



# Policy challenges related to the reuse of diffuse PFAS contaminated sediments

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Ministry of Infrastructure and Water Management

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## PFAS: a multifaceted problem

- Issue apparent since 2012 (sites), 2019 (nationwide)
- > Dutch policy:
  - REACH restriction
  - Emission control
  - Looking for alternatives
  - Reducing exposure through food, drinking water and the environment
- > But: PFAS are ubiquitous substances, found in soil, water, dredged material



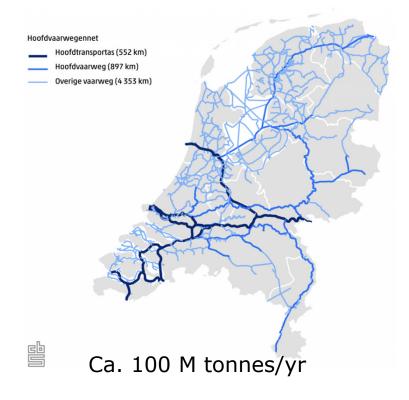


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- > Interaction: is there a common ground?



### Sediment management in The Netherlands



#### Local (bosom water, ditches)

Maintenance dredging related to water drainage capacity

 $\rightarrow$  Sediment used for soil improvement

#### National (Rivers, Canals, Harbours, Estuaria):

Maintenance dredging related to shipping Maintenance dredging related to climate adaptation Maintenance dredging related to harbour management

- → Sediment reallocated within fresh waterbody or in North Sea (background quality)
- → Sediment used for shallowing sand-mining pits (mildly contaminated)
- → Sediment disposed in disposal site (heavily contaminated)

#### **Coastal protection and Elevation of dikes**

Excavation of Clay and Sand

 $\rightarrow$  Products used in dikes and for sand supplementation on the beach (background quality)



### PFAS in sediments in the Netherlands

 Background values measured in floating sediments (at borderpassing rivers Rhine and Meuse) and main waterways

> Background values measured in local waterbodies

Contaminant	Background	Based upon
PFOS	1,1 ug/kg d.w.	P80
PFOA	0,8 ug/kg d.w.	P80
Other PFAS	0,8 ug/kg d.w.	P80/PFOA



#### **PFAS-framework for action**

- > Reuse of PFAS-contaminated sediments is generally allowed when:
  - Reuse or redistribution of diffuse PFAS-contaminated sediments within the same waterbody or downstream waterbody
  - Reuse or redistribution of PFAS-contaminated sediments in another waterbody: comply with background values for PFOS 3,7 ug/kg and other PFAS 0,8 ug/kg
  - Reuse of sediments on land: comply with background values or risk values:
    - PFOA 1,9 ug/kg (background, agriculture) or 7 ug/kg (residential, industry)
    - PFOS 1,4 ug/kg (background, agriculture) or 3 ug/kg (residential, industry)
    - Other PFAS 1,4 ug/kg (background, agriculture) or 3 ug/kg (residential, industry)



### Policy challenge

- > (Circular) economy
  - Maintenance of water system, harbours and estuaries
  - Climate adaptation
  - Reuse of 100 M tonnes sediments/year  $\rightarrow$  Concentrations  $\approx$  0-10 ug/kg
- > Chemical quality of waterbodies
  - Standards for PFOS in EU-WFD  $\rightarrow$  Concentration = 0,65 ng/l  $\rightarrow$  0,007 ng/l
  - Reuse of sediments is considered a discharge
  - Discharges can be in conflict with EU-WFD goals of establishing a good water quality and `non-deterioration'



#### Member states call for amendment WFD

- Definition 'deterioration of the status of a > body of water' in the WFD is needed
- Now no distinction between industrial emissions (new additions) and relocation of pollution
- Needed for (e.g.): >
  - discharging previously abstracted groundwater at building construction site onto surface water
  - discharges of previously abstracted cooling water
  - redeposition of previously dredged sediments
- > We call for a discussion in the WPE on the proposal to include a definition of this concept of 'deterioration of the status' in the WFD.



Supported by: The Netherlands, Germany, Denmark, Finland and Luxembourg The Commission launched a proposal for a Directive amending the Water Framework

The commission launched a proposal for a Directive amending the water Framework Directive (WFD), the Groundwater Directive and the Environmental Quality Standards Directive (W+D), the Grounowater Directive and the Environmental Quarty Station Directive (October 2022). At the end of 2023, under the Spanish Presidency, the Directory (Uctuber 2022). At the end of 2023, under the Splandar Header(), the members of the WPE held informal VTCs to discuss the Presidency's suggestions to

The Commission's proposal deals with several items that relate to the main goals of the The commission's proposal deals with several items that relate to the main goals of WFD, in particular the obligation to prevent 'deterioration of the status of a body of water. The Commission's proposal to add new or stricter EQS, impacts the application of water. water . The commission's proposal to due new or stricter ct(s), impacts the application of the status' is not defined in the WFD. Instead, it is outlined in Court rulings.

As a general principle, we emphasize that we support the overall ambition of the WFD As a general principle, we emphasize that we support the overall amoition or the WFD and the related directives. We do not aim to lower that ambition, nor an overall revision of the Directives. We merely aim to address two specific issues with the concept of

of the Directives, we merely aim to address two specific issues with the concept or 'deterioration of the status', that are both impacted by the current Commission proposal: 1) The ruling of the EU Court of Justice (C-525/20, 'France Nature', 2022)

The ruling or the EU Court or Justice (C-323/20, "France Nature", 2022) established that also temporary short-term impacts without lasting consequences established that also temporary short-term impacts without lasting consequence should be taken into account when assessing programmes and projects, unless such impacts do not comprise a deterioration of the status of a body of water, tenne every deterioration of etables no matter the duration. Can be the such impacts do not comprise a deterioration of the status of a body of water Hence, every deterioration of status, no matter the duration, can only be authorized by applying Article 4(7) WFD. This is, however, not necessary to achieve the overall noale of the WFD. At the same time, this million homese authorized by applying Article q(x) WFD. This is, nowever, not necessary to achieve the overall goals of the WFD. At the same time, this ruling hampers achieve the overall goals of the WFD. At the same time, this ruling hampers projects in water bodies to a significant extent. Moreover, this ruling may even affect projects, like renaturation of water courses, almed at improving water cousing and thus has an advance consequence on the aim to reach nood status.

anect, projects, interienduration of water courses, anneo at improving water quality and thus has an adverse consequence on the aim to reach good status, quality and thus has an adverse consequence on the arm to reach good activa-This problem is further aggravated by the proposal to add new or stricter EQS. 2) Further clarity of the concept of 'deterioration' is needed for projects that only relocate already existing pollution. The proposed new or stricter EQS should be arbieved within clear deadlines. To this end, these EOS should be used when

relocate aiready existing poliution. The proposed new of Stitute, Edd Should be used when achieved within clear deadlines. To this end, these EQS should be used when authorizing activities that cause an addition of these substances to water bodies. autnonzing activities that cause an audition or these substances to water boo It is, however, undesirable that these EQS also apply to the authorization of



#### Discussion

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#### Discussion

- Reuse of diffuse PFAS-contaminated sediments within the same waterbody:
  - Should be possible, the sediments are already within the waterbody
  - Only possible if it does not affect the goal of establishing a good water quality and non-deterioration
- Establishing good water quality, the way forward:
  - Focus on dealing with point sources and industrial discharges
  - Periodically evaluate background levels and use them as reuse standards for sediments in waterbodies



QA



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