Replies to comments for the 2022 – Consultation on Oxygen consuming substances in European rivers (CSI019)

Consultation deadline	2022/09/21
#Comments received	4
Replies provided	2022/10/05

1. Comment, Contributor: lopesana (Ana Rita Lopes), Date: 2022/09/19 11:49
Paragraph URL: https://forum.eionet.europa.eu/nrc-eionet-freshwater/library/oxygen-consuming-substances-european-rivers/eionet-consultation-oxygen-consuming-substances-european-rivers/2022-consultation-on-oxygen-consuming-substances-in-european-rivers-csi019/indicator-text-and-figures/003

Section	Paragraph	Message	Reply
1 - Indicator text and figures	Note: The data series are calculated as the average of annual mean concentrations for river sites in Europe. Only complete time series after inter/extrapolation are included (see indicator specification). BOD7 data has been recalculated into BOD5 data. Two time series are shown – a longer time series representing fewer water bodies and a shorter time series representing more water bodies. BOD in rivers: The number of river monitoring sites included per country is given in parenthesis: 1992-2020: Albania (4), Austria (44), Belgium (26), Bulgaria (57), Czechia (22), Estonia (33), Finland (5), Ireland (3), Latvia (13), Lithuania (22), North Macedonia (4), Slovakia (8), Slovenia (8), Spain (78), Sweden (1). 2000-2020: Albania (5), Austria (46), Belgium (36), Bulgaria (74), Croatia (23), Cyprus (4), Czechia (22), Estonia (35), Finland (5), Ireland (14), Italy (44), Latvia (16), Lithuania (22), North Macedonia (8), Poland (90), Romania (88), Serbia (34), Slovakia (8), Slovenia (10), Spain (179), Sweden (1). …	PT - In 2019 PT requested that old data be deleted as they had been corrected. We have also increased the number of monitoring stations. We currently report 32 stations in reservoirs and 99 stations in rivers. Regarding BOD and ammonium parameters Portugal reported data for the period 2010-2020.It is considered that there should be reference in the text to the Member States that reported data even with shorter series.It is also noted that in Figure 2 an analysis is made with the data sent despite the data series being of 10 years.	The available Ammonium and BOD5 data reported by Portugal cover the period 2005-2020. According to the established methodology described in the Indicator specifications, only the time series of 1992-2020 ("long time series") and 2000-2020 ("short time series") are used for the assessment. Indeed, some of these data were reported recently (e.g. data for the period of 2010-2015 reported in December 2021); we believe these most recent envelopes correctly replace the older envelopes, but please let us know if you believe some other "old data to be deleted". In Figure 2, the present state is shown (i.e. no time series, only the average of whatever is reported for the past three years of 2018-2020), thus also including Portugal, for which quite a lot of sites are available.

2. Comment, Contributor: lopesana (Ana Rita Lopes), Date: 2022/09/19 11:50			
Paragraph URL: https://forum.eionet.europa.eu/nrc-eionet-freshwater/library/oxygen-consuming-substances-european-rivers/eionet-consultation-oxygen-consuming-substances-european-rivers/2022-consultation-on-oxygen-consuming-substances-in-european-rivers-csi019/indicator-text-and-figures/017			
Section	Paragraph	Message	Reply
1 - Indicator text and figures	Country levelFigure 2. Status of biochemical oxygen demand in rivers in European countries	PT - In the document it is not clear how the classes in figure 2 were established.	See explanations in the correspondence for CSI020.

3. Comment, Contributor: lopesana (Ana Rita Lopes), Date: 2022/09/19 11:58

Paragraph URL: https://forum.eionet.europa.eu/nrc-eionet-freshwater/library/oxygen-consuming-substances-european-rivers/eionet-consultation-oxygen-consuming-substances-european-rivers/2022-consultation-on-oxygen-consuming-substances-in-european-rivers-csi019/indicator-text-and-figures/025

Section	Paragraph	Message	Reply
1 - Indicator text and figures	Assessment The current BOD, averaged for the period 2017-2020, is 3.1 mg O2/l for 24 countries of Europe for which data are available (10 776 sites). Almost two thirds of the river monitoring sites in Europe fall into the three best BOD classes, which is also the recommended water quality for salmonid fish (less than 3 mg/l according to the Fish Directive 2006/44/EC) and recommended water quality for water intended for the abstraction of drinking water (according to the Directive concerning the quality required of surface water intended for the abstraction of drinking water 75/440/EEC). Countries with the highest share of river sites in the best quality class (less than 1.4 mg/l) are Slovenia (all sites), Ireland (91 % of sites), and Cyprus (74 %). The share of monitored river sites with BOD not satisfying recommendations for salmonid waters is particularly high (more than 50%) in Albania, Kosovo under UNSCR 1244/99, and Portugal. Higher BOD is observed in agriculturally and industrially developed lowlands …	PT - The Fish Directive 2006/44/EC also sets out the recommended water quality for cyprinids, and an assessement shoud also be done considering these thresholds. Taking into account the BOD parameter is linked to temperature, we would like to highlight that in Portugal, particularly in the south, the water temperature is high in line with cyprinid waters. The Directive 75/440/EEC (drinking water) has already been repealed in 2007 by Water Framework Directive. The reference to this Directive does not make sense, when there is a more recent Directive.	The thresholds for distribution of BOD values ranging from low to high values in Europe have been used for many years. For comparisons between years, the same scale is maintained. The selection criteria at the time have been: the values in the analytical area (Europe) are divided into five groups, the limit values are reasonably rounded, some limit values can be interpreted as either recommended or prescribed limit values. The cutoff values are also chosen so that the distribution resembles the logic of quintiles. The recent Drinking Water Directive 2020/2184 does not include BOD under chemical parameters any more. Nevertheless, we use 3.0 mg BOD/l as a treshold between three low-concentration groups and two higher-concentration groups. It would make sense to divide concentrations into groups by regions. Thus, the threshold values would be lower in the northern European countries, and higher in the southern ones. This would also reflect the cyprinid character of surface waters in Portugal. In the process of renewing the methodology, we will reconsider the idea. This year we will add an appropriate comment in the specification text.

	4. Comment, Contributor: lopesana (Ana Rita Lopes), Date: 2022/09/19 12:00		
Paragraph URL: https://forum.eionet.europa.eu/nrc-eionet-freshwater/library/oxygen-consuming-substances-european-rivers/eionet-consultation-oxygen-consuming-substances-european-rivers/2022-consultation-on-oxygen-consuming-substances-in-european-rivers-csi019/supporting-information/018			
Section	Paragraph	Message	Reply
2 - Supporting information	Data sets uncertainty The indicator is meant to give a representative overview of oxygenation availability conditions in European rivers. This means it should reflect the variability in conditions in space and time. Countries are asked to provide data on rivers according to specified criteria. The datasets for rivers include almost all countries within the EEA, but the time coverage varies from country to country, both through the analysed period and within the year for which the aggregated mean value is provided. It is assumed that the data from each country represents the variability in space in their country. Likewise, it is assumed that the sampling frequency is sufficiently high to reflect variability in time. In practice, the representativeness will vary between countries. Each annual update of the indicator is based on the updated set of monitoring sites. This also means that due to changes in the database, including changes in the QC procedure that excludes or re-includes individual sites or samples …	PT - Will be important to consider all the desagregated data in order to detected high concentrations peaks.	While we agree that peaks in time series are important for assessing the state of environment, such a methodological change would first require the metadata assessment, specifically how much details can be credibly acquired from the available SoE Waterbase Water Quality data. We are going to address the question for the methodological updates of the indicator in next iteration (i.e. spring 2023).

Thank you for your contributions.

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