



Environmental Protection of International River Basins Project

Contract No. 2011/279-666



This project is funded by
The European Union

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

Terms of Reference

Prefeasibility study for design of hydrological and water quality monitoring stations and design and construction of the hydro-static monitoring system in the Chorokhi-Adjaristkali pilot basin of Georgia

I. Background and objectives

The consultant will assist Human Dynamics to fulfil its requirements under the EU technical assistance contract 'Environmental Protection of International River Basins (EPIRB)' (Terms of Reference given in Annex 1). The overall objectives of the EPIRB project are:

- To improve availability and quality of data on the ecological, chemical, and hydro-morphological status of trans-boundary river basins including groundwater; and
- To develop River Basin Management Plans for selected river basins / sub-river basins according to the requirements of the WFD.
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The project is being implemented in six countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and five pilot river basins:

- Akhurian Basin District (Armenia),
- Central Kura (Azerbaijan),
- Upper Dnieper Basin (Belarus, Ukraine),
- Chorokhi-Adjaristskali Basin (Georgia),
- Prut Basin (Moldova, Ukraine)

As part of the River Basin Management Plan development process the project will implement selected number of improvement measures from the overall Programme of Measures (PoM), as defined under the Water Framework Directive. The selected measures have been agreed with the beneficiaries in each country and will be executed in accordance with the EC contractual conditions. In the Republic of Georgia the following measures have been chosen:

- Development of secondary legislation in support of new Water Code to be adopted in May. This will include the delineation of river basins and basin authorities as well as establishment of WFD < 20,000, including:

Legal act on defining rules for identification and delineation of water bodies (date required 31.12.14)

Legal act on defining procedures for development, review and adoption of RBMPs (date required 31.12.14)

Statute on River Basin Management Planning (date required 01.07.14)

Legal act on defining basin-territorial entities for integrated management of river basins (date required 31.07.15)

Defining rules for planning and implementation of monitoring water resources (date required 01.07. 15)

Statute on calculation of limited permissible concentrations (LPCs) for discharge of pollutant substances in surface water objects (date required 31.07.15)

- Full design of hydrological and water quality monitoring stations (2) at key locations in the Chorokhi river basin, including a transboundary location on the Georgian/Turkish border, plus proposals for comprehensive hydro-static water resource monitoring network. The designs will include site surveys, tender drawings, bill of quantities and contract documents for at least two sites. There will be a small contract issued to the Environmental Monitoring Centre to prepare a prefeasibility study and contract documents for a larger feasibility study.

The existing monitoring network in the Choroki-Adjaristkali pilot basin is insufficient and does not address WFD norms or existing national standards both for water quality and quantity monitoring. There exist only two operation hydrological stations, with outdated and non-calibrated equipment, measuring water levels only (no morphological elements) and few water quality observation points, mostly located close to the Black Sea coast and focusing on limited water quality elements.

Main objective of this pilot project will be assisting the Ministry of Environment and the Black Sea Monitoring Department (BSMD) of the National Environmental Agency of Georgia for establishing WFD compliant Monitoring Network and strengthening their capacity for data collection, analysis and processing.

The following Terms of Reference are for a pre-feasibility study for the design of improvements to the hydrological and water quality monitoring stations and an upgrading of the hydro-static monitoring system in the Choroki-Adjaristkali river basin, including preparation of the contract documents.

II. Scope of works

1. Pre-feasibility study and preparation of tender documents

This contract will support the project beneficiaries in preparation of tender package, evaluation of applications, sub-contracting and supervising implementation of the project goals. The contract will consist of a feasibility study for the proposed monitoring network design and will including the following specific task:

- Identification and assessment of potential site(s) for design full scale hydrological and water quality monitoring stations at key locations of the Chorokhi River, including at transboundary reaches of the Georgian/Turkish border, as well as possibly at river mouth;
- Propose comprehensive hydro-static water resource monitoring network at critical hydrological reaches of the Chorokhi-Adjaristkali River Basin;
- Provision of detailed description of the physical characteristics of the proposed sites, including topography, geology, hydro-morphology, cross-section survey of the sites, etc.;
- Provision of standard specifications for the works according to the national legislation;
- Provision of detailed specification of the required gauging equipment and sensors;
- Preparation of the contract documents for full design of monitoring stations and up-grading of the hydro-static monitoring system.

2. Tender evaluation

The contractor will participate in the technical evaluation of the tender documents for monitoring station design and construction with representatives of Human Dynamics and the project team.

3. Oversight

The contractor will assist in the oversight of the contractor appointed to undertake the full design of the hydrological & water quality monitoring stations; and design, construction and refurbishment works of hydro-static water resource monitoring stations. Upon successful completion of all works the contractor shall issue certificate of completion.

III. Implementation, deliverables and timeframe

The duration of the assignment is **18 months**. The expected commencement of the assignment is May 26, 2014 and the completion date is October 30, 2015. The assignment is divided into three consecutive phases with the following schedule:

Task	2014								2015									
	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Preparation of a tender package																		
Tender evaluation																		
Oversight																		

The assignment is divided into the following stages:

- Identification and description of selected sites – 31 July 2014
- Specification and initial Bill of Quantities – 31 August 2014
- Contract documents – 30 September 2014
- Tender evaluation – 30 October 2014
- Technical oversight November 2014 to 30 October 2015

IV. Remuneration and payment schedule

The contractor will receive a lump-sum of **5,000 euro** for the above services.

The tranches made will be subject to acceptance of the main three tasks above, namely - 70% upon approval of the tender package, 10% after the evaluation and 20% upon submission of the completion certificate.

V. Reporting

The contractor shall report to the project TL Timothy Turner and DTL Zurab Jincharadze regarding overall deliverables and and overall management issues.