17th JULY 2023

WORSHIPFUL COMPANY OF WATER CONSERVATORS RESPONSE TO THE DEFRA CONSULTATION ON THE EXPANSION OF THE STORM OVERFLOW DISCHARGE PLAN TO COVER COASTAL AND ESTUARINE WATERS WHICH HAD NOT BEEN SPECIFICALLY INCLUDED IN THE PLAN AS PUBLISHED ON 26th AUGUST 2022

PROLOGUE

1 This submission to Defra has been produced by the Worshipful Company of Water Conservators in response to the Consultation on the extension of the Storm Overflow Discharge Plan Storm Overflows Discharge Reduction Plan Consultation - Defra - Citizen Space.

2 The Worshipful Company of Water Conservators (WCWC) is a City of London Livery Company, focussed on the long-term health of our water resources and the broader environment. Our members include senior professionals from water, environmental and related industries and regulators, along with others who share our passion for water and the environment. Our experience and knowledge range from the complexities of environmental sciences, through the application of engineering to deliver the goals identified by those sciences, and the subsequent management of the assets created. The Company's purpose is *Promoting a diverse and sustainable environment*.

3 To avoid confusion between the use of the term Company and water companies, the acronym WCWC is used.

4 Defra states that *The Storm Overflows Discharge Reduction Plan prioritises action to ensure that storm overflows that impact protected habitats or designated bathing waters are addressed first. The plan sets out that if we can go faster, we will. The plan will be reviewed by 2027 to allow the government to assess national targets to ensure they remain ambitious, affordable and deliverable. The plan notes this will allow us to establish if companies can go further and faster to achieve the targets in the plan without having a disproportionate impact on consumer bills.*

5 It continues that, *while not explicitly excluded, Marine Protected Areas were not listed specifically as high priority sites in the Plan. This is due primarily to there not being an ecology standard for coastal and estuarine waters. Marine Protected Areas is an umbrella term which covers the marine parts of the following sites:*

- *Special Areas of Conservation (SACs)*
- *Special Protection Areas (SPAs)*
- *Marine Conservation Zones (MCZs) and Nature Conservation Marine Protected Areas*
- *Sites of Special Scientific Interest (SSSIs)*
- *Areas of Special Scientific Interest (ASSIs)*
- *Ramsar sites*

Therefore, we are consulting on including the 9% of coastal and estuarine overflows which are not already covered in target 3 (ensuring storm overflows operate only in unusually heavy rainfall events. Storm overflows will not be permitted to discharge above an average of 10 rainfall events per year by 2050. The target currently applies to all storm overflows discharging to inland waters, and to all designated bathing waters (both inland and coastal).

Thus, Defra is considering whether to develop an ecological standard for monitoring storm overflows' impact on coastal and estuarine waters.

5 The Consultation asks the following questions

1. *Should the government explore developing an ecological standard for coastal and estuarine waters? Yes / No*

2. *What considerations do you think may be relevant to developing an ecology standard for a) coastal overflows and b) estuarine overflows? Please make reference to any specific types of harm that you believe should be taken into account.*

3. *Should any other areas be added to the current list of high priority sites in the Plan?*

4. *Should all overflows, including those discharging into coastal and estuarine waters, be included in the scope of the Storm Overflows Discharge Reduction Plan?*

SUMMARY

6 The questions do not enable the broader issues to be reflected upon, which are:

- There is an urgent need to draw all of the aspects of environmental water quality together into one integrated Strategy. There is too much fragmentation.

- The WCWC suggests that this Strategy should embrace all controlled waters.

- There is no social justification for excluding discharges of storm overflows from the Reduction Plan. It makes sense that storm overflows discharging to controlled waters should be regulated similarly.

- The WCWC repeats its insights that the plans to reduce the discharges of storm overflows must be set in the context of reforms to planning rules, including the right of developers to connect to sewers and the implementation of mandatory Sustainable Drainage Systems (SuDS).

- There is an urgent need to update the 2018 Environment Agency Guidance on the permitting of storm overflows and, as the WCWC has already opined, this should go back to basic principles which have been in place since 1970. In spite of the advantages of the simplistic approach of limiting the number of discharges per year, there is still a need for a fundamental review.

- The answer to the question ‘should we explore the development of an ecological standard’ is yes. It will not be as simple as the simple question implies. Standards have not been developed before because of the complexities, and it will provide greater challenges than the use of ecological status in the less complex framework of freshwater standards.

- If standards can be developed, it needs to be understood that, if these are implemented in the context of MCZs, they could have consequences for other regulated activities, including the laying and maintenance of outfall pipes, and for the regulation of sewage effluent discharges. The WCWC is not necessarily opposing this, but pointing out the, perhaps unforeseen, consequences, all part of avoiding fragmentation. The WCWC suggests that there is a role for the UK Technical Advisory Group (UKTAG) in resolving this.

- Consideration needs to be given as to how S81 (Environment Act 2022) monitoring will be carried out in coastal and estuarine waters.

7 As a consequence of fragmentation there is no mention of the EA Register of Protected Sites, (which include marine and estuarial habitats), or the more recent HPMAs.

SOME GENERAL OBSERVATIONS

Past observations by the WCWC

8 It can be challenging to piece all the relevant initiatives and consultations together into a coherent whole and what is lacking is an overarching strategy for environmental water quality management. The WCWC have made this point a number of times and has suggested that it is essential for the effective management of river waters. It welcomes any imitative which brings together the overall concepts of manging the qualities of estuarine and coastal waters with those for river waters. The execution maybe different but the principles should be consistent. The WCWC suggests very strongly that the time is right for an integrated water management strategy.

9 The original response by the WCWC to the Consultation in March 2022, which led to the Plan publication in August 2022, may be found on its website. Since then, there has been an evolution as reflected in the April 2023 Water Plan and the Proposal that Schedule 3 of the 2010 Flood and Water Management Act be implemented, bringing in mandatory SuDS in 2024, and the Consultation on the implementation of S81 and S82 of the 2022 Environment Act. In addition, there are outstanding issues in planning which need to be addressed such as the continuing impact of S106 of the 1991 Water Industry Act on the right of connection to sewers, even if a sewerage system cannot cope. As a consequence of this evolution the WCWC updated its thinking in March 2023 and that is now available in the open think-pieces section of the WCWC website. Bathing water regulation is dealt with separately and further consultation is expected.

10 The WCWC has suggested that all of this is a candidate for regulatory streamlining

Protected Areas

11 As a reflection of the fragmented approach, the Consultation does not refer to the Environment Agency Registers of Protected Areas under the Water Framework Directive Regulations 2017.

12 The registers must include the following protected areas —

(a) a drinking water protected area;

(b) an area or body of water for the time being designated or otherwise identified as requiring special protection under any EU instrument providing for the protection of surface water and groundwater or for the conservation of habitats or species directly depending on water, or any enactment implementing such an EU instrument, including, in particular —

(i) areas designated for the protection of economically significant aquatic species (including shellfish water protected areas);

(ii) bodies of water designated as recreational waters;

(iii) nutrient-sensitive areas;

(iv) areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in the protection of the habitats or species such as Natura 2000 sites.

13 Some areas may require special protection under more than one set of regulations. In these cases, all the objectives and standards must be met. Where WFD water body boundaries overlap with areas protected under another directive, the most stringent objective applies — the requirements of one particular set will not undermine the requirements of another, for example those for Bathing Water and Protected Habitat sites.

14 The Consultation does not refer to Shellfish Protected Waters, while the Protected Habitats will be covered by the list of Marine Protected Areas referred to in the Consultation. Neither is there any reference to the concept of Highly Protected Marine areas, the first three of which were implemented on July 5th during the Consultation period (although these are be included in the concept of MCZs).

Marine Protected Areas

15 The WCWC suggest that, by introducing MCZs, a number of criteria and outcomes are being conflated. MCZs are areas that protect a range of nationally important, rare or threatened habitats and species. There are 91 MCZs in waters around England. These completed the UK Blue Belt and its contribution to the ecologically coherent network in the North East Atlantic in terms of the representation of species and habitats.

16 Highly Protected Marine Areas (HPMAs) are areas of the sea (including the shoreline) that allow the protection and full recovery of marine ecosystems. By setting aside some areas of sea with high levels of protection, HPMAs will allow nature to fully recover to

a more natural state, allowing the ecosystems to thrive and will protect all species and habitats and associated ecosystem processes within the site boundary, including the seabed and water column.

17 The first three Highly Protected Marine Areas (HPMAs) designations in English were in July 2023 during the period of the Consultation. Management measures will need to further the conservation objective of HPMAs. Pilot HPMAs will be designated as Marine Conservation Zones under the scheme. In line with advice from Natural England and the Joint Nature Conservation Committee (JNCC), it is anticipated that extractive, destructive and depositional activities will be prohibited within each site. This would include activities such as:

- commercial and recreational fishing
- dredging
- construction
- anchoring

18 Non-damaging levels of other activities to the extent permitted by international law are allowed. So, the concept of adding ecological standards for MCZs and HPMA, in addition to the control of physical activities, is a major shift forward which has consequences for other marine activities, including the discharge of treated sewage effluent, and needs thinking through on a more strategic and integrated basis.

Permitting of Storm Overflows

19 The implementation of ecological standards must have implications for permitting. The 2018 Environment Agency Guidance https://www.gov.uk/government/publications/water-companies-environmental-permits-for-storm-overflows-and-emergency-overflows/water-companies-environmental-permits-for-storm-overflows-and-emergency-overflows
states:

As a water company, you must design, construct and maintain sewerage systems according to best technical knowledge not entailing excessive cost (BTKNEEC). You must also limit pollution from storm overflows. To make sure you do this, you must identify storm overflows that need improvement. You must classify your storm overflows as either:

- *unsatisfactory*
- *substandard*
- *satisfactory*

Do this as part of your drainage strategy. Identify where investment is required. Read Ofwat's guide on how to prepare a drainage strategy.

The Environment Agency classes storm overflows as unsatisfactory when they:

- *operate in dry weather conditions*
- *operate in breach of permit conditions*
- *cause significant visual or aesthetic impact due to solids or sewage fungus*
- *cause or significantly contribute to a deterioration in the biological or chemical status of the receiving water*
- *cause or significantly contribute to failures in bathing water quality standards for identified bathing waters*

- *cause or significantly contribute to failures in shellfish quality standards for identified shellfish waters*
- *cause or significantly contribute to failures in water quality standards in coastal and transitional waters*
- *cause pollution of groundwater*

You need to classify the status of your storm overflows. Methods and data you can use include:

- *outfall aesthetics surveys that show dry weather operation, photographs of sewage litter and sewage fungus and proof of watercourse amenity*
- *biological surveys of combined sewer overflow (CSO) impacts on water quality*
- *justified public complaints to water companies, local authorities or the Environment Agency*
- *pollution incident data from the Environment Agency*
- *asset surveys that identify any reasons for unsatisfactory performance, like low weir settings or screen conditions*
- *water quality or sewer modelling to assess compliance against relevant water quality standards*
- *event duration monitoring (EDM) to show spill frequencies and support predicted performance*

You need to classify your overflows to make sure they do not become unsatisfactory. If an overflow becomes unsatisfactory the Environment Agency can review your permit or take enforcement action against you if you are in breach of your existing permit. We will include an improvement condition in permits for unsatisfactory overflows to meet appropriate standards as soon as practicable. This is normally within three years.

The only exception is where an overflow becomes unsatisfactory due to new legal requirements. In this case, we'll promote solutions to the affected overflows through the Water Industry National Environment Programme (WINEP).

20 The WCWC has already suggested that, as a minimum, there is an urgent need to update this Guidance to reflect the criteria in the Storm Overflows Discharge Plan and this should refer to any evolution of ecological standards.

Consequences for other permits

21 If ecological standards are introduced, they cannot be left just for storm overflows and so there will be consequences for outfalls of treated sewage effluent.

22 A permit/consent is needed under the 1985 Food and Environment Protection Act for the location and laying of an outfall pipe, issued by the Marine Management Organisation. This will take account of habitat impact.
https://www.data.gov.uk/dataset/1f43de6a-fef4-452c-aca7-1583777a421b/marine-management-organisation-legacy-marine-licences-line,

23 A permit is needed for the discharge itself, relating to the Water Environment (Water Framework Directive, England and Wales) Regulations 2017 and the Environmental Permitting Regulations 2010.
https://www.legislation.gov.uk/uksi/2017/407/made

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69345/pb13561-ep2010waterdischarge-101220.pdf#:~:text=It%20is%20an%20offence%20to%20cause%20or%20knowingly,the%20extent%20authorised%20by%20an%20environmental%20permit.%20

24 So, the question has to be posed as to whether or not any ecological standards will become relevant in due course to these processes.

The relationship of ecological standards to water uses, habitats and to permits

25 It makes sense that the concepts of controlling storm overflows should be extended to include those to estuarial and marine waters, in principle, but the application of the concept is not as simple as the questions posed in the Consultation imply. There needs to be an understanding of the relationship of the impact of such discharges and the environment into which the discharges are made. Ecological status of the marine environment may fail due to many reasons other than storm overflow impacts.

26 So without a lengthy exposition of estuarial and coastal environments, the concept of ecological standards is more complex. So, there are differences between aquatic and intertidal environments and in the salinity change gradients in transitional waters creates a suite of targets. The Consultation itself states *There is no standard ecology test for storm overflow discharges into coastal and/or estuarine waters in the UK nor, as far as we are aware, anywhere in the European Union. This is because although the method used to test ecology in coastal and estuarine waters would be similar to the one used for rivers, the current standards for ammonia and dissolved oxygen only apply to rivers. To be able to determine whether or not storm overflows are causing adverse ecological impact in coastal and estuarine waters, a common test would need to be set, and this would be expected to result in site-specific standards. We are not aware of a common standard and test currently being used internationally, so this would be a novel approach to assessing the ecological impact of storm overflows in coastal and estuarine waters.*

27 The complexities identified by the WCWC explain why a standard has not been developed thus far. It will be noted that in the less complex framework of assessing ecological and chemical status in freshwater is not without problems.

28 The WCWC offered a suggestion in its original submission that the time is right to review the principles of storm overflow design and regulation relevant to current circumstances in the environment and its uses rather than an arbitrary approach of the number of annual overflows. That suggestion stands. Any modelling which reflects the relationship of discharge consents to ecological standards and thus to water uses and habitats is likely to be more complex than for freshwaters. The WCWC suggest that this should be referred to the UKTAG. As stated earlier, the outcome of such a review should be included in the updated 2018 strategy and enveloped within a wider Water Management Strategy.