Ministerie van Infrastructuur
en Waterstaat

Dutch PFAS approach and dilemma’s

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Outline

- 3 pillars policy approach
- Collaboration
- Inventory of hotspots and risk-based prioritization
- Dilemma’s – what are your thoughts

3 pillar approach

- Pillar 1: **Prevention**, close the tap.
  - EU-Reach restriction proposal for PFAS
  - PFAS = SVHC → review of permits, further minimalization of emissions
  - Alternative production/products

- Pillar 2: **Reduce exposure**
  - Temporary framework for diffuse contamination PFAS (3-7-3 ug/kg) in soil and sediments (non-paper deterioration WFD)
  - Nutritional advise (e.g. egg/fish consumption), advices on use of consumer products, cosmetics, household maintenance

- Pillar 3: **Identification and remediation of hotspots.**

Pillar 3: Identification and prioritization of hotspots

- Agreements (2023-2030) between different levels of government (state, province, municipality, water boards): funding (23 M €/YR) for inventory and for remediation of hotspots in case polluter can't be held accountable

- Competent authority for dealing with soil contamination: municipality (313, since 2024), larger cities (29), provinces (12, until 2024), majority of locations is contaminated before 2024

- Inventory and prioritization of hot-spots is needed: are we in control, how big is the problem and do we invest in the most relevant locations (societal challenge)

Obligation to report soil contamination to competent authority, site owners are reluctant to investigate, inventory doesn't build up spontaneously → **collaboration!**

Collaboration – programmatic approach

- **Coördination: eyes on the ball, big task will take time and money!**

All levels of government involved :state, province, municipality, waterboard

Stimulate inventory, prioritization and programmatic approach: Community of Practise, Guidance, Communication, agenda-setting of dilemmas

- **Inventory, prioritization → programmatic approach**

Provinces and larger municipalities make inventory of sites (ball-park figure ≈ 2028; prepare agreements for the period > 2030)

Expert group. Prioritize locations based upon degree of risks and urgency, feasability.

Program: remediate highest ranked locations first.

- **Funding and innovation**

Polluter pays/ governmental funding for inventory and prioritized locations if polluter can't be held accountable.

Innovation and knowledge program 2025-2030, Remediation technology and approaches

Inventory, first step: selection of risk activities

- Textile or Carpet production
- Paper and packaging industry
- Rubber and Plastic industry
- Ship building and Shipyard
- Dry cleaning
- Galvanizing
- Leather, shoe production, sails tarpaulins tents
- Fire fighting training locations
- Fire fighting incidents
- Foam party
- Disposal/dumpsites
- Sewage treatment

Inventory of PFAS hotspots

- Example, 1 of 12 provinces in the Netherlands

Main list of sites where PFAS is used in production or is applied on site		1200 sites
Selection of locations for historic investigation	Use of site, nearby receptors Pending 140 out of 300 investigated	300 sites
Discriptive investigation	Suspected of contamination based upon historic investigation 75 out of 140 sites	Expected ca. 160 sites
Sites with unacceptable risks	If contaminated above indicative intervention level, risk assessment	Expected ??? sites

Examples of identified hotspots

de Gelderlander

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In de zwemplas van de Betteld geldt een zwemverbod, vanwege te hoge concentraties PFAS. © Theo Kock Persfotografie

Schuimparty's zijn de oorzaak van PFAS-vervuiling in zwemplas rond campingterrein: risico voor gezondheid en milieu

Weer TV-Gids Digitale Krant Shop

DE STENTOR

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De ongeveer 1300 opgestapelde gifvaten met daarin blusschuim (dat PFAS bevat) aan de Voltastraat in Doetinchem. De vaten zijn begin 2022 afgevoerd naar verbrandingsovens elders in Europa. © Theo Kock

Schoonmaken gifgrond in Doetinchem kost 8,5 miljoen euro:

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Dilemma 1: who will pay for remediation?

The polluter/site owner	The government
The polluter pays principle, why use tax-payers money?	Polluter was not always aware of implications of actions Fire fighting exercises were mandatory/permitted
Remediation is investment in property	Public health and drinking water quality are at risk
Limited financial capacity	State aid restrictions
Chain accountability: supplier of PFAS foam, legal procedures.	Legal procedures take time and money, result is uncertain, action is needed
At a natural moment/redevelopment?	Only for prioritised locations?
Full recovery or functional remediation	

Dilemma 2: strict or pragmatic? Discharge of contaminated water from remediation

Strict	Pragmatic
Every discharge needs to be in line with WFD	Remediation takes away permanent flux towards (ground)water, discharge is temporary
No permits for discharge if receiving water quality is in poor condition	Remediation will improve overall water quality Align discharge requirements with water quality
No distinction between new polluters and existing contamination in the environment	Expensive and intensive treatment of discharge water might make remediation not financially feasible