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# BACKGROUND INFORMATION

## Partner country

Republic of Serbia

## Contracting authority

The Provincial Secretariat for Urban Planning and Environmental Protection

Bulevar Mihajla Pupina, 16, 21101 Novi Sad, Republic of Serbia

## Country background

Not applicable.

## Current situation in the sector

Not applicable.

## Related programmes and other donor activities

Interreg VI-A IPA Hungary-Serbia Programme.

# OBJECTIVES & EXPECTED OUTPUTS

## Overall objective

The overall objective (Impact) to which this action contributes is :

**BEST WASTEWATER, overall objective:**

Project Partners have a network of more than 100 km of sewage/stormwater drainage. Wastewater discharged into the soil and Tisza is a major source of pollution. Climate change is also having a negative impact on the canals, where blockages and overloads can occur. The aim of the partnership is to protect the water of the Tisza, reduce environmental pollution and prevent wastewater from reaching the ground. The equipment’s and activities will also make the canals' maintenance and assessment more efficient.

## Specific objective(s)

The specific objective (Outcome) of this contract is as follows:

* Mapping of industrial waste water polutions for project: BEST WASTEWATER.

## Expected outputs to be achieved by the contractor

The service will be paid on the basis of the delivery of the specified output(s). Payments might be totally or partially withheld if the contractual result(s) have not been reached in conformity with the detailed terms of reference. Payment(s) is/are based on the approval of this/these deliverable(s). Partial payment has to be determined according to the partial implementation of the output(s).

The expected output of this contract are as follows:

* This Water quality map will cover the industrial water pollutions and water quality in the 75 km area covered by project area and it will produces a colour-coded map of Tisa river industrial polluters.

# ASSUMPTIONS & RISKS

## Assumptions underlying the project

Not applicable.

## Risks

Not applicable.

# SCOPE OF THE WORK

## General

### Description of the assignment

**Procurement for Service of mapping of industrial waste water polutions for project: BEST WASTEWATER, Water quality map:**

This Water quality map will cover the industrial water pollutions and water quality in the 75 km area covered by project area and it will produces a colour-coded map of Tisa river industrial polluters. This Water quality map is going to be prepared based on mapping industrial polluters and chemical analysis of waste water quality. For this particular analysis will be used new purchased mobile laboratory equipment. This is unique type of water quality map because the laboratory equipment is going to be the newest way of water quality analysis, and also is going to be the first step for future monitoring of water quality from industrial polluters and other polluters.

### Geographical area to be covered

Autonomous Province of Vojvodina, Republic of Serbia

### Target groups

* General population,
* Local, regional and national governments.

## Specific work

The Consultant will be required to provide technical assistance with implementation of mapping of industrial waste water pollutions.

**Water quality map:**

This Water quality map will cover the industrial water pollutions and water quality in the 75 km area covered by project area and it will produces a colour-coded map of Tisa river industrial polluters. This Water quality map is going to be prepared based on mapping industrial polluters and chemical analysis of waste water quality. For this particular analysis will be used new purchased mobile laboratory equipment. This is unique type of water quality map because the laboratory equipment is going to be the newest way of water quality analysis, and also is going to be the first step for future monitoring of water quality from industrial polluters and other polluters.

The objectives of the map

This map will shows industrial waste water locations and their quality. Data will be presented on project website.

The previous insufficient and inadequate care for water protection has brought us to a situation where the concept of protection based on the quality control of river water in a broader sense must be considered a long-term goal. In this context, the implementation of short-term and therefore pragmatic programs (in the first place defining limit values of emissions-GVE) in water protection must gradually lead to carefully defined long-term protection goals for each watershed and watercourse.

Long-term requirements for water quality, in addition to integral water management and other interests, must respect many local natural, still insufficiently studied peculiarities of aquatic systems. In a situation where the number of built facilities for purifying urban and industrial waste water is objectively small, and legally, i.e. guidelines or standards for effluent quality do not regulate acceptable emission, data on the quality of surface water are insufficient for a true evaluation of the emission.

For the management of water protection in the Water Management Plan according to the Law on Water, the following is important: - presentation of the significant impacts of human activities on the status of surface and underground waters, including the assessment of pollution from concentrated and scattered pollutants, as well as the review of land use, assessment of pressures on the quantitative status of water and its capture; - identification and creation of maps of endangered areas; - a map of the monitoring network and a cartographic presentation of the monitoring results, which includes the ecological and chemical status of surface waters and the chemical and quantitative status of waters near protected areas, as well as possible deviations from the established deadlines for the implementation of the water management plan; - a list of environmental objectives in terms of surface waters, including cases in which the extension of the deadline for reaching the goals and less stringent protection goals for certain water bodies are applied; - water balance; - identification of agglomerations larger than 2000 ES; - with a map showing the position of the protected areas and the specified regulations according to which those areas were declared as protected; - presentation of the adopted program of works and measures and the way in which the established goals will be achieved in the field of protection against the harmful effects of water, water protection (including measures to stop the trends of constant and significant deterioration of the status of water and their reversal, protection measures aimed at the application of a lower degree of purification in the production of drinking water, prohibition of introduction and control of pollution emissions, prohibition and cases for which direct discharge of pollution into groundwater is allowed, prevention and reduction of the impact of accidental pollution, etc.) and water management and use (provision of water for drinking and other needs, protection of water sources intended for human consumption in the future, control over abstraction and accumulation of water, including bans on water use, economic prices of used water and others); - a presentation of the economic analysis of the use and protection of water and water protection, carried out with the application of the "user pays" and "polluter pays" principles; - procedures for obtaining basic documentation and information, especially details on the adopted control measures for concentrated sources of pollution and ensuring that the hydromorphological conditions of water bodies are in accordance with the achievement of the required ecological status or good ecological potential for artificial and significantly modified water bodies, as well as details on monitoring data;

Bearing in mind the sensitivity of Vojvodina's water receivers, it is necessary to carefully assess the pressures on watercourses and identify water bodies, because these activities will have a direct impact on further development by conditioning the emission of pollution, i.e. the degree of processing of waste water before discharge into watercourses. It is necessary to create a study that will take a detailed look at this problem and propose mitigation measures and, where possible, improve the situation. One of the measures is the reduction of the limit value of the emission, which requires greater financial investments in plants and a careful selection of technologies for wastewater treatment. Another possibility is to dilute the watercourse with fresh surface water, which again requires investments in pumping stations and an increase in energy consumption. Also, it is necessary to look at the impact of treated waste water of the existing industry on watercourses. The data obtained in this way will enable appropriate measures to be taken in the water management system on the territory of AP Vojvodina.

Content of the map:

The most endangered sections of rivers and canals in AP Vojvodina Tisza to the dam on the Tisza Cross-border as well as influence from Hungary and industrial and municipal waters from the project area. In industrial wastewater, depending on the type of industrial enterprise, it can be: metals, oil and derivatives, various solvents, phenolic compounds, organic acids, alcohols, aldehydes, etc. Pollutants in water of anthropogenic origin can be divided into two groups: substances without a specific toxic effect (proteins, fat and oils, etc.) and with a specific toxic effect (metals, pesticides, etc.).

The map will contain and include industrial polluters along the Tisa river. The mapping will be carried out based on the analysis of water samples at the outlet of industrial facilities in the project area with new mobile equipment. In the following tables, the description of the method and the parameters to be measured, the number of the analysis, or the size of the reagent package are indicated. Also, the equipment will be used to analyze the water on both sides of the border and the data will be entered into the water quality map in order to get an overall picture of the water quality in the project area. The number of analyzes of certain parameters will depend on the type of industry, considering that not all industries produce the same pollutants. One sampling can contain the analysis of several parameters, for this reason, the number of possible analyzes is given in the tables.

Given that four devices are purchased and that each of them covers a certain number of possible parameters for analysis, four tables are divided, each of which refers to one device. During the implementation of the project, water will be sampled at the outlet of industrial pollutants on both sides of the border, namely at least 5 industries from Hungary and 5 industries from Serbia, which are located in the project's cross-border area. From each sample, several analyzes of pollutant parameters will be performed. The total number of samples will be a minimum of 10, while the total number of analyzes will be a maximum of 282 with 4 mobile laboratory samples.

The map itself will contain all the data obtained from all the partners on all pollutants either industrial or other pollutants along the Tisza river located in the border region of the project area.

## Project management

### Responsible body

The Provincial Secretariat for Urban Planning and Environmental Protection

### Management structure

The responsible person for implementation of the tasks related to this contract, in the Contracting Authority is Teodora Subotić, Project coordinator.

### Facilities to be provided by the contracting authority and/or other parties

Not applicable.

# LOGISTICS AND TIMING

## Location

Tasks related to this contract will be implemented in Republic of Serbia and in the Interreg VI-A IPA Hungary-Serbia Programme area.

## Start date & period of implementation of tasks

The intended start date is signature of the contract by both parties and the period of implementation of the contract will be 12 months from this date. Please see Articles 19.1 and 19.2 of the special conditions for the actual start date and period of implementation.

# REQUIREMENTS

## Personnel

Note that civil servants and other staff of the public administration of the partner country, or of international/regional organisations based in the country, shall only be able to provide input as experts if well justified. The justification should be submitted with the tender and shall include information on the added value the expert will bring as well on any potential interference or conflict of interest of the proposed expert in his/her function as expert and his/her present or previous functions working as civil servant. Moreover proof should be submitted that the expert is seconded or on personal leave.

The selection procedures used by the contractor to select the experts who provide input to the contract must be transparent, must guarantee the absence of professional conflicting interests and the absence of any discrimination based on former or current nationality, gender, place of residence, or any other ground. The findings of the selection panel must be recorded.

All experts must be independent and free from conflicts of interest in the responsibilities they take on.

### Experts

Expertise in industrial waste water polutions is necessary to proficiently complete the output defined in this ToR. The Consultant will select the best possible staff to deliver the expected output, and it is up to the Consultant to define the precise inputs of the expert necessary for the task.

### Support facilities & backstopping

The costs for support facilities, including backstopping, are included in the tenderer's financial offer.

## Office accommodation

Office accommodation for each expert providing input to the contract is to be provided by the Consultant.

## Facilities to be provided by the contractor

The contractor shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

## Equipment

**No** equipment is to be purchased on behalf of the contracting authority / partner country as part of this service contract or transferred to the contracting authority / partner country at the end of this contract. Any equipment related to this contract which is to be acquired by the partner country must be purchased by means of a separate supply tender procedure.

# REPORTS

## Reporting requirements

The Consultant will submit the following reports in English in one original and one copy:

* **Interim reports** shall be submitted in September 2025. The approval of interim reports will be the basis for issuing respective interim payments as indicated in the Special Conditions. The interim reports must be provided along with the corresponding proforma invoice.
* **Final report** at the end of the contract, upon all contract results have been achieved. The approval of the final report by the Contracting Authority will be the basis for issuing final payment as indicated in the Special Conditions. The final report must be provided along with the corresponding invoice.

## Submission and approval of reports

The report referred to above must be submitted to the project manager identified in the contract. The project manager is responsible for approving the reports.

# MONITORING AND EVALUATION

## Definition of indicators

Services provided in timely, quality and quantity manner, as required in these Terms of Reference.

## Special requirements

Not applicable.

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