RIWA-Maas/Meuse

Handling the risk of drinking water pollution

Compatibility between WFD and infrastructure

< Europe-INBO 2006> septembre 21, 2006

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Statement RIWA-Maas/Meuse

International Association of Enterprises for Water supply taking their raw material from surface water. (rivers)

- River Meuse
  - Rain river (no melting water)
  - 6 million consumers (Brussels, Antwerp, Rotterdam + Port, The Hague, etc.
  - Main problems nowadays:
    - Diffuse pollution: herbicides, chemical nutrition, pesticides, medicines, endocrine disruptors (hormones)

Three reservoirs with a storage capacity of 5 months

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Present situation

- The river-basin Meuse:
  - River-basin 33,000 km^2
  - 950 km rain river
  - prognoses abstractions: stabile
  - 1.2 million inhabitants along the river dispose untreated sewage water
- Meuse-water as source for drinking water:
  - abstractions 450 million m^3 per year
  - drinking water consumers: > 6 million
  - industrial complexes in the Delta: 25 %
  - role of surface water in the future

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Drinking water source for six million people (B, NL)

Run-off Meuse

1976 120 m^3/sec

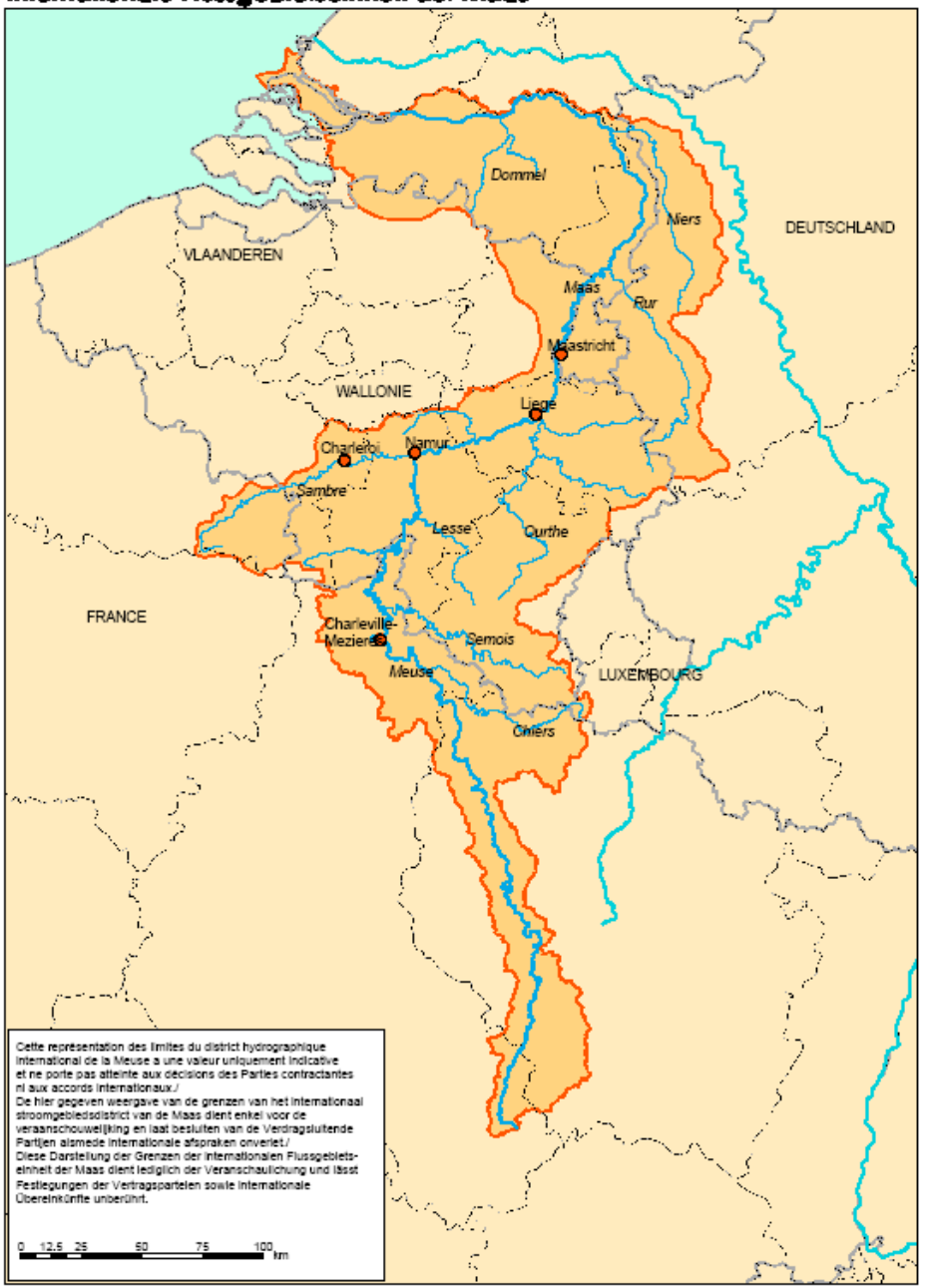
2003 125 m^3/sec

(annual average)

RIWA –Meuse : 450 Mln. m^3/annum (long term)

14 m^3/sec = 5% MQ!!

Handling the



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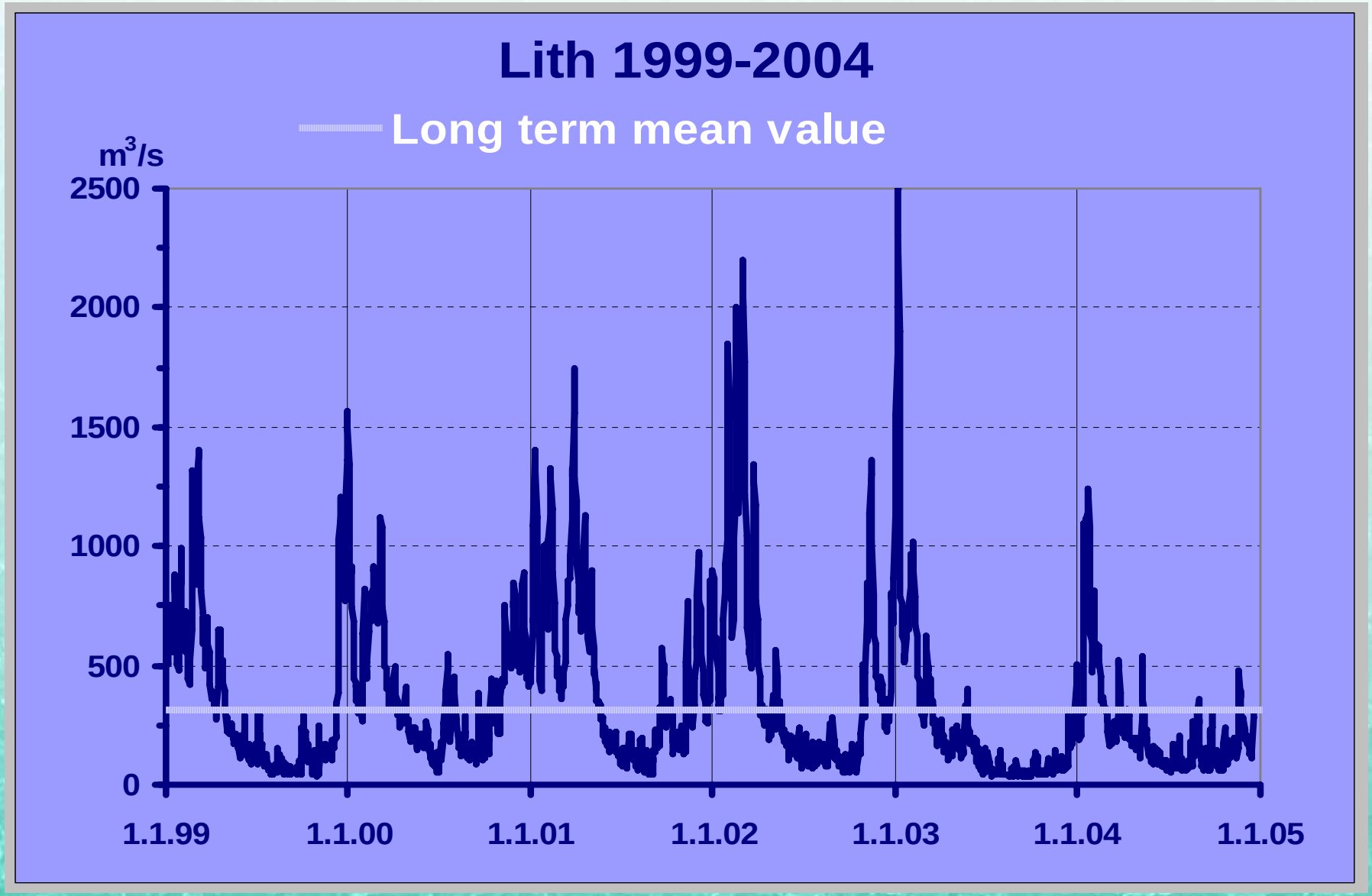
Water discharge of the Meuse



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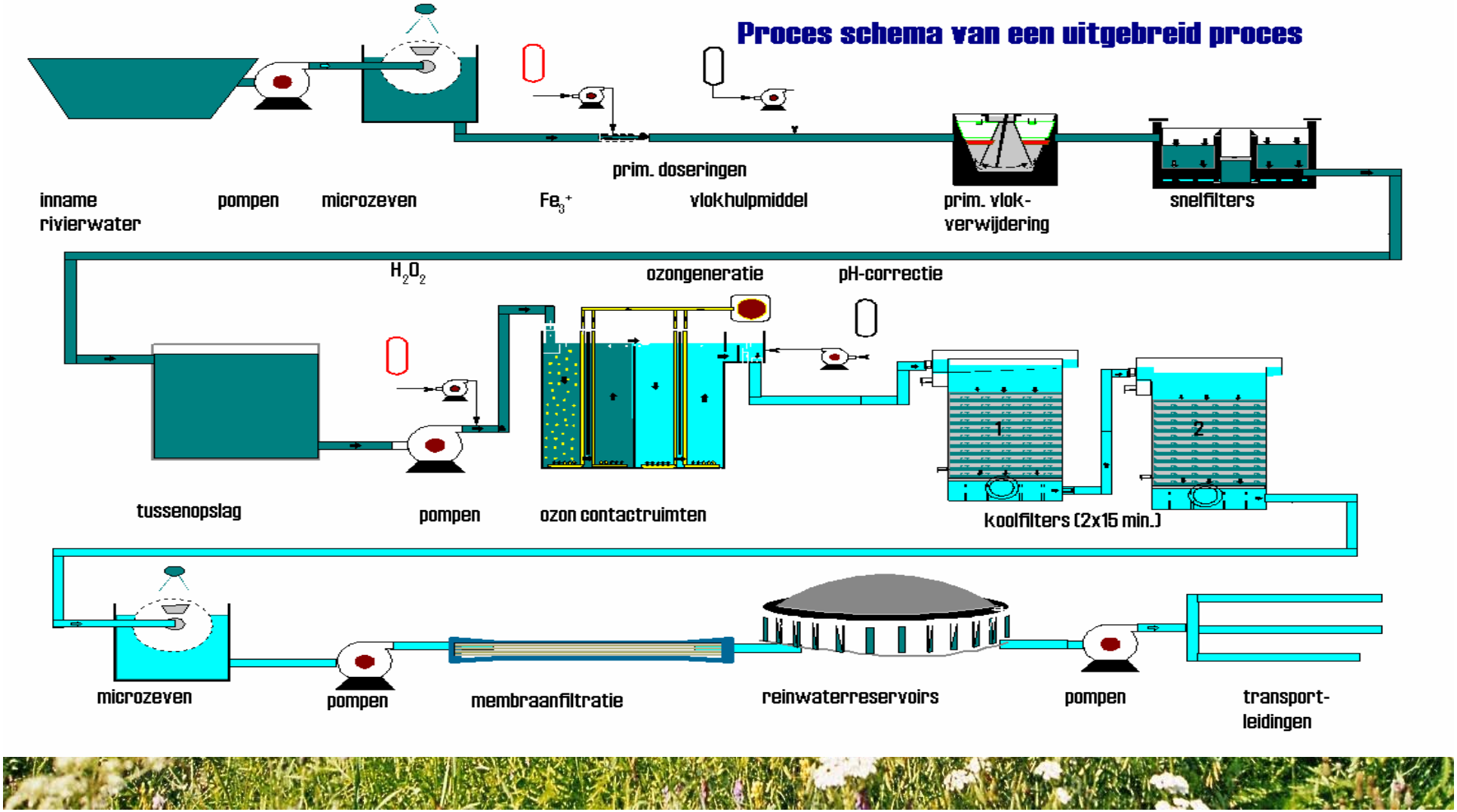
EU-Framework Water Directive

- Art. 7, sub 3: Member states must protect the surface water in such a manner, that for the production of drinking water required, the purification process is simplified and the extent is reduced.
- **75/440/EEC** concerning quality required of surface water intended for the abstraction of drinking water: limit 0,1 µg/l
- To reach the 'sound' situation 2015 = enormous task

Extended purification proces for potable water



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Purification plant Berenplaat

pollution

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No extra demands on common household to reach better river water quality

- 75/440/EEC reflects the responsibility of states to warrant quality of river water as a source for drinking water production
  - Water is an essential necessity of life: drinking water + irrigation water
  - Dependent on surface water after exhaustion aquifer (drying out)
- EU WFD - on top of that – focuses on a sound ecological and chemical condition of the river basin water
- Upstream can not withdraw from responsibility of problems downstream (→ store effluent from production processes and wait for high river flow to decrease concentrations)

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EU WFD versus function "drinking water": (1)

Accept the principle problem area of the **"drinking water function"** of river basins:

- Heavily modified water bodies:
  - Retention areas in order to create gradual flow / storage reservoirs
  - Protection area's:
    - Prevent diffuse pollution by introducing sustainable working methods in agriculture and terrain management (roads, paved surfaces)

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EU WFD versus function "drinking water": (2)

- Protection area's:
  - Prevent diffuse pollution by introducing sustainable working methods in agriculture and terrain management (roads, paved surfaces)
  - Introduce effective "warning systems" in case of calamities and pollution of the catchment area (drinking water companies can close their water intakes for a while!)

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EU WFD versus function “drinking water”: (3)

– List of priority substances:
  - Just focused on ecological objectives
  - Not always relevant in relation to EU-directive 75/440 (drinking water from surface water)

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Thank you