



MEDITERRANEAN EUWI/WFD JOINT PROCESS



MEDITERRANEAN GROUNDWATER WG

Second Phase (2007-2009)


The WFD Approach

Lisbon, September 2007




WFD Objective

Achieve good status (chemical and quantitative) by 2015

- Protect, enhance and restore groundwater systems
 - Ensure a balance between abstraction and recharge
 - Prevent the deterioration of the status
 - Prevent or limit the input of pollutants
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WFD Requirements

- Progressively reduce ground water pollution
 - Control over the abstraction of groundwater and authorisations
 - Control of artificial recharge
 - Direct discharges of pollutants are prohibited subject to a range of provisions
 - Implementation of measures necessary to reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity
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WFD Requirements

Quantitative status


- The level of groundwater is such that the available groundwater resource is not exceeded by the long term annual average rate of abstraction
- Groundwater not subject to anthropogenic alterations
- Alterations to flow direction resulting from level changes should not cause saltwater or other intrusion

Chemical status

- Concentration of pollutants should not exhibit the effects of saline or other intrusions
 - Concentration of pollutants should not exceed quality standards applicable under any EU legislation
 - Concentration of pollutants should not result in failure to achieve the environmental objectives associated to surface waters or depending terrestrial ecosystems
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Process

- Characterisation
 - Initial (preliminary)
 - Further
 - Review of impacts on groundwater and authorisations
 - Monitoring and assessment of the status
 - Programmes of measures
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Characterisation


Initial

- Assess uses and the degree of risk of failing to meet the objectives for EU groundwater
 - Use existing hydrological, geological pedological, land use, discharge, abstraction, etc.
 - Identify: boundaries, pressures (including diffuse and point sources of pollution, abstractions, artificial recharge), character of overlying strata, systems depending on surface waters or terrestrial ecosystems
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Characterisation

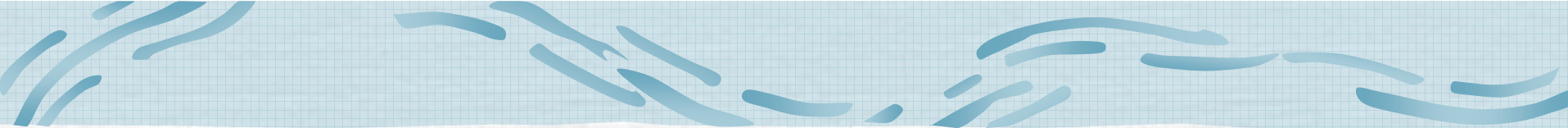
Further

- Needed for systems identified as being at risk
 - More precise assessment
 - Select information on:
 - Geological characteristics
 - Hydrological characteristics (conductivity, porosity, confinement)
 - Characteristics of superficial deposits
 - Inventory of associated systems
 - Directions and rates of water
 - Annual average rate of overall recharge
 - Characterisation of chemical composition (contribution from human activity)
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Review of impacts and authorisations

- Impact of human activity
 - Impacts of change in groundwater levels
 - Impact of pollution on groundwater quality
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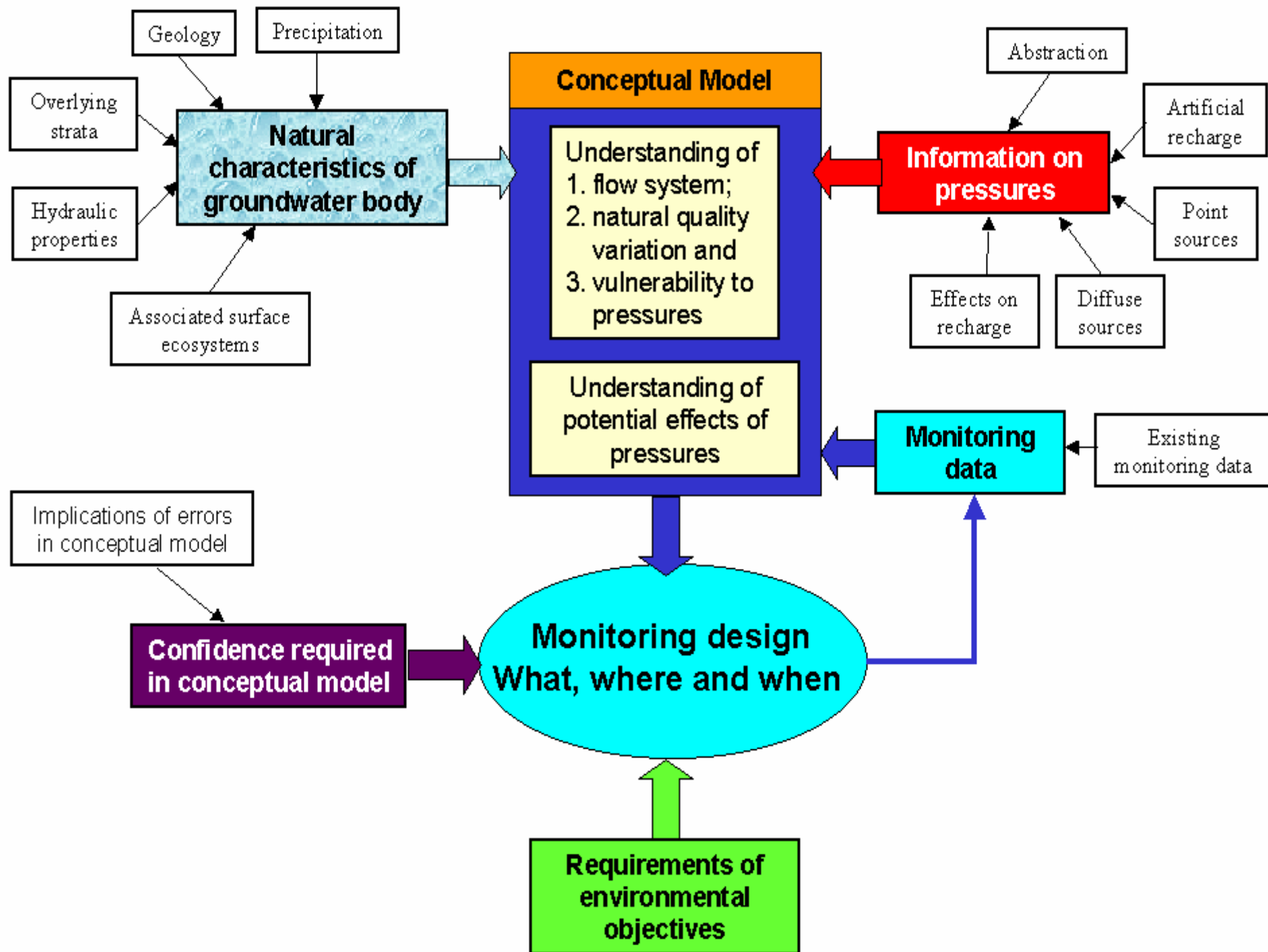
Monitoring and assessment of the status

Quantitative status

- Level monitoring network
- Density and frequency of monitoring sites
- Interpretation and presentation of quantitative status

Chemical status

- Monitoring network
 - Surveillance and operational monitoring
 - Identification of trends in pollutants
 - Interpretation and presentation of chemical status
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Measures :

Basic and Supplementary

Basic

- Controls over the abstraction
- Controls of authorisations
- Prevent and control pollution discharges
- Adverse impacts
- Reinjections


Supplementary

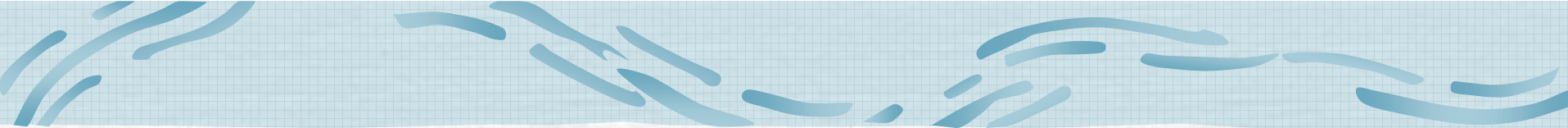
- To provide additional protection or improvement of the waters
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Exceptions

Less stringent objectives for specific bodies of water may be set where these are so affected by human activity or their natural condition is such that it would be unfeasible or disproportionately expensive to reach good status. The 15-year target date can be extended where there are reasonable grounds.





New Groundwater Directive (2006/118/EC)

- The new Groundwater Directive (GWD) includes criteria for assessing good groundwater chemical status and for identifying significant and sustained upward trends and starting points for trend reversals.
 - One element that is also included is a framework for making the WFD's 'prevent or limit' objective operational. This clarifies which substances shall be prevented from entering and which shall be limited in groundwater.
 - It also clarifies the exemptions from this prevent or limit objective.
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