

UV Review Decision Update

January 2015



In 2010, Surfers Against Sewage (SAS) contacted the Environment Agency (EA) reporting longer and more frequent use of bathing waters outside of the bathing water season (May to September), on the Lincolnshire coast. Seasonal ultraviolet (UV) disinfection treatment is currently in place at Newton Marsh and Mablethorpe sewage treatment works (STWs); protecting bathing water quality during the bathing water season. A review has been carried out determining whether seasonal UV treatment is still appropriate at these STWs.

In August 2012, the EA issued an interim document: “*Interim Decision Report on Review of Ultraviolet Disinfection at Newton Marsh and Mablethorpe Sewage Treatment Works*”; which concluded that no increase in UV is currently required at Mablethorpe STW due to the good out of season water quality results. Investigations continued at Newton Marsh STW with the third year of water user surveys concluding at the end of April 2014. The overall user survey results and conclusions of the UV review are outlined below.

Overall Water User Survey Results

User surveys were carried out over three continuous out of bathing seasons at Cleethorpes and Humberston Fitties bathing waters, close to Newton Marsh STW. On average, 2 to 3 surveys were undertaken per week during the out of bathing water months, with an intensive week of additional surveys during October half term 2013.

User surveys were not carried out in December 2013 and January 2014, due to extremely low results in these months in previous years. The number of user surveys can be seen in Table 1, together with the observed user numbers.

Table 1. Three year’s out of season user survey results for Cleethorpes and Humberston bathing waters.

Year of surveying	Bathing water	Number of surveys carried out	Total numbers of observed bathing water users / surfers
2011/2012	Cleethorpes	55	5
	Humberston	55	45
2012/2013	Cleethorpes	61	3
	Humberston	61	16
2013/2014 (5 months only)	Cleethorpes	72	3
	Humberston	72	80

To provide a realistic weekly representation, the observed user numbers were used to calculate weekly averages for each month for both Cleethorpes and Humberston combined (Table 2). Details of the calculations can be found in Appendix 10 of “*Final Decision Report on Review of Ultraviolet Disinfection at Newton Marsh and Mablethorpe Sewage Treatment Works*”.

Table 2. Weekly calculated user survey results combined for Cleethorpes and Humberston bathing waters and averaged over the three year sample period. Yellow boxes indicate months likely to have more than 10 users per week (EA guidance requires consideration of additional UV when there are 10 users or more).

Weekly Calculated Usage (using the star rating system)	Oct	Nov	Dec	Jan	Feb	Mar	Apr
2011/12	0	7	0	2	5	9	36
2012/13	19	0	0	0	4	20	0
2013/14 (5 months only)	26	13			0	23	31
Average of 3 years (weekly)	15	7			3	17	22

Overall, EA user survey results for Cleethorpes and Humberston Fitties provide evidence to support additional UV treatment during the months of October, March, and April.

North East Lincolnshire Council (NELC) carried out additional user surveys during the third year of investigations. The NELC user survey results indicate that there were significant numbers of water users during October and November 2013. These results provide evidence to support the additional requirement of UV during the month of November.

Conclusions

The outcomes of the UV review at Newton Marsh STW are:

- There is Poor/Failing out of bathing season water quality at both Cleethorpes and Humberston Fitties, as compared to the Revised Bathing Water Directive standards. (It is appreciated the Directive only applies in the bathing season, but it allows a good assessment of quality to be made);
- There is evidence that Newton Marsh STW significantly affects water quality in this area when UV is not in operation;
- There is evidence to support that there is medium to high water usage during the months of October, November, March and April.

It is concluded that additional UV is required at Newton Marsh STW during the months of October, November, March and April (in addition to in the bathing water season), to protect surfers and other users of the bathing waters. In its Business Plan for 2015-2020 Anglian Water proposed investment for UV at Newton Marsh STW. This Business Plan was approved by Ofwat in December 2014 and implementation of the additional UV treatment at Newton Marsh is expected in April 2016.

A final decision report on the review of UV requirements at Newton Marsh STW is now available, and includes all evidence gained during the out of bathing water seasons covered by the review.

Contact

For further information, or if you would like to request a copy of the interim document or final decision report, please contact Peter Haslock peter.haslock@environment-agency.gov.uk or Damian Langdon damian.langdon@environment-agency.gov.uk at the Environment Agency.

