



Informal Meeting of the EU Water Directors Lisbon

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Wastewater Reuse Report

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Wastewater Reuse Working
Group (MED WWR WG)



Mandate of the WWR WG

- Assess status of the situation in EU and non-EU Med countries.
- Obtain overview of issues at stake (defining reuse applications , scoping, safety issues and sustainability).
- Recommend more specific action to be taken at EU level.
- Provide a forum for exchange of experience between countries in the Mediterranean (EU and non-EU)

WWR WG convened twice in March and October 2007



WWR WG tasks

- preliminary appraisal of status of wastewater reuse:
 - *applications clearly defined*
 - *existing policies, legislation and standards examined.*
 - *current practices on reuse applications assessed*
- synthesise the information gathered.
- draft report with recommendations for follow-up action.



Contents of the report

- Key definitions for different reuse applications.
- A summary of social, environmental and economic benefits and risks, associated with wastewater reuse.
- Assessment of the importance of wastewater reuse in the EU-MED region.
- Appraisal of reference legal frameworks and guidelines for safe reuse in different countries.
- Correlation of wastewater reuse to the EU legal framework for the Environment.
- Economic issues
- 26 case studies from EU and non-EU countries.
- Key recommendations.



Current status of treated wastewater reuse

- WWT reuse an accepted practice in Europe and Mediterranean
- Majority of Med countries reuse treated wastewater for agriculture and environmental enhancement
- However, few countries have developed comprehensive standards for reuse and/or encourage reuse applications.



Findings

- Around 1 Billion m³/annum wastewater treated and reused in Europe.- equivalent to 2.4% of all treated wastewater
- Reuse rates are high in some countries Cyprus (100%), Malta (60%); lower in others: Greece, Spain Italy (between 5% - 12%)
- Applications: agriculture (75%) environmental enhancement (8%), industry, urban, groundwater recharge (6%)- urban/coastal, north-south patterns
- Regulations/standards in many countries (WHO)- but not an EU level.
- Treated wastewater reuse: valuable alternative resource (especially in the context of adaptation to climate change and water scarcity)
- Economics: more work needed to assess the right economic instruments which will make wastewater a viable option towards WFD objectives.



Economics.

- Overall economic impact of drought in last 30yrs – €100billion.
- Annual average impact doubled between 1976-1990 and between 1991-2006.
- a 20% wastewater reuse target in the EU may have reduced the economic impact by 20 billion in the last 30 years
- Data on economic externalities still lacking. More effort needed to measure the true economic value of treated wastewater reuse.
- Setting appropriate tariffs for treated wastewater provides an important incentive mechanism to encourage its reuse.



Conclusion and key recommendation: Development of a European and Mediterranean guidance framework

- Provide consistent approach to the management of health and environmental risks.
- Recommend ways of applying wastewater reuse to policy measures and to the achievement of objectives, set by the WFD legal framework (already existing in EU countries)
- BAT for the application of wastewater reuse in different circumstances.
- Improving public awareness and educating stakeholders on good practice and on the benefits of sustainable resource management.
- Using lessons learned from existing wastewater treatment facilities as a means of improving economic efficiency of the reuse process.



Thank you!