



Baltic Marine Environment Protection Commission

Making the HELCOM eutrophication assessment
operational (EUTRO-OPER)
Video Meeting, 8 September 2015

EUTRO-OPER 6-2015

Document title	Progress in implementing assessment work flow
Code	3-4
Category	CMNT
Agenda Item	3 – Progress of EUTRO-OPER during work phase 4
Submission date	4.9.2015
Submitted by	ICES, Secretariat
Reference	EUTRO-OPER 1-2015, EUTRO-OPER 4-2015

Background

The target of this project is to make operational the production of the eutrophication assessment, through developing a system for data- and work flow, in connection with the ICES COMBINE database. EUTRO-OPER 1-2015 agreed on the approach and road map in taking the work forward, EUTRO-OPER 4-2015 agreed to include also coastal information into the procedure.

This document describes the progress of the data and work flow implementation done by ICES and the Secretariat.

Action required

The Meeting is requested to note the progress and guide the work forward.

Progress in implementing assessment work flow

The present state of the assessment work flow may be seen at the EUTRO-OPER Data reporting workspace (<https://portal.helcom.fi/workspaces/EUTRO-OPER-70/default.aspx>), where for example the following has been included since EUTRO-OPER 5-2016

- indicator data for coastal waters of Germany, as a test area for coastal assessment units
- final HEAT assessment calculations

(the calculations are not final, and might still include some errors)

Aggregation of coastal indicators

The coastal assessment is based on the HEAT 3.0 tool, using the indicators reported under the WFD by contracting parties that are also EU Member States. The indicators thus differ in most areas from those used in open-sea assessment units, and also depending on Contracting Party.

So far, coastal indicators have been reported for the purpose by Estonia, Finland, Germany, Latvia, Poland and Sweden.

In order to enable Baltic-wide indicator evaluations, the slightly differing coastal indicators have been grouped accordingly:

ID	CriteriaID	Name	Abbreviation	Period	Season	CP
1	1	Dissolved Inorganic Nitrogen	DIN	12-3	Winter	SEA,LAT,POL,SWE
2	1	Dissolved Inorganic Phosphorus	DIP	12-3	Winter	SEA,LAT,POL,SWE
3	2	Chlorophyll a	NULL	5-9	Summer	SEA,GER,EST,FIN,LAT,POL,SWE
4	2	Secchi Disk Depth	NULL	6-9	Summer	SEA,GER,EST,FIN,LAT,SWE
5	3	Oxygen	NULL	1-12	Annual	SEA,(GER),(SWE)
6	1	Total Nitrogen	TN	1-12	Annual	GER,POL,SWE
7	1	Total Phosphorus	TP	1-12	Annual	GER,POL,SWE
8	3	Macrophytes	NULL	NULL	NULL	GER,POL
9	3	Zoobenthos	NULL	NULL	NULL	GER,POL
10	1	Total Nitrogen	TN	6-9	Summer	EST,FIN,SWE
11	1	Total Phosphorus	TP	6-9	Summer	EST,FIN,SWE
12	2	Phytoplankton biovolume	NULL	6-9	Summer	EST,FIN,LAT,POL,SWE
13	3	Benthic macroflora depth distribution	NULL	7-9	Summer	EST
14	3	Fucus vesiculosus depth distribution	NULL	7-9	Summer	EST,LAT
15	2	Proportion of perennial species	NULL	7-9	Summer	EST
16	3	Large invertebrates ZKI	ZKI	5-8	Summer	EST
17	3	Large invertebrates FDI	FDI	7-9	Summer	EST
18	3	Large invertebrates KPI	KPI	7-9	Summer	EST
19	3	Macrophytes, sheltered	NULL	7-8	Summer	FIN
20	3	Macrophyte, open	NULL	7-8	Summer	FIN
21	3	BBI	BBI	5-6	Summer	FIN
22	3	Benthic Quality Index	BQI	5	Summer	LAT,SWE
23	3	Phytoplankton Ecological Quality Index	PEQI	7-9	Summer	LAT
24	2	Chlorophyll a	NULL	1-12	Annual	POL
25	1	Dissolved Inorganic Nitrogen	DIN	1-12	Annual	POL
26	1	Dissolved Inorganic Phosphorus	DIP	1-12	Annual	POL
27	2	Secchi Disk Depth	NULL	1-12	Annual	POL
28	3	Oxygen	NULL	6-9	Summer	POL
29	3	Macrovegetation	NULL	7-9	Summer	SWE

In the overall eutrophication assessment, the indicators are aggregated accordingly:

Criteria 1, nutrients

- DIN
- DIP
- total N
- total P

Criteria 2, direct effects

- chlorophyll-a
- Secchi depth
- phytoplankton biovolume
- percentage of perennial species

Criteria 3, indirect effects

- oxygen
- macrophytes
- macrovegetation
- bent.flora_max depth

- F.ves_max depth
- PEQI (macrophytes)
- zoobenthos
- BQI
- ZKI
- FDI
- KPI
- BBI