
Document title	Eutrophication indicators – response to input request in preparation for Second HELCOM Indicator
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Submitted by	Secretariat

Background

In preparation for the Second HELCOM Indicator Workshop a list of questions was sent out to relevant HELCOM Expert and Working Groups. The document below provides short responses to relevant questions related to the following eutrophication indicators: Chlorophyll-a (summer-time), Secchi dept, Cyanobacterial bloom, and Spring bloom chlorophyll-a.

An additional response was provided for the oxygen debt indicator (Swedish contact point from during HOLAS II update) indicating that the HELCOM Indicator-policy match table had been reviewed at IN Eutrophication, that the indicator meets the requirements of the Commission Decision (EU) 2017/848, but acknowledging the fact that the role of indicator lead remained open. Changes are reflected in the topic summary for eutrophication.

Action requested

The Workshop is invited to take note of this information and use it as required during the discussion.

Chlorophyll-a (summer-time), Secchi depth, Cyanobacterial bloom, Spring bloom chlorophyll-a

Response from conducting requested tasks for preparation of HELCOM indicator WS 2-2019

Indicator lead: Vivi Fleming-Lehtinen / Finland

Indicators: Chlorophyll-a (summer-time)

Secchi depth

Cyanobacterial bloom

Spring bloom chlorophyll-a

I. Check and, if necessary, correct and complete the relevant information in topic summary

A Baltic Sea regional evaluation of indicators representing ecosystems components (e.g. chlorophyll-a concentration, oxygen deficiency, nutrient concentrations water clarity and algal blooms). Such evaluations should be made against commonly agreed threshold values (for state indicators) or target levels (for inputs) that have relevance to the ecosystem and effects on biota. A quantitative overall integrated assessment is constructed from the indicators.

Other relevant aspects associated to this topic may include hydrographical conditions (e.g. acidification) as this indicator is currently hosted under the IN Eutrophication group.

II. Review the relevant part of the HELCOM indicator-policy match document (particularly for the BSAP and MSFD), and provide specific comments if it requires updating or is incorrect

See attached excel-file '17 Annex 1 - HELCOM Indicator match and scoring tables_ draft 05092019_vf.xlsx'

Note: Updates now incorporated into latest version at the Workshop

III. Evaluate if existing/developing HELCOM indicators correctly meet the requirements of the COMMISSION DECISION (EU) 2017/848. If not, define the adjustments/developments required

All following indicators meet the requirements of MSFD

Chlorophyll-a (summer-time)

Secchi depth

Cyanobacterial bloom

Spring bloom chlorophyll-a

IV. Address the priority areas identified at HELCOM Indicator WS 1-2019 (see information provided separately) and prepare proposed solutions and answers to the issues pinpointed for consideration at the second HELCOM indicator workshop

I do not know what is the information provided separately, I could not find priority areas listed in the 'Topic summary' document nor in the document 'Proposal of organization of preparatory work...'.

V. Provide a clear indication of the resource requirements to implement the work

Chlorophyll-a (summer time)

- operational

Secchi depth

- operational
- should be developed to take advantage of satellite data; this work requires additional funding or a designated project

Cyanobacterial blooms

- in practice the indicator is operational, and was used as test indicator in HOLAS II
- to update to CORE indicator, could be completed using the lead / co-lead approach

Spring bloom chl-a

- additional funded or a designated project would be needed to apply existing models for estimating thresholds

VI. Note the agreed deadlines for indicator development

Chlorophyll-a (summer time)

- operational

Secchi depth

- operational
- adjustments can be made within timeline if funding is achieved

Cyanobacterial blooms

- adjustments can be made within timeline

Spring bloom chl-a

- development can be done within timeline if funding is achieved