

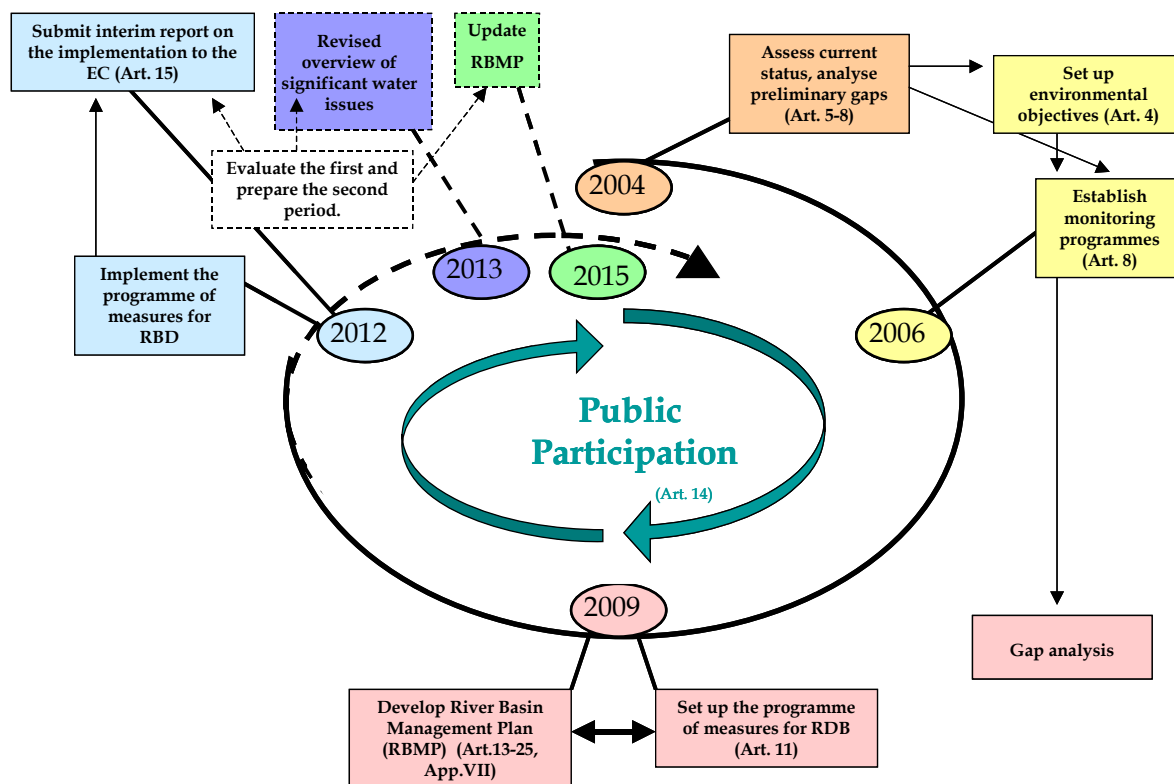
## Checklist for Environmental Citizens' Organisations in the Baltic Sea Region on Good River Basin Management

*Important components, from a CCB perspective, to be included in all RBMP (RiverBasinManagementPlan) in the Baltic Sea Region*

### Purpose and target group of the present document

The following document is written for the NGOs<sup>1</sup> and active members of the public who are interested in the ongoing water management planning process and need some help in orientation in the relevant documents. The purpose of this document is also to present a check-list of important elements that should be included in all River Basin Management Plans (RBMP) in the Baltic Sea Area (BSR).

**Figure 1: Cycle of water management planning**



### EU plans and requirements for RBMP

<sup>1</sup> Certain problems with the water quality or conflicts between different possibilities of using the water resources are most well known on local level and by local activists. National level environmental organisations may not have representatives or local branches everywhere. Practical life has shown that national NGOs can only pick up the most well known conflicts between water users or protest only against some planned developments

According to the EU Water Framework Directive (WFD) all water bodies must be in good ecological status by year 2015. The water management plans must be compiled for all bigger river basins by the year 2009 indicating the major problems threatening the water quality, the possible measures to improve the water bodies and the cost of these activities.

There should be 6 month long **public consultations** held in 2006 (Introduction the work ), 2007 (Major water problems) and 2008 (Draft plan of management measures). The three different stages of public consultations of the river basin level plan are depicted in Table 1 (Steps 3 ,4, 5). In addition, the public was encouraged by the EU Guideline on Public Participation to ask for draft documents during the earlier stages (sub basin level planning, 2003-2005). CCB is concerned, that it might be late to change a river basin level plan, in case sub basin level activities and budgets are already approved.

**Table 1: Steps in Water Basin Management Planning**

(Source: the EU Guideline on PP in RBMP)

<b>STEP 1 2003</b>	River basins borders, WFD transposed into national legislation
<b>STEP 2 2004</b>	RB characterised, econ analyses of water use, env quality objectives; water prot. areas, human act impacts
<b>STEP 3 2006</b>	Planning program of measures, outline of RBMP, start of monitoring programme
<b>STEP 3 2006</b>	Publishing <b>TIMETABLE AND WORKPLAN for RBMP</b> , 6 months for comments
<b>STEP 4 2007</b>	Publishing <b>IMPORTANT WATER MANAGEMENT ISSUES</b> , 6 months for coments
<b>STEP 5 2008</b>	Publishing <b>DRAFT RBMP</b> , 6 months for comments
<b>STEP 6 2009</b>	Publishing final version of RBMP, progr of measures
<b>STEP 7 2012</b>	Implementation of programme of measures
<b>STEP 8 2015</b>	Evaluation and updating in every 6th year

A new aspect for many member states is the crossing of the administrative borders for discussing the river basin questions. Several river basins are shared not only by different counties but also by different states and in that case international public consultations are required.

*Estonia has quite good practical experiences from discussing the Lake Peipsi (Tschudskoje Ozero) water management questions with interest groups from the Russian Federation. Several international research projects have been carried out for assessing the practical methodologies of public participation . (see also [www.ctc.ee](http://www.ctc.ee) and [www.riverdialogue.org](http://www.riverdialogue.org)).*

A new element in the Water Framework Directive is the creation of public advisory boards to the official River Basin Authority. These **public advisory boards** involve representatives from various groups of water users, as well as environmental organisations. Good models and examples can be found in Germany, Schleswig Holstein (see [www.eeb.org](http://www.eeb.org)) and in the international river basin Lielupe between Latvia and Lithuania (see [www.bef.lv](http://www.bef.lv)).

## CCB priorities of water protection in the Baltic Sea Area

The 24 national environmental organisations representing more than half a million people have ranked the biggest environmental problems affecting the state of the Baltic Sea as follows:

The good ecological status of water bodies (rivers bringing their water to the Baltic Sea) is to be achieved via limiting the pollution load from agricultural activities, by introducing sustainable wastewater systems, supporting river biodiversity and by raising overall environmental awareness, including promotion of public monitoring. The list of most harmful activities and installations in the Baltic Sea and on its coastline include oil transportation, oil extraction, development of new terminals and highways bridging islands with the mainland, and small hydropower plants. The third concern is connected to developing of sustainable fisheries practices and protecting the wild Baltic salmon.

Thus the following guideline pays main attention to the above listed problems and serves as a checklist of certain elements in the draft River Basin Management Plans. It is expected that other sectoral NGOs and economic interest groups may come up with different aspects and ideas, some supporting and some opposing the CCB concerns. Thus, some good reasons for protecting CCB considerations are given. The present document is not covering the whole range of topics related to river basin management planning.

### 2006

According to the Water Framework Directive the first consultation period in 2006 will introduce the work plan of the RBMP teams and responsible actors in the play. The interested public should know which scientific institutions and experts are involved in the planning process of their local area, how is their local water body characterised, where and when can they access to relevant background and draft documents.

**Heavily Modified Waterbodies (HMWB)** – one of the issues to turn attention to is the designation of your local water body a Heavily Modified one. In that case there will be no obligation to guarantee its good ecological status by year 2015. In North of Sweden there have been cases when NGOs protest against such decisions as the real reason for the designation has been the plan to develop hydropower plant constructions on rivers that are today in a sufficiently good ecological status. (See EU guideline explaining HMWBS on .... *(if we want to make it available on our homepage, not to include address of EU page that is too complicated)*)

**Nitrate sensitive areas** – are also determined during the very first stages of the River Basin Management Planning. In those areas the ground water is less protected from pollution by nutrient and more strict standards will be prescribed to agricultural entrepreneurs. NGOs can check what kind of proposals have been made and if the areas that are left out of the borders of Nitrate Sensitive Areas need more protection too.

**Characterisation of the chemical and biological status of the water bodies** . By spring 2005 all countries had to submit the first characterisation of their river basins to the central EU authorities. Due to lack of time, these reports mainly contained the chemical characterisation of the rivers while the wildlife data was not presented. NGOs may check what kind of information has already been collected on the river flora and fauna by their national research institutions. It is important, that the final

ecological status of the rivers would not be much worse compared to the situation before applying the management measures. In addition to the measures meant for improving the bad water quality some planned activities (water usage) may affect the initial status of the river towards impoverishment of its wildlife. *(A relevant EU Guideline is available)*

**Water quality classes and intercalibration** – CCB as a network of grass-root organisations is not aiming at commenting most of the results of the intercalibration process, as we do not have sufficient experts in this area. Still the local branch organisations are encouraged to find out what kind of decision has been made about their local water body and may be discuss it among their own circle. It is also interesting to find out if their river, lake or part of the coastal sea has been chosen to be one of the sampling sites on the EU level monitoring process. *(Guidelines about defining human impacts (IMPRESS); and ecological costs of water (WATTECO) are available too for more interested activists)*

Again, it should be cleared out, which experts are investigating their local water body and what kind of monitoring is carried out. Parallel voluntary monitoring by local groups (see more info below) is encouraged by CCB preferably on rivers, lakes and parts of the coastal sea that are included in the EU level assessment.

## 2007 and 2008

### Waste Water Treatment in small settlements and rural areas (Single-family homes)

CCB has for many years promoting sustainable wastewater management systems for small-and medium-sized municipalities and single family-homes. Many CCB-publications have been published on this subject (See [www.ccb.se](http://www.ccb.se)). The main ideas of such techniques is to avoid, limit and minimize production of wastewater, and to recycle the nutrient in wastewater as a resource back to agricultural land.

The first public hearings on the water management plans for sub-basins indicate, that the topic of nature friendly small scale waste waster treatment plants is often not covered at all in the final documents. So in the following a list of certain questions to be asked from the planning team, concerning the ecological waste water treatment is presented:

*“What are the requirements for the treatment of waste waters originating from densely populated areas in your country?*

*Has there been a recent change for more strict requirement already or not yet?*

*Requirements for hygienic safety-bathing water quality in river waters?*

*Does your country fulfill the requirements of the Urban Wastewater Directive by year 2010?*

*Does your country have enough resources? Have you considered a longer (additional) transition period for fulfilling these requirements?*

*How is the construction of treatment plants going on in the rural areas? Are the requirements (concerning hygienic safety, water pollution, recycling of nutrients) from wastewater treatment enough sufficient? Do these activities meet the deadlines set in the projects? What is the ratio between properly working and non-working small treatment plants?*

*Are the preliminary assessments about the technologies, number of inhabitants, and pollution loads adequate? Have there been cases if a newly constructed treatment plant is over- or underscaled?*

*Examples of treatment plants that are working well/not well.*

*Does the central and local authorities favour or unfavour sand/soil filters; forest irregation of pre-treated wastewater; constructed wetlands for nitrogen removal (Building new ones)*

*How are the processes on requirements and of constructing new treatment plants and of compiling water management plans for river basins be harmonised with each other?"*

#### Single family-homes wastewater treatment

*Many different considerations may come up on this subject.*

*What will happen to inhabitants who send untreated wastewater to the ground (infiltration wells) soil-infiltration for wastewater?*

*How should a citizen behave if his neighbour has an infiltration well that obviously threatens the water quality in their common drilled drinking-water well?*

*Where and for which price can a citizen order water analyses?*

*Where can an inhabitant of a single farm, far away from other houses, discharge its waste water and what does he have to do to be an obedient citizen?*

*The solution should be that national/local government-authorities put up clear requirements for wastewater treatment/handling for single-family homes, that may fulfil same standards as for small-sized municipal wastewater treatment*

*-Hygenic safe: Bathing water quality in water bodies exposed to the public and wildlife*

*-Water protection-reduction to at least 90 % BOD7, 50-90% P, 25% N*

*-Recycling: P 50 %, or all nutrients 25%*

Let municipalities develop high requirements (hygenic safe, no significant impact on water quality in water bodies, high degree of recycling of nutrients) also for single-family homes.

Ask the municipalities to develop guidelines that promote sustainable toilet systems (eg urine-diverting toilets, low-flush systems, dry toilet systems without wastewater) (Municipalities can start a non-chargeable system for collection from urine storage tanks at households)

## **Water protection measures in agriculture**

Agricultural run-off of nutrient to the Baltic Sea contributes around 50 % of the total nutrient load to the Baltic Sea. A list of the CCB suggestions for good water management in agriculture contains the following:

- Modernising of infrastructure (housing, slurry and manure storage facilities;
  - avoiding the atmospheric emissions of ammonia from animal production;
  - More efficient manure application techniques;
  - Reducing industrial farming to sustainable levels in nitrate sensitive areas;
  - Maintaining extensive farming systems;
  - More efficient use of chemical fertilizers and pesticides;
  - Creation of multi species buffer zones for protecting water courses;
  - Creation of constructed wetlands as sustainable pollution control structures;
- haymaking in floodplains.

A list of more detailed measures for protecting the waters from agricultural run off would be the following:

*a) Properly constructed manure storage facilities, with no leakages. Storage for 6-9 months, and only spreading of manure in the growing season. Spreading of manure should never be allowed during winter season.*

*b) Spreading of manure within a zone of e.g. 20 meters from the river/ditch should not be allowed.*

c) On farmland a water protection zone, of 10-20 meters, with green vegetation should be established along rivers, as a nutrient trap to avoid leakage of nutrient to the river.

d) Agricultural subsidies should be promoted for measures that can reduce the agricultural nutrient load. E.g support for construction of wetlands in the river system with high load of nutrients, that can guarantee a substantial reduction of nutrients loads; construction of nutrient traps (e.g stone filter and a planted tree that can digest the excess of nutrients) where farmland ditches meet the river

e) Limitations of how many kg P and N that can be used per hectare

f) Require an answer if there is an excess of nutrients/manure, over fertilisation, within the river system. Calculations must be made, and possible over fertilisation must be controlled.

g) Promote and require a "balanced fertilization scheme" on the farm level. This means that import and export of nutrients (P, N, K) (from fodder and manure) on each farm shall be balanced within the farm or within the close vicinity of the farm. Such system would not allow for big industrial farms that don't have farmland in the vicinity where the manure can be spread properly.

## **Fish populations in rivers – protection of fish biodiversity**

In the characterisation of water bodies the focus has normally been on chemical status (concentrations of nutrients etc), and the biological status is usually lagging behind.

Information on plant communities and bottom-fauna and especially fish populations are usually fragmentary.

1. Demand on proper characterisation of the fish populations in the river system. Such demands may require more inventories, and summaries of existing knowledge.
2. Require clear objectives for the status of fish populations. Set up goals such as – The management of the river system shall guarantee that all fish populations of the river system will be strong and sustained for the future.
3. Migratory fish species shall be able to migrate to all parts of the river system having suitable spawning and breeding areas. Larvae and smolts of migratory fish species shall also be able to migrate out from the river (obstacles shall be removed or fishways should be constructed) (Usually there are no measures to guarantee migration out. Smolts may be killed in turbines, or just cannot pass a dam on the way downstream).

## **Migratory fish versus small hydropower plants and dams**

Support for promotion of migratory fish species, such as wild Baltic salmon, brown trout and vimba. Many constructions in rivers (hydropower dams, old mill-dams, old construction for timber transport in rivers, improperly constructed pipes/tubes under roads etc) stops migratory fish species. Such stops should be investigated in the river system. Strong requirements for such studies shall be made for rivers having threatened wild salmon populations.

1. Require a plan that evaluates all constructions preventing the migration of fish species in the river system, and an action plan with priorities for removal/changes of such constructions, to enhance the possibilities for migratory fish to use all useful parts of a river system.
2. Require a plan for wild salmon habitat restoration in existing river areas (downstreams first dam) where salmon migrate today, and for upstream areas if obstacles will be removed or fish-ways will be constructed.

3. Require a plan for control of the river fisheries ( eg illegal fisheries) that will guarantee a sustained population of wild salmon, brown trout etc.

4a. Require a plan to remove small dams and ponds that don't have any special purpose, if needed for migratory species and fish and river biodiversity. Best for fish migration is always to remove dams.

4b. If removing of a dam is not possible, Require a plan for construction of fish-ways. The best fish-way is a constructed small natural stream (at least 5-10 % of the total water flow) within the main water stream or as a naturally constructed by-pass (resembling a natural small stream) of the dam. Such solutions shall be studied before a fish-way, constructed as a fish-ladder, will be tried. Design of a fish-way always require a very good and experienced expert. Very many fish-ladders do not work properly.

5. Require a fish management that will guarantee that natural genetics of wild salmon populations will be secured.

## **Aquaculture**

Aquaculture can give considerable pollution of nutrients (from faeces and excess of fodder), antibiotics, hormones etc. Aquaculture should preferably be put on land, not in fish-cages in rivers, so the polluted water can be treated.

1. Requirements on water quality from outlets of aquaculture ponds. Wastewater treatment should be required to guarantee no impact on existing water quality.
2. Do not allow for localisation of aquaculture in sensitive river waters, or maybe in the whole river system.

## **Public Monitoring**

### **RiverWatch activities by NGOs to support River Basin Management**

RiverWatch activities can be performed by both schools and by grownup local activists. In many Baltic Sea countries there is a long tradition of water watch for schools. They can easily include new elements in their work, for example use new techniques for monitoring. Public monitoring may give good qualitative results while quantitative results should mainly be expected from the "official" monitoring.

While the environmental NGOs from many EU member states (especially Germany) are actively participating in the classification of water bodies and intercalibration of monitoring sites, Coalition Clean Baltic has so far, as network of grassroot organisations not taking part in consultations that need so high level of expert knowledge.