Flood assessment and management ***I


(Codecision procedure: first reading)

The European Parliament,

– having regard to the Commission proposal to the European Parliament and the Council (COM(2006)0015)¹,

– having regard to Article 251(2) and Article 175(1) of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C6-0020/2006),

– having regard to Rule 51 of its Rules of Procedure,

– having regard to the report of the Committee on the Environment, Public Health and Food Safety and the opinion of the Committee on Regional Development (A6-0182/2006),

1. Approves the Commission proposal as amended;

2. Calls on the Commission to refer the matter to Parliament again if it intends to amend the proposal substantially or replace it with another text;

3. Instructs its President to forward its position to the Council and Commission.

¹ Not yet published in OJ.
POSITION OF THE EUROPEAN PARLIAMENT

POSITION OF THE EUROPEAN PARLIAMENT

adopted at first reading on 13 June 2006


(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175 (1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee 1,

Having regard to the opinion of the Committee of the Regions 2,

Acting in accordance with the procedure laid down in Article 251 of the Treaty 3,

Whereas:

(1) Floods have the potential to cause fatalities, displacement of people and damage to the environment, severely compromise economic development and undermine the economic activities of the Community.

(2) Floods are natural phenomena which cannot be completely prevented. However, the massive reduction in the natural flood retention capacity of river basins, the mismanagement of human activities (such as increasing human settlements and economic assets in floodplains and the erosion and reduction of the natural water retention of land by cutting down forests and farming in river basins), droughts and global warming are contributing to an increase in the likelihood and adverse effects of floods.

---

1 OJ C...
2 OJ C...
3. Traditional flood risk management strategies, centred on building infrastructures for the immediate protection of people, real estate and goods, have failed to ensure safety to the extent that they were supposed to.

4. It is feasible and desirable to reduce the risk to human health and life, the environment and infrastructure associated with floods. However, measures to reduce this risk must be co-ordinated between Member States, their national, regional and local authorities and organisations responsible for river management throughout river basins.

5. Member States are encouraged to take measures which benefit flood risk management in upstream or downstream areas within and outside their territory, keeping to the natural course of the river wherever possible. Where this is not possible, Member States should endeavour to find compensatory areas on their own territory, or should seek such areas in cooperation with other Member States.

6. Scientists unanimously observe that the frequency of extreme precipitation has increased in recent years.

7. Risk management and flood damage containment measures should respect the principle of solidarity. Consequently, flood risk management along the catchment basin of a river flowing between two or more neighbouring countries should be organised in such a way that no area faces flood risks as a result of non-sustainable river management.

8. The Council (Environment) acknowledged, in its conclusions of 14 October 2004, that 'human activity contributes to the increase in the likelihood and adverse impacts of (extreme) flood events and that climate change will cause an increase of floods as well'. In accordance with the principle of sustainable development as laid down in Article 37 of the Charter of Fundamental Rights of the European Union, a high level of environmental protection must be integrated into the policies of the Union. The Commission and the Member States should therefore take measures to improve flood prevention, protection against flood risks and damage mitigation.
(9) **At present there is no legal instrument at European level for protection against flood risks.** Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy\(^1\) requires integrated management plans to be developed for each river basin in order to achieve good ecological and chemical status, and it will contribute to mitigating the effects of floods. However, reducing the risk of floods is not one of the principal objectives of that Directive. *That risk, which will become more frequent in the future as a result of climate change, is not taken into account.*

(10) The Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “Flood risk management; flood prevention, protection and mitigation”, which sets out its analysis and approach to managing flood risks at Community level, states that concerted and *coordinated* action at the level of the Community would *bring considerable* added value and improve the overall level of flood protection.

(11) Council Decision 2001/792/EC, Euratom of 23 October 2001 establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions\(^2\) mobilises support and assistance from Member States in the event of major emergencies, including floods. Civil protection can provide adequate response to affected populations and improve preparedness and *resilience*; it *does not*, however, address the root causes of floods.

(12) Under Council Regulation (EC) No 2012/2002 of 11 November 2002 establishing the European Union Solidarity Fund\(^3\) it is possible to grant rapid financial assistance in the event of a major disaster to help the *ecosystems*, people, regions and countries concerned to return to living conditions that are as normal as possible; *such intervention may cover only emergency operations, and not the phases preceding an emergency.*

---

(13) Most river basins in Europe are split between Member States. Effective prevention of and intervention against floods requires, in addition to coordination at Community level, cross-border cooperation.

(14) The provisions on sustainable flood risk management should be taken into account by the Member States and the Community when laying down and implementing all their policies, including for example transport policy, spatial planning, urban development, and industrialisation policy, agricultural policy, cohesion policy, energy policy and research policy.

(15) Throughout the Community different types of floods occur, such as river floods, flash floods, urban floods, sewer floods, coastal floods and floods caused by heavy rainfall. The damage caused by flood events may also vary across the countries and regions of the Community. Hence, objectives regarding flood risk management should be based on the local and regional circumstances.

(16) Flood risks in certain areas within the Community may be considered not to be significant, for example in thinly populated or unpopulated areas or in areas with limited economic assets or ecological value. Such areas may, however, be of significance in flood mitigation. A preliminary assessment of the flood risks in each river basin, sub-basin and associated coastal area should be undertaken at the level of the river basin district to determine the flood risk in each case, the flood mitigation potential and whether further action is needed.

(17) In order to dispose of a valid tool for information, as well as a valuable basis for priority setting and further technical, financial and political decisions, it is necessary to provide for the establishing of flood maps and indicative flood damage maps describing areas with different levels of flood risk, including the risk of environmental pollution as a consequence of floods.
(18) In view of the existing capabilities of Member States and in accordance with the principle of subsidiarity, considerable flexibility should be left to the local and regional level, in particular as regards organisation and responsibility of authorities, flood management plans and risk maps, the level of protection and the measures and the timetables to achieve the objectives set.

(19) With a view to avoiding and reducing the negative impact of floods on the area concerned it is appropriate to provide for flood risk management plans. The causes and consequences of flood events vary across the countries and regions of the Community. Flood risk management plans should therefore take into account the particular geographic, geological, hydrologic, topographical and other relevant circumstances, including population density as well as the economic activities of the affected river basin, sub-basin or stretch of coastline, and provide for tailored solutions according to the needs and priorities of the river basin, sub-basin or coastline, whilst ensuring coordination with river basin districts. Flood risk management plans should also take into consideration industrial and agricultural facilities and other possible sources of pollution of the area concerned in order to prevent such pollution.

(20) The flood risk management cycle which includes the steps Prevention, Protection, Preparedness, Emergency response and Recovery and review should be one of the underlying elements of the flood risk management plans with a focus on the aspects of prevention, protection and preparedness.

(21) To prevent duplication of work Member States should be able use existing flood risk maps and flood risk management plans for the purposes of satisfying the requirements of this Directive.
The Commission Joint Research Centre is developing a European Flood Alert System (EFAS) that is capable of providing medium-range flood simulations across Europe with a lead-time of between three and ten days. EFAS data might contribute to increased preparedness in an upcoming flood event. Therefore EFAS should be further pursued once the testing phase is concluded. It could become operational presumably in 2010.

River basin flood management should aim to create a common responsibility and solidarity within the basin. To that end Member States should endeavour to raise awareness and encourage cooperation among all stakeholders as well as in areas that are not, or are less, prone to flooding but which can contribute by their land use and practices to downstream or upstream floods.

As to short-term forecasting, the Member States should base their plans on the best practice available and state-of-the-art technologies such as LAM modelling (two to four-hour forecasting).

Development of river basin management plans under Directive 2000/60/EC and of flood risk management plans under this Directive are elements of integrated river basin management, the two processes should therefore use the mutual potential for synergies. To ensure efficiency and wise use of resources, implementation of this Directive needs to be closely coordinated with that of Directive 2000/60/EC.

Where water bodies are used for competing forms of sustainable human activities (e.g. flood risk management, ecology, inland navigation or hydropower) with impacts on the water bodies, Directive 2000/60/EC provides for a clear and transparent process for addressing such uses and impacts. In the event of conflicting rights, priority must always been given to the protection of human health and life over the protection of the environment.
(27) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission.

(28) Since the objectives of the action to be taken cannot be sufficiently achieved by the Member States and can therefore, by reason of scale and effects of action, be better achieved at Community level, the Community may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives. Member States may, therefore, in the first stage of the work, until 2018, use their existing plans if the minimum criteria set out in Article 4 are met.

(29) The provisions of Protocol No 30, annexed to the Treaty, on the application of the principles of subsidiarity and proportionality have been fully taken into account in the drawing up of this Directive,

HAVE ADOPTED THIS DIRECTIVE:
The purpose of this Directive is to establish a framework for the assessment and management of flood risks aiming at the reduction of the adverse consequences for human health, the environment and economic activity associated with floods in the Community. Furthermore it will help to attain the environmental objectives laid down in the Community legislation in force.

Article 2

For the purpose of this Directive, in addition to the definitions of “river”, “river basin”, “sub-basin” and “river basin district” as set out in Article 2 of Directive 2000/60/EC, the following definitions shall apply:

1. “flood” means the temporary covering by water of land not normally covered by water, including as a result of heavy rainfall leading to the inundation of inhabited and/or industrial areas;

2. “flood risk” means the likelihood of a flood event together with the potential damage to human health and life, the environment and economic activity associated with that flood event.
Article 3

For the purposes of this Directive Member States shall make use of the arrangements made under Article 3(1), (2), (3), (5) and (6) of Directive 2000/60/EC.

If Member States designate a different competent authority for the purpose of implementing this Directive, the provisions of Article 3(6), (8) and (9) of Directive 2000/60/EC shall apply.

Chapter II
Preliminary flood risk assessment

Article 4

1. Member States shall, for each river basin district or the portion of an international river basin district lying within their territory, undertake a preliminary flood risk assessment in accordance with paragraph 2. Existing assessments prepared by Member States which meet the requirements of this Directive may be used for this purpose.

2. The preliminary flood risk assessment shall include at least the following:

(a) a map of the river basin district including the borders of the river basins, sub-basins and coastal areas, showing topography and land use;

(b) a description of the floods which have occurred in the past and which have had significant adverse effects on human lives, economic activities and the environment;
(c) a description of flooding processes, including their sensitivity to change, particularly subsidence, and the role that floodplain areas play as a natural retention-buffer of floods as well as a description of present and future flood conveyance routes;

(d) a description of development plans that would entail a change of land use or of allocation of the population and distribution of economic activities resulting in an increase of flood risks in the area itself or in upstream or downstream regions;

(e) an assessment of the likelihood of future floods based on hydrological data, types of floods and the projected impact of climate change and land use trends;

(f) a forecast of the estimated consequences of future floods for human health, the environment and economic activity taking into account long-term developments including climate change;

(g) flood risk management measures, especially those related to the building of infrastructures, should be subject to a sound and transparent economic and environmental appraisal to ensure their long-term viability for citizens and businesses, taking into account the principle of cost-recovery, including environmental and resource costs;

(h) an assessment of 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.
3. **Member States may decide, in respect of river basins, sub-basins and stretches of coastline for which a sufficient potential risk may already be assumed, to dispense with the preliminary flood risk assessment referred to in paragraph 1, provided that:**

(a) flood risk maps or flood risk management plans are already available as of the date referred to in Article 6(1);

(b) the Member States inform the Commission by the date referred to in Article 6(1) that they intend to make use of this derogation; and

(c) the review of the preliminary flood risk assessment, of flood risk maps and of flood risk management plans in accordance with Chapters II, III and IV is carried out by the deadlines given in Articles 6(2), 8(2) and 10(2) respectively.

**Article 5**

1. On the basis of the assessment set out in Article 4, each river basin, sub-basin, stretch of coastline or parts thereof covered by a river basin district shall be assigned to one of the following categories:

(a) River basins, sub-basins, stretches of coastline or parts thereof for which it is concluded that no potential significant flood risks exist or that the potential consequences to the environment or economic activity are considered to be acceptably low, taking into account foreseeable land use or climate change;

(b) River basins, sub-basins or stretches of coastline for which it is concluded that potential significant flood risks exist.
2. The assignment under paragraph 1 of an international river basin or sub-basin, stretches of coastline or parts thereof covered by an international river basin district, shall be coordinated between the Member States concerned.

Member States shall ensure the relevant data transfer within shared river basins for the purposes of this Article.

Article 6

1. Member States shall complete the preliminary flood risk assessment at the latest by ...

2. Member States shall review, and if necessary update, the assessment under paragraph 1 at the latest in 2018 and every six years thereafter.

Chapter III
Flood risk maps

Article 7

1. Member States shall, at the level of the river basin district, prepare flood maps and indicative flood damage maps, hereinafter “flood risk maps”, for the river basins, sub-basins and stretches of coastline identified under Article 5(1)(b). Existing maps prepared by Member States, which meet the requirements of this Directive, may be used for this purpose. Member States shall use the flood risk maps to phase out direct or indirect subsidies that have the effect of increasing flood risks.

2. The flood maps shall cover the geographical areas which could be flooded according to the following scenarios:

---

* Three years after the date of entry into force of this Directive.
(a) floods with a likely return period of once every 10-30 years;
(b) floods with a likely return period of once every 100 years;
(c) floods with a low probability (extreme events).

For each scenario set out in the first subparagraph the following elements shall be shown:

(a) projected water depths;
(b) the flow velocity, where appropriate;
(c) areas which could be subject to erosion of flood terraces and slopes of river valleys and to bank erosion and debris flow deposition;
(d) steeply sloping areas which could be subject to floods with a high flow velocity and large quantities of debris;
(e) agents potentially capable of causing floods that can or might be found in the area marked out on the risk map;
(f) floodplains and other natural areas that can serve as a retention/buffer area at present or in the future.

3. The indicative flood damage maps shall show the potential adverse consequences associated with floods under the scenarios referred to in paragraph 2 and expressed in terms of the following:
(a) the number of inhabitants potentially affected;

(b) potential economic damage in the area;

(c) potential damage to the environment – including areas designated as protected areas under Article 6 of Directive 2000/60/EC, taking into account location of point or diffuse sources of pollution and associated risks to aquatic or terrestrial ecosystems in case of flood events – and risk to human health;


Flood risk maps may divide areas into zones according to land use and vulnerability to any likely damage.

4. Member States shall determine the specific points at which the flood risk is higher. That information must be taken into account in land use planning.

5. Depending on the particular characteristics of their regions, Member States may, if they think fit, include specific provisions on their flood risk maps.

---


Article 8

1. Member States shall ensure that the flood risk maps are completed by 22 December 2013 at the latest.

2. They shall be reviewed, and if necessary updated, by 22 December 2019 at the latest and every six years thereafter.

Chapter IV
Flood risk management plans

Article 9

1. Member States shall adopt and implement flood risk management plans at the level of the river basin district, for the river basins, sub-basins and stretches of coastline identified under Article 5(1)(b) in accordance with paragraphs 4 and 5 of this Article, with Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds\(^1\) and with Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora\(^2\), and in accordance with the objectives laid down in Articles 1 and 4 of Directive 2000/60/EC.

2. In preparing these plans, Member States shall describe flooding processes and their sensitivity to change, including the role of floodplain areas as a natural retention/buffer of floods and flood conveyance routes at present or in the future. They shall also describe development plans that would entail a change of land use or of allocation of the population and distribution of economic activities resulting in an increase of flood risks in the area itself or in upstream or downstream regions.

---


3. If maps or plans are already available for river basin districts or parts thereof which meet the requirements of this Directive, Member States may use the existing maps or plans for the purposes of this Directive. The requirement to review and update them laid down in Article 11(2) shall still apply.

4. Member States, in close association with local and regional authorities, shall establish appropriate levels of protection specific to each river basin, sub-basin or stretch of coastline, focusing on a reduction of the potential consequences of flooding for human health, the environment and economic activity, and taking into account relevant aspects: water management, soil management, spatial planning, land use, the vulnerability of the area in question to any likely damage and nature conservation, as well as costs and benefits. In the case of shared river basins, sub-basins or stretches of coastline, Member States shall cooperate in the implementation of the above obligations. Human uses of floodplains should be adapted to identified flood risks.

5. The flood risk management plans shall include measures that:

(a) work with natural processes such as maintenance and/or restoration of floodplains in order to give back space to the rivers wherever possible and promote appropriate land use and agricultural and forestry practices throughout the river basin;

(b) contribute to the management of floods in upstream or downstream regions or at least do not affect the flood risks in such a way that upstream or downstream regions incur disproportionate costs in achieving the appropriate level of risk prevention and protection;

(c) take into account the effectiveness of existing man-made flood defence infrastructures, including their economic and environmental effectiveness.
The flood risk management plan shall address all phases of the flood risk management cycle focusing on prevention, protection, preparedness, and taking into account the characteristics of the particular river basin or sub-basin. The flood risk management plan shall also include an assessment of rescue and recovery measures.

The flood risk management plan shall include measures to prevent accidental pollution from technical installations, as referred to in Annex I of Directive 96/61/EC and covered by Directive 96/82/EC, as a consequence of flooding.

6. Flood risk management measures, especially those related to the building of infrastructures, should be subject to sound and transparent economic and environmental appraisal to ensure the long-term viability of their service for citizens and businesses, taking into account the principle of cost recovery, including environmental and resource costs.

7. In line with the principle of solidarity, measures in upstream or downstream areas should be considered, where appropriate, as part of the flood risk management plans. Flood risk management measures, or any other measures, taken in one Member State must not increase flood risks in neighbouring countries.

8. Where a Member State intends to significantly change the implementation measures or the timetable set for implementation in between the review periods provided for in Article 11(2), Member States shall take the appropriate action to ensure coordination with other Member States within an international river basin district, and public information and participation.
Article 10

1. The first flood risk management plan shall include the components set out in Part A of the Annex. The subsequent review, in accordance with Article 11(2), shall include the components set out in Part B of the Annex.

2. Member States shall submit to the Commission an interim report describing the progress in the implementation of the planned measures within three years of publication of each flood risk management plan or update.

Article 11

1. Member States shall ensure that flood risk management plans are completed and published by 22 December 2015 at the latest and implemented from 23 December 2015.

2. The flood risk management plan(s) shall be reviewed and updated in 2021 at the latest and every six years thereafter.

Article 12

1. For river basin districts which fall entirely within their territory, Member States shall ensure that one single flood risk management plan is produced.

2. In the case of an international river basin district falling entirely within the Community, Member States shall ensure coordination, for example by developing networks for the exchange of information between the competent authorities, with the aim of producing one single international flood risk management plan. Accession and candidate countries are strongly encouraged to cooperate actively in such coordinating actions.
Where such a plan is not produced, Member States shall produce flood risk management plans covering at least the parts of the international river basin district falling within their territory. In drawing up such plans, they shall consult the Member States situated in the international river basin, report on the views of these Member States and take account of the impact of their plans on neighbouring Member States.

3. Member States shall ensure that the requirements of this Directive are coordinated for the whole of the river basin district. For international river basin districts the Member States concerned shall together ensure this coordination and may, for this purpose, use existing structures stemming from international agreements.

4. In the case of an international river basin district extending beyond the boundaries of the Community, where one single international flood risk management plan including any third country concerned is not produced, the Member State or Member States concerned shall endeavour to establish appropriate coordination with the relevant third countries, with the aim of achieving the objectives of this Directive throughout the river basin district.

5. With regard to any issues which have an impact on flood risk management in a Member State and which cannot be dealt with at Member State level, reference is made to Article 12 of Directive 2000/60/EC.
Chapter V
Coordination with Directive 2000/60/EC, public information and participation

Article 13

1. The development of the first flood risk maps and their subsequent reviews as referred to in Article 8 of this Directive shall be carried out in close co-ordination with, and integrated into, the reviews provided for in Article 5(2) of Directive 2000/60/EC.

2. The development of the first flood risk management plans and their subsequent reviews as referred to in Article 10 of this Directive shall be carried out in close coordination with, and integrated into, the reviews of the river basin management plans provided for by Article 13(7) of Directive 2000/60/EC.

3. Member States shall ensure that the active involvement of all interested parties under Article 14 of this Directive is coordinated with the active involvement of all interested parties under Article 14 of Directive 2000/60/EC.

Article 14


---

2. Member States shall ensure an active involvement of all interested parties in the production, review and updating of the flood risk management plans referred to in Chapter IV.

3. **Member States shall inform and actively involve the public to ensure a high level of preparedness as part of the flood risk management plans in order to minimise the damaging effects of floods.**

Chapter VI
Implementing measures and amendments

Article 15

1. The Commission may, in accordance with the procedure referred to in Article 16(2), adopt technical formats for the purpose of transmission and processing of data, including statistical and cartographic data.

2. The Commission may, taking into account the periods for review and updating and in accordance with the procedure referred to in Article 16(2), adapt Article 4(2), Article 7(2) and (3) and the Annex to scientific and technical progress.

3. **Member States shall provide the inhabitants of areas referred to in Article 7(2) with information and training on a regular basis, so as to enable them to take appropriate pre-flood precautions and post-flood action.**
Article 16

1. The Commission shall be assisted by the committee established under Article 21 of Directive 2000/60/EC (hereinafter referred to as "the Committee").

2. Where reference is made to this paragraph, the Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 17

1. Member States may decide not to draw up the preliminary flood risk assessment referred to in Article 4 for those river basins and stretches of coastline for which it has been established by ... that a potential significant flood risk exists or might reasonably be considered likely to occur to the extent that they must be identified as areas referred to in Article 5(1)(b).

2. Member States may decide by ... to use current flood risk maps if they fulfil the requirements of the maps referred to in Article 7.

3. Member States may decide not to draw up the flood risk management plans referred to in Article 9 if current plans as at ... are appropriate for achieving the objectives laid down in Articles 1 and 9.

4. Member States shall notify the Commission of their decisions pursuant to paragraphs 1, 2 and 3 within the deadlines provided for in Article 6(1), Article 8(1) and Article 11(1).

* Date of entry into force of this Directive.
Chapter VII
Reports and final provisions

Article 18

Member States shall submit the preliminary flood risk assessment, the flood risk maps and flood risk management plans, **including cross-border flood risks**, to the Commission within three months after their completion.

Article 19

The Commission shall, by 22 December 2018 *at the latest* and every six years thereafter, submit to the European Parliament and to the Council a report on the implementation of this Directive. **The impact of climate change shall be taken into account in drawing up this report.**

Article 20

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by * at the latest. They shall forthwith communicate to the Commission the text of those measures and a correlation table between those measures and this Directive.

   When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. **The methods of making such reference shall be laid down by Member States.**

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

---

* Two years after the date of entry into force of this Directive.
Article 21

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 22

This Directive is addressed to the Member States.

Done at ,

For the European Parliament For the Council
The President The President
Annex

Flood risk management plans

A. Components of the first flood risk management plans:

1. the conclusions of the preliminary flood risk assessment as required in Chapter II;

2. flood risk maps as prepared under Chapter III, and the conclusions that can be drawn from those maps;

3. a description of the appropriate level of protection, established in accordance with Article 9(4);

4. a description of the measures required to achieve the appropriate levels of protection including the measures taken in accordance with Article 9, and flood related measures taken under other Community acts;

5. a prioritisation of the measures that promote the prevention of damage according to the "non-deterioration" and/or "good ecological, chemical and quantitative status" objectives of Directive 2000/60/EC, such as:

   – protecting wetlands and floodplains,

   – restoring degraded wetlands and floodplains (including river meanders), especially those that reconnect rivers with their floodplains,

   – removing obsolete flood defence infrastructures from rivers,
– preventing further construction (infrastructures, housing, etc.) in floodplains,
– promoting construction measures to upgrade existing buildings (such as pile foundation),
– supporting sustainable land use practices in catchment areas, such as reafforestation, in order to improve natural water retention and groundwater recharge,
– prior authorisation or registration for permanent activities in floodplains such as construction and industrial development;

6. a description of the public information and consultation measures/actions taken;

7. a description of the coordination process within any international river basin district and of the coordination process with Directive 2000/60/EC, and a list of competent authorities.
B. Components of the subsequent update of flood risk management plans:

1. any changes or updates since the publication of the previous version of the flood risk management plan, including a summary of the reviews carried out in Chapters II, III and IV;

2. an assessment of the progress made towards the achievement of the level of risk prevention and protection;

3. a description of, and an explanation for, any measures foreseen in the earlier version of the flood risk management plan which have not been undertaken;

4. a description of any additional measures since the publication of the previous version of the flood risk management plan.