

Environmental and Climate Regional Accession Network

Water Management Working Group

Screening Workshop at Drina River Basin

23 June, Podgorica, Montenegro

***GUIDELINES ON SCREENING, EVALUATION AND SELECTION OF VIABLE PROGRAMME
OF MEASURES (PoMs)***

This document is relevant to agenda item 2.3.2. Assistance in the development of transboundary river basin management plans (RBMPs)

Description: This document includes Guidelines on screening, evaluation and selection of viable PoMs, as support to the beneficiary countries at shared Drina River Basin with regards to WFD and IWRM requirements.

Action Required: The ECRAN national coordinators are invited to comment and adopt the document.

Background materials for screening workshop

INTRODUCTION

Guidelines have been developed to support beneficiary countries at shared Drina River Basin in a process of preparing acceptable and efficient Programme of Measures (PoMs). The document discusses/elaborates screening process, evaluation and selection of viable PoMs.

Some problems in implementing the WFD comes from lack of data in preparing RBMPs, insufficient methodologies, monitoring limitations, etc. Therefore, it is important to understand the different circumstances in developing a common understanding of measures. Document also gives basis for a common understanding of the requirements of WFD, and Article 11 (dealing with PoMs).

The purpose of the WFD is to reach at least “good status” in all waters by 2015 and to prevent any deterioration in the status of all waters, which includes maintaining the “high and good status” of waters where it already exists. The mechanism to achieve this is the adoption and implementation of RBMPs and a Programme of Measures (POMs) for each of the identified RBDs. MS experience tells that the link between status and pressures in the first RBMPs was good, but the link between pressures and measures was missing. This needs to be addressed in the 2nd RBMPs.

There is no one size fits all for the WFD and PoMs. The assessment will, therefore, conclude with a view of how to improve implementation of the WFD, linking measures to the key pressures.

PoMs CONTEXT

The WFD provides a number of key principles:

1. The integrated planning process at the scale of river basins, from characterisation to the definition of measures to reach the environmental objectives.
2. A comprehensive assessment of pressures, impacts and status of the aquatic environment, including from the ecological perspective.
3. The economic analysis of the measures proposed/taken and the use of economic instruments.
4. The integrated water resources management principle but encompassing environmental objectives with water management and related policies objectives (shift from management to governance - capacity to generate and implement applicable policies).
5. Public participation and active involvement in water management / governance.

The key objective of the WFD is to achieve good status for all water bodies by 2015. This comprises the objectives of good ecological and good chemical status for surface waters and good quantitative and good chemical status for groundwater.

The implementation of WFD should be accustomed to the national framework:

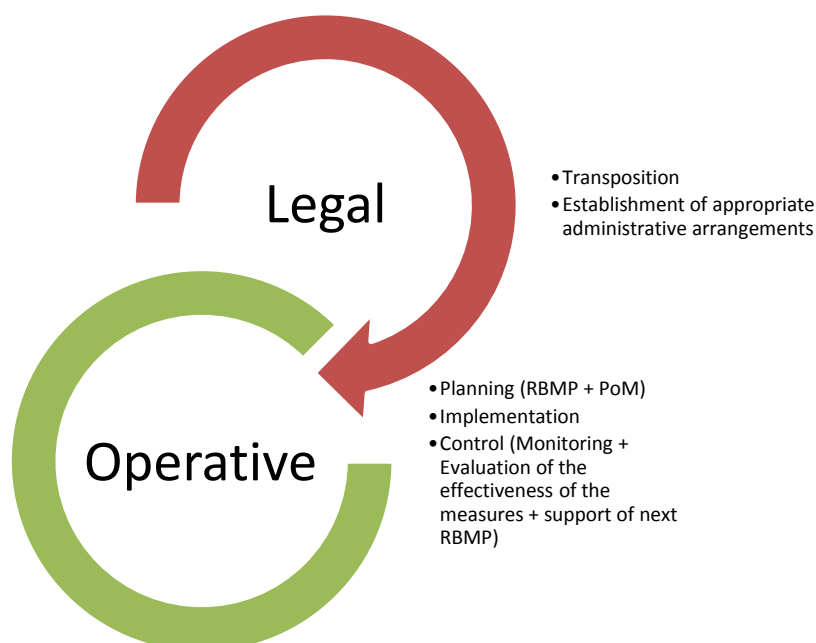


Figure 1. National framework

The key tool for the implementation of the WFD is the RBMP and the accompanying Programme of Measures (PoMs). The RBMP is a comprehensive document describing the execution of water management and identifying all actions to be taken in the RBD. RBMP is also the main tool for communication (all issues related to the water management) with interested parties, including the public.

The PoMs is the tool designed to enable appropriate response to the relevant pressures identified at RBD level, with the objective of enabling the river basin/water body to reach good status. In order to be effective the PoMs (as a “separate part”) has to be either legally “embedded” in RBMP or has to have sufficient legal weight in addition to the legal status of the RBMP.

Since the RBD is the main unit for management of river basins, identified competent authorities should co-ordinate the actions through the planned PoMs to achieve the environmental objectives. The co-ordination should be performed on national and international level.

STATE OF ART: CLARIFICATION ON WFD PoMs (Article 11)¹

Article 11 – Programme of Measures

Article 11.1 of the Directive stipulates that MS shall establish in each river basin district a programme of measures, that takes account of the results of the analyses required under Article 5 (characterisation,

¹ Clarification note on WFD programme of measures presented by EC to Strategic Co-ordination Group

economic analysis, pressures and impacts) in order to achieve the objectives established under Article 4 (good status/potential or more stringent in certain protected areas).

Article 11.2 states that each programme of measures shall include the basic measures specified in paragraph 3 (a-l) and, where necessary (i.e. in order to allow the Article 4 objectives to be met) supplementary measures.

Article 11.3 states that basic measures are the minimum requirements to be complied with and shall consist of:

- (a) those measures required to implement Community legislation for the protection of water, including measures required under the legislation specified in Article 10 and in part A of Annex VI; *(e.g. measures to achieve compliance with the Nitrates Directive and Urban waste water treatment directive);*
- (b) measures deemed appropriate for the purposes of Article 9; *(e.g. water pricing policies);*
- (c) measures to promote an efficient and sustainable water use in order to avoid compromising the achievement of the objectives specified in Article 4; *(e.g. water metering and allocations);*
- (d) measures to meet the requirements of Article 7, including measures to safeguard water quality in order to reduce the level of purification treatment required for the production of drinking water; *(e.g. control measures on land to prevent nitrates entering drinking water protected areas (e.g. extending NVZs to cover such areas);*
- (e) controls over the abstraction of fresh surface water and groundwater, and impoundment of fresh surface water, including a register or registers of water abstractions and a requirement of prior authorisation for abstraction and impoundment. These controls shall be periodically reviewed and, where necessary, updated. Member States can exempt from these controls, abstractions or impoundments which have no significant impact on water status; *(e.g. requires abstraction permits to be revised in line with WFD requirements);*
- (f) controls, including a requirement for prior authorisation of **artificial recharge** or augmentation of groundwater bodies. The water used may be derived from any surface water or groundwater, provided that the use of the source does not compromise the achievement of the environmental objectives established for the source or the recharged or augmented body of groundwater. These controls shall be periodically reviewed and, where necessary, updated;
- (g) for point source discharges liable to cause pollution, a requirement for prior regulation, such as a prohibition on the entry of pollutants into water, or for prior authorisation, or registration based on general binding rules, laying down emission controls for the pollutants concerned, including controls in accordance with Articles 10 and 16. These controls shall be periodically reviewed and, where necessary, updated;
- (h) for diffuse sources liable to cause pollution, measures to prevent or control the input of pollutants. Controls may take the form of a requirement for prior regulation, such as a prohibition on the entry of pollutants into water, prior authorisation or registration based on general binding rules where such a requirement is not otherwise provided for under Community legislation. These controls shall be periodically reviewed and, where necessary, updated; *(e.g. where phosphate, pesticides, sediment, organic pollution and ammonia from agriculture are identified as a pressure affecting the achievement of overall good status, controls must be established);*

(i) for any other significant adverse impacts on the status of water identified under Article 5 and Annex II, in particular measures to ensure that the **hydromorphological conditions** of the bodies of water are consistent with the achievement of the required ecological status or good ecological potential for bodies of water designated as artificial or heavily modified. Controls for this purpose may take the form of a requirement for prior authorisation or registration based on general binding rules where such a requirement is not otherwise provided for under Community legislation. Such controls shall be periodically reviewed and, where necessary, updated; *(e.g. controls should be defined to ensure that actions in or near rivers do not negatively impact on morphological condition)*;

(j) a prohibition of direct discharges of pollutants into groundwater subject to a number of provisions;

(k) in accordance with action taken pursuant to Article 16, **measures to eliminate** pollution of surface waters by those substances specified in the list of **priority substances** agreed pursuant to Article 16(2) and to progressively reduce pollution by other substances which would otherwise prevent Member States from achieving the objectives for the bodies of surface waters as set out in Article 4;

(l) any measures required to prevent significant losses of pollutants from technical installations, and to prevent and/or to reduce the impact of accidental pollution incidents for example as a result of floods, including through systems to detect or give warning of such events including, in the case of accidents which could not reasonably have been foreseen, all appropriate measures to reduce the risk to aquatic ecosystems.

Art. 11.4 defines the supplementary' measures as measures designed and implemented in addition to the basic measures, with the aim of achieving the objectives established pursuant to Article 4. Part B of Annex VI contains a non-exclusive list of such measures. Supplementary measures can be implemented in order to provide for additional protection or improvement of the waters including in implementation of the relevant international agreements.

Art. 11.5 defines the additional measures in cases when monitoring or other data indicate that the objectives for the water body are unlikely to be achieved:

- investigation of the causes of the possible failure,
- examination and if necessary review of relevant permits and authorisations,
- adjustment of the monitoring programmes, and
- planning of **additional measures** in order to achieve objectives.

Where those causes are the result of circumstances of natural cause or force majeure which are exceptional and could not reasonably have been foreseen (extreme floods and prolonged droughts), the additional measures can be considered as not practicable, subject to Article 4(6).

Next steps

MS should ensure their PoMs for the second cycle is compliant with the requirements of the WFD. All basic measures listed in art. 11.3 (points a to l) shall be included in the PoMs.

In determining what basic measures should be put in place to address the requirements of article 11.3, points a to I, it is necessary to determine:

- what is the existing status of waters (using information from WFD and other programmes – see CIS guidance 3),
- what is the gap to be closed to reach the WFD objectives of "good status" (using information from the article 5 analysis, in particular identified existing and potential pressures and how these have an impact on good status),
- how far will the implementation of measures pursuant to article 11.3.a close the gap, (taking into account in many MS the need to adopt reinforced measures under art. 5.5 of the Nitrates Directive and improve compliance with UWWTD),
- what measures can deliver for WFD but also for other environmental objectives (e.g. MSFD, BWD, air quality, biodiversity).

In deciding on what basic measures are needed MS should be guided by the polluter pays principle, as well as by the principle of prevention of pollution at source.

Due to the time lag in the first cycle for establishing reference conditions and defining good status and the need to simultaneously develop programmes of measures - the logical link between pressures and measures was not evident in many RBMP. This situation needs to be rectified in the second cycle. In many cases it offers an opportunity to rationalise and simplify national legislation and to ensure that effort is focussed on the most pressing water management issues.

Interplay of national administrative traditions/roles and European policy regarding WFD and PoMs

A considerably influence on the implementation of the WFD and PoMs lies in the impact of national administrative arrangements. The dependence on national administrations for implementing European policies implies that the formal transposition and practical application of supranational policies are crucially influenced by administrative traditions prevalent in a certain policy field, which may differ substantially from country to country.

SCREENING - THE FIRST STEP IN PREPARATION OF VIABLE PoMs

The objective of this screening procedure is to:

1. identify the content of PoMs,
2. investigate the relationship of the national administrative traditions/roles and European policy regarding WFD and PoMs,

in closer detail and thus to provide a good working environment for planning of the efficient PoMs in national RBMPs which are at the same time understandable and acceptable on trans-boundary level for the shared Drina River Basin.

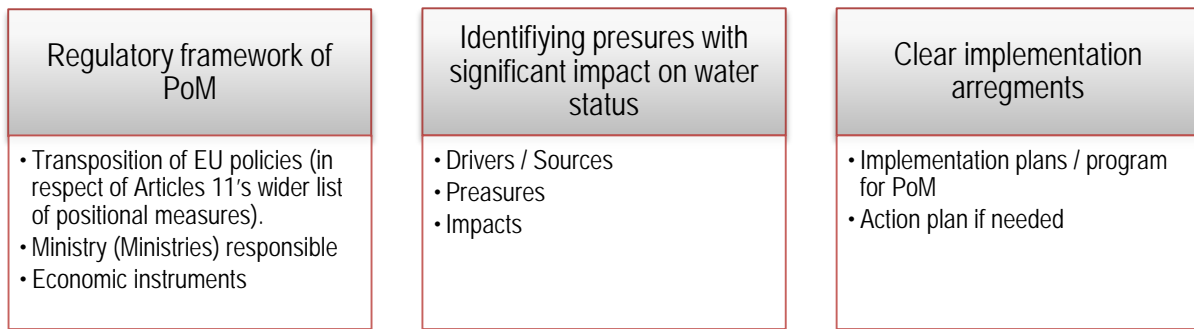


Figure 2. Subject of the screening for beneficiary countries in shared Drina River Basin

Regulatory framework of PoMs

Background - "Classification" of measures

The measures should be planned in view of the results of the assessment of the actual status of the water body and taking into account the results of the analysis of pressures and impacts. The planning should consider the efficiency of the measure taking into account extent (scale) of its implementation.

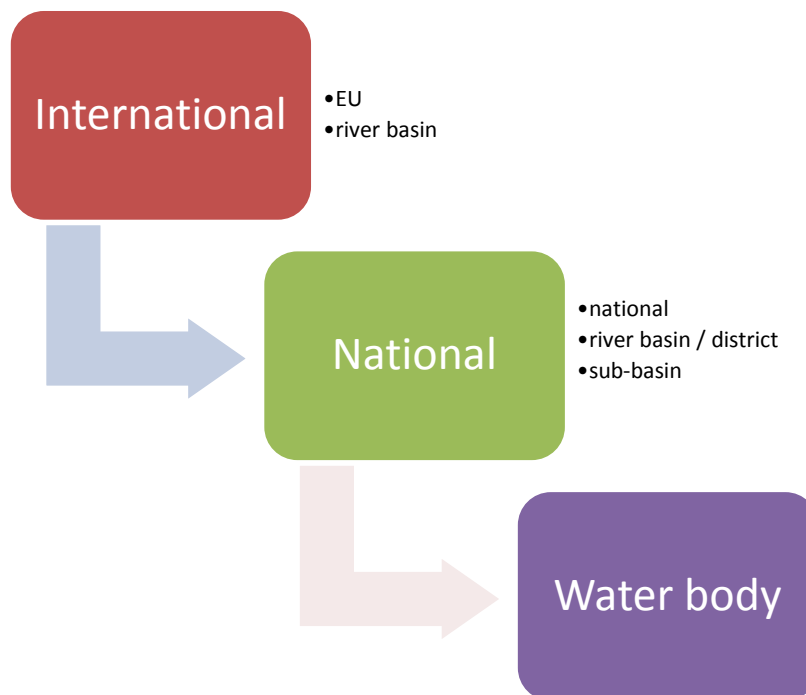


Figure 3 "Classification" of measure based on extent (scale) of its implementation

Generally, The WFD defines that the PoMs has to include 'basic measures' as a minimum and where necessary to achieve objectives 'supplementary measures'.

Programme of basic measures has to comprise at least (see Art. 11.3 above):

- a. Measures required in order to implement existing Community water legislation and other environmental legislation (set out in Article 10 and in Part A of Annex VI).
 - i. The Bathing Water Directive (76/160/EEC).
 - ii. The Birds Directive (79/409/EEC).
 - iii. The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC).
 - iv. The Major Accidents (Seveso) Directive (96/82/EC).
 - v. The Environmental Impact Assessment Directive (85/337/EEC).
 - vi. The Sewage Sludge Directive (86/278/EEC).
 - vii. The Urban Waste-water Treatment Directive (91/271/EEC).
 - viii. The Plant Protection Products Directive (91/414/EEC).
 - ix. The Nitrates Directive (91/676/EEC).
 - x. The Habitats Directive (92/43/EEC).
 - xi. The Integrated Pollution Prevention Control Directive (96/61/EC).
- b. Measures to implement Article 9 (cost recovery).
- c. Measures to promote efficient and sustainable water use.
- d. Measures to protect drinking water quality and reduce level of treatment required.
- e. Measures to control abstraction from surface and groundwater.
- f. Measures to control recharging of groundwater.
- g. Measures to control point source discharges.
- h. Measures to prevent or control inputs of diffuse pollutants.
- i. Measures to address any other significant impacts on status, in particular the hydromorphological condition.
- j. Measures to prohibit direct discharges to groundwater
- k. Measures to eliminate or reduce pollution by priority substances.
- l. Measures to prevent accidental pollution.

Supplementary measures (see Art. 11.4 above) are:

- those measures planned and implemented in addition to the basic measures, where it is necessary to achieve the environmental objectives of the WFD as established in Article 4 and Annex V, and
- can include additional legislative powers, fiscal measures, research, educational campaigns that go beyond the basic measures and are considered as necessary to achievement of environmental objectives.

Additional measures (see Art. 11.5 above) are necessary to consider in case when a water body probably will not achieve the Art. 4 objectives after the adoption of the measures defined in first RBMP. If the implementation of an additional measure lasts longer than one river basin management planning cycle such a measure should be “address” either as a basic or as a supplementary measure.

The concept of Key Types of Measures (KTMs) was introduced in 2012 to simplify reporting. KTMs are expected to substantially contribute to improvements (reduction in pressures) necessary to achieve WFD objectives. The list of KTMs is predefined. Since the predefined KTMs address the main water management issues on the level of EU, the selection of additional KTMs is not largely expected. Basic measures and supplementary measures may be considered as KTMs for the achievement of WFD objectives.

Table 1 List of pre-defined KTMs

KTM number	KTM description
1	Construction or upgrades of wastewater treatment plants
2	Reduce nutrient pollution from agriculture
3	Reduce pesticides pollution from agriculture.
4	Remediation of contaminated sites (historical pollution including sediments, groundwater, soil).
5	Improving longitudinal continuity (e.g. establishing fish passes, demolishing old dams).
6	Improving hydromorphological conditions of water bodies other than longitudinal continuity (e.g. river restoration, improvement of riparian areas, removal of hard embankments, reconnecting rivers to floodplains, improvement of hydromorphological condition of transitional waters, etc.).
7	Improvements in flow regime and/or establishment of ecological flows.
8	Water efficiency technical measures for irrigation, industry, energy and households
9	Water pricing policy measures for the implementation of the recovery of cost of water services from households
10	Water pricing policy measures for the implementation of the recovery of cost of water services from industry
11	Water pricing policy measures for the implementation of the recovery of cost of water services from agriculture
12	Advisory services for agriculture
13	Drinking water protection measures (e.g. establishment of safeguard zones, buffer zones etc)
14	Research, improvement of knowledge base reducing uncertainty.
15	Measures for the phasing-out of emissions, discharges and losses of priority hazardous substances or for the reduction of emissions, discharges and losses of priority substances.
16	Upgrades or improvements of industrial wastewater treatment plants (including farms)
17	Measures to reduce sediment from soil erosion and surface run-off
18	Measures to prevent or control the adverse impacts of invasive alien species and introduced diseases
19	Measures to prevent or control the adverse impacts of recreation including angling
20	Measures to prevent or control the adverse impacts of fishing and other exploitation/removal of animal and plants
21	Measures to prevent or control the input of pollution from urban areas, transport and built infrastructure
22	Measures to prevent or control the input of pollution from forestry
23	Natural water retention measures
24	Adaptation to climate change
25	Measures to counteract acidification

Legal framework of PoMs

Beneficiary countries pursue different strategies in responding to the EU acquis. In this screening process beneficiary countries assess legal status of PoMs identified/elaborated in Article 11 of the WFD.

Table 2. Transposition of EU regulation (with respect to the PoM)

Beneficiary:		
EU regulations	Responsible authority on the national level National regulation	Briefly describe Field of application (with respect to Article 11 of the WFD)
<ul style="list-style-type: none"> •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 •Decision 2455/2001/EC of the European Parliament and of the Council of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC •2005/646/EC: Commission Decision of 17 August 2005 on the establishment of a register of sites to form the intercalibration network in accordance with Directive 2000/60/EC of the European Parliament and of the Council 		
<ul style="list-style-type: none"> •Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks 		
<ul style="list-style-type: none"> •Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment •93/481/EEC: Commission Decision of 28 July 1993 concerning formats for the presentation of national programmes as foreseen by Article 17 of Council Directive 91/271/EEC 		
<ul style="list-style-type: none"> •Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community •Council Directive 86/280/EEC of 12 June 1986 on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC •Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community •Council Directive 82/176/EEC of 22 March 1982 on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry •Council Directive 83/513/EEC of 26 September 1983 on limit values and quality objectives for cadmium discharges •Council Directive 84/491/EEC of 9 October 1984 on limit values and quality objectives for discharges of hexachlorocyclohexane •Council Directive 84/156/EEC of 8 March 1984 on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry 		
<ul style="list-style-type: none"> •Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances •Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration 		
<ul style="list-style-type: none"> •Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption •Council Directive 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking 		
<ul style="list-style-type: none"> •Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water •Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC 		

Beneficiary:		
EU regulations	Responsible authority on the national level National regulation	Briefly describe Field of application (with respect to Article 11 of the WFD)
<ul style="list-style-type: none"> •Council Directive 78/659/EEC of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life, •Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters, •Directive 2006/44/EC of the European Parliament and of the Council of 6 September 2006 on the quality of fresh waters needing protection or improvement in order to support fish life² •Directive 2006/113/EC of the European Parliament and of the Council of 12 December 2006 on the quality required of shellfish water 		
•Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources		
<ul style="list-style-type: none"> •Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control •Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version) •Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) 		
•Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds		
•Council Directive 92/43/EEC of the conservation of natural habitats and of wild fauna and flora		

For better understanding of the complex regulatory framework, the Beneficiaries are invited to provide an extract relevant for understanding of:

- WFD competent authority role,
- horizontal cross - cutting references,
- obligations related to international context and
- public and stakeholder involvement.

Table 3 Identification of the WFD competent authority role

Beneficiary:		
National regulation (quotation of the relevant articles)	Responsible authority on the national level	Briefly describe Field of application (with respect to Article 11 of the WFD)
		preparation of PoMs
		coordination of PoMs
		adoption of PoMs
		implementation of PoMs

² The Freshwater Fish Directive and the Shellfish Directive were repealed on 22 December 2013. According to the WFD the level of protection should be maintained through the inclusion of the designated areas as protected areas under WFD. The necessary additional objectives and measures should be included in the RBMP and PoMs.

Beneficiary:		
National regulation (quotation of the relevant articles)	Responsible authority on the national level	Briefly describe Field of application (with respect to Article 11 of the WFD)
		monitoring of PoMs implementation

Table 4 Horizontal cross - cutting references (EIA, SEA)

Beneficiary:		
National regulation	Responsible authority on the national level	Briefly describe Field of application (with respect to Article 11 of the WFD)

International context - The WFD requires co-ordination of the PoMs in trans-boundary river basin districts.

Table 5 National regulation of co-ordination of PoMs in transboundary river basins

Beneficiary:		
National regulation (quotation of the relevant articles)	Responsible authority on the national level	Briefly describe Field of application (with respect to Article 11 of the WFD)

Table 6 Public and stakeholders involvement overview

Beneficiary:		
National regulation (quotation of the relevant articles)	Responsible authority on the national level	Briefly describe Field of application (with respect to Article 11 of the WFD)

Identifying pressures with significant impact on water status

The establishment of the logical link between pressures and measures (compulsory in RBMP) is based on systematic approach to collection data and assessment of processes of DPSIR cycle. The EC provides the agreed lists of drivers, pressures and impacts to be considered in planning process. The

Beneficiaries are invited to provide the information related to relevance and data availability on national level.

! Suggestions: For efficient assessment database for selected drivers, pressure as well as future measures has to be established. The more relevant water management issue, the higher degree of sophistication of database has to be developed. Suggestion is to use/follow templates from WFD Reporting Guidance, even in this early stage. This approach ensures comprehensive database that can meet wider requirements, from identification of pressures, to establishing of measures, including clear and complete reporting.

! Suggestions: Data gaps have to be avoided as much as possible because they lead to partial assessment for many drivers. A methodology of disaggregation of different indicators from larger administrative units to parts of the basin or smaller areas within the basin is also considerable/important issue that has to be addressed.

Table 7. List of drivers

Beneficiary				
	Driver	Clarification	Relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
1	Agriculture	Includes all farming activities, agriculture and livestock		
2	Climate change			
3	Energy – hydropower			
4	Energy – non-hydro	Including cooling activities for thermal and nuclear plants		
5	Fisheries and aquaculture	Commercial fishing and aquaculture (not recreational or sports angling, included in category 'Recreation' below)		
6	Flood protection			
7	Forestry			
8	Industry	All kinds of industry not included under other categories		
9	Tourism & recreation	Includes bathing, leisure boating and sailing, sports fishing/angling. It does not include the urban development linked to tourism (under category 'Urban development').		
10	Transport	Road and rail traffic, shipping, aviation		
11	Urban development	Includes urban development linked to household, non-manufacturing commercial activities, tourism.		

Table 8. List of pressures

Beneficiary:				
Pressure	Main Driver(s)	Clarification on pressures	Relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
1. Point				
1.1 Urban waste water	Urban development	Included or not in the UWWT Directive. Includes discharges from non-manufacturing commercial areas which can largely be assimilated to urban waste water. Includes discharges of raw or partially treated urban		

Beneficiary:				
Pressure	Main Driver(s)	Clarification on pressures	Relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
		waste water which are identified as point sources.		
1.2 Storm Overflows	Urban development	Overflows from separated or combined sewers identified as point sources (for diffuse see 'Diffuse – Urban run-off' below).		
1.3 Point - IED plants	Industry	Industrial point sources from plants included in the E-PRTR.		
1.4 Point - Non IED plants	Industry	Any industrial point sources not included in the E-PRTR.		
1.5 Contaminated Sites/Abandoned industrial sites	Industry	Pollution resulting from an abandoned industrial site or a site contaminated due to past industrial activities, illegal dumping of industrial waste or a pollution accident and which is identified as point source (for diffuse see below 'Diffuse – Contaminated sites/abandoned industrial sites). This category does not cover existing industrial activities.		
1.6 Waste disposal sites	Urban development	Point sources due to urban or industrial waste disposal sites.		
1.7 Mine waters	Industry	Point sources due to the collection of water in an open pit or underground mine which has to be brought to the surface in order to enable the mine to continue working. It does not include waste water from the industrial processes.		
1.8 Aquaculture	Aquaculture			
1.9 Other		Other point sources not included in the categories above.		
2. Diffuse				
2.1 Urban run off	Urban development, Industry	Storm overflows and discharges in urbanized areas not identified as point sources		
2.2 Agricultural	Agriculture			
2.3 Forestry	Forestry			
2.4 Transport	Transport	Diffuse pollution from road and train traffic, aviation and infrastructure.		
2.5 Contaminated sites /Abandoned industrial sites	Industry	Pollution resulting from an abandoned industrial site or a site contaminated due to past industrial activities, illegal dumping of industrial waste or a pollution accident and which is identified as diffuse source (for point see above 'Point – Contaminated sites/abandoned industrial sites). This category does not cover existing industrial activities.		
2.6 Discharges not connected to sewerage network	Urban development	Pollution resulting from urban waste water not connected to sewers and identified as a diffuse source.		
2.7 Atmospheric deposition	Agriculture, Energy non-hydro, Industry, Transport, Urban development	Diffuse pollution from atmospheric deposition from any origin		
2.8 Mining	Industry	Pollution from mining activities which are identified as diffuse (for point sources see categories above)		
2.9 Aquaculture	Aquaculture			
2.10 Other	Any driver/Other	Other diffuse sources not included in the categories above.		

Beneficiary:				
Pressure	Main Driver(s)	Clarification on pressures	Relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
3. Abstraction				
3.1 Agriculture	Agriculture	Includes irrigation and livestock breeding.		
3.2 Public Water Supply	Urban development	Affection to TW and/or CW possible only in case of desalination plants.		
3.3 Industry	Industry	Abstraction for industrial processes (cooling water is covered under the category 'Abstraction – cooling water')		
3.4 Cooling water	Industry; Energy non-hydro			
3.5 Fish farms	Aquaculture			
3.6 Other	Recreation	Abstraction for any other purpose not listed above.		
4. Hydromorphological alterations				
4.1 Physical alteration of channel/bed/riparian area/shore of water body				
4.1.1 for flood protection	Flood protection	Refers largely to longitudinal alterations to water bodies.		
4.1.2 for agriculture	Agriculture	Refers largely to longitudinal alterations to water bodies. Includes land drainage to enable agriculture activities.		
4.1.3 for navigation	Transport	Refers largely to longitudinal alterations to water bodies.		
4.1.4 other		Refers largely to longitudinal alterations to water bodies.		
4.1.5 unknown		In case the driver for the physical modification is unknown.		
4.2 Dams, barriers and locks				
4.2.1 for hydropower	Energy – hydropower			
4.2.2 for flood protection	Flood Protection			
4.2.3 for drinking water	Urban development			
4.2.4 for irrigation	Agriculture			
4.2.5 for recreation	Recreation	Small dams are used in rivers to create recreational areas (bathing waters) and also angling areas		
4.2.6 for industry	Industry, Energy non-hydro	Dams are sometimes created to provide freshwater for large industry e.g. typically for cooling purposes		
4.2.7 for navigation	Transport			
4.2.8 other				
4.3 Flow diversions/hydrological alteration				
4.3.1 agriculture	Agriculture, Transport	Typically water transfers		
4.3.2 transport	Transport	Typically inland navigation		
4.3.3 hydropower	Energy – hydropower	Typically in case of hydropower stations where the location of the abstraction and the return is different.		
4.3.4 public water supply	Urban development	Typically water transfers		
4.3.5 aquaculture	Fisheries and aquaculture	Typically off-line fish farms		
4.3.6 other				
4.4 Physical loss (or	Flood Protection,	Dry river beds etc.		

Beneficiary:				
Pressure	Main Driver(s)	Clarification on pressures	Relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
part of) whole water bodies	Climate change			
4.5 Other hydromorphological alterations		Other hydromorphological alterations not included in any of the categories above, including alteration of water level or volume for purposes not identified above.		
5.1 Introduced species and diseases	Transport, Fisheries and aquaculture	Includes invasive alien species.		
5.2 Exploitation of/removal of animals/plants	Recreation, Fisheries and aquaculture	Commercial fishing or recreational/sports angling, commercial harvesting of plants or algae from water bodies.		
5.3 Litter/fly tipping	Urban development, Transport	Includes illegal waste deposits, litter from ships, etc. (All waste from land area)		
6.1 Groundwater recharges	Agriculture Energy – non-hydro Industry Urban development			
6.2 Groundwater – alteration of water level or volume	Industry Urban development	This category includes activities to alter the level of groundwater in order to carry out an underground activity (typically mining or large civil works). This does not include the alteration of the water level due to current or past overexploitation of the groundwater resources (this case is captured under the categories 'Abstraction' above).		
7 Other anthropogenic pressures		Other pressures not included in any other category.		
8 Unknown Pressures		Only relevant where status is lower than good and pressure is unknown.		

Table 9. List of impacts

Beneficiary:				
Impact	Relevant for Surface Water	Relevant for Ground Water	National relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
Nutrient pollution	Y	Y		
Organic pollution	Y	Y		
Chemical pollution	Y	Y		
Saline pollution	Y	Y		
Acidification	Y	N		
Elevated temperatures	Y	N		
Altered habitats due to hydrological changes	Y	N		
Altered habitats due to morphological changes	Y	N		
Litter	Y	N		
Microbiological pollution	Y	Y		
Diminution of quality of associated surface waters for	N	Y		

Beneficiary:				
Impact	Relevant for Surface Water	Relevant for Ground Water	National relevance (S) significant (M) moderate (I) irrelevant	Data availability (G) good (F) fair (P) poor
chemical / quantitative reasons				
Damage to groundwater dependent terrestrial ecosystems for chemical / quantitative reasons	N	Y		
Alterations in flow directions resulting in saltwater intrusion	N	Y		
Abstraction exceeds available GW resource (lowering water table)	N	Y		
Other Significant Impacts	Y	Y		

Institutional arrangements

The RBMP is an integral document combining in its PoMs the requirements from a number of the European Union directives related to the environment protection. Thus the authorities as well as financial instruments are intersected. Initial mapping, as a first overview, is appreciated, although all the elements have not been identified yet.

Table 10. Mapping the legal basis, competence and financial instruments in the early stage Assessment

Beneficiary:			
Measure	Legal basis	Competent authority for implementation	Financial instruments (Dedicated funds established)
Basic Measures			
Recovery of costs for water services and stimulating efficient water use			
Regulatory (legislation)			
Administrative			
Economic			
Measures to control and reduce water pollution from point sources of pollution			
Regulatory (legislation)			
Administrative			
Investments			
Basic Measures			
Measures to control and reduce water pollution from diffuse sources of pollution			
Regulatory (legislation)			
Administrative			
Investments			
Measures to control and reduce hydromorphological water load			
Regulatory (legislation)			
Administrative			
Investments			
Measures to control direct discharge into groundwater			
Regulatory (legislation)			
Administrative			
Investments			

Beneficiary:			
Measure	Legal basis	Competent authority for implementation	Financial instruments (Dedicated funds established)
Measure to control and reduce water chemical pollution			
Regulatory (legislation)			
Administrative			
Investments			
Measures to prevent and reduce the impact of incidental pollution			
Regulatory (legislation)			
Administrative			
Investments			
Measure to implement the Environmental Impact Assessment Directive and Strategic Environmental Assessment Directive			
Regulatory (legislation)			
Administrative			
Investments			
Measures related to protected areas			
Regulatory (legislation)			
Administrative			
Investments			
Supplementary measures			
Summary of research programme			
Regulatory (legislation)			
Administrative			
Investments			
Supplementary measures aimed to reduce hydromorphological load caused by flood protection works and measures			
Regulatory (legislation)			
Administrative			
Investments			
Supplementary measure aimed to protection of maritime environment			
Regulatory (legislation)			
Administrative			
Investments			

Such assessment will provide the information about the extent to which administrative traditions affect implementation effectiveness. The assessment will, therefore, conclude with a view of how to improve implementation of the WFD, linking measures to the key pressures.

Appropriate institutional arrangements are crucial for effective implementation. The main argument is that the extent to which administrative traditions affect implementation effectiveness is less dependent on the 'real' costs of adaptation than on the level of embedment of existing administrative/institutional structures.

FOLLOW-UP ACTIVITIES

Based on the results of the screening process the Beneficiaries should decide about the following steps selecting the next workshops topics. The Beneficiaries are invited to express their preferences by scoring them from 1 (for the most interesting one) to 5 (for the topic of no interest).

Table 11. Planning of the upcoming activities

Topic	Beneficiary 1	Beneficiary 2	Beneficiary 3	Beneficiary ...	Total score
Development of quantitative indicators <ul style="list-style-type: none"> • basin level indicators • water body indicators 					
Specific indicators on the RBD level <ul style="list-style-type: none"> • Input of the pollutants (inventories of emissions, discharges and losses of EQSD, combined approach, mixing zones, ...) • Water abstraction and exploitation (WEI+ index, trends, ... water scarcity and drought indicators) 					
Link between pressures and measures <ul style="list-style-type: none"> • monitoring • modelling 					
Cost of the measures <ul style="list-style-type: none"> • definition of services • estimation of the costs • cost recovery • resource and environmental costs 					
Any other topics agreed during the workshop					
...					
...					