the lamellas. The lamellas are the stage of treatment prior to the waste water entering the Sequence Batch Reactors where the biological treatment takes place. This chemical dosing will help to increase the amount of load removed at the lamella stage, meaning less is passed on to the Sequence Batch Reactors - reducing the pressure on the biological treatment
 - Installation of new control regime for Sequence Batch Reactors to allow increased aeration. Technology has improved since the last modifications to the Sequence Batch Reactors were carried out and more advanced systems are now available to control the air flow into the Sequence Batch Reactors. The ability to add more air to the process will help to keep the biological treatment process healthy, preventing the odours being generated
 - A full odour survey is being carried out to look at other potential sources of odour on site and action that can be taken to address any problems
- 10.25 In addition, Yorkshire Water was “very actively pursuing” discussions with a key trader to implement a full scale trial of a treatment process which may reduce some of the COD load from their discharge to sewer.
- 10.26 The Public Protection Services Group Manager informed the Panel that Yorkshire Water had put experimental equipment on the site of one of their industrial customers previously and results from this had been positive.
- 10.27 Members queried whether there were other solutions that would improve the situation at the site. The question was put to Yorkshire Water, however, that the site was no longer fit for purpose and was not capable of dealing with the loads received. during the peak season. As a result, members asked whether that solutions that were currently being investigated were merely interim measures when longer terms options were required.
- 10.28 The Head of Asset Planning at Yorkshire Water informed the Panel that these were not interim measures and it was estimated that chemical dosing and improved aeration would increase the capacity of the site by 25% (which would take capacity up to a peak capacity of approximately 160 tonnes of COD load) which would allow it to deal with the increased loads during the peak season.

- 10.29 A question was raised around the transit time required for the effluent to arrive at the Saltend site and the levels of septicity (odours) which resulted from this length of transit time. The Panel was informed that flow management in the catchment area was being investigated and that flushing of the sewerage system periodically took place; however, currently, there was no odour control on the main inlet pumping station. There was also a need to understand the water usage of traders who were using less water, thus increasing the concentration levels.
- 10.30 As part of the recovery plan, a full odour survey was in the process of being carried out to look at other potential sources of odour on site and action that could be taken to address any problems. If the main inlet pumping station is determined to be potential odour source, the odour survey would identify them and Yorkshire Water would address the problem.
- 10.31 Members asked whether it would be possible to utilise non saline water from the River Hull on falling tides to help dilute the effluent and Yorkshire Water agreed that this option had been considered this year and would be possible, it would not affect the load but could help transfer time and hence sewer system septicity issues.
- 10.32 The Panel questioned whether it would be possible to contain the effluent in tankers to enable it to come through in a more managed capacity. The Director of Service Delivery stated that volumes were far too high for this to be a viable course of action. A tanker would be filled within 1 minute and 20 seconds, 24 hours a day, 7 days a week which would be impossible to facilitate. A solution at Saltend was required to treat the effluent and pre-treatment was part of that solution.
- 10.33 Yorkshire Water was asked if they would do anything different if the site was to be rebuilt. Yorkshire Water informed the Panel that this question had been addressed at the workshop in August and the specialists had stated that the use of sequence batch reactors was still appropriate although air diffusion had been improved in later designs.
- 10.34 With regard to the Beverley waste water treatment works, which was shortly to receive considerable investment to bring the site up to date, the Panel stated that it was important the Yorkshire Water understood the effluent discharges into that site, and that Yorkshire Water was able to demonstrate to the Planning Committee that it had appropriate plans in place to deal with any peaks and troughs in discharges that could occur. Issues around distances between traders and the Beverley site should also be addressed by Yorkshire Water to ensure septicity issues were taken into consideration. The Panel heard that some odour assessment reports had been submitted to independent technical consultants and considered that this would be good practice for future developments at waste water treatment works.

Recommendation 10

That future applications for major developments at waste water treatment works be submitted to expert technical consultants to ensure any odour control proposals are robust.

October 2015

10.35 On 22 October 2015, Yorkshire Water announced plans to invest £30m in the Saltend site to help combat the odour issues. These plans included:

- The appointment of a Programme Director to manage the work at Saltend and report directly to Yorkshire Water's Chief Executive. The Programme Director would manage a team dedicated to working in the East Riding and Hull to enable Yorkshire Water to focus on resolving, amongst other things, the odour issues
- Investigations into the feasibility of covering the sequence batch reactor tanks to the rear of the site. The aim of this would be to give added protection against future odour problems
- A £75,000 community fund
- Plans to open an office and drop in centre in Hedon to allow people to call in and ask questions about the investment

10.36 Following the announcement of these plans, a further meeting of the Panel was held at the beginning of November with the newly appointed Programme Director and the Assets Solution Manager from Yorkshire Water.

10.37 The Programme Director stated that the vast majority of the investment (approximately £28m) would be used onsite and would put into place the recommendations made by specialists namely:

- Improved aeration in the SBRs
- Load reductions in the lamellas
- Grit and grease removal system and improved control software

10.38 Governance arrangements at Yorkshire Water had been reviewed and amended to allow decisions relating to the Saltend site, and the investment required, to be progressed swiftly. However, to carry out all the action points in a controlled and safe manner, it would mean that not all improvements were in place for the next peak season.

10.39 It was hoped that all eight SBRs would have improved aeration by the start of the pea processing season. However, even if this could not be achieved, Yorkshire Water gave an assurance that improvements would have been made to six of them.

10.40 The Programme Director informed the Panel that with regard to covering the SBRs, Yorkshire Water had not previously taken forward this option because if they are working as they should the SBRs did not produce an unpleasant odour. Yorkshire Water was continuing to focus of getting the processes right but wanted to progress this option to give added protection from future problems. The Panel was informed, however, that there were technical issues which still had to be overcome in order to move ahead with covering the SBRs and as a result expressed concerns that Yorkshire Water would deem the covers unviable and they would not be installed.

10.41 In addition to the improvements that were due to be made at the Saltend site, work was progressing to undertake a trial of pre-treatment within the catchment in time for next

summer. This would inform future proposals to control the quality of waste water the Saltend site received, reducing the pressure on the treatment process and reducing the likelihood of odours being created. The Panel was informed that feasibility work already undertaken indicated a full-scale trial may provide benefits and that this would assess the efficacy of a more permanent solution.

10.42 In addition to the investment in process improvements, pre-treatment and potential SBR covers, there were other planned investments for the site in the coming years. These included a new inlet works which would be constructed to improve the way waste water coming into the site was dealt with and improvements to the sludge processing facility. These improvements were not primarily to address odours but would have some odour benefit.

10.43 Members asked for clarification on whether the improvements would lead Yorkshire Water to increase the loads coming into the site which could then lead to the same problems with odour in the future. The Programme Director stated that he could understand these concerns; however, he had not been party to any discussions about increasing loads. He went on to state that to his knowledge there was no appetite to increase the stress on the site again.

10.44 Members were cautiously optimistic about the plans for investment in the Saltend site which had been announced by Yorkshire Water. The Panel was conscious of the fact, however, that plans had been put into place in the past which had not solved the issues at Saltend and, therefore, decided to re-convene the Panel in 2016 in order to further scrutinise the plans for the site.

Recommendation 11	That Yorkshire Water supply details of their proposed action plan investigations, feasibilities, options and work programme to ensure the requirements of the abatement notice can be met and that these details be supplied before 1 February 2016.
Recommendation 12	That Yorkshire Water demonstrate that independent assessments have been made of their proposed action plan and that these are deemed to be robust.
Recommendation 13	That the Panel reconvene after Yorkshire Water's action plan is received and appraised and again prior to the peak season to determine whether the plan has been or is being completed successfully.

11 Conclusions

- 11.1 The Panel felt that it was appropriate to quote the Chief Executive at Yorkshire Water. Mr Flint had concluded his discussions with the Panel by stating that:

“we have the best minds working on the problem and a lot of investment. But I cannot guarantee there will be no smells next year. That said, we will give it everything we have to make it better for residents. I wouldn’t like to live in the conditions they have had to live in”.

- 11.2 It was clear to the Panel that local residents had suffered considerably from the odours coming from the Saltend site and members were deeply sympathetic to their plight, particularly as the problems had worsened considerably this year. Collating sufficient evidence to issue an Abatement Notice was a complex process and the Panel fully supported the financial investment in terms of time and effort made by the Public Protection Team in gathering the evidence required. It was hoped that the Abatement Notice would ensure that in future years, odours from the site would remain at an acceptable level.
- 11.3 The Panel strongly felt that if a permitting regime was put in place at a national level, this would create standards of controls and limits which would help in the future to prevent the problems that were occurring at Saltend. Current legislation meant that problems could only be dealt with reactively, whereas permitting would ensure issues did not arise in the first place.
- 11.4 The Panel welcomed the news that Yorkshire Water was to invest £30m in the Saltend site and acknowledged the fact that Yorkshire Water was developing short term plans to meet the requirements of the Abatement Notice and to reduce the levels of odour emanating from the Saltend site. The Panel felt, however, that close monitoring was required of the situation as past plans had not proved as effective as Yorkshire Water had claimed they would be. It was for that reason that the Panel felt it advisable to reconvene twice in 2016 to receive updates on the situation.
- 11.5 Yorkshire Water has said that they will carry out all of these actions and these will have the effect of avoiding the re-occurrence of the nuisance. However, it remains to be seen whether or not Yorkshire Water carry out the works promised and whether they will have the desired effect.

Appendix A Scope and Methodology

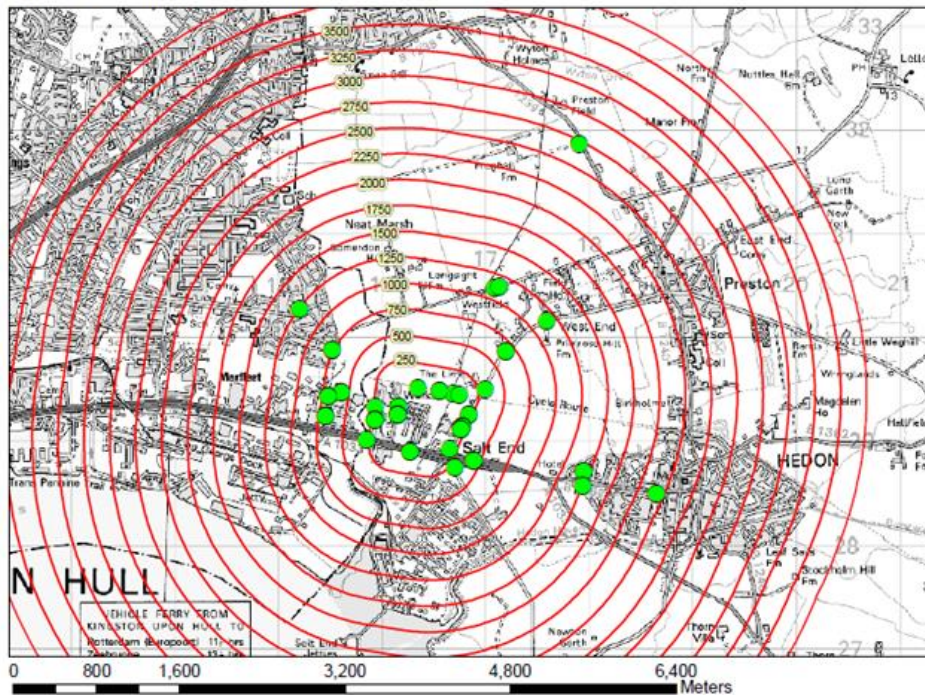
<p>Proposed Review, including desired outcomes and objectives</p> <p><i>An outline of the issue/ subject area which is to be reviewed. The area of activity being proposed should have strategic significance for the Authority.</i></p>	<p>This Review Panel will look at the ongoing and historical complaints regarding the foul odours emitting from Yorkshire Water's Hull Waste Water Treatment Works (WWTW), particularly during the Peak Load Season ('Pea Season').</p> <p>The aim of this Review is:</p> <p>To hold Yorkshire Water to account over the foul odours emitting from the Hull WWTW and for Yorkshire Water to provide and implement solutions both in immediate, short and long term so that residents do not have to suffer from the foul odours in the future.</p> <p>The review relates to the following corporate priorities:</p> <ul style="list-style-type: none"> • Maximising our potential • Supporting vulnerable people, reducing inequalities • Promoting health, wellbeing and independence • Reducing costs, raising performance
<p>Areas the Review Panel wishes to consider</p>	<p>The scope of the review will cover the following areas:</p> <ol style="list-style-type: none"> 1. Historical context <ol style="list-style-type: none"> a. Review the original planning application conditions and planning complaints b. To understand the nature of the historical complaints - review the number and log of complaints over the last 10 years c. Review reports by officers and Yorkshire Water submitted to overview and scrutiny in the past relating to Hull WWTW - consider the business plan and economic impact the Factory has on the local economy (ie employment for local people) 2. Yorkshire Water - investment and improvement plans for the site 3. Public representation - to take into consideration the concerns of local residents. 4. To consider any possible health implications that could arise from the odours emitting from Hull WWTW.
<p>Who should be consulted and involved in the Review</p> <p><i>Officers from within the authority who have the knowledge to be able to contribute to the review should be identified</i></p> <p><i>External Partners, Stakeholders and Agencies who are to be invited to attend a meeting of the Review Panel or can contribute positively to the review should be identified and other consultation to be undertaken should be identified.</i></p>	<ul style="list-style-type: none"> • Portfolio Holder - Councillor Shaun Horton • Ward councillors from South West Holderness, South East Holderness • Paull Parish Council • Preston Parish Council • Graham Stuart MP • Residents, Face Book Group and Campaign Group <p>ERYC Officers</p> <ul style="list-style-type: none"> • Paul Abbott - Public Protection Services Group Manager • David Howliston - Environmental Control Manager • Stephen Hunt - Interim Head of Planning and Development Management • Nigel Leighton - Director of Environment and Neighbourhood Services • Jonathan Smith - Environmental Health Officer • Andy Wainwright - Strategic Development Services Manager <p>Yorkshire Water</p> <ul style="list-style-type: none"> • Chief Executive • Other relevant officers <p>Public Health England</p> <ul style="list-style-type: none"> • Nicholas Aigbogun/Jamie Bond
<p>Overview and Scrutiny Sub-Committee to monitor outcomes of recommendations</p>	<p>Environment & Regeneration Overview and Scrutiny Sub-Committee</p>

Appendix B Odour Assessments

Persistence	Intensity (assuming detectable, if not then mark as zero)
0. No Odour	0. No odour
1. Very Transient (effort required to pick odour up)	1. Very faint odour
2. Transient (odour present but only in occasional whiffs)	2. Faint odour
3. Persistent (easily detectable for more than occasional whiffs - identified as coming from works)	3. Distinct odour
4. Very Persistent (no respite from the odour)	4. Strong odour
	5. Very strong odour
	6. Extremely strong odour

●	Odour Assessment
	Buffers at 250m intervals

57 Odour assessments
Where (Persistence \geq 3 AND Intensity \geq 3)



PERSISTENCE
 0 = No Odour
 1 = Very Transient (effort required to pick odour up)
 2 = Transient (odour present but only in occasional whiffs)
 3 = Persistent (easily detectable for more than occasional whiffs - identified as coming from works)
 4 = Very Persistent (no respite from the odour)

INTENSITY
 0 = No odour
 1 = Very faint odour
 2 = Faint odour
 3 = Distinct odour
 4 = Strong odour
 5 = Very strong odour
 6 = Extremely strong odour

Number of assessments displayed = 57

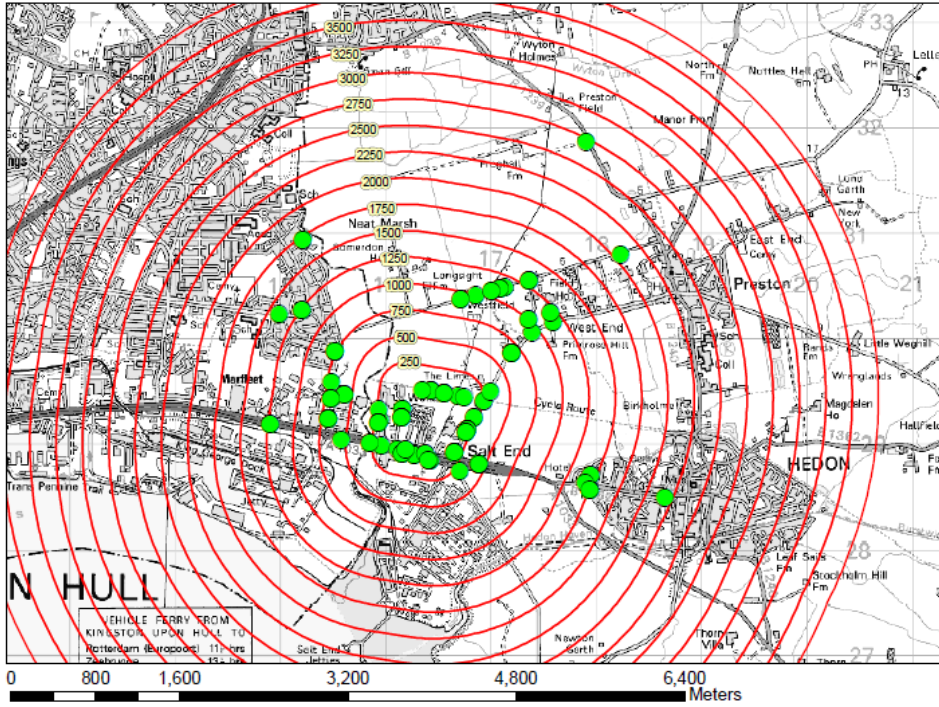
Total number of assessments carried out = 266

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124 Odour assessments

Where ((Persistence >=2 AND Intensity >=3) OR (Persistence >=3 AND Intensity >=2))



- PERSISTENCE**
 0 = No Odour
 1 = Very Transient (effort required to pick odour up)
 2 = Transient (odour present but only in occasional whiffs)
 3 = Persistent (easily detectable for more than occasional whiffs - identified as coming from works)
 4 = Very Persistent (no respite from the odour)
- INTENSITY**
 0 = No odour
 1 = Very faint odour
 2 = Faint odour
 3 = Distinct odour
 4 = Strong odour
 5 = Very strong odour
 6 = Extremely strong odour

Number of assessments displayed = 124

Total number of assessments carried out = 266

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