

HELCOM RECOMMENDATION 19/1

Adopted 23 March 1998,
having regard to Article 13, Paragraph b)
of the Helsinki Convention

MARINE SEDIMENT EXTRACTION IN THE BALTIC SEA AREA

THE COMMISSION,

RECALLING Paragraph b of Article 13 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974 (Helsinki Convention),

NOTING Articles 3, 4, 7 and 15 of the 1992 Helsinki Convention,

TAKING INTO ACCOUNT that marine sediment extraction is of increasing economical importance in many regions of the Baltic Sea Area,

BEING AWARE that marine sediment extraction may have severe impacts on marine and coastal ecosystems,

TAKING INTO ACCOUNT that marine sediment extraction beside its environmental and ecological impacts also may interfere with other legitimate uses of the sea or interests such as fisheries and coastal defence,

DESIRING to minimize environmental impacts caused by marine sediment extraction and to avoid irreversible ecosystem disturbances,

TAKING INTO CONSIDERATION the work done by ICES on this issue, *inter alia* the "Code of Practice for the Commercial Extraction of Marine Sediments (including minerals and aggregates)",

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention:

- a) to carry out all sediment extractions according to the attached Guidelines (**Attachment 1**);
- b) to carry out an "**Environmental Impact Assessment**" prior to the extraction permit;
- c) that extraction permits for "**Sensitive Areas**" shall be granted only following the restrictions as defined by the attached Guidelines (**Attachment 1**);

- d) that the "**Extraction Practice**" shall cause a minimum environmental impact and allow the regeneration of marine and coastal ecosystems;
- e) that "**Environmental Monitoring**" shall be carried out as a component of any sediment extraction,

RECOMMENDS FURTHER that the Contracting Parties report to the Commission every three years, starting in 1999, using the attached reporting format (**Attachment 2**).

Guidelines for Marine Sediment Extraction

Definitions

- Marine sediment extraction means the removal of sand, gravel, stones and other sediments from the sea bed for purposes such as construction, beach nourishment, landfill or as industrial raw material.
- Environmental Impact Assessment (EIA) in the context of this Recommendation shall at least cover the items as specified under A.1. a-i of these Guidelines. This EIA can be carried out in connection with any extraction permit procedure or on the basis of an act on environmental impact assessment.

General

Decisions of national authorities on permits for marine sediment prospection and extraction shall be based on an adequate investigation and evaluation of the natural conditions, the ecological consequences and possible interferences with other legitimate uses of the sea.

A. *Environmental Impact Assessment*

- (1) An Environmental Impact Assessment shall be an obligatory part of the extraction permission procedure. It shall take into consideration
 - a) the amount and type of the sediment being extracted
 - b) the composition of the aggregate (grain size structure, organic content, contamination with harmful substances etc.)
 - c) the extraction method
 - d) the species composition and abundance of benthic flora and fauna at the extraction site and other areas potentially affected by the extraction process
 - e) the significance of the extraction for fish, marine mammals and seabirds (spawning, breeding, migration, feeding, resting)
 - f) the possible alteration of chemical and physical parameters in the water column and sediments (increase of turbidity, release of nutrients, harmful substances, oxygen consuming compounds)
 - g) the hydrological situation at the extraction site (waves, currents, salinity, water temperature, sills and other structures with significance for hydrological processes etc.), including its significance for the expansion of the turbidity plume, sedimentation of suspended material and water exchange
 - h) the duration of and the parameters for monitoring during the sediment extraction activities and after its termination
 - i) interference with other legitimate uses such as fishery, coastal defence, recreation and tourism or possible damage to submarine archaeological sites.
- (2) The Environmental Impact Assessment shall also consider effects on the sea bottom and the water column at the extraction site, as well as outside the extraction area caused , e.g. by turbidity plumes and sedimentation of particles. It shall also consider possible effects caused by transportation of the extracted materials.
- (3) The results of the Environmental Impact Assessment which has formed the basis for the decision on the extraction permit should be made available for scientific evaluation.

B. Sensitive Areas

- (1) Permits for marine sediment extraction shall not be granted for:
 - a) Nature reserves
 - b) National Parks
 - c) Areas to be included or which are proposed to the European ecological NATURA 2000 network according to the EC Habitats and Birds Directives (92/43/EEC and 79/409/EEC) except when the procedure of Art. 6 of the Habitats Directive is followed
- (2) Permits for marine sediment extraction in other sensitive areas shall only be granted if a thorough EIA that covers at least point A of this Guidelines is proving that the extraction is not likely to cause significant negative ecological effects or lead to a deterioration of the area. Such areas are:
 - a) Baltic Sea Protected Areas (BSPA) according to HELCOM Recommendation 15/5
 - b) Ramsar sites
 - c) areas inhabited by communities of long-living threatened invertebrate species (e.g. the bivalves *Arctica islandica*, *Astarte sp.*, *Macoma calcaria*)
 - d) important spawning areas of fish
 - e) important feeding grounds for migrating or wintering waterfowl within resting and wintering areas of international importance
 - f) large areas densely covered with macrophytes (especially such as *Fucus*, *Zostera*, *Furcellaria*)
 - g) submarine boulder fields on lag deposits where they represent a rare or particularly ecologically valuable habitat type
 - h) areas of permanent upwelling cold water which provide habitat niches for specialized threatened benthic species
 - i) submarine sills with significance for the water exchange
 - j) marine areas near to the coast with significance for coastal sediment transport or with protective function for the coastline (e.g. sand banks, spits and bars).

C. Extraction Practice

- (1) All appropriate measures shall be taken in order to minimize the ecological impacts caused by sediment extraction, and transportation of the extracted material. This includes:
 - a) the choice of an appropriate extraction method which guarantees minimum negative impacts to the marine environment
 - b) application of the “best available technology” (BAT) and “best environmental practice” (BEP)
 - c) optimization of the extraction process particularly in terms of reduction of the turbidity plume
- (2) Furthermore special seasonal susceptibilities of the affected area (e.g. bird and fish migration, reproduction period of marine organisms) shall be considered.
- (3) The recovery of marine life after termination of the extraction process shall be facilitated by appropriate precautionary measures. It shall be ensured that the original surface sediment type shall remain on the bottom with an adequate thickness for recolonization by almost the same benthic organisms assemblage that inhabited the site prior to the extraction.

D. Environmental Monitoring

Monitoring shall be a component of every kind of extraction activities.

Dredging vessels should be equipped with monitoring systems for recording the position and the amount of extracted sediments.

Spill monitoring shall be carried out, including the parameters

- a) amount and composition of spill
- b) dispersion of suspended particles of the turbidity plume
- c) sedimentation pattern
- d) biological parameters (plankton, fish, sea birds etc.), as appropriate.

Depending on the extracted material monitoring may also be necessary for oxygen and nutrients in the spill water, in the water column at the extraction site and in the turbidity plume; if the sediment contains harmful substances and release by the excavation process has to be assumed the monitoring shall also include these parameters.

After termination of the extraction the recovery of benthic communities shall be monitored as defined in the EIA.

Monitoring data should be made available for scientific evaluation.

