



VLAAMSE MILIEUMAATSCHAPPIJ

Sustainable dredging of Mediterranean Ports : the future for sediment management

Regulatory aspects of Sediment Management in the EU

Regulatory aspects : short overview

- Regional regulations : Barcelona Convention
 - Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircrafts or Incineration at Sea
 - Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean
 - Protocol for the protection of the Mediterranean Sea against pollution from land-based sources (prevention)

Regulatory aspects : short overview

- International regulations
 - London Convention : Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
 - See also Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircrafts or Incineration at Sea
 - London Protocol
 - reverse list
 - Generic Guidelines and Specific Guidelines

Regulatory aspects : short overview

- European Regulation :
 - Water Framework Directive WFD
 - Marine Strategy Framework Directive MSFD
 - Birds- and Habitats Directives
 - Waste Directive
 - (Proposal for a Soil Framework Directive)

Aspects to consider

- Forced clean up dredging
- How to dredge
- Where to leave the dredged material
- Lessons

Water Framework Directive

- good ecological status or good ecological potential
- sediment can be a source of water pollution
 - Art. 4.5 WFD less stringent environmental objectives for specific bodies of water so affected by human activity that the achievement of these objectives would be infeasible or disproportionately expensive
- sediment does not reach the (usually scarce) environmental quality standards (art. 3.2 of Directive 2008/105/EC on environmental quality standards)
 - According to Annex V WFD physico-chemical quality of the water or *sediment* should meet EQS to reach good status.
 - Art. 4.5 WFD
- Sediment has an impact on a protected area cfr. Birds- or Habitats Directives : these Directives apply

Marine Strategy Framework Directive

- Good environmental status :
 - e.g. physical and chemical features : concentrations of contaminants should be at levels not giving rise to pollution effects
 - programme of measures should i.a. take into account legislation on EQS of water policy, or international agreements.
 - sediment contamination is part of other features for characteristics, pressures and impacts.
 - hydro-morphology
- Art. 14.4 : Member States shall not be required to take specific steps where:
 - there is no significant risk to the marine environment
 - Costs are disproportionate taking account of risks to the marine environment and provided there is no further deterioration
- If the pollution caused by the sediment is affecting a special protected area governed by an international or regional convention on nature conservation of fisheries, the need for clean up must take these conventions into account

Birds- and Habitats directives

- Art. 4 §1-2 Birds Directive
- Art. 6 §1 and 2 Habitats Directive

Clean up dredging in order to get or keep species/habitats in a favourable state of conservation

Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean

- Art. 6 (i)
- Art. 11.2).

Clean up dredging in order to get or keep species/habitats in a favourable state of conservation

Waste Directive

- Art. 2.1. c : land in situ including unexcavated contaminated soil and buildings permanently connected with land are excluded from the scope of the Directive
- ~~Overrules jurisprudence of the Court of Justice 7/9/2004 (Texaco-case)~~

Proposal for a Soil Framework Directive

- latest text excludes the seabed and soil that forms part of bodies of surface water under Article 2(10) of WFD from the scope of the proposed Directive (art. 1.2. (ii) and (iii))

Birds- and Habitats Directive

- Art. 6.3 projects likely to have a *significant effect* on the site shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.
 - MS shall agree to the project only after having *ascertained* that it will not adversely affect the integrity of the site concerned .
 - Stadt Papenburg- case : dredging works in respect of a navigable channel may be covered by the concept of project
- If, in spite of a negative assessment of the implications for the site a project must nevertheless be carried out : Art. 6.4 :
 - no alternative solution with less impact
 - project must be carried out for imperative reasons of overriding public interest, including those of a social or economic nature
 - compensatory measures necessary

How to dredge?

Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean

- Art. 6 (e) : any activity involving modification of the soil or the subsoil of the land part, the seabed or its subsoil should **be regulated or prohibited**
- Art. 11.2 : in order to maintain species of fauna and flora in a favourable state of conservation, Parties shall **regulate and where appropriate, prohibit** activities having adverse effects on such species or the habitats.
- Art. 17 : **environmental impact assessment** in the planning process leading to decisions.... **projects that could significantly affect** protected areas and species and their habitats

Protocol on Integrated Coastal Zone Management in the Mediterranean (not into force)

- Art. 9.2.e) ii) : **extraction** of sand, including on the seabed and river **sediments** have to be **regulated or prohibited** where it is likely to adversely affect the equilibrium of coastal ecosystems

What to do with dredged sediment?

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)

= the basic regulation, global rules and standards on dumping

- i.a. some dumping activities are prohibited, other can go on provided:
 - the need for and
 - the potential environmental impact of itare assessed prior to the issue of a dumping permit preventing pollution
- Dumping of dredged material can go on if the dredged material only contains compounds referred to in 1-5 of Annex I as trace contaminants. In that case the dredged material shall be subject tot the provisions of :
 - Annexes II : the material contains polluting substances not covered in Annex I
 - Annex III : the most important factors to be considered in establishing criteria governing the issue of permits

= **Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping form Ships and Aircrafts or Incineration at Sea**

What to do with dredged sediment?

London Protocol

- all dumping is prohibited, except for wastes on the so called “reverse list”:
 - can be dumped if acceptable on the bases of a proper assessment
 - on that reverse list is dredged material.
- “Generic Guidelines” and comprehensive “Specific Guidelines” have been developed: step-by-step procedures to evaluate wastes being considered for sea disposal, including:
 - waste prevention audits
 - assessment of alternatives
 - waste characterization
 - assessment of potential adverse environmental effect of dumping
 - site selection
 - Monitoring
 - licensing procedures.
- **pollution**: the direct or indirect introduction by human activity of wastes or other matter into the sea which results or is likely to result in such deleterious effects as harm to living resources and marine ecosystems, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

What to do with dredged sediment?

Birds- and Habitats Directives

- Dumping dredged sediment in or in the vicinity of protected areas
 - = activity which should be considered a project as meant in Article 6.3 of the Habitats Directive
 - = has a possible negative impact on the area of its protected species
- Dumping of the dredged material in a given area in the sea can not easily be seen as an imperative reason of overriding public interest for which alternative solution with less impact are possible

Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean

- See above

What to do with dredged sediment?

Wastes Directive

- Art. 2.3. : without prejudice to obligations under *other relevant Community legislation*, sediments *relocated inside surface waters* for the purpose of :
 - managing waters and waterways or
 - of preventing floods or
 - mitigating the effects of flood and droughts or
 - land reclamation
- shall be excluded from the scope of this Directive if :
 - it is proved that the sediments are *non-hazardous*.
- other relevant Community legislation : e.g. :
 - nature conservation law
 - Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean of 1995 and its protocols including a protocol on dumping
- Next to the criteria the dredged sediment should meet according to this legislation, it should be proved “*non-hazardous*” :
 - “Hazardous” = Art. 3.2. : waste which displays one or more of the hazardous properties listed in Annex III of that Directive.
- dredged sediment brought onto land for lagooning or other pre-dumping activities are activities covered by the Waste Directive.

What to do with dredged sediment?

Water Framework Directive

- Impact of the dumping on coastal water quality
- Impact on protected areas

~~Marine Strategy Framework Directive~~

- Impact of the dumping on marine water quality
- Impact on protected areas
- Planning law :
 - make room for dumping sites for sediment of good quality
 - Take into account protected areas, fishing zones,...

Conclusions...

- Clean up dredging can be mandatory
- The way to dredge can be governed by environmental concerns making dredging more difficult and more expensive
- Disposing of dredged material into to sea and on land is governed by strict regulations with considerable economical impact
- **Dredging should be prevented as much as possible and the quality of the dredged material should improve**

Sustainable dredging

= maximum prevention of dredging

= improving quality of dredged material

Legislative framework is in place...

- What are we facing?
 - Look at sediment quality and quantity in river basin management plans
 - Floods increase transport of polluted sediment
 - Address identified problems with sediments
 - Take into account that dumping of dredged sediment will only become more expensive if quality is poor

- What are we facing?
 - Address dredging in the initial assessment of the marine environment, the setting of environmental targets and the programs of measures demanded by the MSFD
 - Make a connection with the river basin management plans and programs of measures
 - Carefully plan room for dumping sites of sediment in the seas