



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

Preparation of design and contract documentation and site supervision for refurbishment of groundwater monitoring wells in the Prut pilot river basin of the Republic of Moldova

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.

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 Moldova the following measures have been chosen:

- Design and implementation of baseline surveys and design of WFD surveillance ecological monitoring programme for Beleu Lake situated in the Prut River basin. The Biliu Lake has a high biodiversity value and are of national and international importance -25,000
- Development of Monitoring programme to investigate the causes of salination of groundwater sources of the Prut basin (natural or anthropogenic) including the refurbishment and automation of currently inoperable boreholes
- Development of water abstraction and discharge cadastre for the Prut basin based on DanubeGIS and ground-truth surveys



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The following Terms of Reference are for the preparation of design and tender documents for a new groundwater monitoring programme to investigate the causes of salination in the Prut river basin. The design will include construction of one new well and refurbishment and automation of up to 15 GW monitoring wells in the basin. The design and supervision of the construction works will be undertaken by the state Hydrogeological Agency Chisinau, Moldova.

II Scope of Works

The contractor is responsible for preparation of the design, tender documentation and site supervision, including the following:

1. Preparation of design and tender documents

- Preparation of overall design report of the surveillance monitoring programme, including identification of location of the proposed new groundwater monitoring well and 15 wells proposed to be refurbished and automated
- Detailed description of the actual situation of the sites, conditions, rock formation (for the new observation well), including pictures from the sites;
- Provision of standard specifications for the works according to national requirements;
- Preparation of the bill of quantities;
- Provision of detailed specification of gauging equipment (LTC logger, barologger, GSM telemetric system. Salinity meter);
- Preparation of the contract documentation.

2. Tender evaluation

The contractor will participate in the technical evaluation of the tender documents with representatives of Human Dynamics and the project team.

3. Oversight

The subcontractor will be provide oversight of the construction and refurbishment works, and upon successful completion of all works shall issue certificate of completion in accordance with contract provisions.

III Implementation, deliverables and timeframe

The duration of the assignment is **18 months**. The expected commencement of the assignment is June 20, 2014 and the completion date is December 20, 2015. The assignment is divided into three consecutive phases with the following schedule:

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



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The assignment is divided into the following stages:

- Identification and description of selected groundwater sites, summarised in design report – 31 August 2014
- Design drawings and Bill of Quantities – 31 August 2014
- Contract documents – 30 September 2014
- Tender evaluation – 30 October 2014
- Site supervision – 1 November 2014 to 1 August 2015
- Initial evaluation report – December 2015

The design report and initial evaluation report shall be prepared in English and Romanian language. All contract documents will be prepared in Romanian language

IV Remuneration and payment schedule

The contractor will receive a lump-sum of **5,000 euro** for the above services to be paid in two tranches. The first tranche of 4,000 euro to be paid on the production of design report and contract documents and the second of 1,000 euros on submission of the completion certificate and evaluation report.

V Reporting

The contractor shall report to Timothy Turner, the project Team Leader, regarding overall deliverables and Viktor Bujac, the Country Water Management Expert for Moldova, for all day-to-day management issues.