

Rijkswaterstaat Ministerie van Verkeer en Waterstaat

### Legislation and dredged material in the Netherlands

Dredging for Watermanagement

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## Outline

- 1. Water management and need for dredging in the Netherlands (2 min, 3 frames)
- 2. DM and Legislation in the Netherlands (5 min, 3 frames)
- 3. Chemical Quality Criteria for the use and disposal of DM (2 min, 3 frames)
- 4. Dutch Implementation of Art 2, sub 3 of the Waste Directive (1 min, 2 frame)
- 5. Use of bio-assays (1 min, 1 frame)



# 1. Water management, need for dredging

- Maintenance of design depth of navigation channels and ports
- Flood control
- Capital dredging
- Nature development (hydromorphology)



## Maintenance dredging









## Flood Control and nature development (capital dredging)







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# 2. DM and legislation

- Need for regulations: pollution and environmental risks
- General purpose of regulations: protection of certain field of interest (water, soil, nature etc.)
- Dredging activities can have impact on:
  - surface water, groundwater
  - soils/sediments
  - nature
  - infrastructure
  - (waste)
- Dredged material is on the borderline of water, soil and waste regulations.
- Legislation for all the mentioned sectors is relevant to dredging (complexity hampers dredging)



# Dutch policy note (2005) on the management of DM

- <u>Use of DM (and soil) is a policy objective, treatment is no longer a policy objective</u>
- DM is waste if use in the (aquatic) environment is not allowed
- Remediation of contaminated sediments is necessary if contaminated sediments are the cause for not fulfilling the WFD objectives
  - good chemical water quality
  - a good ecological potential/status

Quotes from Sednet:

<sup>- &</sup>quot;Sediments are an essential, integral and dynamic part of river ecosystems"

<sup>- &</sup>quot;Sediments are not a waste, but a valuable, natural resource that deserves protection, conservation or even restoration at some sites"





#### 3. Chemical standards for DM (Soil Quality Decree 2008)





# Eco Engineering: use/recycling of dredged material





## Confined Disposal Facility IJsseloog (Lake Ketel)



Rijkswaterstaat 17-06-1998



# Waste Directive (2008/98/EC)

Article 2, Exclusions from the scope

3. "Sediments relocated inside of surface waters for the purpose of managing waters and waterways or of preventing floods or mitigating the effects of floods and droughts, or for land reclamation, shall be excluded from the scope of this Directive <u>if it is proven that</u> <u>the sediments are non-hazardous</u> and without prejudice to compliance with obligations under other relevant Community legislation".



# Dutch implementation of art 2 sub 3 for DM

- When <u>it is proven</u> that the use of DM complies with the obligations of the relevant Community legislation (WFD, Natura 2000, Birds Habitat Directive) the sediments are non hazardous.
- Strict (ecotoxicological based) Chemical Sediment Quality Criteria determine if the use of DM is possible (in compliance with other relevant Community Legislation).
- If the use of DM does not comply with the obligations of other relevant Community Legislation, DM has to be handled as a waste material.
- Dutch CDF's are suitable for the disposal of hazardous and nonhazardous DM.



## 4. Use of bio-assays

- Bio-assays are used for monitoring of the environmental quality of watersystems (WFD)
- Bio-assays can help identifying that there is a need for dredging (remediation)
- Bio-assays are not in use for decision making about relocation or use of DM.
- Further explanation on the use of bio-assays will be given by Cor Schipper.