

## **TMAP WFD WORKSHOP**

### **REFERENCE VALUES IN THE WADDEN SEA**

**HAMBURG, 29 – 30 NOVEMBER 2004**

**Date: 26 November 2004**

**Presented by: CWSS**

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**SUBJECT:           Overview Implementation WFD**

The document contains an overview on WFD activities with regard to the first characterization of water bodies to be prepared for each of the WFD River Basin Districts by the beginning of 2005 and a proposal for follow-up activities in the TMAP framework.

**PROPOSAL:       The workshop is referred to the document.**

## 1. Introduction

The Ministerial Declaration Esbjerg 2001 (§ 49) underlined “the importance of close cooperation with regard to the Wadden Sea Area when implementing the Water Framework Directive and, because it is foreseen that the Wadden Sea Area will be part of a number of adjacent River Basin Districts for all of which separate River Basin Management Plans have to be developed, to establish an overview of how the trilateral cooperation for the protection of the Wadden Sea can assist in this task, taking into account, inter alia, the identification of synergism and the avoidance of duplicating work.”

The objective of the document is to give an overview of the WFD implementation in the three countries based a.o. on the information provided and to analyze how the Wadden Sea Cooperation can assist in this task in the framework of the Wadden Sea Plan.

## 2. Status of the WFD implementation in the Wadden Sea

Preparation of reports required by Article 5 “Report 2005” is under way in all three countries. In this report, a first characterization of all water bodies has to be carried out including a review of the impacts of human activities. Additionally, a preliminary assessment has to be done of the likelihood that water bodies will fail to meet the environmental quality objectives set in Article 4.

Draft versions of the Report 2005 are available for most of the River Basin Districts (RBD) covering the Wadden Sea Area:

Table 1: Available draft of the Report 2005 (B-reports)

River Basin District	Working Area	Draft Report 2005
RBD Rhine	Rhine North	version October 2004
RBD Ems:	Ems-Dollart Estuary	version October 2004
	Lower Ems	version 7.10.04
RBD Weser:	Tideweser	version 4.10.04
RBD Elbe	Tideelbe	version 1.10.2004
RBD Eider	Eider	version November 2003
RBD Sønderjylland		-
RBD Ribe		-

### 2.1 Characterization of water bodies (typology)

The WFD requires a characterization of water body types within each RBD according to defined methods and criteria (WFD Annex II). An overview of the water body types in the Wadden Sea is given in the following table.

Table 2: Water body types in the Wadden Sea.

	Netherlands	Germany	Denmark
<b>Wadden Sea</b>	K1 Polyhaline coastal water	N3 Polyhaline exposed	OW 4 Offshore
	K2 Polyhaline sheltered coastal water	N4 Polyhaline sheltered	OW 5 Tidal area
	K3 Euhaline coastal water	N1 Euhaline exposed	
		N 2 Euhaline sheltered	
<b>Estuaries</b>	O1 Estuary with high tidal range	T1 Transitional water	
	O2 Estuary with low tidal range		-

## *Analysis*

The characterization of water bodies (typology) in the Wadden Sea Area has been carried out using defined methods and criteria (basically salinity and exposition). The RBD water body types in the three countries are comparable but also showed slight differences (see table and maps). The delimitation of the WFD water bodies are comparable with the QSR sub-regions already applied in the Wadden Sea QSR 1999 and QSR 2004 for the chemical parameters. The main difference is that the QSR sub-regions are not differentiated into the Tidal Area and Offshore Zone (sheltered / exposed). The TMAP sub-regions can therefore be adapted to the WFD typology without major difficulties. However, not all water body types are covered by monitoring stations for all quality elements. It is currently being discussed in the RBDs how to deal with this in future monitoring and assessment.

## **2.2 Heavily Modified Water Bodies**

Within the preparation of the WFD Report 2005, a preliminary designation of HMWB has to be done according to Article 4(3) (CIS Guidance document HMWB and AWB, December 2002).

The Dutch Government is aiming at a comparable approach in implementation of the WFD in the Wadden Sea as the other countries and has basically decided to designate the Wadden Sea coastal waters as natural waters.

For the Ems-Dollard area, the draft "Report 2005" was prepared by the Dutch-German Border Commission (Unterausschuss G) and published on September 8, 2004. The report identified transitional waters as HMWB and coastal waters (up to 1 sm) as natural water bodies (see map) according to the stepwise approach described in the CIS HMWB Guidance document.

It was concluded that the hydro-morphology of both water bodies is influenced by human activities (coastal defence, dredging of navigation channels, harbour buildings).

For transitional waters, these activities have substantial impacts on angiosperms (reduced areas salt marshes), fish fauna and invertebrates, especially for the inner parts of the estuary. The preliminary designation was HMWB.

For coastal waters, the impact of coastal protection measures or dredging activities within a small area on biological quality elements (phytoplankton, macroalgae, angiosperms and macrozoobenthos) were regarded as less significant.

Therefore, the coastal waters were preliminarily designated as natural waters.

In the German Wadden Sea, the coastal waters or the RBD Ems, Weser, Elbe and Eider were preliminarily designated as natural waters whereas the transitional waters were preliminarily designated as HMWB. The main reason for designation as HMWB was that hydromorphology of transitional waters have been significantly influenced through deepening of shipping lanes and dike constructions. These changes have influenced a.o. the tidal range, current conditions, the size of the tidal area and foreland (salt marsh) areas.

In Denmark, the competent authorities Ribe and South Jutland Counties are in the preliminary phase of the WFD article 5 analysis to be finalized at the end of 2004. Therefore, it has not yet been analyzed whether the Wadden Sea water bodies will be identified as HMWB.

A Dutch-German WFD workshop was organized by the German Federal Environmental Ministry and Lower Saxony in Wilhelmshaven on 22 – 23 November 2004. The workshop discussed the different approaches and criteria for the preliminary designation of HMWB in coastal and transitional waters in Germany and the Netherlands. It was a.o. concluded that

the coordination between the RBDs should be improved aiming at a better coordination of the WFD implementation in the Wadden Sea.

### *Analysis*

Concerning the designation of HMWB, the countries followed different approaches. It has to be emphasized that the designation is preliminary and will be under discussion until a final designation in conjunction with a RBD Management Plan will be carried out by 2009. However, a comparable approach should be followed for the Wadden Sea Area in accordance with the Wadden Sea Plan. In the Netherlands, it has basically been decided to designate the Wadden Sea as natural waters, similar to the other areas of the Wadden Sea (Dutch-German workshop, 22 – 23 November 2004).

## **2.3 Assessment of the Ecological Status**

The “Report 2005” also contains a preliminary assessment of the likelihood that water bodies will fail to meet the environmental quality objectives set in WFD Article 4.

The draft reports of the Ems-Dollart, Ems, Weser, Elbe and Eider concluded that the coastal waters will probably not reach the environmental quality objectives. The main reasons are:

- high nutrient inputs,
- concentrations of specific pollutants, e.g. heavy metals in sediments, TBT, PCBs,
- changes in flora and fauna.

The Report 2005 has also pointed out that current monitoring programs could not always deliver the required information. The main reasons were that long-term data sets were lacking and that not all water body types were covered by monitoring stations/transects. In Germany, gaps occurred for biological data with regard to fish (no data) and phytoplankton (no analysis possible). With regard to the assessment, it was underlined, that classification systems, which are in place for fresh water, were lacking for coastal and transitional waters. Therefore, best expert judgement was applied.

In the Ems Dollar area, quality objectives for contaminants (priority substances and others) and reference values have been developed for the Dutch part, whereas a qualitative analysis was done for the German part. It was concluded that for TBT, triphenyltin, nutrients and phytoplankton it was likely that water bodies will fail to meet the environmental objectives in 2015. For the biological elements (macrozoobenthos, macroalgae, seagrass, salt marshes, fish) it was not clear whether the objectives can be met by 2015.

### *Analysis*

The draft WFD reports and the Wadden Sea QSR 2004 elucidate potentials and gaps of the recent monitoring programs and availability of assessment criteria. Especially, reference values and quantitative criteria for biological parameters are lacking. Within the planned revision of the TMAP in 2005/2006, these items will be addressed in close coordination with the work on the WFD, as well as taking into account the Birds and Habitats Directive.

In this regard, the TMAP-WFD workshop on reference values in Hamburg on 29 – 30 November 2004 will also deliver valuable contribution for the TMAP revision process.

## **4 Conclusion and proposal**

The implementation of the WFD requires an operational monitoring program by the end of 2006 and a preparation of a RBD Management Plan by 2009.

On the level of the EU and the Geographic Region, guidance documents have been or will be developed (CIS guidance 2002, Intercalibration activities 2004 – 2006), which require

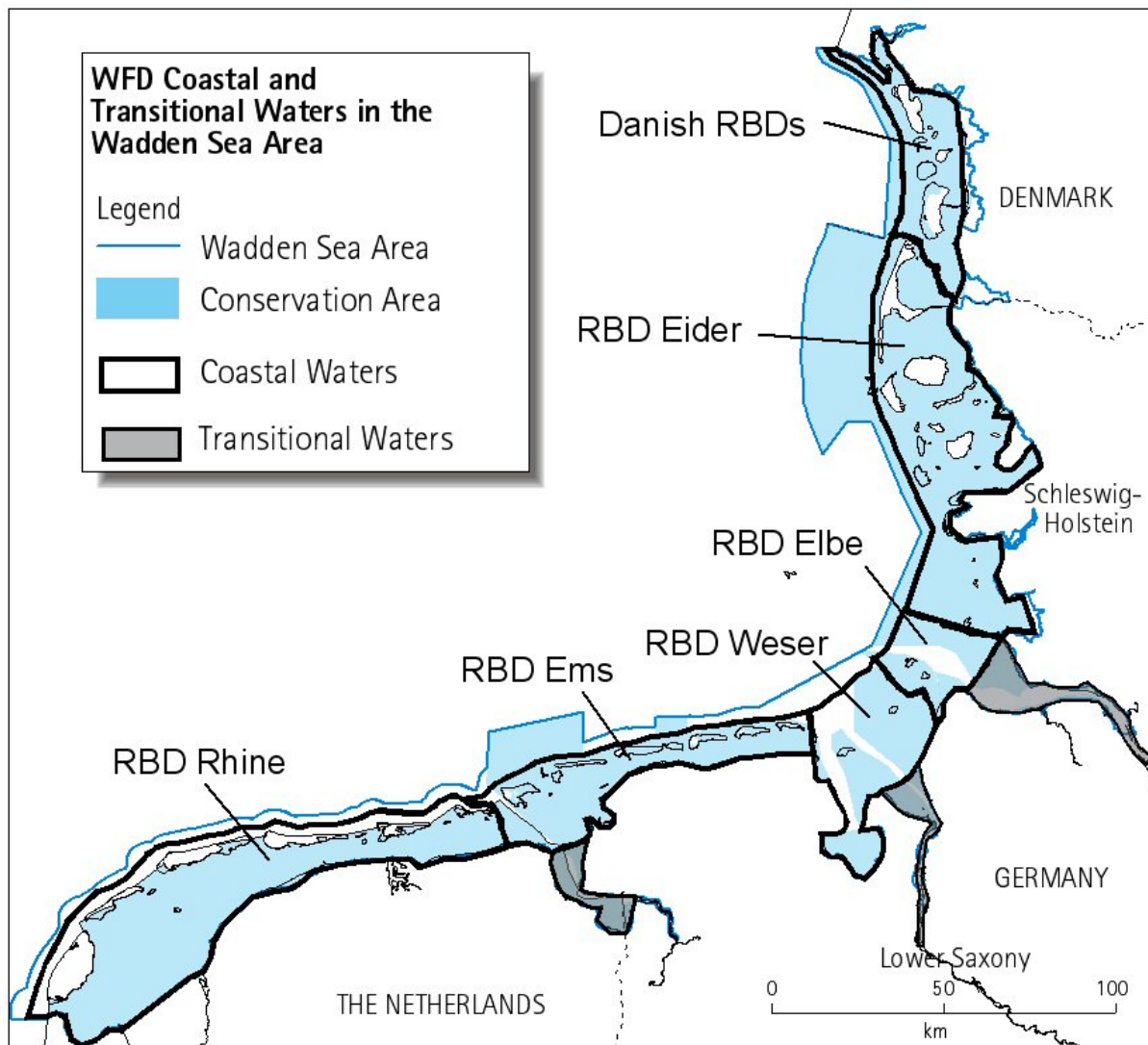
specification on the regional RBD level. The experiences gained so far underline that for the Wadden Sea further coordination of this “tailoring process” is necessary to find a coherent Wadden Sea approach.

The recommendations on information exchange, coordination and follow-up activities made by the TMAP-WFD workshop in January 2004 (TWG 04/2/5.3-1), as endorsed by the TWG, should be followed in order to enhance the collaboration on the coordination of monitoring and management with regard to the WFD implementation in the Wadden Sea. The recommendations are in **Annex 2**.

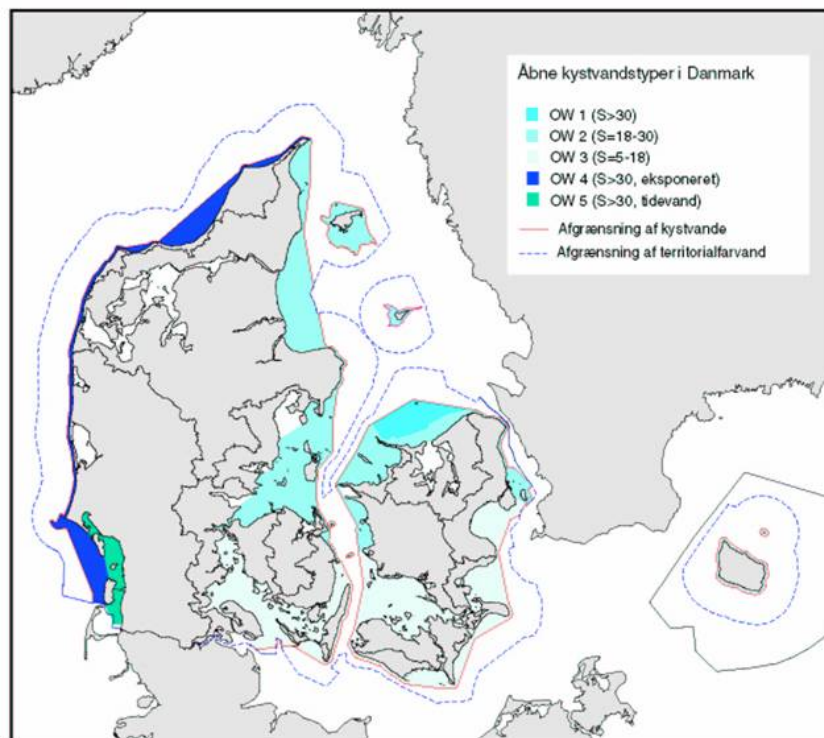
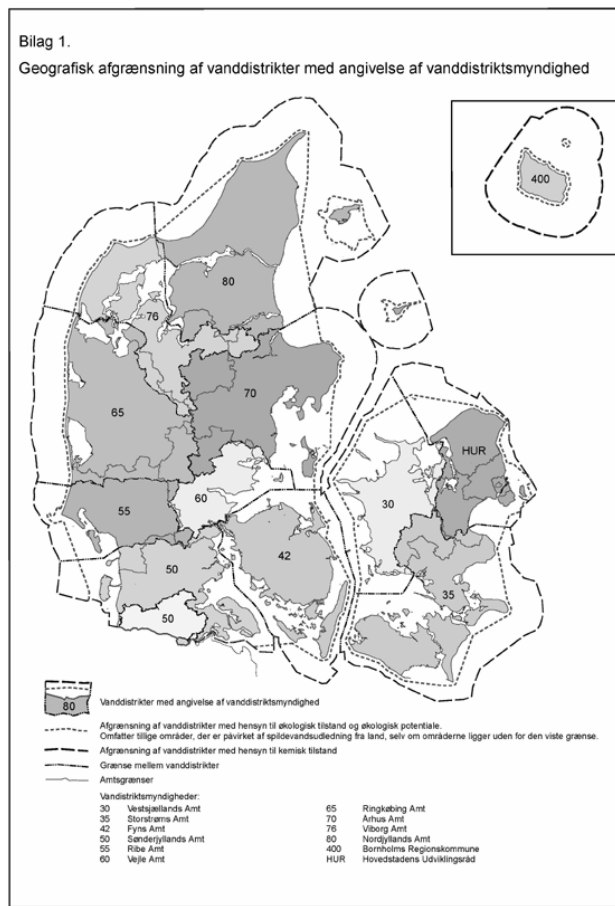
It is proposed:

1. To enhance the collaboration between the Wadden Sea RBDs with regard to monitoring, assessment and management by using the existing administrative and organizational framework for the Wadden Sea,
2. To organize thematic workshops on phytoplankton, macrophytes, macroalgae, zoobenthos and fish in the TMAP framework
  - a. to support a coherent WFD implementation process in the Wadden Sea RBDs,
  - b. to give input into the ongoing work of the relevant EU working groups and activities.

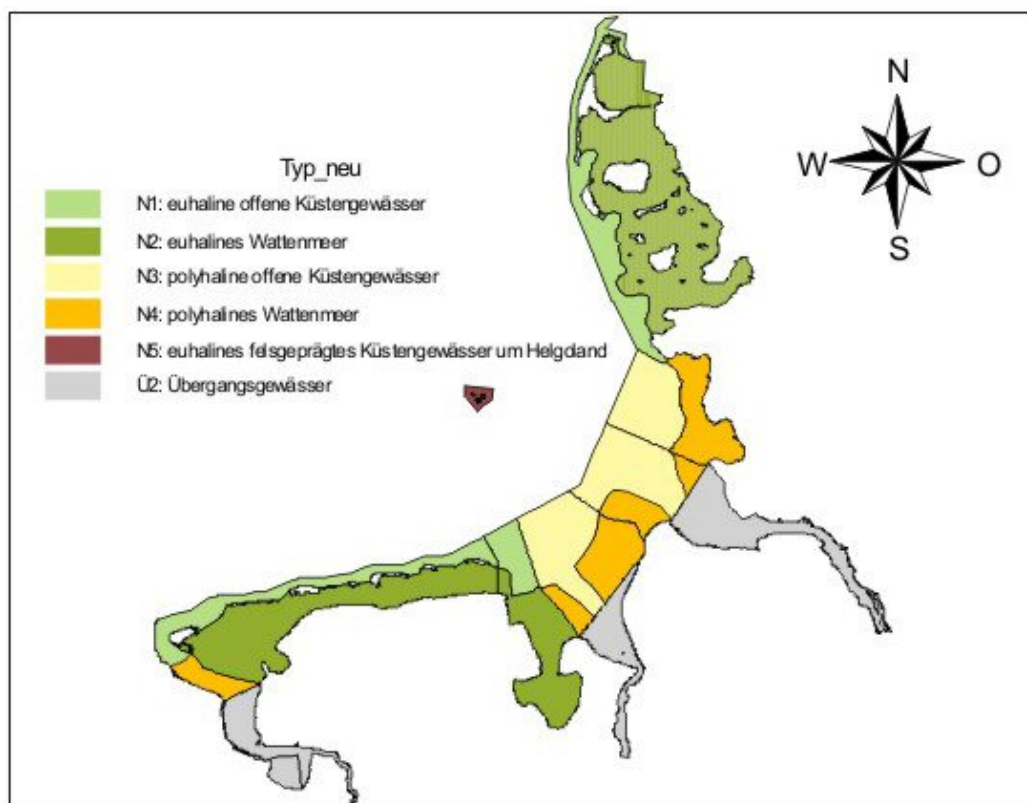
**AMNEX: Maps**



**Figure 1:** Overview of River Basins Districts (RBD), coastal and transitional waters in the Wadden Sea Area.



**Figure 2:** Overview of River Basins Districts (RBD) (top) and water body types (bottom) in Denmark.



**Figure 3:** Overview of water body types (coastal waters) and transitional waters in the German Wadden Sea.



## ANNEX 2

### RECOMMENDATIONS

#### From the Workshop “Water Framework Directive and Wadden Sea Cooperation”

Hamburg, 27 – 28 January 2004

#### *1. Information exchange and coordination in the Wadden Sea Area*

It is recommended:

EU Working Group Coast 2.A

1. to take into account the present trilateral policy with respect to integrated management of the Wadden Sea,

RBD working level

2. to consider the tenor of the trilateral agreement (Wadden Sea Plan, targets, TMAP) and other relevant aspects like ICZM, and to enhance the information flow to the trilateral working groups,

TWG:

3. to promote the connection of the WFD implementation on the national level with the trilateral work, and to ensure a steady and close cooperation between involved institutions with regard to the Wadden Sea,
4. to coordinate the implementation of the WFD in the Wadden Sea with the implementation of the Habitat and Bird Directives and the activities of the Trilateral Cooperation.

TMAG:

5. organize regular information flow on the WFD and HD implementation status on the trilateral level,
6. to enhance the information flow to the RBD working level by including WFD experts in the regular TMAG work.

#### *2. Development of a common understanding of monitoring and management goals*

It is recommended:

TWG

7. to develop a common understanding of the WFD notions “good ecological status”, respectively “favorable conservation status” for the Wadden Sea and to specify them on the basis of the existing Wadden Sea Plan targets,

TMAG

8. to evaluate the current TMAP with regard to the demands of the WFD, HD and BD
9. to prepare proposals for modification / specification of the TMAP (according § 81 ED) to fulfill the demands of the EU Directives based on common Wadden Sea objectives,
10. to develop proposals for Wadden Sea specific reference values as further specification of the Wadden Sea Plan targets.

### 3. *Follow-up activities*

The outcome of discussions was that two types of future meetings were considered worth while:

#### 11. Workshop on Wadden Sea specific reference values

A meeting of a “Wadden Sea Intercalibration Group” with experts from each country involved in the development of reference conditions (e.g., Uda Tuentje, Jens Brøgger Jensen, Janette van Buuren) to discuss the development of Wadden Sea specific reference values for the WFD. The justification for such a meeting is the obvious necessity of having common reference values within the Wadden Sea irrespective of which River Basin District a specific part of the Wadden Sea belongs to.

Time: [September 2004].

#### 12. Follow up workshops on specific themes

Specific Wadden Sea themes (e.g., monitoring strategies and methods, assessment procedures and criteria) should jointly be discussed between the trilateral working level and the working level concerned with the implementation of EU Directives (WFD, HD, BD)

Justification: The necessity of maintaining a coherent Wadden Sea approach, development of specific monitoring and assessment techniques for the Wadden Sea, taking into account the transboundary character of the Wadden Sea.

Time: as appropriate, possibly in combination with thematic TMAP workshops, to be organized by the TMAG.