WORSHIPFUL COMPANY OF WATER CONSERVATORS (WCWC)

BRIEFING ON ITS RESPONSE TO THE ENVIRONMENT AGENCY CONSULTATION ON CHARGES FOR WATER DISCHARGES ISSUED ON 29TH JANUARY 2024

5th MARCH 2024

The WCWC welcomes the increase of resources for the Environment Agency to inspect sewage effluents and suggests a reformed quality assurance system funded by the proposed changes to the Environment Agency's charging scheme.

The submission to the consultation was complicated by the announcement on February 20th 2024 by Defra on the additional resources planned for the EA financed in part by additional income to the EA from the extended charges scheme. It also left a rather uncertain way forward in terms of the deployment of the additional resources and the future of Operator Self-Monitoring (OSM) in relation to the way that sewage effluents are regulated (see Appendices 2 and 3). The submission by the WCWC to the consultation takes account of the Defra announcement.

The WCWC supports the increase in resources for the EA to discharge its functions. It has already suggested this in its responses to the Department of Business and Trade (which can be found on its website) and supports the allocations announced.

The WCWC observes that this whole topic of monitoring has significant implications, because the judgments of performance which emerge are crucial not only for conservation of the environment, per se, but determine where and what investment is needed, form the basis of any legal action, and play a major role in trust through presentation in the media. Greater legal rigour will need greater information rigour.

The WCWC observes that in all of the current debate that there is a need to refresh memories on the origins of sewage effluent standards in the early 20th century and then the origins of the statistical concepts in sewage effluent monitoring and associated self- monitoring (which underpins the consultation). It charts the evolution from the introduction of the original look up tables in the mid -1980s through their adoption by the European Union (EU) in the Urban Waste-Water Treatment Directive in 1991, the step to strengthen quality assurance of what was to become known as Operator Self-Monitoring (OSM) in 2009, but demonstrates the complexity of guidance since 2018. It also distinguishes between self- monitoring and self-reporting. So, the WCWC suggests the that current focus on 2009 is wrong.

It was agreed originally in the mid-1980s that the concept of compliance for 95% of the time for a prescribed standard in a consent was right in terms of increasing focus on compliance. Adherence to this performance ensured that a receiving river was protected. But that it would be necessary to put a cap on the 5% exceedance. Further it was agreed that the bigger the works the greater would be the need for confidence of the assessment of percentile compliance, the asymptotic value being 95%. These were principles from quality assurance in production management and toxicology for example. These principles were later set out in

general by the United Kingdom Technical Advisory Group on the Water Framework Directive 2000 (UKTAG) *(A 95th percentile is routinely used in compliance assessment in UKTAG guidance, even though the standard is referred to as an 'Absolute Limit'. This is because the use of 95th percentile allows confidence of failure to be calculated),* as defined by the government in 2019.

From this emerged the look up table as a simple way of expressing these concepts in consents which were based on 24-hour composite samples for suspended solids (SS) and biochemical oxygen demand (BOD), which were chosen in preference to spot samples as it was recognised that there could be very short-term variations during a 24 hour period, in themselves of no consequence and it was the overall daily variation which needed to be controlled. An upper tier value was also set to avoid extraordinary events within the envelope of the look up table. Assessments were made for each determinand separately. These were then applied universally to all consents for treatment works serving populations more than 250 people. Most works had the Royal Commission on Sewage Disposal quality standards from the turn of the 20th century, but some were more stringent and some less stringent in coastal areas. There was a move to include ammonia limits which were becoming more important and subject to the same process variability as BOD and SS. There was a more flexible attitude towards other determinands as these are perceived as less critical terms of investment and prosecution and these were set as absolute limits with assessments on a sample, by, sample basis. This approach was formalised in January 1985 with the implementation of Part Two of the Control of Pollution Act 1974 as a basis for privatisation.

This is set out very nicely in the prospectus and remains at the very heart of what is practiced now, surviving the creation of the EA in 1995. The WCWC has access to numerous references not available on the internet which it is willing to share.

In this submission the WCWC suggested some changes, but in truth the whole system is complicated and in urgent need of review, consolidation and to be expressed in the terms of smart regulation. The current complexity aids the 'mediafication' and 'weaponisation' of data. What is needed is robust performance assessment to underpin actions on the accountability of water companies and for investment. The WCWC recognises that even this submission is overly technical and so subsequently, it will be working in partnership to provide some simpler explanations.

The WCWC very much supports the proposition that inspections should be increased and recognises that there may have been problems with self- reporting which need to be addressed. Any future quality assurance of effluent quality must be based on the 95-percentile concept with confidence limits and based on a time series of flow proportional sampling i.e., the look-up table. Any move from this premise would have very severe and unforeseen consequences in terms of compliance assessment. There are only two options to retain the integrity: the first is that the monitoring is conducted by the EA, which would have huge resources demands and would parallel the necessary monitoring, by water companies, as part of responsible process management; or leave the focus with water companies with a much more rigorously controlled Quality Assurance (QA) system, including more inspections by the EA. The latter is more practical.

In responding to the focus of the current debate but retaining the fundamental principles of Quality Assurance Management, the WCWC suggests that the strengthened system should be branded more accurately to give the more accurate and informative description of Effluent Quality Assurance.

The WCWC also points out that a balanced scorecard approach will be needed, otherwise the expected benefits may not occur. There needs to a connection to long term benefits. For example, none of these changes-are likely to do much for the chemical status of rivers and this could have serious implications for trust by the wider community in the regulation system. It has been confronted already in the Water Plan but ignored in the current debate.

Once more the WCWC argues that there is a multitude of monitoring initiatives, which need to be brought together into an integrated monitoring strategy which needs to be part of an overall National Water Strategy advocated by the WCWC (see most recent the responses by the WCWC to the Department of Business and Trade (DBT) on its website).

More needs to be done about how data being created by ever expanding monitoring programmes needs to collated and published in wiser ways. It suggested that exploring a partnership with the Office of National Statistics could be a specific additional task in 2024-25. And this could part of a wider more intensive programme of collaboration.

The WCWC is not in a position to answer the detailed questions on the proposed changes to activity descriptions and of the charges. But does offer a few thoughts:

- There does not seem to be any sensitivity in the activity category charging. The WCWC suggests that there could be a division between higher risk discharges and lower risk discharges, this would allow the focus of resources where this is most effective. A very good example would be the distinction of allocation of resources for very small treatment works between those regulated by General Binding Rules (GBR) and those with numerical consents. Another distinction could be between discharges to protected areas and those to non -protected areas, the latter requiring greater attention.

- A vast majority of small works are regulated by GBR and although the per works annual charge is small, there are a lot of such works, so the very substantial increase of 527% will incur a substantial increase in costs. The WCWC is not aware of the reasoning behind this, particularly as they are exempt from S82 Environment Act 2021 monitoring, or possibly because of it?

- The consultation lacks any reference to the efforts needed to find more resource efficient ways of monitoring.

Footnote

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 concern for water and the environment. Our experience and knowledge ranges 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 WCWC’s purpose is *promoting a diverse and sustainable environment.* Visit the website for further details and for access to the full response.