



## EEB and WWF's comments on:

### ELEMENTS OF A DIRECTIVE ON FLOOD RISK MANAGEMENT

Brussels, 25 April 2005



#### INTRODUCTION

The European Environmental Bureau (EEB) and WWF, the conservation organisation, believe that a new “flood risk management culture” is needed across Europe. Public authorities at all levels need to realise that mismanagement of human activities (e.g. increasing human settlements in floodplains) influencing land and water use at the river basin level - leading to the destruction of floodplains and wetlands; to river fragmentation (e.g. cutting off of meanders); and to changes in land-use patterns - as well as global warming, have significantly contributed to increase the frequency, dimension, intensity and impacts of flood events during the last decade.

Thus, public authorities with different competencies at all levels and populations alike cannot keep on disregarding the important role that nature plays in flood risk management via, for example, the natural absorption capacities of wetlands, floodplains, and upland areas. They need to realise that traditional flood risk management strategies - mostly based on building infrastructures for the immediate protection of people, properties and goods - have failed to deliver the safety that they were supposed to<sup>1</sup>. That if flood risk is to be managed in the future, all-encompassing visions and programmes, giving increased importance to non-structural (e.g. nature related) measures, are needed, in order to shift away from the traditional short-term paradigm of “building to protect” to ecologically sustainable flood management.

We, therefore, welcome the opportunity to comment in writing on the Commission services' ideas for the legislative proposal (Directive) component of the “Action Programme on flood risk management” additional to the comments made during the Stakeholder/Drafting Group meetings of 21 January, 4 March, 30 March and 11 April 2005.

Our comments here relate to the issues discussed at the last Stakeholder meeting of 11 April 2005 as follows:

- Flood Risk Management Directive: Relationship with the Water Framework Directive and Scope
- Additional comments on definitions, flood mapping and flood risk management plans to the document “*Outcome of the Drafting Group meetings on 4 and 30 March 2005*”

#### LINK WATER FRAMEWORK DIRECTIVE AND FLOOD RISK MANAGEMENT DIRECTIVE

The EEB and WWF consider that the EU and Member States need to realise and act upon Integrated River Basin Management (IRBM), which is the internationally recognised vehicle to deliver flood risk management. This is because IRBM is oriented towards the environment's ‘carrying capacity’ - i.e. the proper and long-term functioning of ecosystems and maintenance of biodiversity as well as the associated socio-economic benefits for people - the joint assessment of the needs and expectations of all ‘water stakeholders’ at a basin-wide level; and on basing final decisions on the best possible information. Also that IRBM is the new legal context for water management across Europe because it is enshrined in the Water Framework Directive (WFD). This offers European governments, regional and local authorities a “window of opportunity” for making strategic decisions about water management – including flood risk management – that are economically, socially and ecologically sustainable. This opportunity should not be missed *vis-à-vis* the risk of increasing human and financial losses from severe flooding events and further impact on nature-valuable sites (potentially) protected according to the EU's Birds and Habitats Directives, in particular (not) by an EU Directive on Flood Risk Management.

**Starting point:** Text as included in the document ‘Contents of a legislative proposal’ (21 January):

*‘Flood Risk Management Plans: for rivers, to be in 2015 **fully integrated** with the river basin management plans and programmes of measures developed in accordance with the Water Framework Directive. **Coastal** flood risk management plans should be developed within the same time frame.’*

<sup>1</sup> See WWF's policy briefing “*Living with floods: Achieving ecologically sustainable flood management in Europe*” <http://www.panda.org/downloads/europe/livingwithfloodsswwfpolicybriefingfinal.pdf>

1. **Defining “fully integrated”.** We welcome the above reference to full integration of the Flood Risk Management Directive (FRM) with the Water Framework Directive’s (WFD) River Basin Management Plans and Programmes of Measures. We support this approach. We believe that any attempt to run parallel processes at the river basin level to arrive to the WFD’s “good status” on one hand and to deliver flood risk management on the other would not only lead to the undermining of the WFD objectives and make flood risk management objectives more difficult<sup>2</sup> and possibly more expensive to achieve, but also waste administrative and public resources. Similar problems could be encountered if the process to deliver flood risk management was integrated with the WFD implementation process and not “synchronised” but much delayed (see “*Timing*” issue below).

Nevertheless, we would like to precise that we are not calling for an amendment of the WFD here and now. We understand that, under the current circumstances, there would have to be two separate pieces of legislation. One the WFD, which aims to achieve “good status” in all EU waters within a sustainability context. This implies that “good status” has been defined in a way that ensures that humans can keep on benefiting from the socio-economic benefits derived from functioning freshwater ecosystems<sup>3</sup>. Thus, the socio-economic repercussions of “preventing deterioration” and achieving “good status” are taken into account in every step of the WFD’s river basin management planning process, in particular via the cost-effectiveness analysis of the “Programme of measures” necessary to achieve these objectives. Then there would be a FRMD, via which Member States would develop relevant FRM objectives for the same river basins, which should support the achievement of the WFD objectives.

Still, some Member State representatives and others at the Stakeholder/Drafting Group meetings have been reluctant to accept the “full integration” between the WFD and the FRMD. This may come from the well-known problem of having administrative patchworks in most Member States<sup>4</sup>, which has already identified an obstacle for WFD implementation, as well as a lack of knowledge of the WFD and the river basin management planning process it entails. Thus, many members of the Stakeholder/Drafting groups appeared to have been dealing with flood risk management mainly from an emergency response and/or flood defence perspective only. Therefore, it is relevant to arrive to a common understanding on what “full integration” means.

From our point of view, “full integration” is the most cost-effective and sustainable way to proceed in the development of any measures to manage flood risk that could have an effect on the achievement of the WFD objectives. This relates to FRM measures in the areas of “Prevention”, “Protection”, “Recovery and lessons learned”, as defined by the Stakeholder/Drafting Group meetings, because many of these could have a potential impact/effect on the achievement of WFD’s “no-deterioration” and/or “good ecological, chemical and quantitative status” objectives. However, it is not so relevant for “Preparedness” and “Emergency response” FRM measures. Such an impact could be “positive”, a contribution to achieving the WFD’s objectives, or “negative”, preventing the WFD’s objectives from being achieved. As a result, these measures should be developed as part of the WFD’s Programmes of Measures (PoM) and River Basin Management Plans (RBMPs) to ensure they meet all the relevant WFD integrated river basin management requirements. Any potential flood risk management measure with a negative impact on the status classification for surface and groundwater must respect the WFD’s Article 4 exemption criteria before being carried out. No new, automatic or blank exemptions should be established through a FRMD.

The approach above is supported by the EU-25 and Norway Water Directors’ “Best practices on flood prevention, protection and mitigation” document of June 2003, which states: “*The Water Framework Directive (...) is an optimal support to implement a floodplain regulation in the development of river basin management plans, based on an as good as possible ecological and chemical status of wetlands and floodplains*”.

2. **“Timing” issue.** We recognise that, for administrative reasons, etc., the timescales of the FRMD and the WFD might not align immediately. We would, therefore, accept 2015 (by the end of the WFD’s first planning cycle) as the deadline to achieve “full integration” and “synchronicity”. However, we consider that some action towards ensuring the full integration in 2015 must be put in place as soon as possible and, at the very latest, from the moment the FRMD enters into force.

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<sup>2</sup> See WWF’s policy briefing “*Living with floods: Achieving ecologically sustainable flood management in Europe*” <http://www.panda.org/downloads/europe/livingwithfloodswfpolicybriefingfinal.pdf>

<sup>3</sup> For information on freshwater ecosystem functions and their economic value see WWF Living Waters Programme; 2004; *The Economic Values of the World’s Wetlands*, available at <http://www.panda.org/downloads/freshwater/wetlandsbrochurefinal.pdf>

<sup>4</sup> EEB and WWF: The quality of national transposition and implementation of the WFD at the end of 2004, February 2005, available at: [http://www.panda.org/about\\_wwf/where\\_we\\_work/europe/what\\_we\\_do/policy\\_and\\_events/epo/initiatives/freshwater/publications/index.cfm](http://www.panda.org/about_wwf/where_we_work/europe/what_we_do/policy_and_events/epo/initiatives/freshwater/publications/index.cfm)

In particular, we strongly believe that “transitional arrangements” are needed to guarantee that ongoing and planned flood risk management measure up until then (2015) do not irreversible damage the aquatic environment and, thus, prevent the achievement of the WFD’s environmental “no deterioration” and “good status” objectives. This is also a requirement of the Treaty (e.g. under Article 10) and of ensuing case law<sup>5</sup>.

### 3. Integrating the WFD and the FRMD

General: We propose three key principles to be respected in developing a FRMD in order to avoid backtracking from the established water protection regime in Europe:

- A clear hierarchy of objectives should be established with the WFD’s at the top
- The full integration of (relevant) FRM measures within the WFD’s River Basin Management Plans and Programmes of Measures (although this will require transitional arrangements because of timing issues)
- No new derogations should be applied to the FRMD. This should refer to those within the WFD (e.g. under Article 4.7), which should be sufficient to ensure that essential and/or sustainable flood risk management activity can be implemented even where this is incompatible with achieving “good status”.

More specifically: We believe that the links WDF-FRMD extend beyond the three components - competent authorities, scale (river basin as management level) and review periods/deadlines for FRM maps and plans - that seemed to be identified at the last Stakeholder meeting of 11 April 2005 as follows:

WFD component	FRMD relevance
Recital 16	<ul style="list-style-type: none"> <li>– Strong integration into other policy fields</li> <li>– Areas mentioned (above all agriculture, regional policy and tourism) are also of key relevance for sustainable flood risk management</li> </ul>
(Article 1) Purpose	Contributes to mitigating the effects of floods
(Article 3) IRBM: Setting up River Basin Districts and competent (River Basin) authorities	<p>River Basins (Districts, RBDs) are the only logical unit for developing FRM as part of integrated river basin management. Therefore, the WFD River Basin Authorities (RBAs) should have competence over FRM. Using the RBDs and RBAs s defined by the WFD would go a long way to allow FRM planning to be:</p> <ul style="list-style-type: none"> <li>– Holistic, integrated and based on solidarity</li> <li>– Deal with transboundary river basins</li> <li>– Promote the involvement of all relevant authorities</li> <li>– Be developed and implemented preferably through existing structures</li> </ul>
(Article 4) Objectives	<ul style="list-style-type: none"> <li>– Obligation of “no deterioration” of current ecological, chemical and quantitative status is relevant for constructing flood defence infrastructures and for managing/modifying existing ones</li> <li>– Obligation to achieve “good status” (including chemical, ecological and quantitative aspects) and “good ecological potential” is relevant for managing existing man-made flood defence infrastructures</li> <li>– Obligation to achieve “good status” (including chemical, ecological and quantitative aspects) is relevant for enabling/supporting FRM measures that work with natural processes and not against them</li> <li>– Therefore, an objective of FRM plans must be <i>“To promote sustainable flood risk management policies and measures as required to achieve the WFD’s “no deterioration” of current water status and “good ecological, chemical and quantitative status”</i></li> </ul>

<sup>5</sup> European Court of Justice ruling C-129/96, Rec. p. I-7411m para. 41 of 18 December 1997, Inter-Environnement Wallonie ASBL v Region Wallone

<p>(Article 4) Exemptions (derogations)</p>	<ul style="list-style-type: none"> <li>- Not considered so far in FRM Directive apart from “opt out” clause. WFD derogations/exemptions should apply to FRM measures that can negatively affect the achievement of the WFD’s “no deterioration” and/or “good status” objectives</li> <li>- Building/modifying man-made flood defence infrastructures that can “deteriorate” a water body’s current status and/or prevent it from achieving the “good status” objective could only go ahead if the criteria for the sustainability tests in the WFD’s Articles 4.7, 4.8 and 4.9 are met. The WFD Common Implementation Strategy WATECO guidance document should inform this with regards the “disproportionate costs” criterium</li> <li>- Water bodies affected by existing man-made flood defence infrastructures could be designated as “heavily modified water bodies” (HMWBs) and be exempted from achieving the “good ecological status” objective if the criteria for the sustainability tests in the WFD’s Articles 4.3, 4.8 and 4.9 are met. Negative impacts of such infrastructures on these water bodies would have to be mitigated as they must meet the WFD HMWBs obligations for “good ecological potential” and “good chemical status” for surface waters as well as “good quantitative status” for groundwater. The WFD Common Implementation Strategy guidance document on “HMWBs” should inform this</li> <li>- Exemption 4.6 on “temporary deterioration” of status is relevant in the case of extreme floods</li> </ul>
<p>(Article 5) River Basin District characterisation – risk analysis. According to the Water Director’s “Principles” paper, this process should be repeated over 2006-2008</p>	<ul style="list-style-type: none"> <li>- Characterisation of flood hazard and risk, in relation to existing infrastructures and other FRM measures including identification of floodplain and other natural retention areas</li> <li>- Also concerns assessing and accounting for “baseline scenarios” (i.e. future scenarios for flood risk)</li> </ul>
<p>(Article 9) Water pricing policies/cost recovery</p>	<p>Full cost recovery (financial as well as environmental and resource costs) should be applied to the infrastructures (service) supporting flood risk management. All water “users” should receive price incentives to help achieving the WFD objectives and make adequate contributions for a given “service”. Thus, human settlements or economic activities on floodplains should be understood as water “uses” if they impact the water status (chemical, ecological or quantitatively) and would need to be charged adequately. The WFD Common Implementation Strategy WATECO guidance document should inform this</p>
<p>(Article 14) Public participation</p>	<p>Needed for the public to be aware about flood hazards/risks and its endorsement/acceptance/ownership of FRM measures to deal with them. This will be difficult to achieve if these are separated from the WFD RBMPs, for which public participation is also mandatory. The WFD Common Implementation Strategy Horizontal guidance document on “Public participation” should guide this action</p>
<p>(Article 11) Developing Programmes of Measures</p>	<p>FRM – as stated in the current document – should aim at promoting sustainable flood risk management policies and measures that work with natural processes such as flood plain storage to deliver multiple benefits from flood risk management.</p> <p>The above also requires to assess the effectiveness of existing man-made flood defence infrastructures, taking into account their real capacity to prevent damage as well as their economic and environmental effectiveness. The results of this assessment should be used to upgrade flood management policies and measures.</p> <p>There are many FRM measures that do not only not have a negative impact on the WFD “no deterioration” and/or “good ecological, chemical and quantitative status” objectives but which also actually promote them. These measures should be prioritised in any FRM strategy and integrated in the WFD’s PoM. For example:</p> <ul style="list-style-type: none"> <li>- Protecting wetlands and floodplains</li> <li>- Restoring degraded wetlands and floodplains (including river meanders), especially those that reconnect rivers with their floodplains</li> <li>- Removing obsolete man-made flood defence infrastructures on rivers and other flood defences</li> <li>- Preventing further construction (infrastructures, housing etc.) on floodplains</li> </ul>

	<ul style="list-style-type: none"> <li>- Support sustainable land use practices in the catchment area to improve natural water retention<sup>6</sup> and groundwater recharge</li> <li>- Prior authorization or registration for activities in floodplains</li> </ul> <p>Flooding can cause water pollution. The WFD Article 11.3(j) on the prevention of significant losses and accidental pollution is relevant here</p>
(Article 13) Developing River Basin Management Plans	<ul style="list-style-type: none"> <li>- RBD (including flood risk) characterisation, public participation, FRM measures in PoM, exemptions (see above), etc. all need to be reported in the WFD RBMPs</li> <li>- Deadlines for revision of the WFD's RBMPs (2015, 2021, 2027, etc.) – Should also apply to flood hazard maps as well as flood risk maps and management plans</li> </ul>
(Article 16) Pollution controls	Flooding can cause water pollution, especially by priority substances as defined in this Article and related Annex X
(Article 17) Groundwater pollution	<p>Many flood risk management measures have a direct or indirect impact on the chemical composition of groundwater, depending on the extent to which they change the hydraulic connection between groundwater and surface/soil water and, thus, alter groundwater recharge rates.</p> <p>Positive impacts, reducing the chemical pollution of groundwater, can result from the following flood risk management measures aimed at increasing water retention capacities:</p> <ul style="list-style-type: none"> <li>• through changing farming practices, which, at the same time, can reduce chemical input into groundwater, e.g. organic farming</li> <li>• reducing soil sealing in urban areas, which increases groundwater recharge rates and, thus, reduces the time needed to clean up contaminated groundwater</li> </ul> <p>Negative impacts on the chemical composition of groundwater can result from many flood risk management measures that reduce groundwater renewal rates, such as the building of like dikes and other infrastructures disrupting the hydraulic connection between rivers and groundwater</p>
(Annex II) Cost-effectiveness	FRM measures that do not have a negative impact on the achievement of the WFD "no deterioration" and/or "good ecological, chemical and quantitative status" objectives should go into the WFD PoM and this has to put forward the most cost-effective combination of measures

**Nevertheless, please note that the above is just a short/summary list.** We refer you to sections 2 to 6 of the following document from the RSPB 'The Water Framework Directive and Flooding: Implications for flood defence and coastal management policy in England and Wales'. These describe in detail how an existing flood risk management regime will need to be adapted in order to ensure that it is integrated with, and contributes to the delivery of, the WFD objectives. It also includes an analysis of the correct application of the WFD exemptions for flood risk management projects. **Available at** [http://www.rspb.org.uk/Images/spaceforwaterappendix\\_tcm5-62448.pdf](http://www.rspb.org.uk/Images/spaceforwaterappendix_tcm5-62448.pdf)

**SCOPE OF THE FLOOD RISK MANAGEMENT DIRECTIVE**

- **All river basins must be covered by the FRMD.** In relation to the possibility of the FRMD applying only to river basins above a certain size, we would like to point out that flood risk management is a question of "risk" not of size. Further, a FRMD limited to international basins would not have much added value to already existing International Conventions and other bilateral agreements. This would be particularly so in small catchments, head waters and coastal zones, which are under increasing human pressure and in need of long-term and ecological sustainable flood management planning.

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<sup>6</sup> See "Mountains of Water - Water management as sport in the Rhine River Basin" WWF – Netherlands. Available at <http://www.wnf.nl/wnf/website/index.cfm?id=098E1828-ECA8-4DD7-BD590FF22AE5A939>. See also "Natural water storage in the low mountain ranges in the catchments of the Rhine and the Meuse - Storing water near the source", WWF – Netherlands, available at: <http://www.panda.org/downloads/europe/storingwaternearthesource.pdf>

- **Coastal flood risk management.** We are puzzled as to why “Coastal flood risk management plans” should be treated differently to rivers. The WFD applies equally to river and coastal water bodies and the ecological and hydro-morphological objectives of coastal water bodies encompass the inter-tidal zone. As a result, the environmental obligations of the WFD are particularly at risk from inappropriate flood risk and erosion management practices in the coastal zone<sup>7</sup> and this is why the whole river basin should be considered as a single unit for the FRM planning process.
- **“Opt out” from mapping flood hazards.** While we understand that some countries such as Finland, Sweden and Norway would not want to undertake an expensive exercise for flood hazard mapping in undeveloped areas, we cannot accept their approach for a blanket exemption from such maps. Thus, we have concerns over what will be the criteria to define and justify (this is now done on the basis of the flood hazard maps and/or flood risk maps) that the risk is now low and that this will not change in the future. We are also concerned that – unless strong criteria are developed - such an “opt -out” could be abused.

Instead, we think that some minimal hazard information must be available to inform planning and others appropriately, where the complexity/accuracy of the models used to produce this information should be directly proportional to the possible damage entailed. Further, that a flood risk screening should always be carried out to prioritise areas for which more detailed hazard and risk mapping would be necessary and, eventually, risk management planning. Most important is that there should not be any “white” spots on the European maps, as land-use developers and citizens need/have the right to know the hazards and risks and the related uncertainties. This could be part of the WFD Article 5 River Basin District characterisation.

#### **ADDITIONAL COMMENTS ON DEFINITIONS, FLOOD MAPPING AND FLOOD RISK MANAGEMENT PLANS TO THE DOCUMENT “OUTCOME OF THE DRAFTING GROUP MEETINGS ON 4 AND 30 MARCH 2005”**

##### **1. Defining “Protection”.** We consider that:

- This should be better called “Reduction”
- The wording “(*reducing*) the likelihood of floods” should be deleted as this is not in line with a new “flood risk management culture”
- The wording “*by promoting appropriate land-use, agricultural and forestry practices throughout the river basin*” used in the definition of “Prevention” should be better placed at the end of this definition of “Reduction”.

##### **2. Flood mapping**

- “General purposes”: We consider that a general purpose of flood mapping should be “*to support the integration of flood risk management policies with wider environmental protection objectives*”. This is because while managing the flood risk posed to the environment - as stated in the current document - may be necessary in some circumstances, it is important to note that the vast majority of such a risk is by the interventions themselves e.g. flood defences, channel deepening/widening etc. We, therefore, propose this additional “general purpose”, which links flood risk management with environmental integration, given in particular that the FRM Directive would be proposed under TEU Article 175(1).
- Developing flood risk maps “where required”. We consider that criteria for assessing “where required” should be developed in order to ensure that an adequate level of information is provided for planners and citizens alike for all river basins.

##### **3. Elements of flood hazard maps**

- Having 3 frequencies of flood events shown in the maps might be considered as being too much for some countries (e.g. Nordic) and too little for others (e.g. Netherlands). However, we disagree on the basis that the complexity/accuracy of the models used to produce this information should be directly proportional to the possible damage. In addition, we consider that this paragraph should be re-worked as the terminology used to express frequency is wrong and meaningless. We should be speaking about “probability” and, in this respect, “high” means 1/10 years, “medium” 1/100 years and “low” 1/1000 years.

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<sup>7</sup> See “Changing Estuaries, changing views”, Erasmus University, Rotterdam and Radboud University, Nijmegen (commissioned by WWF Netherlands), 2004, available at: <http://www.panda.org/downloads/europe/changingestuaries.pdf>

- We believe that “*information about which areas for natural floodplain storage and areas that can serve as a retention/buffer area at present or in the future (conveyance)*” should not be preceded by a “*And where appropriate*” heading. This is because an understanding of these areas is fundamental to sustainable flood risk management and should be a basic requirement. Where such information is unknown, and detailed investigation is not justified on the basis of low risk to people/property, it could be assumed that the whole floodplain should be included. In addition, similar goals are found elsewhere in the document, confirming that this is a “mandatory” activity and not an “option”. Thus, if this identification is not “mandatorily “required here, the information will not be available later on when it is needed “mandatorily”.
  - Reference to “*degree of danger*” should be change to “*degree of hazard*” for consistency with definitions, etc.
4. **Flood Risk Management Plans.** Reference to “*pollution control*” is missing from the paragraph on “*Holistic, integrated approach*” as one of the principles guiding the development of these plans.
  5. **Opt-out clause.** Reference “*no significant potential damage*” is meaningless, needs to be more precise. A better (but still not very meaningful option) is “*no potential damage and/or significant risk*”, given that the “opt-out” relates to both the flood hazard maps and/or flood risk maps. However, as mentioned above, note that we are against blanket exemptions for producing hazard and risk maps. Instead we propose a minimum hazard and damage mapping that allows for further risk-based prioritisation as determined by density and other data, identifying areas for which risk management plans are necessary.
  6. **Transitional period.** Should be changed to “*transitional provision*” to be accurate. Also reference to “*broadly*” should be deleted or the whole paragraph becomes meaningless. Further, the existing wording “*based on*” already means that it does not need to be identical.

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