Document title	Core indicator state of play
Code	1-4
Category	INF
Agenda Item	1 – Core indicators development work and data-arrangements
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Submitted by	Secretariat

Background

Core indicator development work is taken forward through a Lead Country approach. This document provides a brief overview of the state of play for the core indicators as well as the pre-core indicators based on whether the GES boundary is in place. More detailed information on planned work and indicator specific development points will be presented by the Lead Countries at the workshop. Assessment protocols will be discussed jointly based on meeting document 1-5 and data-arrangements in association with meeting documents 1-7 and 1-8.

Action required

The workshop is invited to take note of the information and use it as appropriate.

Core indicator state of play

There is development work needed for all hazardous substance core indicators. The development work is to be taken forward by the Lead Country and communicated and reviewed in the HELCOM Expert Network Hazardous Substances (EN-HZ).

A dedicated workspace for hazardous substances assessments has been established in the HELCOM Meeting Portal.
The latest versions of the core indicator reports are available there, as well as other supporting procedural documents such as lists of nominees to the hazardous substance network.

The Lead Country is invited to schedule the development work to be carried out during 2016 using the indicator specific information in this document. The Lead Country may fill in the provided table and send it to the Secretariat, or is some other way which is deemed suitable communicate the schedule to the Secretariat as soon as possible and by the latest before the end of the year.

In scheduling the work, the Lead Country is invited to consider the timing of the currently scheduled relevant meetings of HELCOM groups, and if necessary schedule additional expert meetings in order to complete the work. The HELCOM Secretariat is available to help in the scheduling if needed, and can also support the arrangement of Skype for Business meetings. In scheduling the development work to be carried out, Lead Countries are advised that meetings can be used as a forum for expert discussion to reach an expert level agreement on the indicator, and furthermore the Lead Countries are invited to consider the fact that reaching an expert level agreement on the core indicators may require time and are therefore invited to be mindful of the potential need to schedule for more than one wider discussion in order to reach agreement. Development work can be carried out during meetings, however most of the development work is to be carried out intersessionally.

As a starting point for the Lead Country work on scheduling the needed work, it should be noted that a **HELCOM hazardous substance 3-day workshop is planned for the first week of February** (tentatively 2-4.2.2016), location to be confirmed and offers to host are welcomed. The February workshop is planned to be held jointly with the EN-hazardous substance as well as the on-going project BalticBOOST where the hazardous substance assessment tool is being developed (WP 2.1) and data-arrangements for hazardous substance core indicators are being developed (WP 2.2). Lead Countries are encouraged to participate in the workshop to allow for discussions on the indicator development work.

Indicator (C)- core (PC) – pre core (cand) - candidate	GES-boundary		**Lead Country**	LC rep.	*Co-lead Country*	CLC rep.
Hexabromocyclodecane (HBCDD) (C)	EQS **biota secondary poisoning** 167 µg/kg ww *Secondary: sediment*				*Finland* *Sweden*	Jaakko Mannio Sara Danielsson
Metals (C)	Cd	EQS $_{water}$ (AA) 0.2 µg/l *Secondary: QS $_{sediment}$ 2.3 mg/kg dw OR biota BAC blue mussel 960 µg/kg dw*	**Poland**	**Tamara Zalewska**	*Denmark* *Finland* *Sweden*	Martin M Larsen Harri Kankanpää Sara Danielsson
	Hg	EQS biota secondary poisoning 20 µg/kg ww				
	Pb	EQS $_{water}$ (AA) 1.3 µg/l *Secondary: QS $_{sediment}$ 120 mg/kg dw OR biota BAC blue mussel 1300 µg/kg dw OR BAC fish 26 µg/kg **dw***				
Polybrominated biphenylethers (PBDE) (C)	EQS biota human health 0.0085 µg/kg ww (fish fillet)				*Finland* *Sweden*	Jaakko Mannio Sara Danielsson
Perfluorooctane sulphonate (PFOS) (C)	EQS biota human health 9.1 µg/kg ww (fish fillet) *Secondary: EQS water*				*Finland* *Sweden*	Jaakko Mannio Sara Danielsson
White-tailed eagle productivity (C)	Productivity: 0.97 nestlings Brood size: 1.71 nestlings Breeding success: 0.59 (59%)		**Sweden**	**Björn Helander, Peter Hellström**	*Finland*	Toni Laaksonen
Polyaromatic hydrocarbons (PAH) and their metabolites (C no GES)	**Proposal to be considered and proposed for endorsement** *Benzo(a)pyrene:* EQS biota human health 5 µg/kg ww (crustaceans and molluscs) *Other PAH*: supporting information		**Germany**	**Ulrike Kammann**	*Finland* *Sweden*	Harri Karkanpää Sara Danielsson
Polychlorinated biphenyls (PCB) and dioxin and furan (C no GES)	**Proposal to be considered and proposed for endorsement** *Dioxin:* EQS biota human health 0.0065 TEQ_{2005} Non-dioxin-like PCBs: tentatively use foodsafety TEQ values (to be specified)				*Finland* *Sweden*	Jaakko Mannio Sara Danielsson
TBT and imposex (C no GES)	**Proposal to be considered and proposed for endorsement** TBT: QS sediment 1.6 µg /kg dw (5% TOC) (developed by Sweden based on toxicity (EU WFD EQS 0.02 µg/kg dw) Biota to be defined		**Sweden** tentative		*Denmark* *Finland*	Jakob Strand Jaakko Mannio

Indicator (C)- core (PC) – pre core (cand) - candidate	GES-boundary	**Lead Country** LC rep.	*Co-lead Country* CLC rep.
	secondary: EAC water: 0.2 ng/l, mussel 12 µg/kg dw *Imposex*: OSPAR EcoQO class 2 (species specific tabular information)		
Reproductive disorders: Malformed eelpout and amphipod embryos (PC)	**Proposal to be considered and proposed for endorsement** *Monoporeia affinis*: proportion of malformed embryos < 3.8% proportion of females with >1 malformed embryo <22% *Gammarids*: Proportion of females with >1 malformed embryo <20% Eelpout: Malformed fry <2% Late dead fry <4% Early dead fry <5%		*Denmark* Jakob Strand *Finland* Kari Lehtonen *Sweden* *Brita Sundelin*
Lysosomal membrane stability (LMS) (PC)	**Proposal to be considered and proposed for endorsement** Histochemical method: Herring and eelpout (liver) 8 min (EAC) Perch and flounder (liver) 10 min (EAC) All other species studied (liver, digestive gland)10 min (EAC) Neutral Red retention test: *Mytilus* spp. (haemocytes) 50 min (EAC)		*Denmark* Jakob Strand *Finland* Kari Lehtonen
Diclofenac concentration (PC)	**Proposal to be considered and proposed for endorsement** QS biota <1 µg kg^{-1} ww *Secondary:* EQS water 0.01 µg L^{-1} (AA)		*Denmark* Jakob Strand *Finland* Kari Lehtonen
Estrogenic-like chemicals and effects (PC)	**Proposal to be considered and proposed for endorsement** <0.18 ng/lethinyl estradiol equivalents (EEQ)	**Sweden** **Niklas Hansson**	*Denmark* Jakob Strand *Finland* Kari Lehtonen
Acetylcholinesterase inhibition (PC)	(none defined, tentative proposal to consider EAC)		
Fish disease index (PC)	(none defined, tentative FDI assessment criteria proposed)		*Denmark* Jakob Strand *Finland* Kari Lehtonen
Micronucleus test (PC)	(none defined, tentative categories proposed)		*Denmark* Jakob Strand *Finland* Kari Lehtonen
EROD activity (cand)	**Proposal to be considered and proposed for endorsement** activities below 0.1 nmol/mg*min	**Sweden** **Niklas Hansson**	