



# **3<sup>rd</sup> European Water Conference**

Brussels, 24 – 25 May 2012

Charlemagne Conference Centre Brussels,  
Room Alcide de Gasperi

## **Background document**

Prepared by the Environment Directorate General of  
the European Commission

Organized by  on behalf of the





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# I Background: The Blueprint to Safeguard Europe's Water Resources

**Water is life!** It is a precondition for human, animal and plant life as well as an indispensable resource for the economy. Water also plays a fundamental role in the climate regulation cycle.

Protection of water resources, of water ecosystems and of the water we consume or use, is therefore one of the cornerstones of environmental protection in Europe. The stakes are high and the issues transcend national boundaries and concerted action at the level of the EU is necessary to ensure an effective protection.

The Water Framework Directive (WFD) adopted in 2000 put forward an integrated approach for EU water policy, centred on the concept of river basin management with the objective of achieving good status of all EU waters by 2015.

Nevertheless, the achievement of EU water policy goals is still challenging due to, inter alia, a number of old and emerging water management issues: Pollution of water resources, degradation of hydro-morphology, over-abstraction, decline in soil organic matter are still occurring and have detrimental impacts on freshwater ecosystems and on economic activity, in particular through the nexus between water, food and energy production. Demographic evolution, land use change and economic development are projected to increase pollution and water shortages. This is expected to be exacerbated by climate change, particularly in the Mediterranean region, while increasing the intensity and frequency of floods in many parts of Europe. All this makes it increasingly difficult to achieve the WFD objective of good water status for all EU waters by 2015.

The Fitness Check<sup>1</sup> of EU Freshwater Policy and the assessment of the River Basin Management Plans of the EU Member States conducted by the European Commission in 2010-2012 show that the adequacy of the current water legislative framework is not questioned, nor is its coherence with the rest of environment policy. However, there still exist some weaknesses in the implementation of the current water legislation as well as conflicts between water policy and other EU policies' objectives.

Improvements in **implementation** are the first priority. Member States need to meet their obligations under EU water law to ensure the instruments are effective and that the benefits of implementation can be realised.

In relation to other policies, better **integration** is needed in particular with the Common Agriculture Policy (CAP) and with Regional Policy to ensure EU funds are better targeted at measures that deliver improvements to water and water law obligations are respected.

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<sup>1</sup> [http://ec.europa.eu/environment/water/blueprint/fitness\\_en.htm](http://ec.europa.eu/environment/water/blueprint/fitness_en.htm)



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Improved coherence is needed with renewable energy and transport policy to ensure that measures adopted for climate mitigation do not cause unintended negative impacts on water. Implementation can only be fully effective if all the inter-linkages between water policy, other areas of environmental policy and other policy areas outside environment are addressed.

With a view to respond to the above challenges and ensure the achievement of EU water policy objectives, it is necessary to clarify whether and what **additional actions and tools** are needed at Member States and EU level.

The Blueprint to Safeguard Europe's Water Resources will try to do this with the long term aim to ensure availability of good quality water for sustainable and equitable water use in line with the WFD objective. The time horizon of the Blueprint is 2020 since it is closely related to the EU 2020 Strategy and in particular to the recent Resource Efficiency Roadmap. The Blueprint will be the water milestone on that Roadmap. However, the analysis underpinning the Blueprint will in fact cover a longer time span up to 2050.

The Blueprint, in line with the current approach of water policy, will propose EU action where it offers added value and will take fully into account the very significant differences between and within Member States in terms of water availability, quality, quantity, efficiency etc. Therefore, it will not put forward a one size fit all straight jacket but rather try to put in place the tool box that Member States can rely upon to improve water management at national, regional and river basin level.

The Blueprint to Safeguard Europe's Water Resources will be accompanied by a number of reports covering its major strands and by a thorough impact assessment. This will aim at understanding the potential environmental and socio-economic impacts of future developments for the water environment against a baseline scenario and will assess the effectiveness of policy options for action at EU level.

The Blueprint will set the agenda for EU water policy for the years to come, in particular for the Common Implementation Strategy (CIS) that brings together the European Commission, Member States and stakeholders under the Water Framework Directive. On the basis of the above mentioned assessments carried out so far, it is not likely that any fundamental overhaul of the current policy framework will be suggested. Moreover, a full review and possible revision of the Water Framework Directive is legally required for 2019, after the results of its first implementation cycle will be available.

## 2 The 3<sup>rd</sup> European Water Conference

The 3rd European Water Conference (24-25 May 2012, Brussels), which is integrated in the Green Week 2012, aims to contribute to the preparation of the Blueprint. The event is planned to serve as a platform for consultation and debate between a large number of different stakeholders, Member States and the European Commission on the Blueprint policy options and on the accompanying impact assessment.



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Stakeholders and the general public have also been invited to take part in an online public consultation<sup>2</sup> on the policy options for the Blueprint, which is running from 15/03/2012 to 07/06/2012. The Conference is part of this stakeholder consultation process. A summary of the conference discussions, key messages and conclusions will be prepared after the event and made publicly available. The European Commission will use the conference results in the further process of drafting the Blueprint and its impact assessment.

The sessions of the 3rd European Water Conference include introductory presentations on the session themes, moderated panel discussions with panellists from Member States, stakeholders and River Basin District authorities (in Sessions II, III and IV) and discussions with the audience. A live webcast will be available on the conference website. The Conference Programme is available at: <http://waterblueprint2012.eu/programme>.

This background document is structured along the five major sessions of the 3rd European Water Conference, which follow by and large the major themes expected to be covered by the Blueprint. It provides a short introduction to the topic and then proposes questions for discussion with the panelists and the audience in each session of the Conference.

- Session I covers the presentation of key problems and challenges, by considering the status of Europe's water and key tools which may be needed for the sustainable management of water resources
- Session II looks into ways of unlocking measures
- Session III looks at economic incentives to achieve targets
- Session IV focuses on governance and knowledge base as cross-cutting conditions for sound decision making and effective implementation
- Session V addresses global aspects and issues related to innovation.

During the conference we will encourage the active participation of delegates in the discussions. The purpose of this background document is to prepare participants for the discussion by providing a clear link to relevant EU documents that offer a more detailed explanation of the problems for which options are identified:

- (1) Overview of the Commission preliminary assessment of the River Basin Management Plans prepared by DG Environment (see Annex A, this is a new document)
- (2) Draft Gap analysis of the Water Scarcity and Droughts strategy (see Annex B, this is a new document)
- (3) The background document for the ongoing online public Blueprint consultation (available since 15 March 2012):

<http://ec.europa.eu/environment/consultations/pdf/blueprint.pdf>

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[http://ec.europa.eu/environment/consultations/blueprint\\_en.htm](http://ec.europa.eu/environment/consultations/blueprint_en.htm)



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- (4) Executive summary of the ClimWatAdapt project (available since December 2011):

[http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework\\_directive/climate\\_adaptation/climwatadapt\\_report/climwatadapt\\_summarypdf/ EN\\_1.0 &a=d](http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/climate_adaptation/climwatadapt_report/climwatadapt_summarypdf/ EN_1.0 &a=d)



### 3 Session I: Key challenges

In recent decades, considerable success has been achieved in reducing the discharge of pollutants to Europe's waters, leading to water quality improvements. However, information reported in the first River Basin Management Plans (RBMPs) indicates that more than half of the surface water bodies in Europe are in less than good ecological status or potential, and will need additional measures to meet the WFD objective. The pressures reported to affect most surface water bodies are pollution from diffuse sources causing nutrient enrichment and hydromorphological pressures altering habitats.<sup>3</sup>

In addition, a lack of ambition has been found in many RBMPs as regards achieving the environmental objectives of good ecological status or potential as well as extensive reliance on exemptions. In general, the extensive use of exemptions is not supported by transparent justification of the criteria applied, indicating a degree of arbitrariness in their application. Where deadlines for achieving the environmental objectives are extended beyond 2015, it is often unclear by when the objectives will be reached.<sup>4</sup> In particular there is considerable scope for greater implementation of source control measures across all sectors<sup>5</sup> and for the restoration of water bodies which have been significantly altered through physical modifications, leading to changes in water flows, habitat fragmentation and obstructions of species migration.

At the same time, large areas, particularly in the south of Europe, are affected by **water scarcity**, while competing uses are increasing demand across Europe. The problem of water scarcity goes beyond the physical water gap, as measured with indicators like the Water Exploitation Index. The cost of abstracting, conveying, purifying and further treating the water (including the increase of greenhouse gases emissions) can have large social and economic consequences across most sectors and regions. Moreover, rising demands and the impacts of climate change are expected to increase the pressure on Europe's water resources, underlining the importance of increased efficiency and savings in water use. Scenario analysis performed in the context of ClimWatAdapt study<sup>6</sup> show that, even with strong improvements in water efficiency in all sectors, water stress would remain a problem in numerous EU catchments, including in south, central and western Europe. This pleads for a more integrated analysis of the potential of increasing water availability, water retention and

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<sup>3</sup> Draft EEA report on Ecological Status, not yet published

<sup>4</sup> Annex A RBMP Assessment.

<sup>5</sup> EEA (2010). Synthesis. The 2010 State of the Environment and Outlook Report. European Environmental Agency, Copenhagen.

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[http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework\\_directive/climate\\_adaptation/clim\\_watadapt\\_report/climwatadapt\\_summarypdf/ EN 1.0 &a=d](http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/climate_adaptation/clim_watadapt_report/climwatadapt_summarypdf/ EN 1.0 &a=d)





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water savings taking into account the uncertainties linked to economic developments in various sectors and climate change. In the context of the Blueprint, refining the result of ClimWatAdapt, a **baseline scenario** is being developed bringing together climate, land-use and socio-economic scenarios and looking at the implication for water resources availability and use under business-as usual.

In addition to water scarcity, Europe is also suffering from variations in precipitation regimes due to disruptions in the hydrologic cycle and land-use changes. This has increased the frequency and intensity of floods and droughts over the past thirty years and their environmental and economic damage. Further socio-economic, land-use and climate changes are likely to exacerbate the situation. Therefore, an enhanced integration of quantitative and qualitative aspects of water management in plans and programmes is needed. Regarding droughts, this requires the definition of environmental flows (essential for sustaining a good ecological status)<sup>7</sup>. For both droughts and floods, it is important to apply an ecosystem-based approach complementing or sometimes substituting traditional protection approaches (artificial storage, dykes, etc.) by increasing natural water retention, restoring floodplains, relocating activities, etc.

### 3.1 Questions for discussion

For discussion with the **audience**:

- Are the above the key problems for Europe's waters and key challenges for EU water policy? If not, which issues need further attention and on the basis of which evidence?

## 4 Session II: "Unlocking" the most promising measures

### 4.1 Key challenges

In order to deliver objectives and targets for Europe's waters, a range of different measures in key policy sectors can be considered at EU level to improve water resource efficiency and sustainability:

- Measures aiming at **protecting ecosystems**, by addressing the reduction of pollution at source, restoring river continuity, safeguarding drinking water and ground-water resources, in most cases contributing to increasing the availability of clean water.
- **Natural water retention measures**, aiming to safeguard natural water storage capacities by restoring or enhancing natural features of water courses, wetlands and



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floodplains, and by increasing soil water retention and groundwater recharge (Green Infrastructure).

- In water stressed/potentially stressed areas, **water efficiency measures** are also required in relation to irrigation practices, urban distribution networks, water using appliances and building, having in mind the energy saving potential associated with water savings.
- **Waste water re-use** after appropriate treatment has the potential to contribute to the irrigation requirements of agriculture in some river basins or to industrial uses provided that all relevant safety standards are respected.

The evaluation of the RBMPs makes clear that more attention needs to be given to the assessment of the costs and benefits of measures, as well as to their scheduling, ensuring an adequate interaction and coordination between them.

Unlocking the above mentioned measures may require different types of intervention at EU level which are currently being assessed in the Blueprint preparatory process. The objective is for these actions to be implemented as soon as possible after the adoption of the Blueprint and in any event in the 2<sup>nd</sup> and following planning cycles of the WFD.

### 4.2 Questions for discussion

For discussion by the **panelists**:

- Which measures do you consider a priority to address impacts on water from land use changes and agriculture?
- What are the most appropriate measures to increase water efficiency in agriculture & buildings and to reduce leakages in water distribution networks?
- How should common EU standards for waste water re-use for agriculture and industrial purposes be developed?

For discussion with the **audience**:

- How could the uptake of the measures discussed in this session be improved (especially measures to manage water demand, protect ecosystems and improve availability of clean water)?



# 5 Session III: Economic incentives for a more efficient water resources management

## 5.1 Key challenges

**Economic instruments** are especially effective for water policy goals when they create the right incentives for behavioural changes of economic agents (using, consuming or depleting water resources)<sup>8</sup> However, economic instruments in water resources management need to be understood as a **complement**, not a substitute, for other policy instruments such as regulation or communication tools. Moreover, the application of economic instruments for water resource management should take into account the objectives and policy instruments of other policies (e.g. climate, energy, agriculture).

The WFD promotes the use of economic instruments (Art 9) in water management and effective use of such instruments would enhance the efficiency of water use as well as provide resources for investment in necessary infrastructure. However, as evidenced by the analysis of the RBMPs<sup>9</sup>, current pricing schemes in Europe often fail to combine the objectives of **efficiency** (marginal social cost pricing) and **fairness** (polluter/user pays principle) and do not allow the degree of **cost recovery** required for the sustainable financing of the measures.

Reasons for the lack (or insufficient) use of such instruments include insufficient knowledge, **barriers** to acceptance, inappropriate structures of the instruments and lack of pre-conditions for their use (e.g. absence of water metering, illegal abstraction).

The implementation of schemes ensuring a more efficient water use (such as water **trading schemes**) is only practical at river basin scale (and potentially at even smaller scales), but could be supported by EU level action.

Finally, **Payments for Ecosystem Services**<sup>10</sup> (PES) such as water storage, flood regulation, carbon storage, etc. help “getting the incentives right” by sending accurate signals to both providers and users that reflect the real social, environmental and economic benefits that ecosystem services deliver. Furthermore, PES foster the achievement of environmental objectives that go beyond the minimum threshold of the polluter-pays-principle.

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<sup>8</sup> See e.g. EU-funded FP7 EPI-Water research project: <http://www.feem-project.net/epiwater/pages/download-public-deliv.html>

<sup>9</sup> Annex A RBMP assessment

<sup>10</sup> See 2011 Workshop "Can the concept of ecosystem services help the implementation of the WFD?": <http://www.onema.fr/IMG/EV/cat1a-14.html>



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### 5.2 Questions for discussion

For discussion by the **panelists**:

- What are the main barriers preventing water pricing policies in Europe from providing adequate incentives to reduce pressures on water resources and achieving greater water use efficiency?
- How can such barriers be overcome? How can we foster the development of Payments for Ecosystem Services? (CIS Guidance, methodological support, etc.)
- What are the most effective means to address illegal abstraction?

For discussion with the **audience**:

- How can the EU further support the use of economic instruments for water management? Are there instruments other than those identified in this session that would deserve consideration?

## 6 Session IV: Governance system and knowledge base

### 6.1 Key challenges

Good governance is the cornerstone for sustainable use of water resources. Ineffective governance undermines the implementation of measures and the application of economic incentives. Stakeholder consultations undertaken for the Fitness Check of EU Freshwater Policy highlighted the role that **implementation failure** by the Member States **plays in undermining the effectiveness of EU water policy**.

In order to support Member States in WFD implementation, a wide range of guidance has been produced under the CIS jointly by stakeholders, Member States and Commission experts and officials. This is generally considered to be a success of the EU water policy process. Compared to pre-WFD times there is an impressive improvement<sup>11</sup> in the knowledge base on water and there is increased transparency in setting objectives and managing water. However, there are still some areas where additional guidance may be needed (e.g. chemical status, costs and benefits analysis, etc).

On the basis of the analysis of the RBMPs, **wider concerns over effective water governance** include fragmented institutional structures, poor intra and inter-institutional

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Annex A RBMP assessment.



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relationships and capacity which undermine the ability of authorities to perform the detailed analyses necessary to implement the WFD, perform the necessary monitoring, develop and implement RBMPs and develop amended plans in an effective adaptive management framework. Moreover, it has proven often difficult for MS to remove or change water rights/concession which have been in place for a long time, hindering the efficient allocation of water resources. Furthermore, the impact of the **public participation and stakeholder involvement** on the RBMPs is not always clear. All too often **administrative boundaries** within and between Member States still hinder the integrated water management at river basin level required by the WFD. Finally, the current financial crisis is impacting on the budgets (and capacity) of governmental bodies across the EU with unclear consequences for water governance.

Good water governance is not important for water policy only: most economic sectors are dependent on water resources for growth and development. Therefore, the achievement and preservation of the good water status should be integrated in **all relevant sectors**.

This requires a better understanding of costs of inaction and benefits of measures, and a consistent assessment framework at EU level. The establishment of systematic water balance assessment/**water accounts** at catchment level is essential to identify the quantitative and qualitative gaps in water resources. The assessment of the **cost-effectiveness of measures** is necessary to effectively address these gaps and facilitate integration across different policy sectors.

In relation to the **knowledge base for water policy**, the ecological perspective is generally now firmly integrated into the assessment of the status of surface waters and has become an integral part of water management. There has been significant progress in the knowledge on aquatic ecology supported through exchanges of information between Member States' experts. The assessment of ecological status itself in accordance with the WFD provisions has been a scientifically demanding task<sup>12</sup> and there are still significant knowledge gaps that deserve further research and integration into policy making at river basin level.

In particular, the building of an EU-wide physical water balance and hydro-economic model in the context of the Blueprint reveals important **knowledge gaps** in quantitative aspects of water management. While better focusing reporting and statistical obligations may be required in some areas, there is scope for increasing the interoperability<sup>13</sup> of available information and further decreasing administrative burden through the Water Information System for Europe (WISE).

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<sup>12</sup> Annex A RBMP assessment.

<sup>13</sup> On the basis of the INSPIRE Directive and the Share Environmental Information System (SEIS) principles



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### 6.2 Questions for discussion

For discussion by the **panellists**:

- How can the EU contribute to improving governance and implementation at river basin level for both national and international river basins? Are peer review mechanisms and best practice exchanges useful? Is there a need to reinforce surveillance, inspections, the powers of the River Basin Authorities?
- How can the knowledge gap on water balances/account best be addressed?

For discussion with the **audience**:

- Would the setting of water efficiency targets be a useful tool in water stressed river basin districts to foster the integration of water policy objectives in all relevant sectors?

## 7 Session V: Innovation and global aspects

### 7.1 Key challenges

The importance of innovation in the field of water management has been recognized by the EU Member States. On June 21<sup>st</sup> 2011, the Council of the European Union invited the Commission to *'investigate an innovation partnership on water in close cooperation with the Member States, with a view to achieving sustainable and efficient use of water'*<sup>14</sup>. The Commission Communication for a European Innovation Partnership (EIP) on Water was adopted on 10/05/2012.<sup>15</sup> The strategic objective of the EIP on Water is to **position Europe as a world leader in water technology and services** by boosting innovation, promoting the creation of new market opportunities and by contributing to achieving the sustainable and efficient use of water, while at the same time use innovation to develop adequate and state of the art European water policy. Innovation requires strong involvement of the private sector. The forthcoming strategic implementation plan will identify the mechanisms to be implemented in order to ensure the adequate synergies between the public sector (in charge of setting policies and priorities) and the private sector (able to finance innovation when this will offer business opportunities).

At global level, the EU is committed to the achievement of the Millennium Development Goals (MDGs) of halving by 2015 the proportion of the population without sustainable access

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<sup>14</sup> Council of the European Union Conclusions of 21 June 2011. (doc. 11308/11)

<sup>15</sup> Communication from The Commission on the European Innovation Partnership on Water COM(2012) 216 final



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to safe drinking water and basic sanitation and is actively involved in the preparation of the Rio+20 Conference (June 2012). The EU is contributing by supporting integrated water management in developing countries in its development cooperation policy (EU Water Initiative). This is particularly important if one considers the virtual flow of water embedded in agricultural and industrial products imported in the EU and our water footprint in the country of export.. Communication instruments identifying areas of greatest water use in the supply-chain of products, such as certification standards for application across commodity supply-chains or labelling schemes for agricultural products and foodstuffs have been identified as a promising option.<sup>16</sup>

### 7.2 Questions for discussion

For discussion with the **audience**:

- Should the Innovation Partnership on water focus mostly/exclusively on the EU or also have a strong international component?
- How can the EU best contribute to addressing global water resources shortage via its development cooperation policy and measures targeting water-intensive products?

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<sup>16</sup> RPA & Cranfield University, 2011, Study for DG ENV. [http://circa.europa.eu/Members/irc/env/wfd/library?l=/scarcity\\_droughts/building\\_policy/ongoing\\_2010-2012/footprinting\\_labelling/final\\_report/executive\\_revised2pdf/ EN\\_1.0\\_&a=d](http://circa.europa.eu/Members/irc/env/wfd/library?l=/scarcity_droughts/building_policy/ongoing_2010-2012/footprinting_labelling/final_report/executive_revised2pdf/ EN_1.0_&a=d)