



Rijkswaterstaat
*Ministry of Infrastructure and the
Environment*

Water Management Centre the Netherlands

Focal point for water

Smedinghuis, Lelystad





National networkcentres

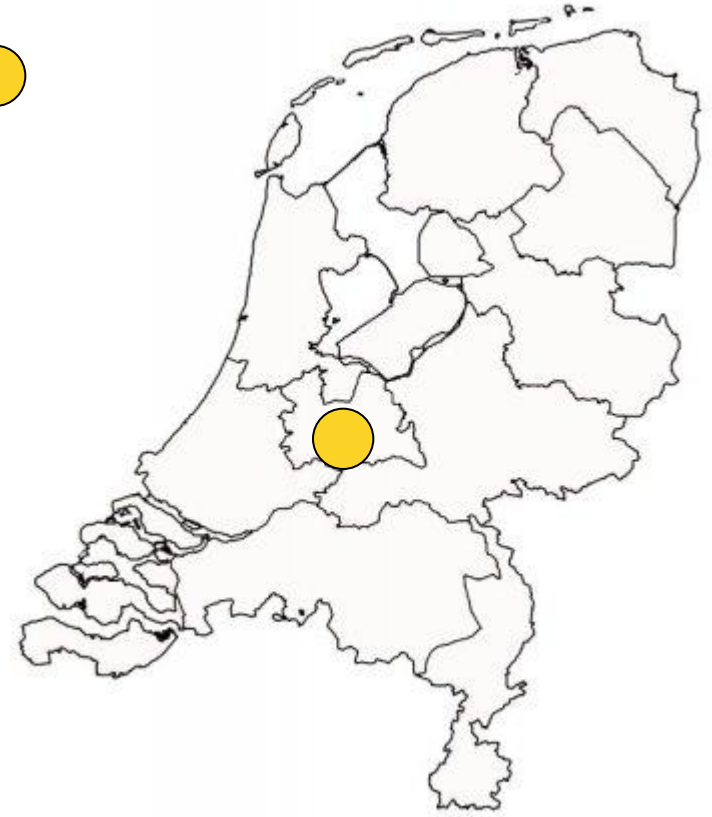
- Traffic Management Centre (Utrecht)
- Inland Navigation Centre (Rotterdam)
- Water Management Centre (Lelystad)





National networkcentres

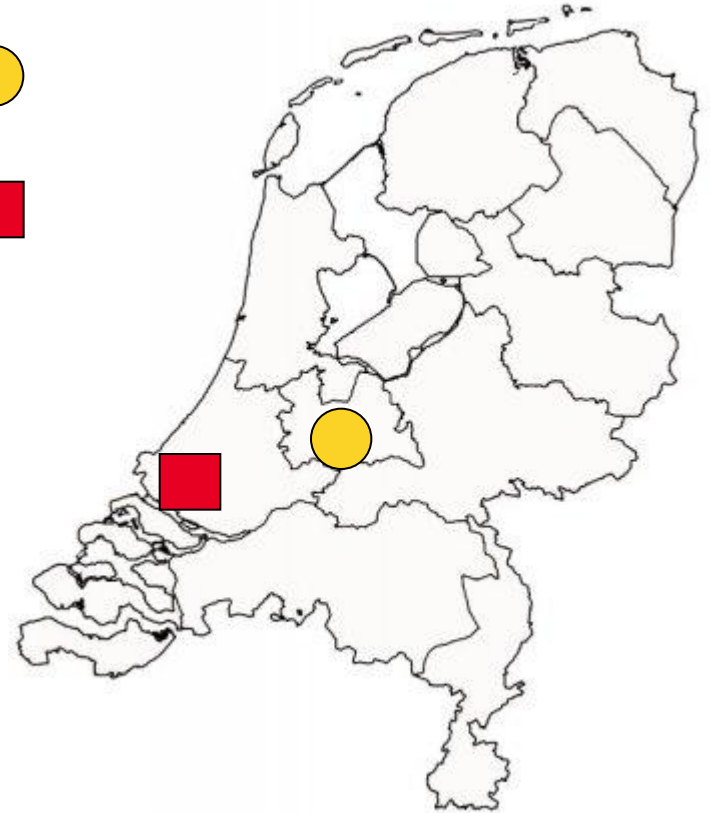
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National networkcentres

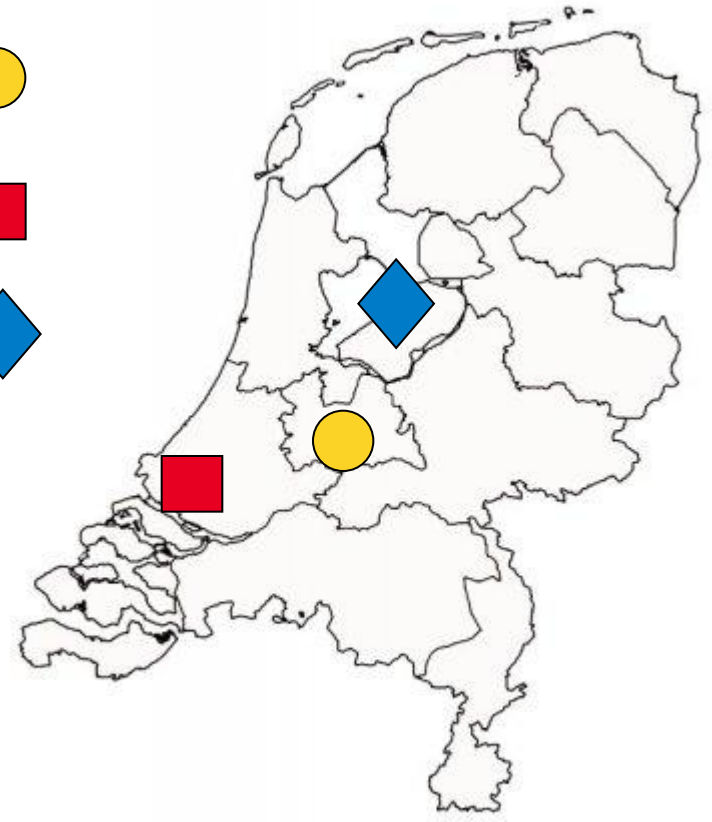
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National networkcentres

- *Traffic Management Centre (Utrecht)* ●
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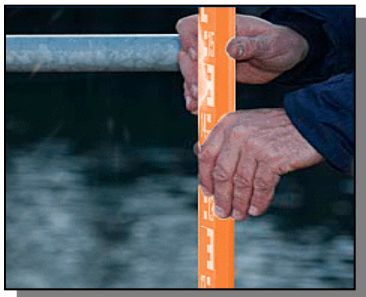
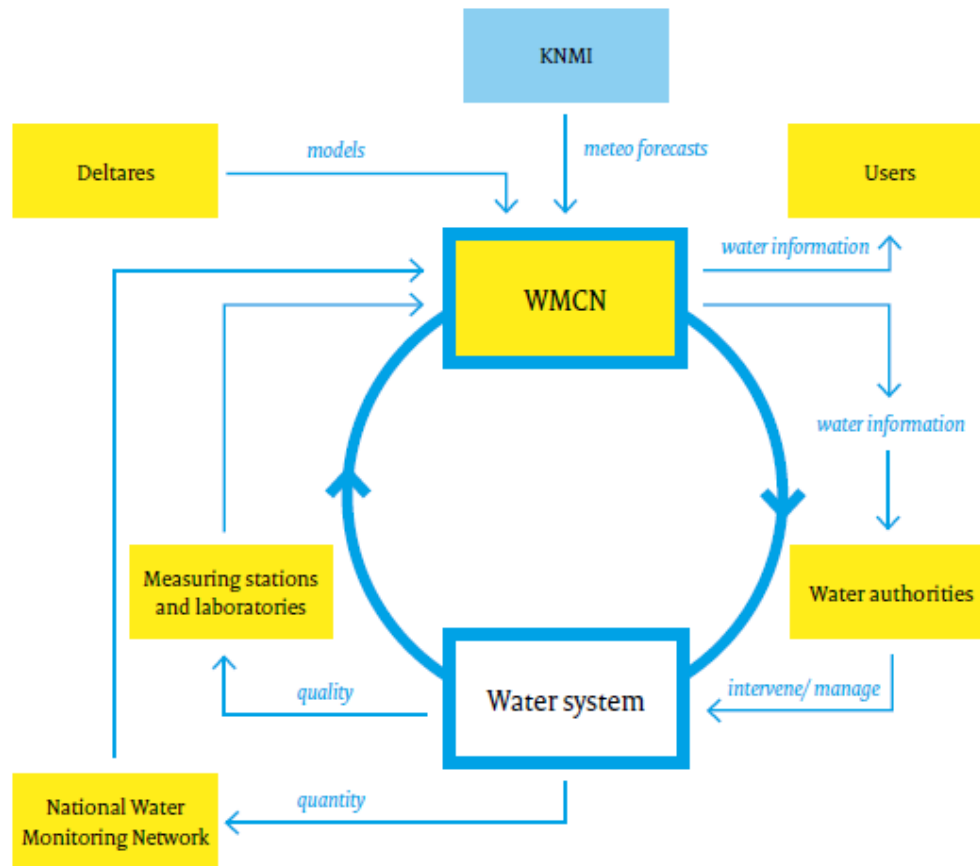
Water Management Centre the Netherlands

1. Water control room
2. National Coordination Committees: Flooding, Waterdistribution and on Environmental incidents
3. Helpdesk Water
4. Training and Innovation
5. Reception and Presentation (exhibition)





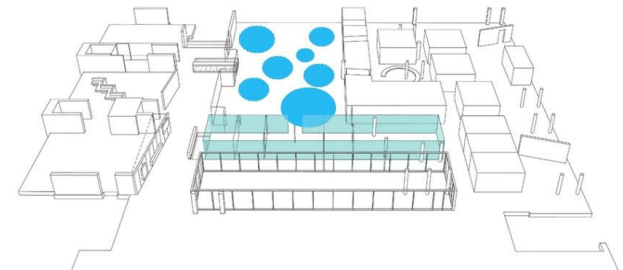
Position Water Management Centre the Netherlands





1. Water control room

- Water level information
- Shipping reports / Notices to Skippers
- Ice reports
- High water messages
- Low water messages
- Information during calamities
- Alarm service for IJsselmeer and Markermeer dykes
- Information about the quality of recreational water
- Storm Surge Warning Service
- Calamity team for Dykes
- Training facilities





Fairway Information Services

- Shipping notifications:
 - Water levels
 - Lowest waterway depths
 - Headroom: the latest maximum headroom of bridges and other engineering structures
 - Weir positions
 - up-to-date information about regimes
 - Ice reports
 - Obstructions etc.





WATERSTANDEN rivieren/meren 1/9

dinsdag 12 februari 11:50

7 uur

| | | | | |
|-------------|------|------|---------------|-----|
| Lobith | 1233 | 1223 | Ramspolbrug | -22 |
| Pannerden | 1191 | 1183 | Kadoelen | -30 |
| Nijmegen | 1012 | 1002 | Zwartsl. bu | -26 |
| Tiel Waal | 757 | 750 | Spooldrstl-bi | -24 |
| IJsselkop | 1089 | 1082 | Kornw.znd-bi | -23 |
| Driel Boven | 922 | 916 | Den Oever-bi | -19 |
| Doesburg | 890 | 885 | Krabbersg.Z | -25 |
| Zutphen | 687 | 684 | Houtrib N | -19 |
| Katerveer | 220 | 217 | Schell.w.br | -19 |
| Kampen | 56 | 55 | Surinamekade | -41 |
| Eijsden | 4583 | 4559 | IJmuidensl.O | -51 |
| St. Pieter | 4437 | 4428 | Maarssen | -39 |
| Heel ben | 1504 | 1502 | Amerongen bo | 536 |
| Belfeld ben | 1324 | 1316 | Hagestein bo | 252 |
| Sambeek ben | 903 | 900 | Rak zuid | -1 |
| Megen | 525 | 520 | Kreekrak N | -3 |

www.rijkswaterstaat.nl

volgende

nieuws

index

sport



TV, Internet, twitter, smartphone(s)

4 major Rivers and their catchment areas

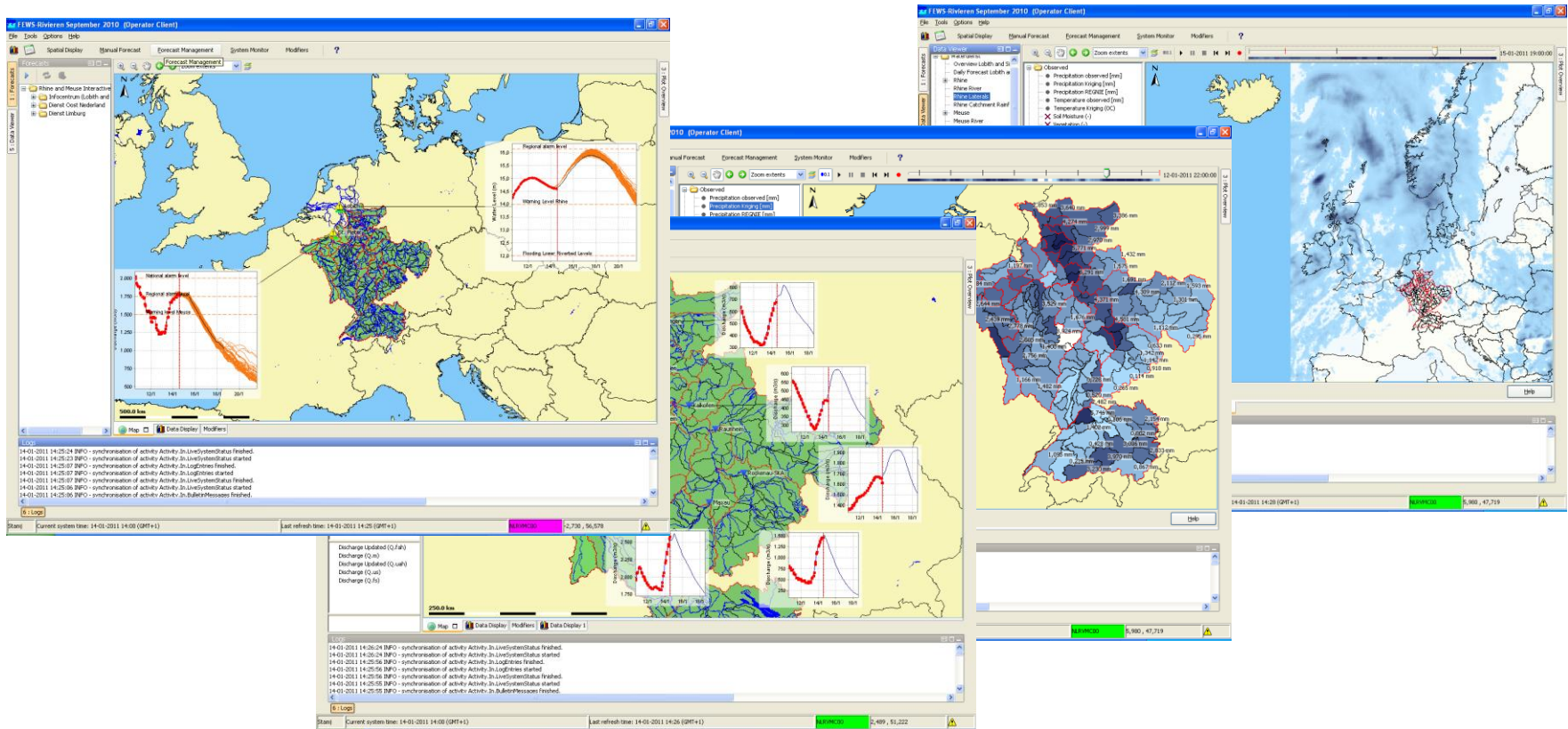
- Rhine
- Meuse
- Scheldt
- Ems





The use of models

The FEWS model predicts watertables and expected flow rates with data coming from the river catchment areas





High water messages

When water levels are excessively high in the Rhine and Meuse:

Regional watermanagers are kept permanently informed

Calculation models are deployed in order to forecast the expected water levels



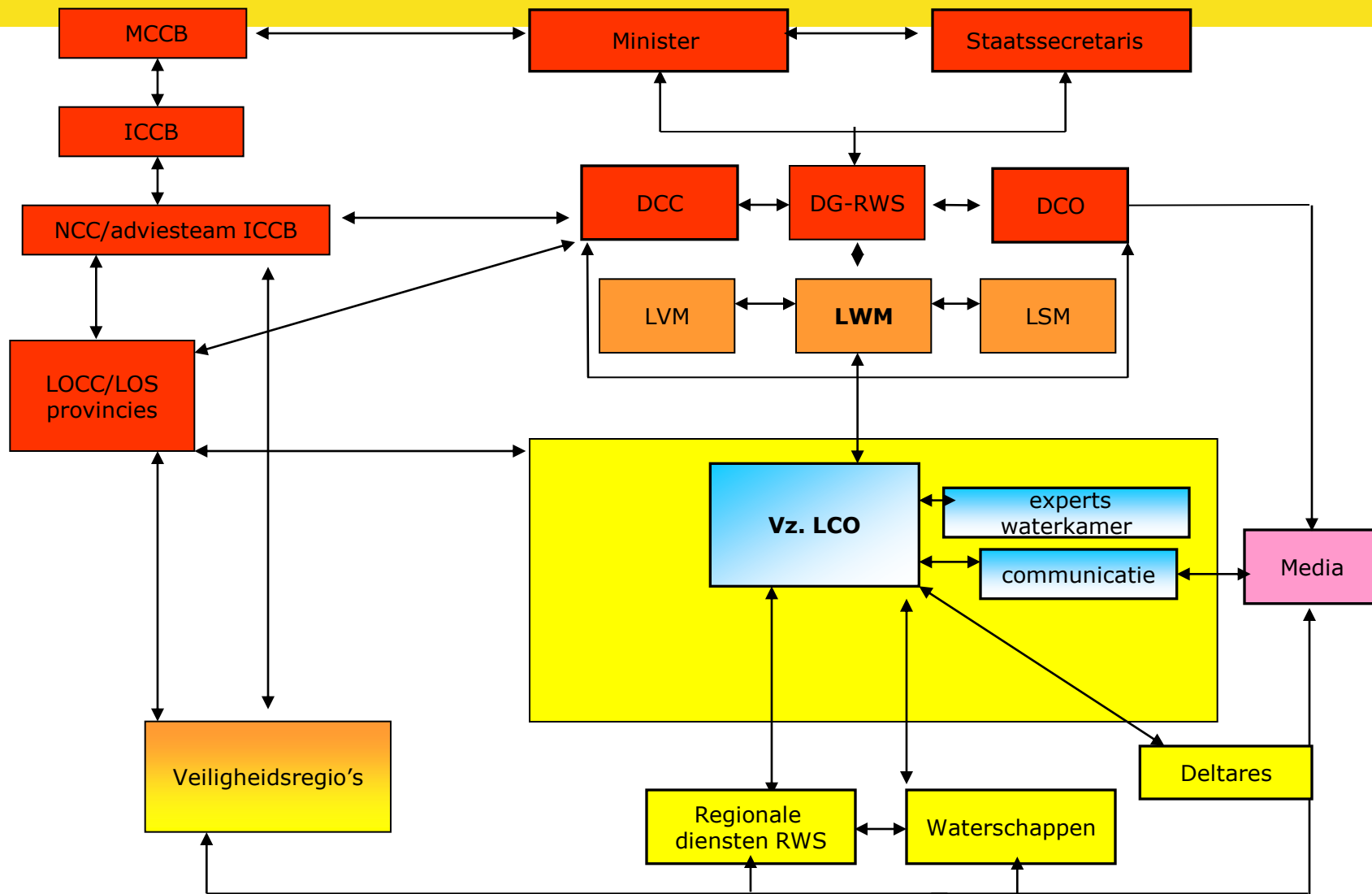


2. National coordination committee on flooding

- Giving national overview of water and weather
- Advising the Director General of Rijkswaterstaat
- Coordinating information between
 - *Water boards*
 - *Rijkswaterstaat*
 - *Meteorological institute*
 - *Local authorities*



National coordination committee on flooding

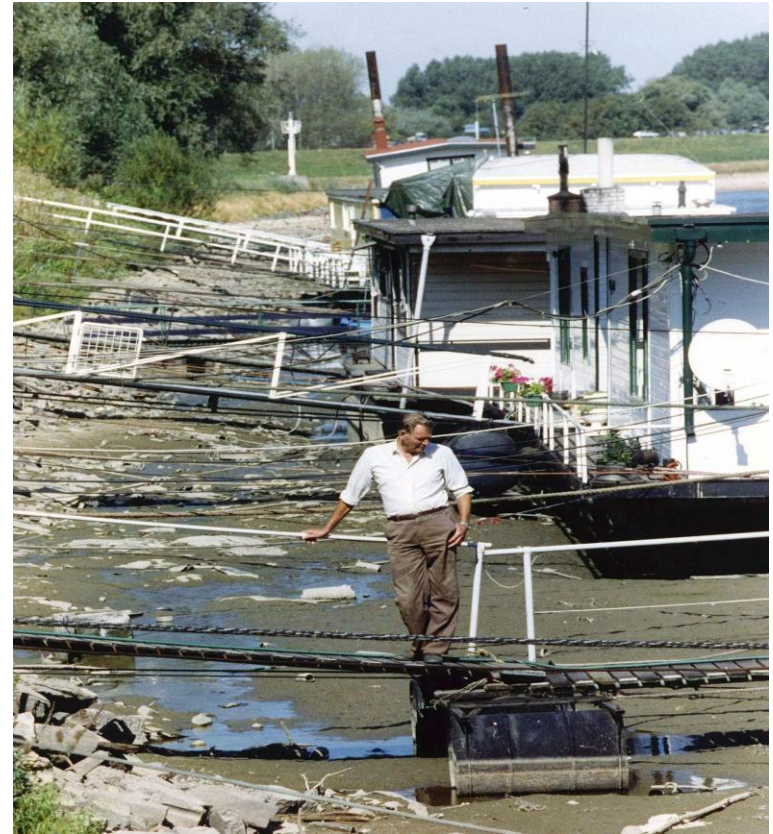




Low water messages

At the moment of water shortages, the centre helps water managers to decide on fair distribution of water among stakeholders

But Safety first!



National Coördinating committee on Waterdistribution :
Rijkswaterstaat, the Union of waterboards and the Provinces



Storm Surge Warnings for the Coast

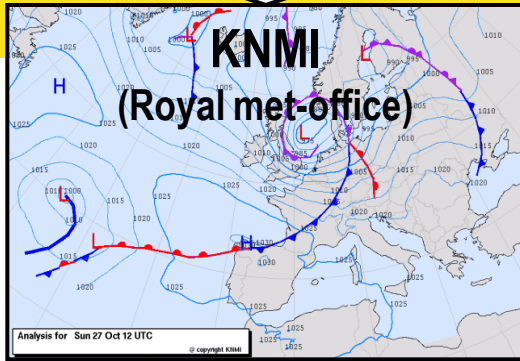
- Warnings for high water on the coast
- Information for local water boards
- Closing barriers



Organisation Storm surge warning service



Meteo forecasts



Storm surge Alert

WMCN
Storm Surge Warning Service

Warning by phone call for very high waterlevel



Alarm by phone call for extreme high waterlevel

Information

Headquarters
Rijkswaterstaat

Information

Press
Radio en TV
Internet / public

Alerting

LCO

Online measurements

- Waterlevel
- Windspeed
- Winddirection
- Waves

Forecasts

- Weather
- Waterlevel

Measurements

Waterlevel forecasts

Measurements & forecasts

Measurements

Forecasts

Warnings

Information

Advise

Dikewatch

Waterlevel forecasts

Dike-authorities (Water boards)
Safety regions (Firebrigade)
Provinces
Rijkswaterstaat

Decision teams Stormsurge barriers
Eastern-Scheldt
Krimpen a/d IJssel
Maeslant barrier & Hartelcanal





Alarm service for IJsselmeer and Markermeer dykes

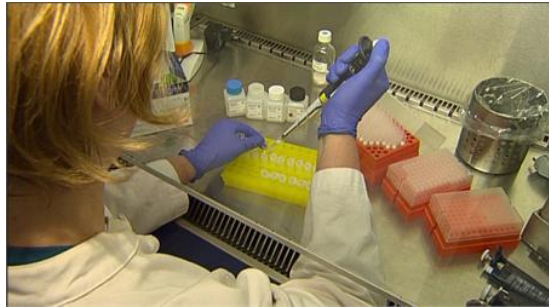
In case of storms (Beaufort nine or more), the centre calculates the degree of risk for the many dikes around the lakes





Information about the quality of recreational water

- There are quality standards for safe swimming water in the Netherlands
- The information centre will either advise against or forbid swimming, when the water does not meet the quality standards





Information during environmental calamities

National coordination committee environmental incidents

- Specialist/network-coördinator on call for Nuclear, Biological or Chemical incident in water environment
- 24 hours 7 days a week
- Response time 15 minutes max
- Advice within 1 hour
- When necessary at office within 1 hour
- Several tools at their disposal



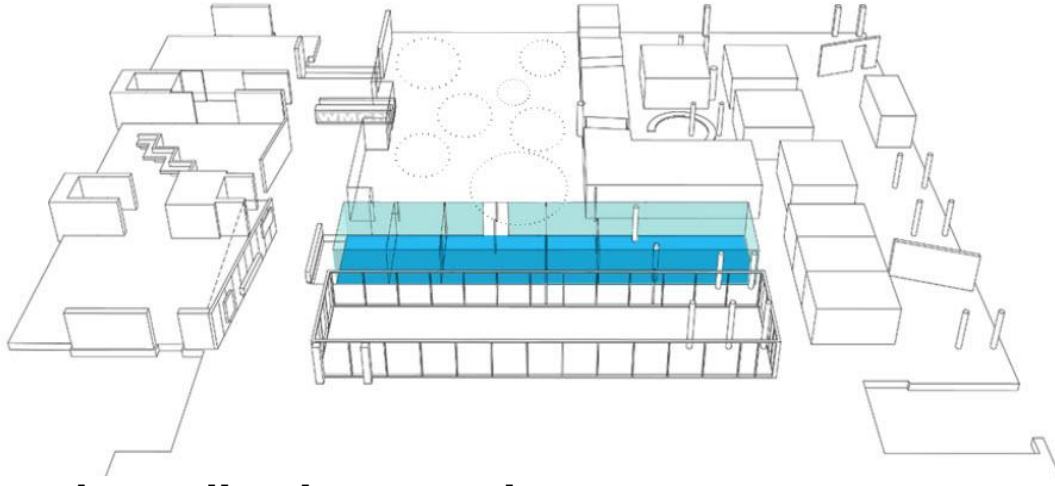


Major fires at factories can cause pollution of open waters





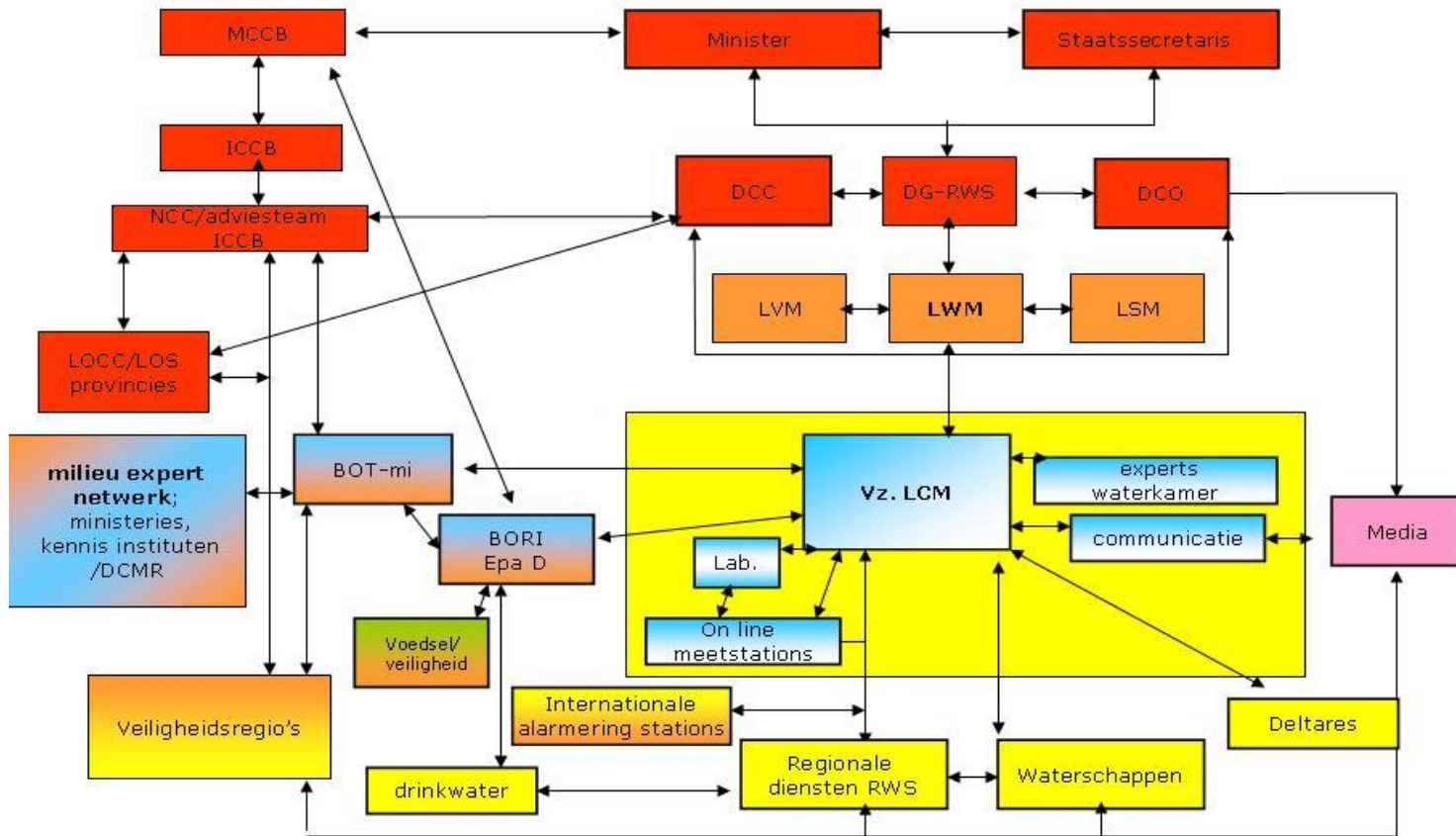
Advice during water crises



- **National coordination committees:**
 - Flood threat (LCO);
 - Water shortage (LCW);
 - Water pollution (LCM).
- **Crisis advice groups:**
 - Storm surge coastal area;
 - Dikes IJsselmeer area;
 - Flooding rivers (Rhine and Maas);
 - Calamities embankments.
- **Back office:** experts from Waterdienst and Deltares

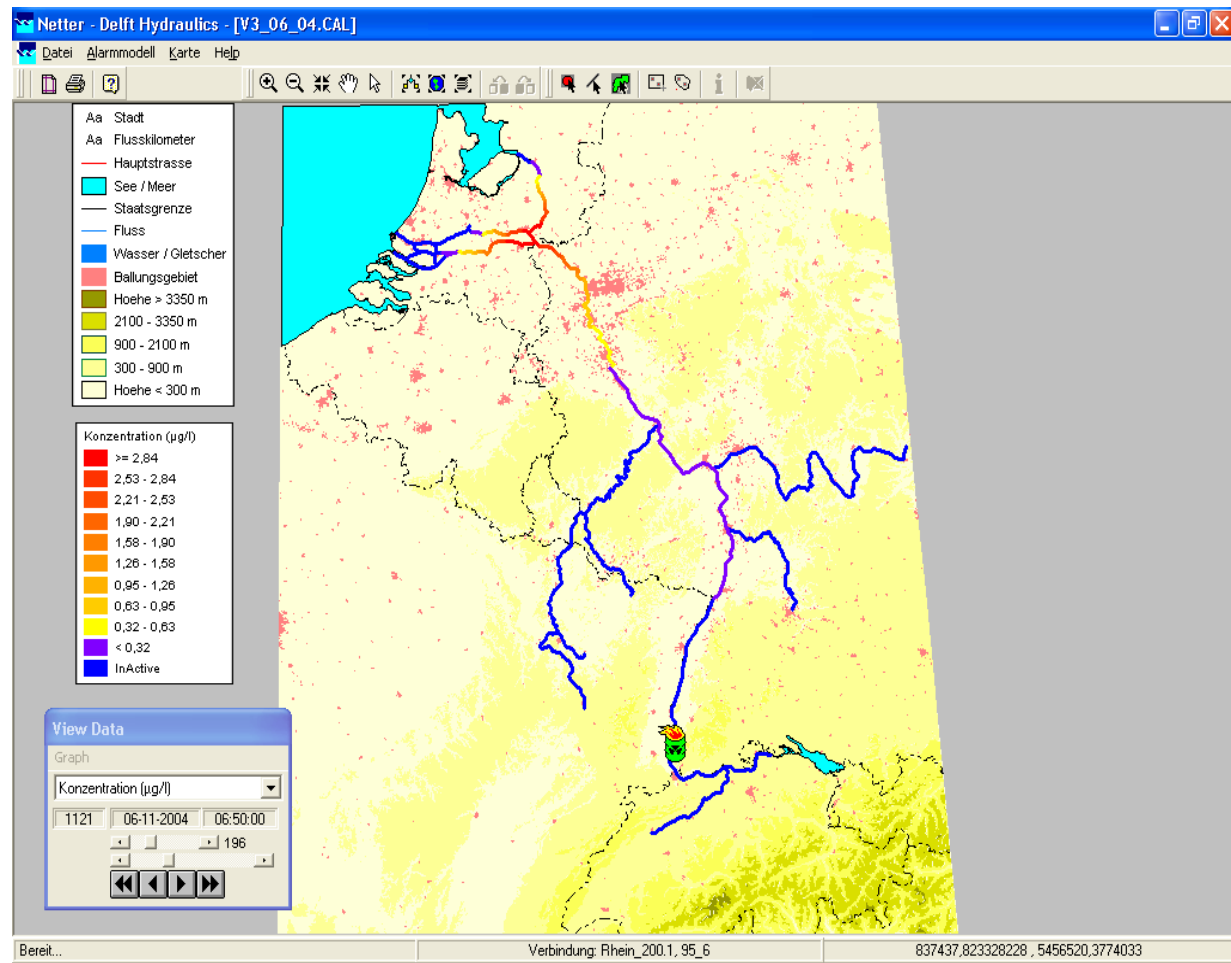


National Coordination committee Environmental incidents water (NCE)





International cooperation: the Rhine Alarm Model

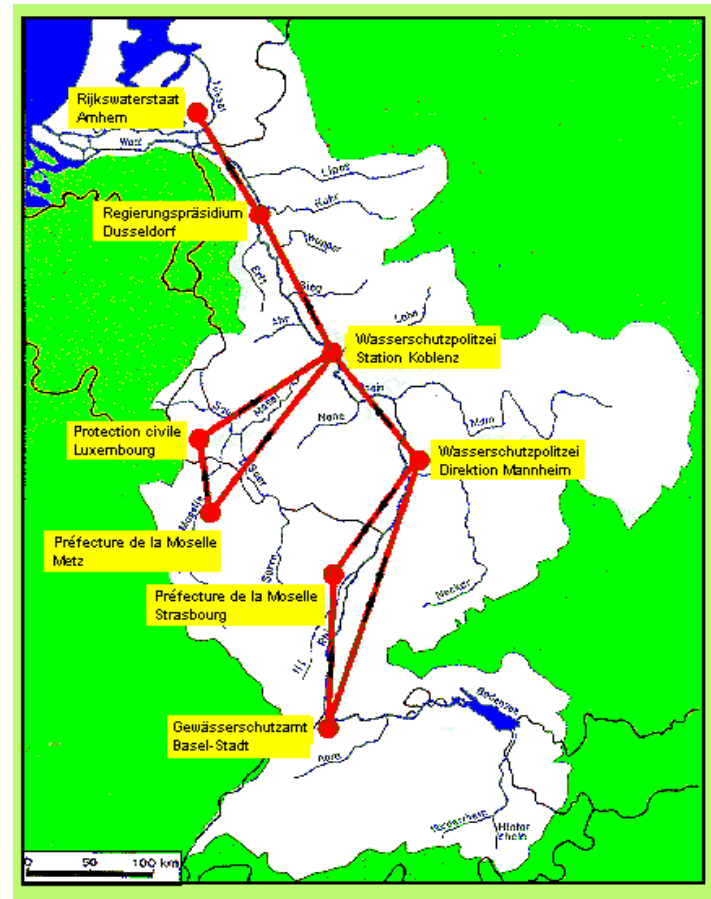




International River Committees

Agreements about:

- Who must be informed
- Key alerting centers
 - (see figure left for river Rhine)
- Format of alerting procedure
- Information that should be shared
- Procedures for searching the source
- Evaluation and reporting of accidents



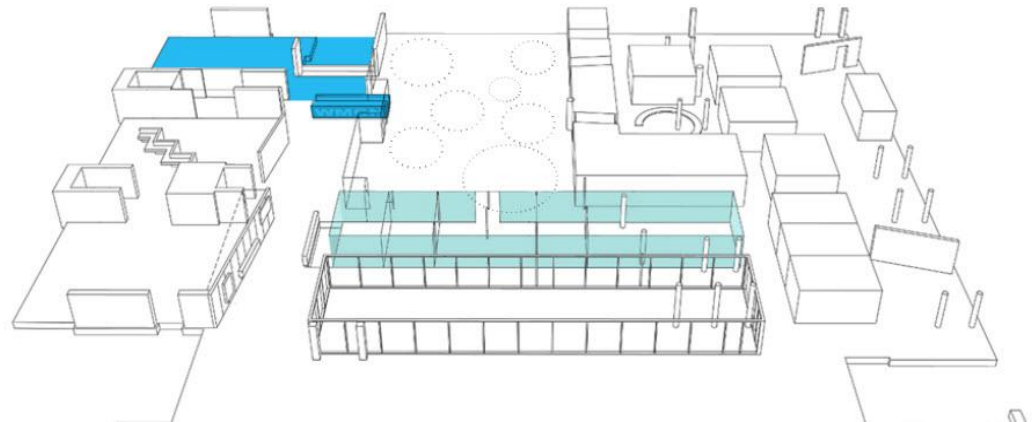
Rijkswaterstaat



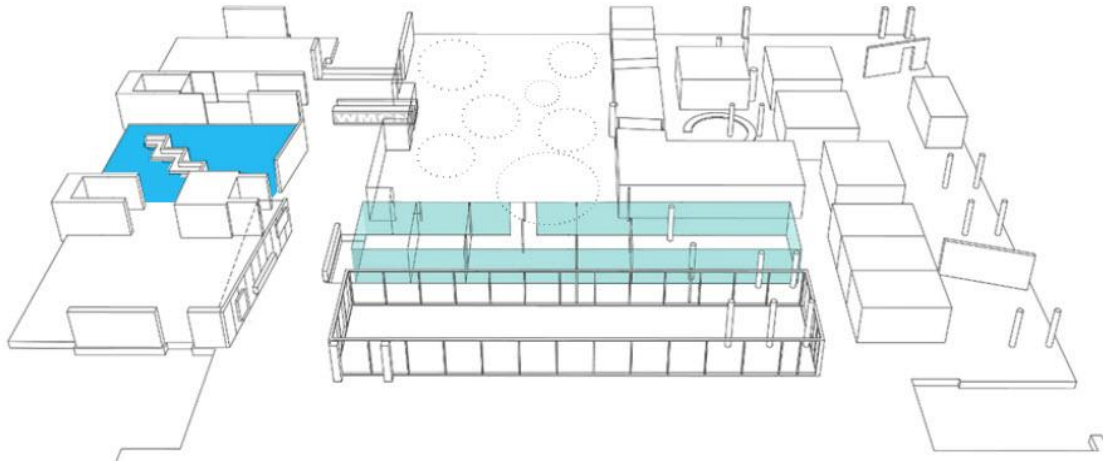
3. Helpdesk Water: www.hepdeswater.nl



- *in principal* **for the professional users**
- One loket for questions for water policy, water management and water safety
- Streamline knowledge of water
- Unlock knowledge of water
- Setup of knowledge of water and network



Platform training & innovation

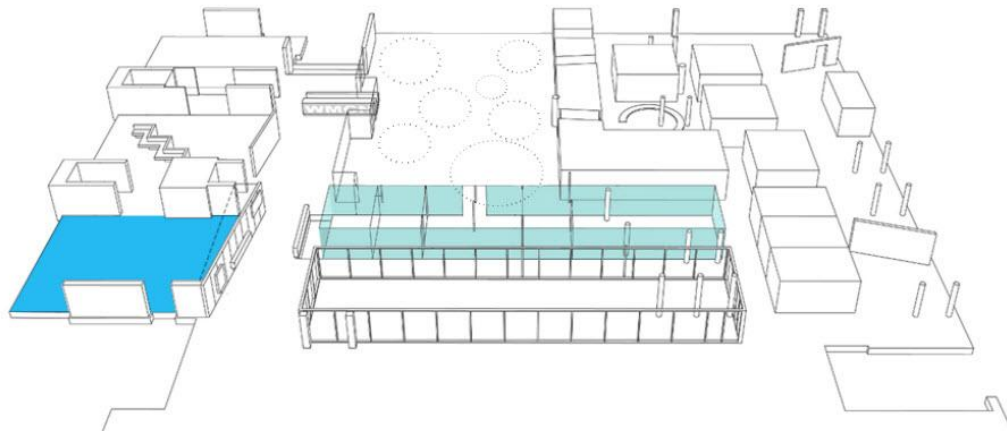


Training & Innovation

- Regular training courses are given for water professionals in the well-equipped training centre to enable them to develop their competency with respect to the primary processes of crisis management.
- Platform for new developments and technology in the area of water management and water safety.



Public Relations



- Meeting area where groups of water professionals and press representatives can be received;
- Offers insight into the operation and organisation of the Dutch water system and water safety, management of this system and the role the cooperating partners play.



WMCN

A central point like this is unique in Europe

- Thanks to bundling its forces, this centre can offer support to bargemen, water- and dike controllers, water- and traffic managers, all information about water management, government water rules, advise and support via calamity teams
- www.helpdeskwater.nl
- 24/7 operating in a work environment which is fully equipped to optimal support the dynamic water management.



Thank you for your attention!

