



European Parliament  
To: Mr. R. Seeber  
60, Rue Wiertz  
Bureau 8 F 161  
B-1047 Brussel

**Date**

15 January 2007

**Contact person**

Fred van den Brink (Province of Limburg, NL)

**Our reference**

FLAPP-2006-V106

**Subject**

FLAPP statement on the principle of sustainability with respect to flood management

**Attachments**

2

**Contact details**

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**Your reference**

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Dear Mr. Seeber,

**Members of the European FLAPP network call for a stronger focus on the principle of sustainability with respect to flood management. In particular the role and benefits of wetlands should be addressed.**

In the opinion of several FLAPP-partners (for explanation of FLAPP, see below) the proposal of the EU Flood Risk Management Directive (FRMD) of 18 October 2006 is rather poor in its recommendations and guidelines towards sustainable flood management. The FRMD focuses on the negative aspects of floods, including negative effects on nature, without stressing the important role and benefits of floods for the ecological functioning of wetlands and without pointing towards the benefits of wetlands in the prevention and mitigation of the effects of floods. Since wetlands are protected by international agreements and directives, and because of the various wetland services for society, the role of wetlands in the FRMD should be stressed (see annexes I and II).

In their 4<sup>th</sup> conference in Debrecen, Hungary, on 26 and 27 October 2006 several FLAPP members put forward that flood management is a part of integrated river basin management and measures should therefore be based upon a holistic approach. In the explanatory context of the FRMD it should be made clear that within sustainable flood management a shift is necessary from a defence strategy towards a resilience strategy, including concepts such as "room for the river" and "living with floods". In fact, this shift already has been put in practice nowadays in some countries.

Realizing that the FRMD will not be descriptive in its proposed measures the development of a guidance document on sustainable flood management is strongly recommended. Because of the special importance of wetlands within flood management also a horizontal guidance document on the role of wetlands in the FRMD is recommended.



In our letter from 13 April 2006 the FLAPP-partners amended on the solidarity principle. Although in our opinion article 7.4 has not really been strengthened, the incorporation of recital 15 in the directive may stimulate members to seek a common cross-border benefit.

*About FLAPP*

FLAPP stands for 'Flood Awareness & Prevention Policy in border areas'. It is an EU-funded network which enables responsible local and regional actors in European river systems and their feeders to form partnerships. Partners of the FLAPP network can learn from each other by transferring and exchanging successful flood management approaches on an informal basis. The aim of the FLAPP network is to improve sustainable solutions regarding flood awareness and prevention in Europe's border areas.

The FLAPP network consists of 37 organisations in 14 different countries in Europe. Partners are spread over several river basins, amongst which are the rivers Danube, Tisza, Ebro, Meuse, Rhine, Scheldt, Elbe and Oder. Three partners are located in non-EU countries (Romania and Serbia-Montenegro). FLAPP participants range from local and regional water managers on the operational level to policy makers and university researchers. See for more information the attached brochure and the following website: [www.flapp.org](http://www.flapp.org)

Kind regards,



Ed Eggink  
President



Annelieke Laninga-Busch  
Project manager

# ANNEX I

## Role of wetlands for society

### Wetlands perform the following vital functions and services for society:

- Prevention and mitigation of flood damage:

Wetlands can play a crucial role in preventing and mitigating floods through their sponge-like function by absorbing flood waters and impeding the rush of storm runoff, allowing for a slower discharge of water flow and a reduction of the height of the flood pulse. The preservation of wetlands is in certain circumstances necessary to reduce the risk of downstream flooding.

- Replenishment of water supplies:

Wetlands can help replenish the drinking water supplies on which communities depend by recharging the groundwater aquifer.

- Improvement of water quality:

Wetlands can serve as natural filters and sinks for pollutants from waste water, (e.g. fertilizers and toxic compounds and as sediment traps), by removing excess nutrients, toxic materials and sediments from the water that flows through them. Hence they play a distinct role in the natural process of self purification of rivers and streams and contribute to the improvement of the water quality.

- Provision of wildlife habitat and ensuring biodiversity

Wetlands are crucial stopovers for migrating waterfowl and shorebirds, they provide spawning and feeding areas for fish, and habitats for amphibians, insects and vegetation. Wetlands are among the most damaged and threatened ecosystems of the world. Since wetlands, often hot spots for biodiversity, are protected by international commitments, such as the Ramsar Convention, the EU Habitats and Birds Directives and the Convention on Biodiversity, the essential processes relevant for their ecological functioning should be protected as well. Wetlands are dependent on a dynamic hydrological regime, natural water level fluctuations and regular floods for their ecological functioning. This hydrological regime varies from periods with high water levels with strong currents to periods with stagnant water and falling dry of large areas. Floods are essential for rejuvenation processes, the connection of floodplain habitats with the main channel, for the creation of new habitats, and thereby to habitat and species diversity, but also for essential biogeochemical processes. Hydrological problems should not be passed on to the ecological values of wetlands. Although floods are essential for the ecological functioning of wetlands, there are limitations: too much flooding with stagnant water may degrade the nature values of wetlands. Groundwater-fed wetlands are especially vulnerable to unnatural, man-induced floods which would lead to unnatural long periods of flooding during the growth season with water of a poor quality. Flood regulation measures such as dams and sluices may form obstacles for migratory fish, and are highly detrimental to river dynamics, with special reference to sediment transportation.

- Recreation, food and materials:

Wetlands offer recreational services and may be used for hunting, angling, canoeing and the supply of wood and reed, depending on the ecological carrying capacity. These can be important sources of revenue for local communities who depend on industries such as tourism as a basis or as a supplement to their income.

# ANNEX II

## Detailed remarks and comments on proposed text Flood Risk Management Directive (version 18-10-2006)

### Title

The title of the Directive itself is quite negative since it relates *floods* to *risks* and focuses on the prevention of both, while the real prevention should be pointed to the *risk of damage to certain functions* (e.g. housing, living, certain forms of agriculture) caused by floods and not to the floods themselves: floods are not a risk in itself, but may cause a risk for certain spatial functions.

### Preliminary flood risk assessment (Chapter II)

Article 4.2. "The preliminary flood risk assessment shall include at least the following:"

b) "a description of the floods which have occurred in the past and which had significant adverse impacts on human health, the environment, cultural heritage and economic activity and for which the likelihood of similar future events is still relevant, including their flood extent and conveyance routes and an assessment of the adverse impacts they have entailed, **together with a description of the relevance of flooding processes for wetland functioning, including the role of floodplain and other wetland areas outside the floodplain as natural flood retention zones and potential flood mitigation zones now or in the future**". (bold: proposed text to be added)

d) "an assessment of the potential adverse consequences of future floods for human health, the environment, cultural heritage and economic activity, taking into account as far as possible issues such as the topography, the position of watercourses and their general hydrological and geomorphological characteristics, the position of populated areas, areas of economic activity, **potential flood mitigation areas and protected nature reserves, including wetlands** and long-term developments including impacts of climate change **and land use trends** on the occurrence of floods". (bold: proposed text to be added)

### Explanatory context: (to be addressed in the recitals)

Wetlands may function as natural buffers for temporal storage of excessive water, flood retention and flow regulation. Indeed, the zoning of flood prone areas as ecological reserves or protected wetlands is nowadays recognized as a sustainable measure to develop "room for the river". Since the periods with excessive water are expected to increase as a result of climate change, and since the spatial pressure on wetlands might increase as a result of population growth and economic development, it is absolutely necessary to reserve room for river floods in spatial plans.

**The preliminary flood risk assessment should take into account future nature development in**

**the river space and its influence on water discharge as one of the variables that might**

**influence the functioning of the system, preventing actions of maintenance due to**

**excessive growth of vegetation. Wetlands outside floodplain areas such as wet forests on**

**hill slopes or peaty flatland areas in the small upstream tributaries of large rivers, thus**

**outside the large floodplains in downstream areas, can play an important role in flood**

**management because of their water storage capacity.**

### Flood hazard maps and flood risk maps (Chapter III)

Article 6.1. "Member States shall, at the level of the river basin district or unit of management referred to in Article 3(2)(b), prepare flood hazard maps and flood risk maps, **together with an indication of actual and potential flood retention and mitigation areas, including wetlands**, at the most appropriate scale for the areas identified under Article 5(1)". (bold: proposed text to be added)

Explanatory context: (to be addressed in the recitals)

According to the FRMD maps should be developed on which areas are plotted with their risk on flooding in relation to potential damage. Apart from sites with potential damage also areas which are beneficial for flood retention should be mapped. Wetlands may be such beneficial areas, since the occurrence of natural floods is essential for their ecological functioning and the conservation of their biodiversity. Since these wetlands are often remains of a former larger wetland area, a possible extension of these nature reserves by nature development and floodplain restoration (transforming former farmland into nature reserves) may in fact enlarge the flood retention capacity and may help to reduce the effects of floods in downstream areas. In addition, nature areas which are sensitive to flooding with eutrophic or otherwise polluted river water, should also be plotted on the map. This more extensive mapping leads towards an integrated, sustainable approach, which takes into account both the benefits and the possible damages of floods in relation to all spatial functions, so that flood prevention or flood reduction measures for economic or social functions will not have adverse effects on the functions and services of nature areas.

Flood hazard and flood risk maps should therefore not just focus on potential (economic) damage, but also include the areas where floods are essential for the ecological functioning of the river and its floodplain and the provision of associated services. This must include wetlands in upstream parts of the catchment which are hydrologically connected to the floodplains and play a role in regulating flow during flood events. Such areas are of interest for natural water storage processes and should be protected from the view of sustainable flood risk management.

#### **Flood risk management plans (Chapter IV)**

Article 7.3. "Flood risk management plans shall include **sustainable** measures that aim at achieving the objectives established in accordance with paragraph 2 and shall include the components set out in Part A of the Annex. Flood risk management plans shall take into account relevant aspects such as costs and benefits, flood extent and flood conveyance routes and areas which have the potential to retain flood water, **including wetlands**, the environmental objectives of Article 4 of Directive 2000/60/EC, soil and water management, spatial planning, land use, nature conservation, navigation and port infrastructure. Flood risk management plans shall address all aspects of flood risk management focusing on prevention, **mitigation**, protection, preparedness, including flood forecasts and early warning systems and taking into account the characteristics of the particular river basin or sub-basin. Flood risk management plans may also include the controlled flooding of certain areas in the case of a flood event, **but the proposed measures should preferably contribute to the ecological functioning of wetlands and should not lead to a loss of nature values.**" (bold: proposed text to be added)

Explanatory context: (to be addressed in the recitals)

The recommendations of the FRMD at the operational level on the kind of measures to be taken is rather poor. Although the principles of subsidiarity and solidarity are addressed, a recommendation on sustainable source and nature orientated measures would be appropriate and in line with the WFD, which demands a good ecological status (or potential) of water bodies and ground water dependent ecosystems. Restoration of the river hydromorphology by the development of more room for the river may contribute to both sustainable flood risk management as well as the ecological functioning.

Flood prevention and flood reduction measures should be based on the principle of sustainability, taking full account of the ecological dimension, thereby embracing the principles of the WFD. The WFD focuses on water quality and the conservation and restoration of the Natura 2000 areas, which includes many wetlands. When the ecological functioning of these wetlands should improve or at least be conserved, it means that ecologically relevant processes, such as flooding are important and should be maintained in function as well. Flood protection measures should take into account the importance of natural flood regimes for the ecological functioning and the conservation of biodiversity of wetlands.

Priority should be given to integrated water management measures for the whole catchment area rather than to the management of floods as such. Measures are only effective when coordinated throughout the entire catchment area, which stresses the importance of cross-border initiatives.

Water conservation measures in infiltration areas in upstream reaches (e.g. in the upstream country) are complementary to flood prevention and mitigation measures in downstream parts. Nature reserves (wetlands) can act as a natural sponge and play a role in flood prevention as well in flood protection. The downstream region may benefit from the measures taken upstream and

may participate in sustainable flood retention measures, such as the ecological development and reactivation of floodplains.

In Europe there are many border areas that are characterised by wetlands; historically the presence of the wetland and its associated impenetrability has often formed part of the rationale for the border. Therefore management of cross-border wetlands is a critical part of flood risk management in Europe. To achieve this it is absolutely necessary to adjust the water management on both sides of the border; a joint flood defence strategy should be based upon a river basin approach.

**The development of guidance documents on sustainable flood management and on the role of wetlands in the FRMD is highly recommended.**