

Agenda Item No: 6

Report to: Overview and Scrutiny (Services)

Date of Meeting: 13 February 2014

Report Title: Final Report of the Scrutiny Review of Bathing Water Quality

Report By: Scrutiny Review Group

Purpose of Report

To summarise the findings of the Scrutiny review group

Recommendation(s)

- 1. That the Review Team recommendations contained in this report are endorsed by the Scrutiny Committee**
- 2. That review participants are thanked for their contributions**
- 3. That the Bathing Water Quality Executive Group is supported in ensuring that the commitments in its action plan are delivered**
- 4. That the Review Team meet again in November 2014 to assess whether the actions of Southern Water, the Environment Agency, the Borough Council and the Clean Seas Please campaign during 2014 have produced the desired improvements in bathing water quality and to determine what further actions are necessary in 2015.**

Reasons for Recommendations

A new, more stringent, European Bathing Water Directive replaces the existing water quality standard in 2015. Hastings Beach is at risk of failing to meet the new standard. Although water quality has improved steadily over recent years, the monitoring results for the 2014 and 2015 bathing seasons must demonstrate significant further improvements. Scrutiny members wish to satisfy themselves that everything possible is being done by the relevant agencies and the Council to meet the new standard.

Background to the Review

1. A new European Bathing Water Directive will replace the current directive from 2015. The new directive effectively doubles the current quality standard that bathing waters must reach to be considered 'sufficient' or 'excellent'. There are two designated bathing beaches in the Borough, Hastings (Pelham) and St. Leonards (west of Warrior Square).
2. The Environment Agency (EA) measures the levels of bacteria in the water, which indicate the presence of bacteria from human or animal faeces in the sea, throughout the bathing season, May through September. Weekly and seasonal results are published on the EA and HBC websites. Both of our beaches are consistently of 'sufficient' and often of 'excellent' standard under the current directive. Pollution was far higher in the 1980's due to the routine discharges of sewage into the sea. Major investment in wastewater infrastructure has radically improved bathing water cleanliness.
3. The EA's sample monitoring against the new standard indicates that 55 beaches in England that meet the current standard will fail to pass under the 2015 regime. Hastings is one of the 55; St. Leonards will pass. If action is not taken to improve the Hastings results by the end of 2015, in 2016 we must post signs on the beach advising the public of a risk to bathers. This would become permanent signage in 2020 if no efforts were undertaken to improve standards by then.
4. A study undertaken in 2009 and 2010 by Southern Water Services (SWS) to investigate its sewer infrastructure in Hastings concluded that there is significant background contamination within the surface water sewers probably caused by misconnections and faulty infrastructure. This contamination finds its way at various points into the Alexandra Park stream, which ultimately enters the sea via the outfall on Hastings Beach.
5. Since 2010, despite investment by SWS in the catchment around the Park, investigations into misconnections (where connections have been wrongly made from residential or commercial premises into the storm water system) and a pilot filtration system (the 'smart sponges') in the Park, the results at Hastings Beach have not improved enough to consistently reach the new standard.
6. It is apparent that further urgent action must be undertaken to improve the 2014 and 2015 monitoring results on Hastings Beach. Members of the Services Scrutiny Committee have initiated this review to ensure that this happens.

Terms of the Review

7. The review considered the current quality assessments of Hastings and St. Leonards bathing waters, the responsibilities and progress made to date by SWS and the EA to improve quality, and further actions and investment that may be necessary to meet the more stringent quality standard in 2015.
8. The objectives were:

To gain an understanding of the town's drainage system and causes of bathing water pollution

To increase our understanding of the respective roles of Southern Water, the EA, Hastings Borough Council and residents in protecting the quality of our bathing water.

To assess progress made to date by SWS and the EA and further actions required by 2015.

To recommend further actions, with timescales and targets for investment, necessary to meet the new EU bathing water quality standard by 2015.

9. The review team members are Councillors Rogers (Chair), Cooke, Howard, Poole, Sinden and Scott.
10. The investigations were carried out through formal questioning of representatives from SWS and the EA as well as a presentation from the Clean Seas Please campaign. HBC officers supplied background information to assist members.

Summary of Findings - The Environment Agency

11. The EA confirmed that there are 2 bathing seasons – 2014 and 2015 – still to come which will contribute to the 4 year averaging of monitoring results for the first declaration of quality in November 2015. Based on the 4 known years (2010-13), Hastings Beach was likely to fail the new standard. The poor results in 2010 and 2011 have badly affected the average; 2012 and 2013 were good years.
12. An extension to the Alexandra Park stream outfall on Hastings Beach would be the most reliable option to improve the bathing water quality. However, due to the associated cost and timing implications, it would not be possible to extend the outfall before the Directive came into force in 2015. The samples are also affected by weather conditions. Efforts were underway to continue to improve the bathing water quality.
13. Extensive analytical work had been undertaken in Alexandra Park. Removing build-ups of silt in the catchment area, before the next bathing season, will reduce the levels of bacteria in the water. A further campaign to identify and correct missed connections was also required.
14. Bathing water monitoring is suspended in extreme poor weather, for example, during flooding. A trial was currently being undertaken to monitor the effects of short term pollution, by warning the public of temporarily poor water conditions. The exclusion of severe weather events was not likely to have a significant effect on the overall classification. Instead, reasonable improvements were required across a number of areas.
15. Members received an overview of efforts to identify and correct missed connections, which had been identified as a source of contamination to the bathing water. Ten wards had been identified in 2012 as having a high number of missed connections. The EA has worked with SWS and the major Housing Associations in the town to correct the missed connections. Work to identify missed connections had been suspended over the 2013 summer season, but was due to recommence

in early 2014, and continue over the summer. The EA acknowledged the need for a long term commitment to monitoring and preventing misconnections, which must be shared between builders, building control inspectors, trade and DIY suppliers.

16. The review team noted that a build up of silt in ponds and waterways can often lead to contamination of bathing water. Members were advised that Buckshole 1 pond is targeted for works in early 2014. The silt build up in Buckshole 1 is identified as a source of contamination. Reducing silt build up could reduce between 40% and 50% of the bacteria in the water. Consideration was given to the build up of silt in other areas, including the culvert, the maintenance of which is the responsibility of Southern Water. The Environment Agency suggested that a further analysis of missed connections should be done in advance of the desilting of Buckshole 1 to ensure that further contamination after the desilting was minimised.
17. The EA has investigated the use of new technologies, including 'smart sponges' which effectively filter the bacteria from the Alexandra Park stream. Unfortunately, due to the high levels of silt build up, the 'smart sponges' had not been as effective as first hoped. A reconfiguration of the array of sponges and an enhanced cleansing regime will be implemented for the 2014 season. The EA will continue to investigate other options to reduce the levels of silt in the waterways, including the use of silt traps, 'silt buster' treatment in water bodies and planting reed beds.
18. The EA discussed efforts to promote awareness amongst builders, plumbers and the public about the impact of their actions on Hastings bathing water quality. Hastings Voluntary Action (HVA) and Rother Voluntary Action (RVA) have been funded to run the Clean Seas Please campaign, including the 'Shore School' to raise awareness of the issues regarding bathing water quality amongst young people. HVA were also working with the local business community to ensure waste fats and cooking oils were disposed of responsibly. The EA highlighted the importance of HVA's campaign in altering the behaviour of the public with regard to bathing water quality.
19. The EA emphasised that continued efforts to create a public profile for this issue, could help to ensure that Hastings is prioritised for further investment, given the EA's acknowledged funding uncertainties going forward. The work of the EA had been to identify key issues, which would enable other organisations to focus their work. Moreover, the EA focused its investment on high profile areas, which rely on bathing water quality as a key part of their local economy.
20. The EA suggested a number of ways in which the Council could continue to help tackle this issue including raising awareness, investigating the use of silt buster in other ponds at Alexandra Park, a stricter maintenance regime to be carried out by the grounds maintenance contractor to ensure the filter on the smart sponges are cleared and changed on a regular basis, continuing to tackle dog fouling in the town and to work with the Highways authority to ensure the gullies around the town are maintained.
21. It is also feasible for the EA to take monitoring samples further from the outfall if the main concentration of bathers is moved eastwards. The sampling point in Hastings is closer to the outfall (50 metres) than usual; a monitoring point 100 to 200 metres from the outfall would be generally accepted and may change the results.

22. The EA also underscored the importance of partnership working between the Council and SWS to ensure that Hastings is prioritised for future investment. It was also necessary to ensure that Southern Water had completed the updates to its infrastructure in the town.
23. Works would be required over autumn / winter 2013 and during 2014. If Hastings can demonstrate a programme of improvement actions resulting in a significant positive change in monitoring results in the next two bathing seasons, it may be possible to argue for the earlier results to be set aside, thus increasing the chances of the bathing water meeting the required standard.

Summary of Findings - Southern Water Services

24. Southern Water summarised recent schemes to strengthen the sewer system in the Alexandra Park catchment. A programme of investment had been undertaken in 2012, to relieve pressure on the sewerage system in Old Roar Ghyll, by separating the foul water from surface water. There had been no repetition of pollution incidents in that area. Earlier works had addressed problems in the vicinity of St. Helen's Woods.
25. Southern Water advised that extensive work had been undertaken in the late 1990's to tackle dual manholes (where surface water and foul sewers run alongside each other without full protection from an overflow causing contamination in times of heavy water flow) on their network. In October 2011, water and sewerage companies took charge of private sewerage system. The previously private sewerage system was poorly mapped, and thought to contain a number of dual manhole systems. Identifying dual manhole systems requires extensive investigation and can take up to two years to correct. Southern Water plans to combine this programme of investigation with opportunistic corrections of dual manhole systems, as and when they are identified during the planning phase. Southern Water agreed that areas where bathing water quality is key to the local economy, including Hastings, should be prioritised for these works.
26. Southern Water agreed to work with Environment Agency to understand whether the historic pollution could have led to current contamination of the silt in the ponds at Alexandra Park. Members questioned the maintenance of the culverted watercourse from the Park through the town to the Pelham beach outfall. Southern Water advised that the culvert is maintained by six monthly inspections, to ensure that it is free from blockages. No issues had been reported from the inspections; therefore it had not been necessary to carry out a more extensive programme of maintenance. Southern Water noted that sewers are generally designed to be free running, to prevent silt deposits developing. Southern Water stated that the Environment Agency had advised there was not a significant difference in monitoring results from data taken at the inlet to the culvert compared to that taken at the outlet, suggesting that the contamination had occurred upstream of the culvert.
27. The review team asked whether it would be beneficial to divert surface water through the foul sewerage system. Southern Water responded that it would not be advisable to divert surface water through the foul sewerage system, as this could

lead to flooding during extreme weather conditions. Instead, it would be preferable to address the source of the contamination.

28. Southern Water reiterated their commitment to improving bathing water quality in Hastings, by working in partnership with other agencies. They explained their five yearly investment cycles, approved by the economic regulator (OFWAT). During the 2010-2015 cycle, they invested heavily in replacements of parts of their system, improved infrastructure at treatment plants and reactive maintenance. Their submission for 2015 – 2020 capital investment would be submitted to the regulator on 2 December 2013.
29. When drafting the business plan for 2015 – 2020, the economic regulator had invited Southern Water to identify if any elements of the plan should be delivered early, under transitional expenditure. Funds had been identified in the plan, for a two year programme to address dual manholes in Hastings, which may also identify further misconnections. The proposed programme of works would include extensive investigation of the sewerage network and analysis of water quality from April 2014 over the summer bathing water season, to locate dual manholes. The results of the analysis would be used to design an appropriate solution over winter 2014. It was anticipated that works to correct the dual manholes would begin in March 2015, and last approximately eight months. Opportunistic work to correct dual manholes would continue throughout 2014/15. It was hoped that the opportunistic work to correct dual manholes would lead to improvements in bathing water quality for the 2014 season.
30. Members questioned SW about the possibility of an extension to the outfall. Southern Water stated that it would be preferable to tackle the source of contamination, as extending the outfall pipe may adversely impact local fisheries and disrupt the surfing community. Members also put forward a suggestion regarding diverting the outfall to the mains sewer system. Southern Water responded that diverting surface water to the mains sewer may result in flooding during extreme weather conditions.

Summary of Findings - Clean Seas Please campaign

31. Improving bathing water will require a range of actions, including technical investigations, infrastructure improvements and community activity. The Clean Seas campaign is a joint effort of Hastings Voluntary Action (HVA) and Rother Voluntary Action (RVA), funded by the Environment Agency, to address public awareness of the impact of their actions on bathing water quality. The campaign emphasises the importance of the sea to the town's history, tourism and regeneration.
32. The Clean Seas Please campaign promotes positive behavioural change to eliminate contamination resulting from disposal of inappropriate materials (fats, oil, grease, nappies, wet wipes, etc.) into the sewerage system and poor quality building and plumbing works creating misconnections of foul waste into the storm water system.
33. The campaign had focused on intergenerational activity. Efforts had been made to engage young people through the Clean Seas Please Schools programme, which

was currently being piloted with St Mary Star of the Sea School. A range of lesson plans and activities for children had also been developed, including the clean seas please 'ambassadors' programme. It was hoped that this would enable children and young people to create positive behavioural changes within their households through 'pester power'.

34. Efforts were underway to engage with local businesses and restaurants to ensure fats and greases were disposed of in a responsible, yet affordable way. Efforts would also be made to further incentivise participation in the project by building in marketing opportunities for local businesses within the campaign.
35. The campaign also included efforts to engage with plumbers and the building trade, via the Building Links Network. Efforts were underway to develop training opportunities with Sussex Coast College. Information would also be provided at DIY stores, with the aim of reducing missed connections in the future.
36. The review team supported the use of existing communication channels to promote the campaign. Members suggested including information on the importance of improving the bathing water quality with Council Tax bills. Members noted that the campaign had received support from Keane. This had gained additional coverage for the campaign, particularly on social media sites. Work was underway to recruit other opinion leaders to support the cause.
37. The yellow fish campaign would also be launched in 2014, to raise public awareness of how the sewerage system works and to emphasize the link between positive behavioural changes and improvements to bathing water quality.

Bathing Water Quality Executive Group

38. During the course of this scrutiny review, an Executive Group, chaired by the Leader of the Council, has been convened to oversee the implementation of a programme of actions designed to improve bathing water quality at Hastings Beach. Senior representatives of the EA, SWS, the MP's office, East Sussex County Council and HBC as well as the Clean Seas Please campaign and community representatives attend.
39. Early actions are already underway. The EA and HBC have signed a collaborative agreement to fund and deliver a programme of works, beginning with further pollution investigations in the Alexandra Park catchment in February and March and works in Buckshole 1 Pond to contain and filter silt. The EA has redesigned the smart sponge array and HBC has purchased additional sponges to be installed before the 2014 bathing water season. SWS is in the planning stage for their 2-year catchment programme, to start in April, assessing newly adopted private sewers and correcting dual manhole problems. The Clean Seas Please campaign will continue throughout the year; HBC will assist through its Green Dog Walkers campaign.
40. Actions are aimed at realising a sustained improvement in monitoring results through the 2014 season, enabling a case to be made that poor results in prior years are no longer relevant.

41. The Environment Agency and Southern Water have agreed to investigate options for a permanent solution involving changes to the outfall.
42. The action plan is attached to this report.

Conclusions

43. The cause of pollution affecting bathing water at Hastings is contamination carried by the Alexandra Park stream to the outfall on Hastings Beach. The source of the contamination is primarily sewer leakages from foul to storm water sewers (dual manholes), properties with misconnected drains and, to a much smaller extent, storm water runoff contaminated by animal and bird excrement.
44. The problem must be attacked from three angles: 1)correcting the contamination at source in properties and sewers, 2)filtering out the contamination as it flows through Alexandra Park, and 3)finding solutions at the outfall, whether by an extension or a diversion or a filtration system.
45. The review group is encouraged by the commitments made by the EA, SWS, HBC and other partners as evidenced by the action plan and the oversight of the Bathing Water Executive Group. However, the group is keenly aware that time is short and momentum must be maintained.

Recommendations

46. That the Review Team recommendations contained in this report are endorsed by the Scrutiny Committee
47. That review participants are thanked for their contributions
48. That the Bathing Water Quality Executive Group is supported in ensuring that the commitments in its action plan are delivered
49. That the Review Team meet again in November 2014 to assess whether the actions of Southern Water, the Environment Agency, the Borough Council and the Clean Seas Please campaign during 2014 have produced the desired improvements in bathing water quality and to determine what further actions are necessary in 2015.

Wards Affected

Ashdown, Baird, Braybrooke, Castle, Central St. Leonards, Conquest, Gensing, Hollington, Maze Hill, Old Hastings, Ore, Silverhill, St. Helens, Tressell, West St. Leonards, Wishing Tree

Area(s) Affected

Central Hastings, East Hastings, North St. Leonards, South St. Leonards

Policy Implications

Report Template v25.0

Please identify if this report contains any implications for the following:

Equalities and Community Cohesiveness	No
Crime and Fear of Crime (Section 17)	No
Risk Management	No
Environmental Issues	Yes
Economic/Financial Implications	No
Human Rights Act	No
Organisational Consequences	No
Local People's Views	No

Background Information

Appendix - Partners' Action Plan

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