

**TWINNING INTERIM QUARTERLY REPORT NUMBER 6**



**EUROPEAN COMMISSION**

**TWINNING PROJECTS  
INTERIM QUARTERLY REPORT**

**Project Title: “Capacity Building in the Directorate of Water”**

**Partners: Ministry for Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany (BMU)**

**Ministry for Agriculture, Forestry and Water Management of the Republic of Serbia, Directorate for Water (MAFWD)**

**Date: .12.2007**

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**Signature of BC Project leader**

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**Signature of MS Project leader**

**Section 1: Project data**

<b>Twinning Contract Number</b>	SR2005/IB/EN/01
<b>Project Title:</b>	“Capacity Building in the Directorate of Water”
<b>Twinning Partners (MS and BC)</b>	Ministry for Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany (BMU)  and  Ministry for Agriculture, Forestry and Water Management of the Republic of Serbia, Directorate for Water (MAFWD)
<b>Report Number:</b>	6
<b>Period covered by the report:</b>	24 August to 23 November 2007
<b>Duration of the project:</b>	24 Months
<b>Rapporteur:</b>	Aleksandar Prodanovic, Nikola Marjanovic (MAFWD) and Heinz-Jochen Poremski (BMU)

## Section 2: Content

### 2A – BACKGROUND

#### Policy Developments

On October 10-12 2007, on the occasion of the **Sixth Ministerial Conference “Environment for Europe” – Building Bridges to the Future**, held in Belgrade, Directorate for Water in the capacity of the government body responsible for water management, participated in the organization and coordination four events of relevance for the Twining project.

Under the umbrella of the EU DG Env. and ICPDR (International Commission for Protection of Danube River) on the occasion of the Sixth Ministerial Conference five ministers responsible for the water management from Ukraine, Romania, Slovakia, Hungary and Serbia supported the activities in the area of protection of the Tisa river basin from pollution, floods and droughts. Particular support was given to the recommendations from the report **“Analysis of Tisa river basin for 2007 – Summary – Call for Action”** done under the activities of ICPDR as relevant international body coordinating the international cooperation on transboundary waters of Tisa river. The relevance of this activity for the Twining project derives from the fact that the MoU for RBM plan for Tisa should be prepared by the end of 2009 in order to help the Tisa countries to comply with the Water Framework Directive (WFD) requirements by the 2015. Tisa plan would not cover only the quality issues but also quantity issues taking into account of Flood Management Directive, EU Action plan for Droughts and directive related with water scarcity.

The other event also of the relevance was the one on **Transboundary Water Cooperation in South Eastern Europe: A key to development and security**, organized by the UNECE, which further supported follow up activities of Petersberg Phase II Process of the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany (BMU) and Athens Declaration of Hellenic Ministry for the Environment, Physical Planning and Public Works/ WB in both Directorate for Water as a competent body participated actively.

**The Second Environment Performance Review for Serbia, UNECE**, was completed and published for this event. The publication was a result of successful cooperation with the Ministry for Environment Protection and Ministry for Agriculture, Forestry and Water Management, Directorate for Water and Forestry Directorate both active in this process of

creation of this document particularly chapter 6 on Water Management for Sustainable Development.

As a part of international cooperation with the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes in a capacity of a focal point for the Helsinki convention, Directorate for Water contributed to that occasion by participation in a completion of a report with the title: **Our Waters: Joining Hands Across Borders, First Assessment of Transboundary Rivers, Lakes and Groundwaters.**

Also of relevance for the Twinning project the activity of **EC CARDS Regional Project 2003, "Pilot River Basin Plan for Sava River, Croatia, Bosnia and Herzegovina, Serbia and Montenegro** as a side event was contributed to during the Ministerial Conference as well. The final report of the project was sent to the Twinning office as it can be used as contribution for the works related to the sketching up of the Kolubara river basin management plan.

With effect from 17 October 2007 Mr Aleksandar Prodanovic was appointed as a director of Directorate for Water by Government of Serbia.

### **Project Assumptions**

This Twinning project purposes to upgrade Serbia's institutional capacity to be able to implement and enforce the guiding principles of the EU's Water Framework Directive and related legislation. The overall objectives of this project are:

- Development of capacity in the WD to implement WFD and relevant water directives.
- Improve the organisation of the WD
- Improve public awareness.
- To upgrade the existing monitoring system up to EIONET standards.
- To strengthen the capacity of Serbian institutions engaged in water monitoring.

In order to achieve these wider objectives, the project will be carried out in 7 Components (besides Component 0: Project Co-ordination):

- Training Plan prepared and under implementation. (Sub-Component 1.1)
- Pilot application of the WFD under implementation. (Sub-Component 1.2)
- Action Plan for legal alignment with the Acquis Communautaire prepared and being implemented.(Sub-Component 1.3)
- Human Resource management Capacity established in water Directorate. (Sub-Component 1.4)

- WFD awareness programme implemented. (Sub-Component 1.5)
- Detailed Strategy for upgrading the water monitoring system prepared (including detailed list of equipment and infrastructure requirements together with a budget and financial plan) and under implementation. (Sub-Component 2.1)
- Inter- and intra-organisation communication procedures and systems implemented. (Sub-Component 2.2)

## **2B – ACHIEVEMENT OF MANDATORY RESULTS**

It is expected that the contents of this Twinning project will contribute substantially to achieving some of the wider objectives of Serbian Water Management and will lead to the following results:

- Training needs identified and prioritized.
- Training Plan including a time schedule for implementation and Training Material prepared and disseminated.
- First training units implemented within the scope of the Twinning project.
- Components of River Basin Management Plan prepared for a Pilot River basin implemented.
- Action Plan and Draft legislation elaborated and agreed in the water administration.
- Human Resource management staff appointed in Water Directorate, HRM procedures in operation.
- Awareness strategy relating to goals, target groups, media and measures including a time schedule elaborated.
- Key messages developed and WFD awareness campaign launched.
- Two events for raising awareness on WFD with stakeholders carried out.
- Strategy document adopted as Conclusions of the Government. Identified upgrading of the monitoring programmes and systems taking place.
- Communication procedures and systems, Standard Operating procedures and Quality Management Systems installed.

Three of the benchmarks above related with the mandatory results have been achieved so far. The works for achieving it are in progress.

## 2C – ACTIVITIES IN THE REPORTING PERIOD

The following table reveals the current status of activities and benchmarks.

Table 1: Activities completed and benchmarks delivered

Activity	Benchmark	Status
<b>Component 0: Project Coordination</b>		
0.1 Project set-up	RTA offices installed and operable. Relevant contact persons identified and contacted by project month 1	Done
0.2 Kick-off meeting	All project partners informed on the project work plan, time schedule and the further proceedings by project month 2	Done
0.3 Coordination with parallel projects and the International Commission for The Protection of the Danube (ICPDR)	Regular meetings with representatives of parallel projects in the water sector carried out and information disseminated in project month 4, 10, 17	Ongoing
0.4 Wrap-up workshop	Project results summarised and disseminated. Further steps for the harmonisation of the Serbian water sector with EU requirements identified by project month 23	
<b>Component 1: Strengthening the institutional capacity of the Directorate for Water and related institutions</b>		
<b>Sub-Component 1.1: Assessment of institutional capacities and planning of training activities</b>		
	Training Plan and Training Material prepared and disseminated.	
1.1.1 Assessment of the institutional structures and review of achieved training by the WD and Hydromet in the field of River Basin Management Planning	Assessment report on the current institutional situation, training status and training needs for WD and Hydromet staff elaborated and agreed by project month 3	Done
1.1.2 Establishment of joint working group with WD and Hydromet	First meeting of the joint working group carried out and meeting schedule fixed by project month 4	Done
1.1.3 Formulation of a training plan	A training plan for the staff of WD and Hydromet (department for hydrology and department for environmental control) is elaborated by project month 5	Done
1.1.4 Preparation of training material	Training material is developed and agreed by project month 3 – 19 parallel to the training sessions in the specific activities	Ongoing
<b>Sub-Component 1.2: Joint elaboration of a RBMP for the pilot small river basin</b>		
	Components of River Basin Management Plan prepared for a Pilot River basin.	

1.2.1 Introduction of conceptual issues for the implementation of the Water Framework Directive	3 seminar series for the implementation of River Basin Management Planning (I Characterisation of river basins and programmes of measures, II Monitoring, III GIS and Reporting) held. Relevant staff at the WD and Hydromet trained by project month 14	Ongoing
1.2.2 Characterisation of the river basin district, review of the environmental impact of human activity and economic analysis of water use (Article 5 WFD)	Characterisation of the pilot small river basin according to article 5 of the WFD delivered by project month 12.	Ongoing
1.2.3 Formulation of a monitoring programme of surface water and ground water status according to WFD and Serbian legal requirements in the small river basin.	Monitoring Programme for the pilot small river basin developed and disseminated in the WD and Hydromet and involved institutions by project month 17.	Ongoing
1.2.4. Formulation of the programme of measures (Article 11 WFD) for the RBMP	Programme of measures for the pilot small river basin developed by project month 21.	Ongoing
1.2.5 Mapping out water resources in the pilot river basin with the help of GIS techniques.	RBMP maps according to Annex 7 of the WFD are prepared month 20.	Ongoing
1.2.6 Study tour on surface and groundwater monitoring and the use of GIS	5-day study tour for 10 persons from the WD and Hydromet implemented and potential technical and administrative solutions for Serbian monitoring system identified by the participants in project month 3.	Done
<b>Sub-component 1.3 Developing of action plans for the alignment of legislative, administrative and financial measures in the water sector</b>	Action Plans and Draft legislation elaborated and agreed in the water administration.	
1.3.1 Gap analysis of the existing legal framework in the water sector in Serbia	Gap analysis of the Serbian water legislation with regard to the harmonisation with the <i>acquis communautaire</i> is elaborated by project month 6.	Done
1.3.2 Preparation of the transposition of key directives	Central elements for the transposition of the selected key directives formulated and agreed in the water administration by project month 9.	Ongoing
1.3.3 Upgrading administrative structures for enforcement	An action plan for administrative restructuring of the Serbian water administration according to the harmonisation needs is prepared and disseminated by project month 15.	Ongoing
1.3.4 Development of a financial plan	Support to the elaboration of long-term financial plan for the harmonisation process with the EU is accomplished by project month 19.	Ongoing
<b>Sub-Component 1.4 Human Resources Development</b>	Human Resource management staff appointed in Water Directorate and Hydromet, HRM procedures in operation.	

1.4.1 Restructuring of the administrative units responsible for human resource development	Core team for recruitment, HR development and motivation established and trained in a 1-week seminar on personnel management instruments by project month 4.	
1.4.2 Elaboration of a human resource development strategy	A human resources development strategy is elaborated and agreed between the partners by project month 21.	Ongoing
<b>Sub-Component 1.5 Design of a WFD public awareness programme</b>	Awareness programme, Awareness raising materials and events implemented.	
1.5.1 Assessment of obstacles and opportunities for public participation in the implementation of the WFD	Assessment report on public participation elaborated by project month 11.	Ongoing
1.5.2 Design of a multi-level awareness strategy	Awareness strategy relating to specific goals, key target groups, mix of medias and selection of measures including time frame elaborated by project month 13.	Done
1.5.3 Implementation of the public awareness programme	Key messages developed and WFD awareness campaign launched by project month 13. 2 stakeholder seminars with participation of the administrations, industry, NGOs, researchers involved in the water sector held by project month 14 and 20. Interim evaluation of awareness undertaken for a key target group by project month 22.	Ongoing

<b>Component 2: Support for the upgrading of the Water Monitoring system in Serbia</b>	Strategy document adopted as Conclusions of Government. Identified upgrading taking place.	
<b>Sub-Component 2.1 Enhancing monitoring system and laboratory capacity</b>		
2.1.1 Review of the existing monitoring programmes and facilities (measuring stations, i.e. monitoring sites) for surface water, groundwater and hydrological observations, i.e. water level, discharge, sediment transport	Monitoring programme and facilities reviewed and recommendations developed and agreed by project month 3.	Done
2.1.2 Redesign of the monitoring programme and observation network and sampling design for surface water, ground water hydrological observations, i.e. water level, discharge, sediment transport	Monitoring network for monitoring surface and groundwater meeting WFD and Eurowaternet requirements agreed by project month 8.	Ongoing
2.1.3 Technical Implementation plan for enhancing the monitoring system and the monitoring facilities (hardware)	Specifications for the preparation of the tender of the equipment for water monitoring / testing by project month 8.	Ongoing
2.1.4 Training of personnel involved in Water Monitoring	2-week intensive training on monitoring issues for 2 persons from Hydromet in Germany and transfer of specialised know-how on the operation of automated monitoring stations undertaken by project month 9.	
2.1.5 Development of a field handbook of methods for the collection, preservation and transportation of water samples.	Manual for (Serbian) procedures in collection, preservation and transportation of water samples drawn up as draft by project month 16.	Ongoing
2.1.6 Technical implementation plan for enhancing the laboratory equipment and capacity	Hardware needs identified and agreed, cost estimation, investment needs and operating costs identified by project month 12.	Ongoing
2.1.7 Training of laboratory staff in processing/handling of samples and analytical techniques.	Relevant staff at Hydromet trained and training progress evaluated by project month 14.	Ongoing
<b>Sub-Component 2.2 Enhancing organisational capacity of institutions undertaking water monitoring</b>	Communication procedures and systems, Standard Operating procedures and Quality management Systems installed.	
2.2.1 Assessment of intra- and inter-institutional communication procedures and data management	Existing communication procedures described and gaps analysed by project month 6.	Done
2.2.2 Improvement of communication between the institutions by the elaboration of standard communication /reporting procedures and systems	Recommendations for the improvement of communication procedures formulated and agreed by project month 12.	Ongoing
2.2.3 Quality assurance/control of the documentation of monitoring results and data	Guidance document for quality control system of monitoring results and data developed by project month 19.	Started

**Component 0: “Project Set-up”**

**Activity 0.3: Coordination with other projects and the International Commission for the Protection of the Danube (ICPDR).**

RTA 1 held the meeting with Mr. Sen-Ake Carlsson, representative of the Swedish technical assistance project carried out in Directorate for Water on September 18<sup>th</sup> 2007. It is agreed to find the possibilities for synergetic effects of both projects. During the visit of Mr. Dietzel, the Hessian Minister of Agriculture and Environment and his delegation in Serbia, which was dedicated to discussing the ideas for new projects with interested Serbian Ministries (Environment, Agriculture), both RTAs were involved in the meetings and used the occasion on October 10<sup>th</sup> 2007 to present the current project. Both RTAs visited the kick-off meeting of German-Croatian EU Twinning Project “Building and Development of Guidelines for the Implementation of WFD” (HR04-IB-EN-01) held on October 17<sup>th</sup> 2007 in Zagreb. Both RTAs are involved in meetings organized by GTZ and KVV, and they presented the project in front of representative of several Serbian institutions on November 5<sup>th</sup> 2007.

**Component 1: Strengthening the institutional capacity of the Directorate for Water and related institutions**

**Sub-Component 1.1: “Assessment of institutional capacities and planning of training activities”**

**Missions related to Activity 1.1.4:**

Title: “Preparation of training materials.”

During the reporting period one mission was carried out by Mr Simon Henneberg who prepared the training material related to the seminar related to pressures and impacts analysis on surface waters according to WFD. The material produced for the training seminars held and prepared under activity 1.2.1 can be found on the web page of the project under <http://www.twinning-serbia.org/english/trainings.php>. Mostly the material is available in English and additionally in Serbian as well. Every participant of the training seminars will receive a folder with the entire material at the end of the activity. The contents of the 13 seminars will be compiled into a material handbook which contains the presentations plus the additional reference material for training purposes organized by the Serbian partners in future seminars.

Duration: 5 days

Participants: STE Simon Henneberg, RTA 1 Mr. Heuberger, RTA 2 Mr. Christian Ebel.

**Sub-Component 1.2: “Implementation of training for the pilot application of River Basin Management Plan (RBMP) issues in a small river basin.”**

**Missions related to Activity 1.2.1:**

Title “Introduction of conceptual issues for the implementation of the Water Framework Directive (WFD)”

During the reporting period 9 short term missions took place. 6 subject specific training seminars addressing conceptual issues of the WFD were given.

Seminars comprising surface water topics:

STE Mr Keitz (Mission 27.08-31.08.200) gave a training seminar on 30.08.2007 related to the *Delineation of Surface Water Bodies, Surface Water Typology and Reference Conditions* according Article 5, Annex 2, Water Framework Directive (WFD). Mrs. Dragan Ninkovic (Institute Jaroslav Cerni) and Mrs. Vesna Djikanovic (Institut za biološka istraživanja „Siniša Stanković“ - IBISS) presented the Serbian works in this field to the participants.

STE Mr Henneberg (Mission from 29.10-1.11.2007) gave a training seminar on the 30.10.2007 related to the *Analysis of Pressures and Impact on Surface Water Bodies* according Article 5, Annex 2 WFD.

STE Mr. Roch and STE Mrs. Schmedtje (Missions 13.08-24.08 and 29.10-02.11.2007) gave a seminar on the 30.10.2007 addressing *Surface Water Monitoring* issues. Representatives from Water Directorate, Hydromet, SEPA, the Ministry of the Environment and Vode Vojvodine took part in it. Mr. Klaus Roch introduced the conceptual aspects of the WFD and the experiences with the implementation the directive content in Germany. STE Mrs.

Schmedtje presented the jointly elaborated strategy for the redesign of the Serbian Surface Water Monitoring system complementing the presentation of Mr. Roch and reflecting the starting point for the works taking place under activities 1.2.2 and 1.2.3. The strategy is annexed to the report and waits for the consent of the Serbian partners. The Mission of Mr. Blohm (29.10-02.11.2007) was carried out in order to prepare the training seminar dedicated to the operation and maintenance of automated surface water quality measuring stations in January/February 2008.

STE Mr. Holger Dienen and STE Sven Schulz (missions from 19.11-23.11.2007) introduced on 22.11.2007 the aspects of the *Programme of Measures* as one mandatory element of the river basin management plan of the WFD. 19 participants from the Water Directorate, the Hydromet, the Serbian Environmental Agency, the Institute Jaroslav Cerni, Srbija Vode, the IBISS and Vode Vojvodine attended this seminar titled "Basic Elements of a Programme of Measures (surface water) according to the WFD".

Seminars comprising groundwater topics:

STE Mr. Juergen Domroese, STE Peter Neumann and STE Georg Berthold (missions from 24.09-28.09.2007) gave during their stay two groundwater related seminars. The first seminar held on the 25.09.2007 dealt with elements of the "*Pressures and Impact analysis of Groundwater Bodies*". 15 persons from the Water Directorate, the Institute Jaroslav Cerni, the Hydromet, Vode Vojvodine and the Geological Institute of Serbia were trained in this Seminar.

The second seminar held on the 29.09.2007 comprised aspects of the *Monitoring Programmes for Groundwater* according the WFD conceptual approaches. Within these seminars the WFD methodological approach and its implementation in Germany by selected case studies was presented. Special emphasis was given to the specific situation of open pit mining fields in the Kolubara region using experiences from North Rhine Westphalia in this special area. 17 persons from the Water Directorate, the Hydromet, the Geological Institute of Serbia, the Institute Jaroslav Cerni and Vode Vojvodine attended the seminar.

The agendas of all the seminars with the participant lists are annexed to the report.

Duration: 40 days

Participants: STEs Mrs. U. Schmedtje, Mr. Roch, Mr. Henneberg, Mr. J. Domroese, Mr. G. Berthold, Mr. P. Neumann, Mr. Blohm, RTA Ebel, Mrs. D. Milovanovic (Counterpart RTA II), further staff of the Directorate for Water, staff of Hydromet, staff of Jaroslav Cerni, staff of SEPA, staff of Geological Institute of Serbia, staff of Vode Vojvodina and of Srbijavode.

### **Missions related to Activity 1.2.2:**

Title "Characterisation of the river basin district, review of the environmental impact of human activity and economic analysis of water use."

STE Mrs Ursula Schmedtje started the review of the characterization report according annex 5 of the WFD of the Kolubara region which is currently under preparation by the Serbian partners. Mrs Schmedtje furthermore assisted the surface water monitoring seminars mentioned under activity 1.2.1 to rise synergy effects to enhance the cross links between the different project activities.

Duration: 8,5 days

Participants: STE Mrs. U. Schmedtje

### **Missions related to Activity 1.2.5**

Title "Characterisation of the river basin district, review of the environmental impact of human activity and economic analysis of water use."

Mr. Dienening prepared a presentation introducing a systematic method (IT and GIS based) applied for the execution of the programme of measures in Thuringia/Germany. With this presentation he assisted to STE Mr. Sven Schulz at the training seminar held under activity 1.2.1 "*Programme of Measures*" concerning surface waters. Mr. Dienening will lead advising the Serbian partners on the draft of the programme of measures as the head of the German STE team for this activity. Presenting elements of the "*Programme of Measures*" functions as

overview of the upcoming works under activity 1.2.4 and Mr. Diening and Mr. Schulz were received with open applause by the auditorium.

Duration: 5 days

Participants: STE Mr. H. Diening

**Sub-Component 1.3: “Developing of action plans for the alignment of legislative, administrative and financial measures in the water sector”**

**Mission related to Activity 1.3.2:**

Title: „Preparation of the transposition of key directives”

Catching up with the results from her former missions, Ms. Pawlowski kept on writing the strategy for the implementation of the WFD. Among others she focused on the by-laws for the Acts concerning water issues. In her next mission, she intends to complete this task and to make a presentation of the strategy as a whole to the Serbian colleagues.

Mr. Löw started his work on the Directive 2007/60/EC on the assessment and management of flood risks (“Flood Water Directive”). As his first steps he tried to familiarize with the legal framework in Serbia for the protection of the water (esp. Water Law, Law on Elementary Catastrophes, Law on Planning and Spatial Arrangement of Space and Settlements). Furthermore he paid special attention to the consideration of both the General and Operational Plan for Flood Defense. There was a close co-operation with Mr. Kamčev from the Water Directorate.

During the reporting period also the preparation of the COUNCIL DIRECTIVE 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (“Drinking Water Directive“) started. Mr. Gerstmann assessed the Serbian Water Act and the Serbian “Regulation on Sanitary Quality of Drinking Water”. He had a first meeting with Ms. Tanja Kenežević, Director of the Institute of Public Health of Serbia “Dr Milan Jovanović Batut”. This institute is ready to co-operate fruitfully with the project’s team and the next meeting will take place during Mr. Gerstmann’s next mission. With support of Ms. Kenežević also the relevant Ministry for Health will be involved in this activity. Mr. Gerstmann combines the work on the Drinking Water Directive with the work on the Council Directive 76/160/EEC on Bathing Water Quality as far as possible.

Duration: 15 days

Participants: 3 STEs Dr. Pawlowski, Mr. Gerstmann, Mr. Löw), RTA 1 Mr. Heuberger, RTA 1 Counterpart Ms.V.Mileusnic and Mr. Kamčev from the Water Directorate; Dr Tanja Knezevic, Director of Institute for Public Health of Serbia

**Mission related to Activity 1.3.3:**

Title: „Upgrading administrative structures for enforcement”

Mr. Hotopp and Mr. Kessler elaborated the first draft of an organisational structure for the public water management in Serbia. Based on the results of activity 1.1.1 (“Assessment of the institutional structures and review of achieved training by the WD and Hydromet in the field of River Basin Management Planning”) the experts were working on some long term reforms such as the changing to a cross-media administration, the installing a law enforcement authority (IMPLEN), the preparation of the decision about a 2-or-3-level administration, the merging technical responsibilities and law enforcement, the improving assignment of responsibilities / interfaces etc. As medium term steps they focus on the delegation of responsibilities / decentralisation, the changing of Hydromet’s position in the hierarchy, the integration of the water monitoring system into the administration etc. Last not least the following short term measures are under way:

- Introducing institutionalised coordination and communication (intra- and inter-organisational)
- Developing procedural rules:
  - Principles of leadership and management
  - Intra-organisational cooperation
  - Dealing with incoming and outgoing documents
  - Cooperation and coordination among ministries;
  - Determining lead ministries

The experts recommend the enriching of this activity by at least 10 working days for the amendment of the communication practice within the administration. The interim goals and the intended results of this activity were intensively discussed with the Serbian Water Director. He agreed with the findings and the plans of the experts.

Duration: 10 days

Participants: 2 STEs Mr. Hotopp, Mr. Kessler, Mr. Nikola Marjanović Serbian Water Director, RTA 1 Mr. Heuberger

**Mission related to Activity 1.3.4:**

Title: „Development of a financial plan”

Based on the results from the first mission the primary objective was to discuss the content of the Serbian budget plan to identify the amounts of investments, fixed costs (human resources and additional expenses), revenues and budget sections as far as it is shown in budget plan.

Data from the ongoing Activity 1.3.3 about the relevant structures in the Serbian water management with regard to the costs and additional information from the Serbian counterparts were seen and evaluated. Experts from both activities should discuss their results and bring them in accordance, especially for the long and mid term results.

Hydromet is an important actor in the Serbian water management. A meeting between Mr. Jovan Plavsic from Hydromet and STE was arranged to provide the info on relevant part of costs and revenues of the Hydromet.

In addition to the tasks resulting from the Twinning contract, Mr. Diehl gave some notes and recommendations to the draft of the new Water Law in the context of future water revenues i.e. charges and fees according to the proposed Draft Law checking it from the financial perspective.

Duration: 5 days

Participants: 1 STE Mr. Diehl, Mr. Njegovan, HD for Administrative, Legal and Financial Issues (Water Directorate), Mr. Plavsic (Hydromet), RTA 1 Mr. Heuberger and RTA 1 Counterpart Ms. V. Mileusnic

**Sub-Component 1.5: “Design of a WFD public awareness programme”**

**Mission related to Activity 1.5.3:**

Title: „Implementation of the public awareness program”

Mr. Sittig continued with the evaluation of the questionnaires from opinion pull made in May-June. He created and upgraded a special IT-programme (access data base) that will ease

the next evaluation of the opinion poll which will be repeated at the end of the project. The unit for Public Relation that once will be built up in the Water Directorate might also use this IT-Programme.

The evaluation is related to the existing data according to several criteria such as age or education on the one hand and according to cross checking those with the topics (e.g. water price) on the other. On occasion of the meeting of the Joint Working Group in October the 3 winners of prizes were selected: Mr. Milan Jonovic, Mr. Pavle Trninic and Mrs. Branka Nastasijevic. To each of them one book was sent via mail.

Duration: 5 days

Participants: STE Mr. Sittig, RTA 1 Mr. Heuberger and Counterpart of RTA 1 Ms. Mileusnic

### **Sub-Component 2.1: “Enhancing monitoring system laboratory capacity”**

#### **Missions related to Activity 2.1.3:**

Title: “Technical implementation plan for enhancing the monitoring system and the monitoring facilities (hardware).”

One missions of the STE Mr. Werner Blohm (03.09- 07.09.2007) took place during this reporting period.

The technical specification list of the equipment for automated measuring stations for surface water is completed. Mr Blohm almost finished the report giving the rationale of installation of the operating of automated measuring stations. The estimation of maintenance cost and necessary human resources is in progress.

Mr. Blohm assisted the Serbian partners with the formulation of the technical plan for the construction and specification of the equipment of the automated surface water monitoring station at Beli Brod. The contracts with the constructing company will be signed before end of 2007 as the company has already been chosen. Activity 2.1.3 is a good example for an efficient coupling of this Twinning project activity and additional works carried out to round up the whole process.

The technical specifications for groundwater monitoring equipment will be sketched up as already stated in the report before in January/February 2008 because the German STE is only available during this period and the preparatory works concerning the groundwater monitoring programmes must be further advanced.

The draft of the report and technical specifications list concerning automated monitoring equipment (containing everything but the introduction, human resources and financial aspects, and the section referring to groundwater) are annexed to the report.

Duration: 5 days

Participants: 1 STE Mr. W. Blohm, staff of Hydromet, RTA C. Ebel,

**Missions related to Activity 2.1.5:**

Title: "Development of a field handbook of methods for the collection, preservation and transportation of water samples."

The activities concerning the development of the handbook were continued by one surface water and one groundwater related mission of STEs Mrs. Sommerwerk and Mr. Nuber (both taking place between 05.09.-11.09.2007).

As mentioned in the 5<sup>th</sup> quarterly report the draft of the "Field Handbook of Methods for the Collection, Preservation and Transportation of Water Samples" focuses more on the sampling procedure/process, the logistics, its requirements and necessary modifications than on describing the specific sampling methods in detail.

The works are nearly finalized. The handbook is currently being translated into Serbian for facilitating the commenting of its contents by the working level of the staff of Hydromet. The draft of the handbook (without annexes) reflecting the benchmark is added to the report. It is envisaged to submit the final draft handbook to the EAR at the beginning of 2008 when all comments were included.

Duration: 10 days.

Participants: 2 STE Mrs. N. Sommerwerk and Mr. Thomas Nuber, RTA C. Ebel, staff of Hydromet.

**Missions related to Activity 2.1.7:**

Title: "Training of laboratory staff processing/handling of sampling and analytical techniques"

In the reporting period one mission took place from 22.10 to 26.10.07 by STE Mr Dirk Löffler. He held a training course for the staff involved in operating the liquid chromatography - mass spectrometer at the laboratories at Hydromet. At Hydromet the instrument is handled by three persons of the laboratory staff who participated in this expert workshop. Mr. Zoran Stojanovic (head of the laboratory at Hydromet) and his assistants Ms. Mira Balać und Ms. Biljana Brческа are the assigned experts for routine operating of this instrument.

In the scope of the preparation of this training seminar Mr. Löffler provided the necessary standards for the proper calibration of the instrument directly from his lab in Germany since in Serbia it was not possible to acquire those substances easily before the seminar.

The practical works at Hydromet comprised the elaboration of the SOPs and analytical methods using LC\_MS. The parameters of the instruments were optimized for the substances to be analysed. A calibration analysis was executed and the assessment of the results was done by using internal standards.

One of the core findings of the mission of Mr. Löffler was the confirmation that the given instrumental equipment (single MS) is suboptimal and that the purchasing of a tandem MS detector would enhance the analytical capacities considerably. This aspect should be given priority when completing the equipment at the labs of Hydromet in the future.

Furthermore the purchasing of consumables and standards is not always solved satisfactorily due to the financial situation of the laboratory. The laboratory should be given the competence to decide rather than the administrative staff at Hydromet when a decision of "what" be purchased for the operation of the analytical instrument is taken.

The whole section of LC-MS analytical section should be enhanced considering the operating staff involved in order using the very valuable and large capacities of this (expensive) instrument more efficiently. It has to be stressed that a meaningful analysis at ultra trace level is only possible a priori if marked standard substances (e. g. standards with isotope markers such as Deuterium and <sup>13</sup>Carbon not radioactive!) are accessible and available for the laboratory.

The seminar revealed that more training (i.e. more than this project can deliver) in this field of analytics over a longer period of time is necessary if the instrument is to be used efficiently in future. From Mr. Löffler's view the involved staff should be given more working time to develop their analytical skills and development of methods for the instrument. In order to use the instrument routinely at least one exclusively assigned chemist should be engaged. At least half a year of work and dedication is necessary from his estimation and experience until the development of methods could be finalized and producing reliable (reproducible) results by a routine laboratory process is possible.

The next instrumental analytics seminar will address fingerprint analysis of oil spills in water as agreed at the last steering committee meeting and will presumably be held in February/March 2008.

Duration: 5 days

Participants: 1 STE Mr Dirk Löffler, Mr Zoran Stojanovic Ms. Mira Balać  
and Ms.Biljana Brceska (Hydromet)

**2D – TIMING AND DELAYS**

**Table 2: Time schedule of the project**

Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>Component 0: Project Coordination</b>																									
0.1 Project set-up	x																								
0.2 Kick-off meeting		x																							
0.3 Coordination with other projects and the ICPDR	o																								
0.4 Wrap-up workshop																									
<b>Component 1: Strengthening the institutional capacity of the Directorate for Water and related institutions</b>																									
<b>Sub-component 1.1: Assessment of institutional capacities and planning of training activities</b>																									
Activity 1.1.1: Assessment of the institutional structures and review of achieved training by the WD and Hydromet in the field of River Basin Management Planning				x																					
Activity 1.1.2: Establishment of joint working group with WD and Hydromet					x																				
Activity 1.1.3: Formulation of a training plan												x													
Activity 1.1.4: Preparation of training materials																									
<b>Sub-component 1.2: Implementation of training for the pilot application of RBMP issues</b>																									
Activity 1.2.1: Introduction of conceptual issues for the implementation of the WFD											o														

**Table 2 (cont.): Time schedule of the project**

Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Activity 1.2.2: Characterisation of the river basin district, review of the environmental impact of human activity and economic analysis of water use										O														
Activity 1.2.3: Formulation of a monitoring programme of surface water and ground water status according to WFD and Serbian legal requirements in the small river basin										O														
Activity 1.2.4: Formulation of the programme of measures (Art. 11 WFD) for the RBMP										O														
Activity 1.2.5: Mapping out water resources in the pilot river basin with the help of GIS techniques									O															
Activity 1.2.6: Study tour on surface and groundwater monitoring and the use of GIS and						X																		
Sub-component 1.3: Development of action plans for the alignment of legislative, administrative and financial measures in the water sector																								
Activity 1.3.1: Gap analysis of the existing legal framework in the water sector in Serbia												X												

**cont. Table 2: Time schedule of the project**

Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Activity 1.3.2: Preparation of the transposition of the UWWTD and Nitrates Directives										O															
Activity 1.3.3: Upgrading administrative structures for enforcement										O															
Activity 1.3.4: Development of a financial plan										O															
Sub-component 1.4: Human resources development																									
Activity 1.4.1: Restructuring of the administrative units responsible for human resource development																									
Activity 1.4.2: Elaboration of a human resource development strategy														O											
Sub-component 1.5: Design of a WFD public awareness programme																									
Activity 1.5.1: Assessment of obstacles and opportunities for public participation in the implementation of the WFD						O																			
Activity 1.5.2: Design of a multi-level awareness strategy													x												
Activity 1.5.3: Implementation of the public awareness programme															O										

**cont. Table 2: Time schedule of the project**

Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>Component 2: Support for the upgrading of the water monitoring system in Serbia</b>																								
<b>Sub-component 2.1: Enhancing monitoring system and laboratory capacity</b>																								
Activity 2.1.1: Review of the existing monitoring programmes and facilities (measuring stations, i.e. monitoring sites) for surface water, groundwater and hydrological observations, i.e. water level.											X													
Activity 2.1.2: Redesign of the monitoring programme and observation network and sampling design for surface water, ground water and hydrological observations, i.e. water level.				O																				
Activity 2.1.3: Technical implementation plan for enhancing the monitoring system and the monitoring facilities (hardware)				O																				
Activity 2.1.4: Training of personnel involved in water monitoring																								
Activity 2.1.5: Development of a field handbook of methods for the collection, preservation and transportation of water samples.												O												
Activity 2.1.6: Technical implementation plan for enhancing the laboratory equipment and capacity				O																				

**cont. Table 2: Time schedule of the project**

Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Activity 2.1.7: Training of laboratory staff in processing / handling of samples and analytical techniques																								
<b>Sub-component 2.2: Enhancing organisational capacity of institutions undertaking water monitoring</b>																								
Activity 2.2.1: Assessment of intra- and inter-institutional communication procedures and data management								X																
Activity 2.2.2: Improvement of communication between the institutions by the elaboration of standard communication /reporting procedures and systems										O														
Activity 2.2.3: Quality assurance/control of the documentation of monitoring results and data																			O					

Legend of the table:

- tick box x = activity accomplished,
- tick box mission O = activity started and ongoing,
- grey tick box = activity planned,
- black tick box = delay of activities of exceeding 3 months

## **Recuperation of delays**

### **Delays in activity 1.2.2**

*“Characterisation of the river basin district, review of the environmental impact of human activity and economic analysis of water use (Article 5 WFD)”*

The report on the characterization of the Kolubara river basin is drafted and for the time being under the preparation of the Serbian partners. As soon as the agreement is given the report will be submitted and the activity is done.

### **Delays in activity 1.4.1**

*“Restructuring of the administrative units responsible for human resource development”*

As reported several times, it has been yet not possible to establish a core team handling the human resource development issues for the project. Now there is a need to solve this problem in the best sense of the purpose of the project.

### **Delays in activity 1.5.1**

*“Assessment of obstacles and opportunities for public participation in the implementation of the WFD”*

Due to the fact that the relevant German experts are not available anymore in the year of 2007, RTA 1 decided to postpone the progress of this activity. Since the results of activity 1.5.1 are not relevant for any other activities in the project, there won't be any harm on the rest of the project.

### **Delays in Activity 2.1.2**

*“Redesign of the monitoring programme and observation network and sampling design for surface water”*

The works on the “Strategy for the Redesign of the Surface Water Quality Monitoring Programmes in Serbia” have been almost finalised and will be submitted jointly with the ground water strategy. The Strategy referring to surface water is annexed to the report.

The works for the formulation of the “Strategy for the Redesign of the Groundwater Monitoring Programmes in Serbia” have started and results expected in the mid of March 2008.

### **Delay in Activity 2.1.3**

*“Technical Implementation plan for enhancing the monitoring system and the monitoring facilities”*

It was possible to catch up the delay concerning the technical specification list for the equipment of automated surface water measuring stations. The activity is still delayed concerning the description of the equipment concerning groundwater monitoring due to its close relation with and the accomplishment of activity 2.1.2.

### **Delays in Activity 2.1.4**

*“Training of personnel involved in water monitoring”*

Concerning this activity it was decided to modify the given activity by a planned Addendum to the Twinning covenant. An automated surface monitoring water monitoring station will be constructed until March 2008 in the Kolubara Basin at Beli Brod. Due to this the training of the technical personnel to operate the station which was planned to take place Germany can now take place in Serbia. For this reason it was decided by the Twinning partners to reformulate this activity as it is more efficient that German STE train a higher number of staff in charge of setting up and operation of the monitoring station.

### **Delays in Activity 2.1.6**

*“Technical implementation plan for enhancing the laboratory equipment and capacity”*

Two missions were already carried out under this activity and first findings were delineated. In order to round up this activity and to produce a helpful analysis of the given situation it was decided to finalise the benchmark document after the training seminars for enhancing instrumental analytical routine skills are held (for this see covenant 2.1.7 and the description in this report under this activity) for pinpointing the technical needs of the laboratory of Hydromet (purchasing laboratory equipment). The seminars will be used to identify relevant technical gaps from the laboratory equipment (if existing) as well as organisational constraints when the seminars are held. It is envisaged to close this activity by the end of March 2007.

## **2E ASSESSMENT**

### **Overall assessment of progress**

During the reporting period 117,5 expert days took place. Now, 70.1 percent of the foreseen mission working days are done. Obviously, it still was not possible to equalise the delays resulting from the first project months. Therefore the twinning partners decided to apply for an extension of the project by another 3 months. In order to achieve the benchmarks a prolongation of the project implementation period by 3 months will be necessary. An addendum is under preparation. In addition the addendum will announce the replacement of Mr. Nikola Marjanovic by the new Director for Water Mr. Aleksandar Prodanovic as the new Serbian project leader.

Referring to Component 1 the preparing of some training materials (1.1.4) are still to be done. The activities 1.3.2, 1.3.3 and 1.3.4 are proceeding. The human resource development strategy has already started (1.4.2). Activity 1.5.1 is mostly done and 1.5.3 is ongoing. All the resting activities are done (exceptionally 1.4.1 with well known reasons). Concerning upcoming works related to the activity 1.2.2 and activity 1.1.5 the CORINE land cover map was finally provided in digital format and is currently being analyzed.

Activity 2.1.1 report is completed awaiting only the signatures of the Serbian partners (see Annex). The delay of the activity 2.1.2 is only restricted to groundwater issues (see Annex). The delay with activity 2.1.3 has been diminished and is definitely not critical in the sense that the reaching of the benchmarks is endangered (see Annex)

The given critical personal resource situation at the Directorate for Water which is definitely severely understaffed is still a continuous hindering barrier to bring the work of the project faster forward in time. This situation already mentioned in the report before has not improved considerably since the last mentioning.

On 2<sup>nd</sup> of October 2007 the 5<sup>th</sup> Steering Committee Meeting took place. The minutes of this meeting are attached in the Annexes.

The Joint Working Group took place on 6<sup>th</sup> of November 2007, since the 7<sup>th</sup> meeting scheduled for the 9<sup>th</sup> of October 2007 dropped out owing to a lack of participants. The minutes of those meetings are attached in the Annexes.

## **2F ANNEXES**

List of annexes

Report from the activity 2.1.1  
Strategy for Redesign of Surface Water Monitoring Program  
Agendas and participants lists for 6 seminars  
Minutes from the seventh meeting of Joint Working Group  
Minutes from the eighth meeting of Joint Working Group  
Report and Technical Specification Lists for Automated Monitoring Stations  
Draft of the Handbook for Sampling  
Minutes of 5<sup>th</sup> Steering Committee Meeting  
Quarterly Financial Report