

Data		Results					
	Waterbody	Biota	Sediment	BioEffect	Worst	ConSum	Status
1	'1			0.29	BioEffect	0.29	High
2	'12		0.33		Sediment	0.33	High
3	'21		0.82	0.33	Sediment	0.82	Good
4	'22		0.62		Sediment	0.62	Good
5	'3		0.44	0.95	BioEffect	0.95	Good
6	'36	7.63			Biota	7.63	Poor
7	'39		0.73	0.88	BioEffect	0.88	Good
8	'53	4.75	1.64		Biota	4.75	Moderate
9	'54	5.53			Biota	5.53	Poor
10	'71	13.74			Biota	13.74	Bad
11	'72	14.48	1.26	1.02	Biota	14.48	Bad
12	'73			0.97	BioEffect	0.97	Good
13	'90	8.07	0.58		Biota	8.07	Poor
14	'92		2.70		Sediment	2.70	Moderate

CHASE - Proposal for Confidence Assessment Method

Ciarán Murray, NIVA Denmark

Second HELCOM BalticBOOST Workshop on the HOLAS II hazardous substance assessment

Copenhagen, 13-14 Sep. 2016

Indicator Confidence

Matrix	Substance	Unit	Status	Threshold
Sediment	Anthracene	µg/kg dw	16.18375	24
Sediment	Cd	mg/kg dw	0.429818	2.3
Sediment	Fluoranthene	µg/kg dw	149.1238	2000
Sediment	Pb	mg/kg dw	85.20455	120
Sediment	TBT	µg/kg dw	1.675	1.6
Water	Cd	µg/l ww	0.013579	0.2
Water	Cesium-137	Bq/m3	26.8552	15
Water	Pb	µg/l ww	0.355238	1.3

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Confidence	Score
High	1
Medium	0.5
Low	0

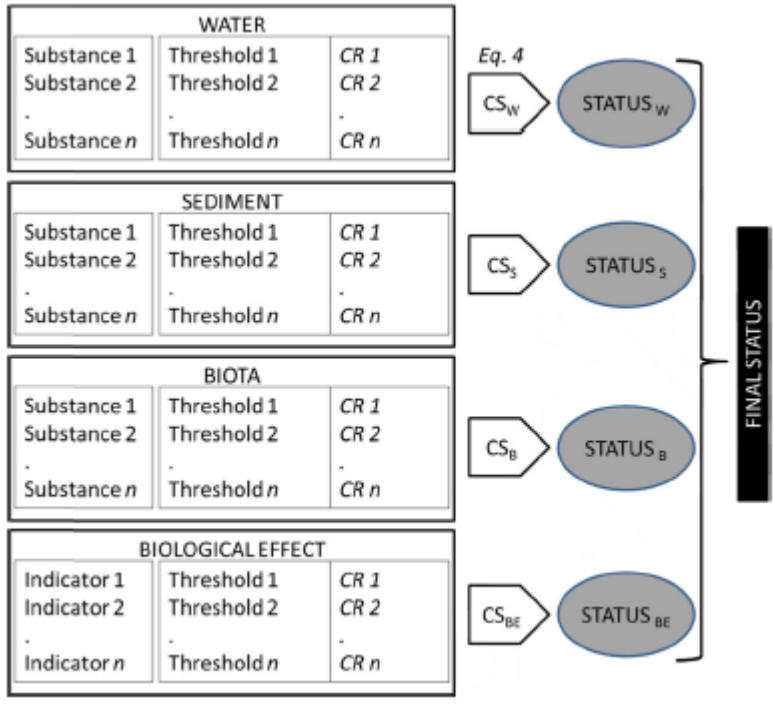
Status & Threshold Confidence

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$$C_{indicator} = 0.5 (C_{status} + C_{threshold})$$

Confidence Aggregation



$$C_{matrix} = \frac{1}{N} \sum_1^N C_{ind}$$

$$C_{assessment} = \frac{1}{M} \sum_1^M C_{matrix}$$

Assessment Score	Confidence Assessment
$c \geq 0.75$	High
$0.5 \leq c < 0.75$	Medium
$c < 0.5$	Low

Penalties for lack of indicators

Within matrix (Biota, Water...), indicator count < 2

$C_{\text{matrix}} \times 0.75$ (0.5 ?)

Number of matrices represented < 2 ($< 3?$)

$C_{\text{Assessment}} \times 0.75$ (0.5 ?)

Key substance groups not represented?