
Document title	Guidance for the further work on developing designation and deletion criteria for hot spots
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Background

In 1992, the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP), an international environmental management framework for the long-term restoration of the ecological balance of the Baltic Sea, was adopted to help identify and clean up pollution hot spots. Designating hot spots and working towards their deletion has proven to be an important and successful tool in pollution management in the Baltic Sea region.

HELCOM Contracting Parties agreed on a number of actions concerning hot spots, including action HT24 *“Consider designating HELCOM hot spots by 2025 on the basis of identified additional sources of major negative impact on the Baltic marine ecosystem, starting with the development of specifying criteria for the designation and deletion of the hot spots by 2023, and based on those criteria, initiate and undertake targeted measures with the aim of eliminating where possible such new hot spots”* in the updated Baltic Sea Action Plan.

Regarding the approach for designating new hot spots, the Heads of Delegation agreed via correspondence in January 2023 that the aim is to have a list of all important sources of pollution followed by considerations as to which of them would be prioritized and most cost-efficient to remediate.

The work was commenced with the Informal Consultation Kick-off Workshop for Developing criteria for the designation and deletion of hot spots for nutrients, hazardous substances, litter and other potential pressures held on 30 March 2023. IC WG SOURCE TO SEA 1-2023 considered the outcomes of the workshop, welcomed the offer by Germany to lead a drafting group for developing the new criteria for designating and deleting hot spots, invited the Contracting Parties to nominate experts to the drafting group and the Secretariat to draft a guidance document summarizing the conclusions and proposals so far.

The drafting group first met on 16 June 2023, with a focus on scrutinizing the existing criteria and proposing changes. After the first session the group worked on an online document to develop new criteria. The second session on 30 August 2023 focused on discussing the proposed new criteria for designating hot spots.

IC WG SOURCE TO SEA 2-2023 considered the progress and acknowledged that the drafting group had not yet agreed on some of the principles and the organization of the whole process and pointed out that the principles should be agreed upon before carrying out any further work to avoid challenges of endorsement of detailed criteria afterwards. The session proposed to submit specific questions proposed by lead country Germany to the Expert Groups, submit the draft criteria and the recommendations from this session to the IC WG SEA-BASED PRESSURES 2-2023 and use the next drafting session on 14 November 2023 to define issues where advice is sought from IC HOD 4-2023

After IC WG SOURCE TO SEA 2-2023, the hot spot drafting group met virtually on 14 November 2023 to develop a list of proposals and questions to HOD that would guide the group in their work. The group made substantial progress and reached consensus on some basic principles that could frame further work on the hotspot criteria. This document informs HOD of the state of discussions within the drafting group. It also flags remaining issues where guidance from HOD is requested.

The input by WG Sea-based pressures is not included in the document as the working group will only meet on 21-23 November 2023.

WG Source to Sea and the Hot spots Drafting Group request guidance from HOD on the following five issues:

- The appropriate level of ambition for designation / deletion of hot spots
- Clarification of the designation process of hot spots
- Definition of the relation between old and new hot spots and criteria applied
- Range of sectors/activities/pressures to be covered with the hot spot approach
- Financial support for the hot spot deletion process

The document provides further details on these issues and the advice sought from HOD in Annex 1 as well as an overview of the current draft designation criteria for new hot spots in Annex 2.

Action requested

The Session is invited to:

- note and comment the progress on developing designation/deletion criteria for hot spots;
- provide guidance on the specific issues raised.

1) Level of ambition of the designation / deletion criteria for new hot spots

Concerning the level of ambition of the designation / deletion criteria it is proposed that the Hot spot List should be based only on assessing compliance with the HELCOM acquis (e.g. Recommendations, Baltic Sea Action Plan, Helsinki Convention and its annexes). The HELCOM acquis already provides a suitable level of protection for the Baltic Sea. This avoids potential issues with alleging non-compliance with legislation that can result in financial or other penalties while ensuring that the criteria for designation/deletion are transparent. This approach would also provide an indication where further strengthening of HELCOM Recommendations is needed. An ambition level beyond the existing HELCOM acquis risks creating arbitrary and non-transparent designation and deletion criteria. Pollution sites not covered by the existing acquis should indicate priorities for the development of future HELCOM provisions and potential future revisions of the hot spot list. For legacy pollution sites (land-based and submerged) the drafting group proposes a two-step approach developing designation criteria first to allow hot spots to be identified and deletion criteria once HELCOM provisions have been agreed.

2) Process of designation of hot spots

The drafting group recommends where possible to use a data-driven approach for the designation process supported by expert judgement where needed. In this respect, advice from HOD is requested on whether the designation process will be supported by an external consultant. If an external consultant is required, finances need to be secured. Otherwise, the designation process lies within the responsibility of the Contracting Parties supported by the Secretariat and there is a need to have an early indication of this in order to secure resources (human, financial or both). Additional resources to support this process are necessary in order to stay close to the timeline agreed in the BSAP 2021. It is expected that any proposed new hot spots will be consulted by relevant Expert Group and approved by the relevant Working Group and HOD.

3) Old versus new hot spots

For administrative and communication purposes, it is suggested to aim for one list of hot spots in the future that incorporates the old existing hot spots that cannot be deleted until 2025 as well as the new hot spots that are going to be designated. Such a list should follow the principle that the level of ambition should not be reduced, and all old hot spots would remain on the list. There is a general assumption that the new deletion criteria would also be applied to the active old hot spots. Hot spots that have already been deleted could become re-designated according to the new designation criteria. In case there are hot spots on the old list for which no new criteria are applicable, these would be deleted according to the old criteria.

4) Range of sectors/activities/pressures to be covered

The drafting group requests HOD to advise on which sectors/activities/pressures should be **excluded** from the Hot spot approach. In expert discussions it was emphasized that the hot spots are only one tool for reducing pressures to the Baltic Sea and there are many other actions in the BSAP and in Regional Action Plans that also have this intention, so there is no need to duplicate efforts. Therefore, it seems that there should be a selection of pressures and concerning these pressures a selection of activities/sectors on which the hot spot approach should focus. These could be those for which the approach is feasible and easy to apply. In this respect, expert discussions indicated that many pressures exerted on the Baltic Sea nowadays

are caused by diffuse pollution, which is generally more challenging to address by the hot spot approach compared to point sources. It needs to be highlighted that these expert considerations are in contrast to the advice provided by HOD that the aim is to have a list of all important sources of pollution followed by considerations as to which of them would be prioritized and most cost-efficient to remediate.

5) Hot spot deletion process

How and to what extent can financial support for the deletion of new hot spots be secured, e.g. through NEFCO BSAP fund, after prioritisation from the new hot spot list and considerations of cost-efficient deletion? Are there any new financing mechanisms planned? Expert discussions showed that knowing this in advance has some influence on the process of developing designation/deletion criteria. If financial support can be expected CPs might be more willing to accept ambitious criteria and might be more motivated to designate. If such support seems uncertain, the hot spots list could end up only as a “blame” list and CPs would strive for not getting on it.

Annex 2 Draft designation criteria

The hot spot drafting group has taken a stepwise approach, developing designation criteria first. Since the deletion criteria need to mirror the designation criteria, they would be developed as a second step. Furthermore, the drafting group has structured the work along sectors leading to pollution of the Baltic Sea, starting with those sectors that have already been addressed by the old criteria and suggesting to also look at sea-based hot spots in addition. The different pressures (inputs of nutrients, hazardous substances, litter) are then considered within each of the sectoral approaches. The designation criteria drafted so far are still under discussion and need to undergo further careful scrutiny by the relevant expert groups. Designation criteria in square brackets are controversial. Furthermore, the current draft list does not yet fully take into account the proposals concerning the five issues elaborated above. Once HOD has provided its advice on these issues, the drafting process will continue. It also needs to be highlighted that current progress on action HT24 is delayed and that the developing of designation/deletion criteria cannot be finalized in 2023 as foreseen.

Proposed new criteria for municipal hot spots

Significant amounts of polluting substances (nutrients, hazardous substances, micro/macropastics) are released via rivers or directly from the site to the Baltic Sea marine and coastal waters including wetlands, lagoons and semi-enclosed basins. This includes significant amounts at regional level (e.g. as quantified by PLC assessments), but explicitly also local pollution.

The municipal discharge significantly affects recreational use, coastal fish spawning and nursing grounds, other marine species, the use of fish for consumption and other food sources by discharging nutrients, oil, hazardous substances, microbes and or micro/macropastics [and bio-carriers?].

The hot spot tool is thereby instrumental in identifying locations/sectors/activities that give rise to the largest environmental problems and to prioritize actions and target financial resources in order to effectively and quickly reduce the pressure on the Baltic Sea until 2030.

The municipal system is found to exhibit one or more of the following characteristics:

- 1) emissions of nutrients, hazardous substances and/or micro/macropastics from the sewage treatment plant contribute considerably to an impact or threaten Baltic Sea marine and coastal ecosystems, including wetlands, lagoons and semi-enclosed basins;
- 2) the sewage treatment plant discharges significant amounts of phosphorus, nitrogen and organic matter;
 - a. Significant in this context means one or more of the following aspects:
 - i. the sewage treatment plant is located discharging indirectly to the Baltic Sea catchment area and is far from the coast and it is significantly out of compliance with HELCOM recommendation 28E/5 [and its future revision], that means treatment levels as specified in the recommendation are underachieved by more than [20%];
 - ii. the sewage treatment plant is discharging directly to the Baltic Sea or is located close to the Baltic Sea and is significantly out of compliance with HELCOM recommendation 28E/5 [and its future revision], that means treatment levels as specified in the recommendation are underachieved by more than [10%];
- 3) the sewage treatment plant discharges significant amounts of hazardous substances including pharmaceuticals which are not efficiently treated within the wastewater treatment plant and/or affect the efficiency of the treatment process;
 - a. Significant in this context means one or more of the following aspects:
 - i. the sewage treatment plant is significantly out of compliance with the revised EU

UWWTD [when finally agreed] based on inlet-outlet measurements of hazardous substances / inlet-outlet measurements indicate that the treatment plant does not efficiently remove hazardous substances;

- 4) the sewage treatment plant discharges significant amounts of microplastics [and macroplastics?] which are not effectively removed in the treatment process;
 - a. Significant in this context means one or more of the following aspects:...?
- 5) a leaking sewer network or [stormwater] overflow of the wastewater treatment plant results in significant discharges of phosphorous, nitrogen, organic matter, hazardous substances and/or micro/macroplastics [and bio-carriers?];
- 6) municipal sludge handling and disposal is done in a way that results in significant discharges of phosphorous, nitrogen, organic matter, hazardous substances and /or microplastics.
 - a. Significant in this context means that sewage sludge handling does not fulfill HELCOM recommendation 38/1 [and its future revision];
- 7) stormwater overflows occur on a regular basis and/or as a result of extreme weather events and lead to significant amounts of stormwater polluted with nutrients, organic matter, hazardous substances and/or micro/macroplastics being discharged untreated and/or substantially underachieving standards included in HELCOM recommendation 23-5-Rev.1. ensuring separate systems for sewage and stormwaters;
- 8) agglomerations of scattered dwellings lead to a significant discharge of untreated sewage and/or are not fulfilling HELCOM recommendation 28E/6 [and its future revisions].

Proposed new criteria for land-based industrial facilities/sites

Significant amounts of polluting substances (nutrients, hazardous substances, micro/macroplastics) are released via rivers or directly from the site to the Baltic Sea marine and coastal waters including wetlands, lagoons and semi-enclosed basins. This includes significant amounts at regional level (e.g. as quantified by PLC assessments), but explicitly also local pollution.

The industrial discharge significantly affects recreational use, coastal fish spawning and nursing grounds, other marine species, the use of fish for consumption and other food sources by discharging nutrients, oil, hazardous substances, salt, turbidity and siltation, thermal effects and/or micro/macroplastics.

The industrial site is found to exhibit one or more of the following characteristics:

- 1) the individual facility or a complex of facilities discharges to the air or water significant amounts of hazardous substances, phosphorus, nitrogen, organic matter and/or micro/macroplastics;
 - a. Significant in this context means...?
- 2) the individual facility or a complex of facilities discharges significant amounts of salts;
 - a. Significant in this context means but is not limited to facilities that discharge into water bodies where the high salt content has led to exceptional negative impacts on the environment, e.g., fish kills or harmful algal blooms.
- 3) a leaking sewer network or stormwater overflow of the industrial wastewater treatment plant results in significant discharges of phosphorous, nitrogen, organic matter, hazardous substances and/or micro/macroplastics;
- 4) soil contamination at the facility results in significant discharges of phosphorous, nitrogen and/or hazardous substances and/or leading to secondary accumulation in sediments outside the facility (on land and in the sea);

- 5) industrial sludge handling and disposal is done in a way that results in significant discharges of phosphorous, nitrogen, organic matter, hazardous substances and/or micro/macropastics;
- 6) stormwater overflows occur on a regular basis and as a result of extreme weather events and lead to significant amounts of industrial stormwater polluted with nutrients, organic matter, hazardous substances and/or micro/macropastics being discharged untreated and/or substantially underachieving standards included in HELCOM recommendation 23-5-Rev.1;
- 7) the facility is a phosphogypsum waste site that is leaking significant amounts of phosphorus to the soil and/or surface waters;
- 8) land-based aquaculture that results in significant discharges of phosphorous, nitrogen, organic matter, hazardous substances and/or micro/macropastics and/or not fulfilling BAT/BEP as defined in HELCOM recommendation 37/3 [and future revisions];
- 9) industrial harbours where significant amounts of phosphorous, nitrogen, organic matter, hazardous substances and/or micro/macropastics are discharged to coastal waters or the air.

Proposed new criteria for agricultural hot spots

Significant amounts of polluting substances (nutrients, hazardous substances, micro/macropastics) are released via rivers or directly from the agricultural area or farm to the Baltic Sea marine and coastal waters including wetlands, lagoons and semi-enclosed basins. This includes significant amounts at regional level (e.g. as quantified by PLC assessments), but explicitly also local pollution.

The agricultural activity (animal husbandry or farming) significantly affects recreational use, coastal fish spawning and nursing grounds, other marine species and the use of fish for consumption and other food sources by discharging fertilisers, pesticides and/or pharmaceuticals. Below are current proposals for criteria that require further discussion and work.

The agricultural area or farm should be considered for inclusion as a hot spot, if it is found to exhibit one or more of the following characteristics:

- 1) [it is a [watershed] with an animal density higher than [1.4] livestock units per ha or an area with large animal farms with more than [250 livestock units], which cannot demonstrate that the manure is adequately stored and applied on an appropriate area and according to official national or regional fertilisation guidelines];
- 2) [there is a general lack of implementation of environmentally sound farming practices as described in the provisions of Annex III to the Helsinki Convention];
- 3) [the nitrogen surplus exceeds [60] kg N/ha/yr and/ or the phosphorus surplus exceeds [X] kg P/ha/yr.];
- 4) [the agricultural activity (animal husbandry or farming) is located in the immediate vicinity to the Baltic Sea and/or close to areas/waterbodies not in good status or exceeding respective thresholds and quality standards (in terms of biogenic parameters) under the Water Framework Directive and Nitrates Directive, and is discharging significant amounts of fertilisers, pesticides and/or pharmaceuticals];
- 5) [the amount of pollutants should be calculated not based on the amount of nitrogen and phosphorus loads normalized to the water flow, but based on the concentration of these elements.];
- 6) using a dose of natural fertilizers higher than 170 kgN/ha/year.

Proposed new criteria for sea-based hot spots

Significant amounts of polluting substances (nutrients, hazardous substances, micro/macroplastics) are released directly from the site to the Baltic Sea marine waters. This includes significant amounts at regional level (as quantified by PLC assessments), but explicitly also local pollution.

- 1) emissions of nutrients, hazardous substances including pharmaceuticals and/or micro/macroplastics from the site contribute considerably to an impact or threaten Baltic Sea marine and coastal ecosystems, including wetlands, lagoons and semi-enclosed basins;
- 2) fed marine aquaculture facilities located in eutrophied areas that discharge significant amounts of nitrogen, phosphorus and/or organic matter;
- 3) marine aquaculture facilities that discharge significant amounts of hazardous substances including pharmaceuticals and/or macroplastics;
- 4) dumped munition sites and hazardous wrecks that may release significant amounts of hazardous substances;
- 5) significantly contaminated sediments that release high amounts of hazardous substances e.g. due to oxygen deficiency, dredging activities or bottom trawling activities;
- 6) secondary accumulation sites of macro/microplastics?