



This project is funded by
The European Union

Environmental Protection of International River Basins Project

Contract No. 2011/279-666



A project implemented by a Consortium
led by Hulla & Co. Human Dynamics KG

Terms of Reference

Field survey of municipal waste water treatment discharges in Carpathian National Nature Park in the Upper Prut basin and design of monitoring programmes for the national park in accordance with the Water Framework Directive

I. Background and Objectives

The EPIRB project targets the improvement of water quality in the trans-boundary river basins of the wider Black Sea region and Belarus. It supports the move towards modern management tools and compliance of the EU Water Framework Directive (WFD) by building capacities, learning-by-doing, and through the development and implementation of River Basin Management Plans for selected pilot river basins according to the requirements of WFD.

The objectives of the assignment is to:

- 1) Undertake a survey of critical legal municipal waste water discharges and ambient water quality at key locations in the Upper Prut basin in the territory of Ukraine, principally within the Carpathian National Nature Park; and
- 2) Evaluate existing monitoring plans with the Carpathian National Nature Park and design new monitoring plans in compliance with the WFD and the Habitats Directive.

Background:

Carpathian National Nature Park (hereinafter – CNNP Park) was established under the Decree of the Council of Ministers of the Ukrainian SSR as of 03.06.1980 No.376 and the Decree of the President of Ukraine as of 23.03.2010 No.215 "On the extension of the Carpathian National Nature Park".

The Park is a non-profit, environmental, recreational, cultural, educational, scientific and research institution of the national importance and belongs to the protected areas of Ukraine.

The area of the Park totals 51570.80 thousand hectares consisting of forest land for permanent use (38340.46 hectares) and the land of other land users (13230.33 hectares) which belong to the park and where traditional economic activities, which meet the general requirements for environment protection, are carried out.

Plots of land and water with all the natural resources and sites are excluded from economic use and given to the Park in accordance with the current legislation of Ukraine.

The boundaries of the Park are demarcated through the setup of the necessary approved state information security signs and mapping in the existing maps of the State Committee for Land Resources and Land Users and must be taken into account during the reconstruction and development of the surrounding areas. The right to use land is exercised through relevant documents.

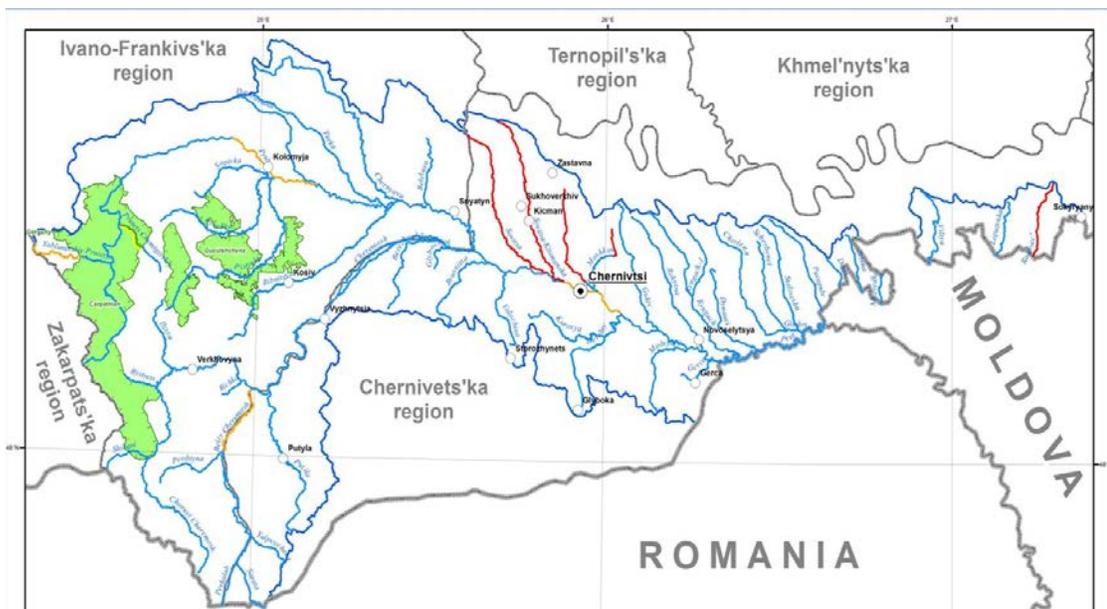
The park is located on the north-eastern slopes of the Ukrainian Carpathians and includes the territory within the altitudes of 500 - 2061 m above sea level, to the north of the Chornohirskiy watershed, till Yaremche town

along the Prut River and western tributaries of the Chornyi Cheremosh. The length of the park from the northwest to the southeast totals 55 km, from east to west - 20 km. It was established in 1980 and covers 50,5 thousand ha in Ivano-Frankovsk Region. It is the first National Nature Park established in the territory of Ukraine. In the park operate dozens of recreation centers, several health centers, and several sports centers and summer camps. Through park territory pass most climbing routes to Mount "Hoverla" (2064 m) on the border of Transcarpathia Region and CNNP. The park administration is located in Yaremche city.

Park's activity is based on the Constitution of Ukraine, the Laws of Ukraine "On Environmental Protection", "On the Nature Reserve Fund of Ukraine", "On the scientific and technical activities" other laws of Ukraine, regulations, The Project of the territory organization and the Regulation on the Carpathian National Natural Park.

The park is a legal entity with its own balance, registration account in the department of State Treasury of Ukraine, the seal with the State Emblem of Ukraine and its name, stamps, letterheads, logo, which are duly registered. The park reports to the Ministry of Ecology and Natural Resources of Ukraine.

EPIRB project has undertaken both groundwater and surface water Field Surveys in Upper Prut River Basin in 2013 and 2014. The results has enable the project establish 'reference conditions' for the various water body types and determine 'good ecological status' (WFD 2000/60/EC) of the water bodies within the Natural Parks. A major pressure that has been identified is tourism, where resorts near/in the Natural Parks are discharging waste water and solid wastes into the River Prut, clogging of river channels and worsening of the waters ecological status. In order to maintain the Prut's good ecological status more attention to control and policing of these discharges is required by the regulatory authority.



Picture 1. Overview map of the Upper Prut River basin (Ukraine)

A number of weaknesses in the monitoring systems in the basin of the Upper Prut have been identified during the RBMP with respect to the WFD, including:

- no items for checking the quality of water in small rivers, especially in small settlements and rural area;
- there is no database on water abstractions and discharges;
- lack of assessment of the quality of surface and ground water (except multiplicity exceeding MPC); not measured concentrations in river waters synthetic surface-active substances, phosphorus and other pollutants according to Ukrainian and WFD requirements ;

- no data monitoring of pollutants that come from non-point sources, description of the sources and their potential threats to the aquatic environment;
- hydrobiological monitoring data (conducted by the Central Geophysical Observatory of the Hydro-meteorological Centre of Ukraine) does not include the parameters for assessing surface water quality required by the EU Water Framework Directive;
- no hydromorphological monitoring to detect the destruction of river banks, changes to the beds and deposition of sediments is undertaken.

Beneficiary and recipients:

Beneficiary: Ministry of Ecology and Natural Resources of Ukraine (MENR).

Recipients: Administration of the Carpathian National Nature Park (MENR), Prut River Basin authority (State Water Agency of Ukraine), Administration of the Carpathian National Nature Park (MENR), local authorities, local communities, NGOs.

II. Scope of Work and Deliverables

The major steps and deliverables are described below:

Deliverable 1: Inception report - outlining contractor's appreciation and implementation methodology

Deliverable 2: Municipal waste water discharges survey of the Upper River Prut, focusing on the Carpathian National Nature Park.

The contractor shall undertake the sampling and laboratory analysis for a survey of licensed municipal waste waters in the Upper Prut River basin, focusing on the impact on Carpathian National Nature Park. The survey will be undertaken in late spring 2015 and the results will be made available in July 2015 and reported in accredited laboratory procedures. The survey will be undertaken by accredited laboratory under a separate contract and will include physical-chemical parameters at the selected points. The Beneficiary (Carpathian Nature Park is under the management of Ministry of Ecology) must conserve the Good Ecological status of Prut water bodies. There are not official monitoring sites in Park and there is a lack of control of waste water discharges. The Beneficiary will use the survey information for strengthening the strict observance of ecological standards regarding EU Water Framework Directive obligations. Monitoring sites will be selected in relation to known discharge sites. Monitoring will include biological as well as standard chemical parameters.

Deliverable 3: Review of existing monitoring plans with the National Park and the design a new monitoring plan in compliance with the Water Framework Directive.

The contractor shall undertake a thorough review of the existing Surface and Ground water monitoring plans of the Carpathian National Park in respect to chemical, hydro-biological and hydro-morphological parameters and identify the short-falls in meeting the requirements of the WFD and the UWWTP, Habitats Directive and the Nitrates Directive. The review shall high-light the capacity building and training needs both within the local laboratories, identify and estimate the investment needs (incl. equipment).

The contractor will design a comprehensive monitoring plan for the Carpathian National Nature Park including surveillance and operational components and where identified investigatory components in compliance with the WFD and to be implemented in phased stages. The monitoring plan will incorporate a financial implementation plan and will be presented to the stakeholders, beneficiaries and potential donors at final workshop to be held at the Carpathian National Nature Park head office. Furthermore, once implemented, the monitoring will provide regulatory authority a cost effective mean of tracking trends in ambient water quality

and being able to pin-point problem discharges. It will enable them to establish water quality standards and track trends. Finally, they will be able to put pressure on the discharges to improve water quality through enhanced treatment.

Deliverable 4: Final Report to include a summary of activities and lessons learnt.

III. Schedule and Implementation Modality

Duration of the assignment is 8 months. It was time calculated bearing in mind inception period, preparation and realization of field survey, reports of sampling analyses, than review and design preparation of monitoring plan, discussing with beneficiary and providing the final workshop with local authorities. Activities takes time for implementation and should be finished till end of the current year. The expected commencement date for implementation of the assignment is March, 2015, and the completion date – October, 2015. The assignment is divided into 3 deliverables with the following general schedule:

<i>Field survey of municipal waste water treatment discharges in Carpathian National Nature Park in the Upper Prut basin and design of monitoring programmes for the national park in accordance with the Water Framework Directive and the Habitats Directive</i>	2015							
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Deliverable 1: Inception report - outlining contractor's appreciation and implementation methodology								
Deliverable 2: Municipal Waste water survey of the Upper River Prut, focusing on the Carpathian National Nature Park								
Deliverable 3: Review of existing monitoring plans with the National Park and the design new monitoring plans in compliance with the WFD and the Habitats Directive.								
Deliverable 4: Final Report to include a summary of activities and lessons learnt.								

The approximate schedule and description of the deliverables is given in the table below:

Summary of the work schedule and deliverables for the Prut River Basin in Ukraine

Deliverable	Max. No. of pages excl. Appendices	Language of deliverable	Start date	Due date for draft report	Finalization
Deliverable 1: Inception report - outlining contractor's appreciation and implementation methodology	5 -10	English	02 Mar 15	26 Mar 15	31 Mar 15
Deliverable 2: Municipal Waste water survey of the Upper River Prut, focusing on the Carpathian National Nature Park	30 - 40	Ukraine / English	01 Apr 15	15 June15	30 June 15
Deliverable 3: Review of existing monitoring plans with the National Park and the design new monitoring plans in compliance with the WFD and the	30	Ukraine/ English	01 July 15	21 Sep 15	30 Sep 15

Habitats Directive.					
Deliverable 4: Final Report to include a summary of activities and lessons learnt.	45	Ukraine/ English	01 Oct 15	19 Oct 15	31 Oct 15

The draft deliverables reviewed by the beneficiary and the project team members and final approval of deliverables will be given by the EPIRB Team Leader. Payments shall be made on approval of deliverables and divided into four tranches given below:

- Tranche 1: 10% on acceptance of inception report;**
Tranche 2: 30% on acceptance of Phase 2 deliverables;
Tranche 3: 30% on acceptance of Phase 3 deliverables;
Tranche 4: 30% on acceptance of Phase 4 deliverables;

Drafting, reporting and implementation of above deliverables will be coordinated, advised and monitored by the project team, consisting of the Team Leader, respective River Basin Management Expert and the project Key and Non-key experts. In addition, the target and other beneficiary institutions, as well as members of the National Coordination Committee (NCC) and the Prut Basin Management Authority will take an active part in collecting data, reviewing of deliverables and final report.

IV. Qualifications and requirements to the service provider/contractor

- Laboratory facilities for the analysis of waste waters and ambient waters in the Upper Prut basin.
- Knowledge of existing monitoring programmes
- Experience of the monitoring requirements of the WFD, UWWTP, Habitats and the Nitrates Directives.

V. Detailed budget proposed

The activities will be closely coordinated, assisted and monitored by the EPIRB project team members, respective RBM Expert and the project director. In addition, the target and other beneficiary institutions, as well as members of the National Coordination Councils might take active part in the actions as well.