

**GROUNDWATER MANAGEMENT, USE AND PROTECTION
PROGRAMME (GWP) IN NORTH MACEDONIA**

**Phase 1
January 2024 – December 2027**

**Development and implementation of a system for de-
lineation, classification and establishment of Refer-
ence Conditions for surface water bodies in the Var-
dar River Basin**

RFP-01-2025

Request for Proposal

3 March 2025

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1. INVITATION FORM

Programme title:	Groundwater Management, Use and Protection Programme (GWP) in North Macedonia – Phase 1
Reference:	Request for Proposal: Development and implementation of a system for delineation, classification and establishment of Reference Conditions for surface water bodies in the Vardar River Basin (RFP-01-2025)
Internal code:	<i>Activity 3.2-2 Development of Classification System for surface and groundwater bodies (T322.A Development of hydro-morphological assessment framework harmonized with other water quality elements, T322.B Revision and delineation of groundwater bodies with GIS datasets, T322.C Development of typology for surface water bodies with GIS datasets, T322.D Revision and delineation of surface water bodies with GIS datasets, T322.E Definition of reference conditions and development of classification system for ecological status, potential and chemical status)</i> <i>Activity 3.2-3 Preparation of study on Pressures and Impacts on surface and groundwater bodies (T323.D Hydro-morphological assessment in the Vardar River Basin)</i>
Type of contract:	Contract for Services
Duty station:	Skopje, North Macedonia / Home office
Duration of contract:	24 months
Announcement date:	4 March 2025
Submission deadline:	31 March 2025 16.30 CET

Dear Sir / Madam:

The “Groundwater Management, Use and Protection Programme (GWP)”¹ (hereinafter the Programme or GWP) kindly invite you to submit your Proposal² in MKD or EUR³ (VAT excluded) for **Development and implementation of a system for delineation, classification and establishment of Reference Conditions for surface water bodies in the Vardar River Basin**. The proposal must be submitted electronically **before 16.30 CET on 31 March 2025** to the following dedicated email:

northmacedonia@skat.ch

Please note that technical and financial offers must be submitted electronically to the dedicated email.

Please use the following e-mail subject: RFP 01/2025 Development and implementation of a system for delineation, classification and establishment of Reference Conditions for surface water bodies in the Vardar River Basin

¹ The Programme is funded by the Government of Switzerland and implemented by the Consortium of Skat Consulting Ltd., St. Gallen, Switzerland and Point Pro Consulting, Skopje, North Macedonia. This procurement is organized by Skat Consulting AG – Branch Office Skopje.

² Please be guided by the form attached hereto as **Annex 2**, in preparing your Proposal.

³ For national bidders the financial proposal must be in MKD and for international bidders in EUR.

The technical offer must be submitted in one PDF document. The financial offer must be submitted in one file as well and encrypted with a password. The financial offer shall be DIGITALLY signed or signed and scanned in the .pdf format.

Max. size of uploaded files (per document) must not exceed 20 MB

Password for Financial Offer shall be provided to GWP ONLY upon conclusion of the deadline and required by e-mail⁴.

Companies failing to meet this requirement will be disqualified. Your Proposal must be valid for a minimum period of 120 days, after the deadline of the submission of the proposals.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the email address above on or before the deadline. Proposals that are received after the deadline indicated above, for whatever reason, shall not be considered for evaluation.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of this procurement.

Any discrepancy between the unit price and the total price shall be re-computed by the GWP Programme, and the unit price shall prevail, and the total price shall be corrected. If the Service Provider does not accept the final price based on GWP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by the GWP after it has received the Proposal. At the time of Award of Contract or Purchase Order, the GWP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five percent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any contract that will be issued as a result of this RFP shall be subject to the General Terms and Conditions indicated herein. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of the GWP (see Annex 9).

Please be advised that the GWP is not bound to accept any Proposal, nor award a contract, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

The GWP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to the GWP if you, or any of your affiliates or personnel, were involved in the preparation of the Terms of References, or other requirements, cost estimates, and other information used in this RFP.

Thank you and we look forward to receiving your Proposal.

⁴ Password protection of a PDF document can be done by using free software, such as Adobe Reader for example. Open the PDF and choose Tools > Protect > Encrypt > Encrypt with Password. Companies that will pass the technical evaluation will be approached by GWP to share the passwords to the financial offers.

2. DESCRIPTION OF REQUIREMENTS

1	Brief Description of the Required Services	The objective of the assignment is to provide technical assistance in development and implementation of classification system for surface and groundwater bodies in the Vardar River Basin. The scope of work includes conducting a comprehensive assessment of existing data, defining the criteria for classification of water bodies, conducting delineation of surface water bodies and assigning typology of the surface water bodies within the basin. Additionally, the work will involve the establishment of reference conditions to evaluate the ecological status of water bodies based on EU water legislation and national standards. The system must be developed with a focus on practical implementation in Vardar River basin and used in the efforts of development of the management plan for this river basin by the Groundwater Management Programme (GWP).
2	List and Description of Expected Outputs to be Delivered	Refer to the main deliverables and indicative timetable described in the Terms of Reference. All deliverables shall be submitted in English language.
3	Frequency of Reporting and Progress Reporting Requirements	As proposed in the company's methodology, aligned with the Terms of Reference and agreed with GWP prior to contract signing
4	Location of work	<input type="checkbox"/> Exact Address/es [pls. specify] <input checked="" type="checkbox"/> At Contractor's Location
5	Expected duration of work	22 months after the signing of the contract
6	Target start date	1 st May 2025
7	Estimated completion date	26 th February 2027
8	Language of the Proposal	English
9	Pre-proposal conference	Not Applicable
10	Travels Expected	Representatives of the Contractor are expected to travel to North Macedonia to participate in presentations of the work/reports/deliverables which will be agreed in prior with the Programme staff. The accommodation and travel expenses for such events will be organized and covered by the Programme.
11	Implementation Schedule indicating breakdown and timing of activities/sub-activities	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required [A detailed breakdown/timeline of activities needs to be included as part of the company's methodology reflecting the main requirements from the Terms of Reference]
12	Names and curriculum vitae of individuals who will be involved in completing the services	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required
13	Currency of Proposal	<input type="checkbox"/> Other currency (if required) <input checked="" type="checkbox"/> EUR (For international bidders) <input checked="" type="checkbox"/> MKD (For national bidders)

14	Value Added Tax on Price Proposal⁵	<input type="checkbox"/> must be inclusive of VAT and other applicable indirect taxes <input checked="" type="checkbox"/> must be exclusive of VAT and other applicable indirect taxes
15	Bid Security	Will not be applied
16	Liquidated Damages	Will not be applied
17	Performance Security	Not Required
18	Financial Standing	Not Required
19	Validity Period of Proposals (Counting for the last day of submission of quotes)	<input type="checkbox"/> 60 days <input type="checkbox"/> 90 days <input checked="" type="checkbox"/> 120 days In exceptional circumstances, GWP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.
20	Partial Quotes	<input checked="" type="checkbox"/> Not permitted <input type="checkbox"/> Permitted
21	Payment Terms⁶	The payment will be processed in instalments based on the deliverables/milestones defined in the contract signed and in accordance with the company's proposed methodology and approach.
22	Type of Contract to be Signed	<input checked="" type="checkbox"/> Contract for Professional Services <input type="checkbox"/> Other Type of Contract [pls. specify]
23	Evaluation Method for the Award of Contract	<input checked="" type="checkbox"/> Combined Scoring Method (based on the 70% technical offer and 30% price weight distribution) <input checked="" type="checkbox"/> Full acceptance of the GWP's Contract General Terms and Conditions (GTC). This is a mandatory criterion and cannot be deleted regardless of the nature of the services required. Non-acceptance of the GTC may be grounds for the rejection of the Proposal.
24	Criteria for the Assessment of Proposal	<u>Technical Proposal (70%)</u> <input checked="" type="checkbox"/> The expertise of the Firm 150 <input checked="" type="checkbox"/> Methodology, its appropriateness to the ToR and timeliness of the implementation plan 250 <input checked="" type="checkbox"/> Qualification of Key Personnel 300 <u>Financial Proposal (30%)</u> To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by the GWP.
25	GWP will award the contract to	<input checked="" type="checkbox"/> One and only one Service Provider

⁵ The GWP is VAT exempt in the country and all activities implemented by the Programme directly or through contracts are also VAT exempt.

⁶ The GWP's preference is not to pay any amount in advance upon signing of contract. If the Service Provider strictly requires payment in advance, it will be limited only up to 20% of the total price quoted. For any higher percentage, or any amount advanced exceeding CHF 30,000, the GWP shall require the Service Provider to submit a bank guarantee or bank cheque payable to the GWP, in the same amount as the payment advanced by the GWP to the Service Provider.

		<input type="checkbox"/> One or more Service Providers, depending on the following factors:
26	Contract General Terms and Conditions⁷	General Terms and Conditions for contracts (goods and/or services)
27	Annexes to this RFP⁸	<input checked="" type="checkbox"/> Annex 1: Terms of Reference <input checked="" type="checkbox"/> Annex 2: Bidder Submission Form <input checked="" type="checkbox"/> Annex 3: Bidder Information Form <input checked="" type="checkbox"/> Annex 4: Qualification Form <input checked="" type="checkbox"/> Annex 5: Technical Proposal Form <input checked="" type="checkbox"/> Annex 6: Financial Proposal Form <input checked="" type="checkbox"/> Annex 7: Evaluation Criteria <input checked="" type="checkbox"/> Annex 8: General Terms and Conditions for Contracts
28	Contact for Inquiries (Written inquiries sent by email only)⁹	Email to: northmacedonia@skat.ch Any delay in the GWP's response shall be not used as a reason for extending the deadline for submission unless the GWP determines that such an extension is necessary and communicates a new deadline to the Proposers.
29	Deadline for Submission of requests for clarification	7 days before the deadline for submission of offers.
30	Manner of Disseminating Supplemental Information to the RFP and responses/clarifications to queries	By e-mail to the requesting bidder
31	Documents to be submitted	<input checked="" type="checkbox"/> Copy of the registration from relevant Registry in the country of origin defining the constitution or legal status, place of registration, and principal place of business; (no translation required) <input checked="" type="checkbox"/> Annex 2: Bidder Submission Form <input checked="" type="checkbox"/> Annex 3: Bidder Information Form <input checked="" type="checkbox"/> Annex 4: Qualification Form <input checked="" type="checkbox"/> Annex 5: Technical Proposal Form including CVs of proposed experts for the assignment, as per the qualification requirements in the TORs <input checked="" type="checkbox"/> CVs of proposed experts for the assignment, as per the qualification requirements in the TORs <input checked="" type="checkbox"/> Annex 6: Financial Proposal Form

⁷ Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.

⁸ Where the information is available in the web, a URL for the information may simply be provided.

⁹ This contact person and address is officially designated by the GWP. If inquiries are sent to other person/s or address/es, even if they are GWP staff, the GWP shall have no obligation to respond nor can the GWP confirm that the query was received.

		<input checked="" type="checkbox"/> (Optional) Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards, and citations received by the Bidder, if any
32	Other	Maximum budget for this assignment is 115,000 EUR. The GWP Programme holds the right to eliminate offers exceeding the maximum available budget for this contract.

Annex 1: Terms of Reference

Development and implementation of a system for delineation, classification and establishment of Reference Conditions for surface water bodies in the Vardar River Basin

A. BACKGROUND

The Swiss-funded **Groundwater Management, Use and Protection Programme (GWP)** aims at supporting North Macedonia in establishing a sustainable long-term, multi-level, and systematic groundwater management that enables collaborative, effective, and more transparent use of the groundwater resources.

The GWP stakeholders/partners include institutions at central governmental level, research and academia as well as local institutions (e.g. municipalities, public utilities), civil society organisations and the private sector. The **consortium of Skat Consulting and PointPro Consulting** has been mandated by the **Swiss Embassy** in the Republic of North Macedonia to implement Phase 1 of the GWP from Jan 2024 – Dec 2027. Two additional subsequent phases may follow subject to successful implementation of the Programme's first phase and fulfilment of the overall commitment of its main national partners.

[Skat Consulting Ltd.](#) Is a owner-operated leading Swiss company specialising in international cooperation and is dedicated to making available basic services and ensuring dignified living conditions and a healthy environment for all. Skat Consulting supports governments, the private sector and civil society around the globe in improving people's lives by facilitating lasting solutions in water, building, energy and governance.

[PointPro Consulting d.o.o.](#) is a leading management consulting company based in Skopje since 2006 incorporating two business areas: (a) Infrastructure and Sustainable Development and (b) Management Consulting and Corporate Finance.

To facilitate the implementation of the Programme, on a day-to-day basis, a so-called **Programme Facilitation Unit (PFU)** will be hosted together by the Skat Consulting Branch in Skopje and PointPro Consulting. The PFU is responsible for direct implementation of activities.

Although groundwater in North Macedonia is of high strategic importance (e.g. as source of 77% of the drinking water supply), it has not been recognised as such and is therefore **not adequately used, managed and protected**. The responsible institutions **do not have sufficient and adequate capacity**; there is a lack of background information, knowledge and tools for the protection, planning and monitoring of groundwater resources and the legal framework is incomplete. In addition, **low awareness of the status of groundwater** is reflected in low public pressure and weak mobilisation of the public and civil society on groundwater management issues.

The Swiss-funded Groundwater Management, Use and Protection Programme (GWP) aims to build long-lasting groundwater governance capacities at national and local levels so that North Macedonia can take appropriate and effective actions to sustainably manage its groundwater resources to achieve its social and economic development goals while avoiding irreversible degradation of its aquifer systems. The overall objective of the GWP is to strengthen relevant authorities and raise awareness among civil society to implement the provisions of an integrated framework coherent with the requirements of the EU environmental acquis for the sustainable management of ground-water resources in a changing climate.

Phase 1 is designed to establish the basis for a long-term transformation of groundwater (GW) management. The development of the Vardar River Basin Management Plan (RBMP) covering about 80% of the total GW bodies (68 out of 80 municipalities with around 86% of country

population) will be used as the main tool for capacity development of national and local institutions and awareness raising. Phase 1 shall create the institutional and legal conditions and the knowledge base for managing groundwater in an integrated manner. The expected results of Phase 1 (2024- 2027) include (a) strengthening the competencies of key institutions and stakeholders for integrated and sustainable groundwater management; (b) harmonizing and consolidating the legal framework; (c) developing the Vardar RBMP; and (d) implementing pilot projects with farmers, public utilities, the private sector and municipalities.

Several critical gaps impede effective planning and management of groundwater in the Vardar River Basin, the most significant being the absence of a formally adopted Vardar River Basin Management Plan aligned with EU water legislation (WFD and GWD).

The river basin management plan is one of the most comprehensive and integrated documents developed by the public administration. It must not only assess the current state but also summarize recent developments and project conditions for the next six years. For the Vardar River Basin which spans approximately 80% of the country, the plan provides critical and site-specific data to support water management decisions. The planning process aims to protect and enhance the environment, promote efficient water use, and safeguard against floods and droughts. Achieving these objectives requires robust management, active stakeholder engagement, and rigorous data analysis, ensuring a cohesive, thorough process and high-quality documentation.

The current document referred to as the Vardar River Basin Management Plan is essentially a technical report, developed in 2019 with support from the IPA Twinning Project aimed at enhancing the Ministry of Environment's capacity to effectively implement EU water quality standards.

A comprehensive technical review of the document, conducted by combining internal and external expertise from the GWP program and assessing it against EU water legislation (WFD and GWD) identified significant gaps and deficiencies. These issues hinder both a straightforward update—particularly regarding groundwater management, a key identified gap—and the adoption of the document as a means for the Ministry to meet EU acquis requirements and align national water legislation. To address these challenges, numerous activities have been proposed with most classified as short-term, priority actions essential for the development of the River Basin Management Plan (RBMP). These interconnected activities require careful coordination to not only ensure the timely development of the Vardar RBMP but also to enable its effective implementation in water management. To organize these proposed activities into systematic, thematically aligned and actionable measures, the expert review team has outlined four categories of sub-projects, which will serve as the core components of the River Basin Management Plan:

- 1) Subproject “**River basin management**” (Focused primarily on the administrative aspects of the planning process, this subproject coordinates activities across other subprojects, manages stakeholder engagement, ensures process coherence and thoroughness, and oversees the drafting of key documents).
- 2) Subproject “**Development of classification system for surface and groundwater bodies**” (Development of an innovative WFD-based approach for assessing water quality in North Macedonia, involving an in-depth biological and chemical analysis of field data.)
- 3) Subproject “**Development of study on pressures and impact to the surface and groundwater bodies**” (Development of tools, models, and foundational resources to support informed decision-making in water management.).
- 4) Subproject “**Development of water information system**” (Providing robust support for comprehensive data collection, management, and sharing to ensure an efficient planning process, while facilitating foundational integration and alignment across activities.)

The ultimate goal of the classification system is to achieve good ecological and chemical status/potential for surface water and groundwater bodies. Compliance with these objectives is critical for the sustainable management of water resources and the protection of ecosystems dependent on water bodies.

Ecological status is a key concept of the Water Framework Directive (WFD) which assesses the overall status of aquatic ecosystems in surface waters such as rivers, lakes, estuaries and coastal waters, while the chemical status is used to determine whether the water is safe for the intended uses such as drinking, bathing and living in water. Ecological status reflects how well these water bodies support aquatic life and how well they are able to maintain balanced, resilient ecosystems.

The assignment of a water body to one of the five ecological status categories/classes is based on the assessment of the most important quality elements, including 1) Biological: aquatic flora, benthic invertebrates and fish fauna; 2) Hydro-morphological: hydrological regime, river continuity and morphological conditions; and 3) Chemical and physico-chemical: nutrient concentrations, oxygen levels, pollutants and other contaminants.

While the chemical status is a classification used to assess the quality of water bodies based on the presence and concentration of certain chemical substances. The classification of a water body into good or bad chemical status is done on the assessment of the list of priority substances and other pollutants based on the defined environmental quality standards (EQS). These are legally binding limit values for pollutant concentrations in water, sediment or biota. Compliance with the EQS ensures that the water body does not pose any significant risks to human health, aquatic ecosystems or biodiversity. The EQS values are set for individual pollutants and are often specified as annual averages or maximum permissible concentrations.

Regarding the groundwater bodies, assessment is evaluated by considering two aspects, the quantitative and qualitative status. This assessment is crucial for ensuring sustainable water use, protecting ecosystems and meeting legal requirements as set out in the Water Framework Directive (WFD) and the Groundwater Directive (GWR). Quantitative status refers to the balance between groundwater abstraction and recharge and ensures that groundwater levels are maintained to prevent depletion or adverse impacts on the environment, while chemical (qualitative) status refers to the concentration of pollutants in groundwater and its suitability for various uses, including drinking water, agriculture and supporting ecosystems.

Developing a classification system for water bodies within a river basin is essential for effective river basin management. Unlike other areas of water management that benefit from established experience and knowledge, this initiative is new for North Macedonia. However, it is a vital component of the River Basin Management Plan, as all activities within the basin—whether beneficial or adverse—are evaluated based on their impact on ecosystems, specifically through their effect on water status.

B. SCOPE OF WORK

The objective of the assignment is to provide technical assistance in development and implementation of classification system for surface water bodies in the Vardar River Basin. The scope of work includes conducting a comprehensive assessment of existing data, defining the criteria for classification of water bodies, conducting delineation and assigning typology of the surface water bodies within the basin. Additionally, the work will involve the establishment of reference conditions to evaluate the ecological status of water bodies based on EU water legislation and national standards. The system must be developed with a focus on practical implementation in Vardar River basin and used in the efforts of development of the management plan for this river basin by the Groundwater Management Programme (GWP).

C. DUTIES AND RESPONSIBILITIES

Under the leadership of the Outcome Manager and Team Leader the Consultant will be responsible for carrying out the following tasks for:

- All rivers with catchment area equal or larger than 10 km²
- All lakes with area equal or larger than 0.5 km²
- All groundwater bodies

of the Vardar River Basin District, including natural, artificial and potentially heavily modified.

Task 1: Data collection and preliminary analysis

The use of existing information and data is crucial for the development of a classification system for surface and groundwater bodies in line with the Water Framework Directive (WFD). This phase involves the systematic gathering and review of relevant data needed for:

- Typological system development,
- Selection of reference locations,
- Screening of (non)synthetic pollutants,
- Development of reference conditions,
- Development of classification system,

and all other activities for successful accomplishment of the tasks.

The Consultant will identify potential sources that provide credible information and data on surface and groundwater. These sources include, but are not limited to, Competent Authority, national and local institutions (including institutes, museums, universities), river basin authorities responsible for water quality and quantity databases, international projects, NGOs, EU bodies and relevant EU countries (Eastern Continental and Mediterranean Geographical Intercalibration Groups) etc.

The Consultant will, in accordance with the instructions of Outcome Manager, approach the selected sources, collect the available data, convert it into appropriate formats, and prepare it for further use.

If some of the collected data will be considered irrelevant, this will be noted.

If data needs to be purchased, the Consultant will inform the Outcome Manager.

The collection effort should focus on the following data types, but is not limited to:

- Hydrological data (e.g., streamflow, groundwater levels);
- Water quality data (e.g., chemical concentrations, biological indicators),
- Morphological data (sediment properties, cross-sections, etc.)
- Relevant (potentially significant) pressures
- Studies
- Reports
- Scientific articles
- Spatial data including aerial and satellite images, detailed digital terrain models, historical maps, etc
- Internet sources
- Monitoring protocols, standards
- Methodologies
- Legal documents
- Water permits (abstraction, discharge...)

The data collection shall focus on data and information relevant to the Vardar River Basin District. However, should the Consultant come across data or information relevant to other river basins during his work, the existence and availability of such data should be registered.

Use and publication limitations of the collected data will be categorized in detail.

All collected data will be digitized, organized and delivered with a summary report on the data collection. **NOTE: It is expected the company to focus on available data not to consider additional monitoring or field work.**

Outcome Manager will provide to the Consultant:

- Already collected documents¹⁰
- Limited data on pressures and substances discharged in water bodies
- Monitoring data from the Initial Surveillance monitoring¹¹
- Vardar river basin spatial data in GIS database format.

Vardar river basin spatial data (VRBSD) in GIS database format will be used as the basis for all further analyses related to the development of the Vardar River Basin Management Plan. The in-house GIS expert manages the VRBSD and is responsible for preparing of GIS datasets for the Consultant and accepting the GIS datasets from the Consultant. Any changes or corrections of the VRBSD data must be approved by the Outcome Manager and in-house GIS expert in order to maintain consistency. Available GIS layers are described in Annex 3.

Task 2: Foundations for the Development of Status Assessment System for Vardar River Basin

Based on the data collection campaign, the Consultant will assess possible options for way forward and create the conditions for the implementation of the Project. For this purpose, the Consultant will:

- Review the current legal provisions for status assessment at EU level, including updates in procedure and guidelines¹²,
- Summarize data collected and select data for further use in the analysis.
- All surface waters in the VRBSD:
 - Classify into one of the following surface water categories — rivers, lakes, artificial or potentially heavily modified
 - Assign the type based on WFD System A descriptors.
 - For artificial and potentially heavily modified surface waters, the type shall be assigned according to the descriptors for the surface water category most closely resembling the heavily modified or artificial water concerned.
 - Store information on categories and types as attributes in VRBSD.
- Select and map the locations of:
 - Relevant pressures;
 - Monitoring stations or field data that can be used for reference condition assessment;
 - Monitoring stations or field data that can be used for gradient assessment.
- Propose further way forward, regarding:
 - Improvement of categorization and delineation of water bodies;
 - Inclusion of additional optional descriptors for system B typology;

¹⁰ List of available documentation is provided in the Annex 1

¹¹ Initial monitoring programme for surface water is expected to be implemented over a two-year period (2025-2026), with the government contribution and to contribute to the efforts on development and implementation of system for delineation, classification and establishment of reference conditions for surface and groundwater bodies in Vardar River Basin. The list of parameters which will be monitored are provided in Annex 2.

¹² Non-exhaustive list of relevant EU directives, decisions including their proposals and amendments as well as guidance, standards and reports is in Annex 3

- Methodology for the selection of specific (non)synthetic pollutants to be included in the classification system;
- Definition of reference conditions including:
 - Feasible methodologies for the development of reference conditions;
 - Candidate descriptors and parameters;
- Assessment of the eutrophication impact on the water status, NOTE: it is expected the company to consider the results and deliverables from the study on pressures and impacts which will be developed by separate project and the results will be made available;
- Approach for status assessment for waters below the WFD thresholds (small rivers and lakes);
- General approach for chemical status assessment of all relevant environmental compartments (matrix: water, biota, sediment);
- Other important findings for foreseen activities on the definition of reference conditions and status assessment.

All findings of this task will be:

- Summarized in the draft report “Foundations for the Development of Status Assessment System for Vardar River Basin”.
- Presented and discussed in a stakeholder workshop organized by the Programme.

Based on the feedback from the workshop and according to the instructions from the Outcome Manager, the Consultant will finalize the report “Foundations for the Development of National Status Assessment System” accompanied with the following documents:

- Maps of water categories (rivers, lakes, artificial and potentially heavily modified), types according to system A, monitoring stations and identified pressures.
- Data collected, in digital form

Task 3: Status Assessment System for the Vardar River Basin

Following compilation of the recent monitoring data and based on the outcomes of Task 2, the Consultant shall implement the following tasks:

Task 3a. Development of System B typology for the Vardar River Basin

In addition to the descriptors of the system A typology, the Consultant will select one or more optional descriptors and develop system B typology for the Vardar River Basin District as an extension of the System A typology. The developed System B typology must have at least the same degree of differentiation as System A in order to enable the most reliable derivation of type-specific reference conditions.

For presumed artificial and heavily modified surface waters, differentiation into types shall be undertaken according to the descriptors for the surface water category most closely resembling water concerned. In addition to the types associated to the ecological potential assessment, for potential heavily modified water category, the types which correspond to the former natural state of that water will be assigned.

The VRBSD will be updated with information on types based on the developed System B for all waters contained in it.

If needed for management purposes, the System B typology will be extended to small rivers and lakes below the WFD thresholds which are included in the VRBSD.

Recommendation for the extension of the typological system to other river basins in North Macedonia will be developed.

All results of the activity shall be compiled in the report “Development of System B typology for the Vardar River Basin”, including maps and data.

Task 3b. Reference conditions and classification system for the Vardar River Basin

Preliminary ecological status and preliminary values representing good and moderate status for the relevant quality elements will be derived to support the assessment of the reference conditions.

Type-specific biological, hydro-morphological and physico-chemical conditions shall be defined for each surface water body type (System B), representing the values for all mandatory biological, hydro-morphological and physico-chemical quality elements:

Rivers	Lakes
<p>Biological elements</p> <ul style="list-style-type: none"> • Composition and abundance of aquatic flora • Composition and abundance of benthic invertebrate fauna • Composition, abundance and age structure of fish fauna <p>Hydro-morphological elements supporting the biological elements</p> <ul style="list-style-type: none"> • Hydrological regime <ul style="list-style-type: none"> ○ quantity and dynamics of water flow ○ connection to groundwater bodies • River continuity • Morphological conditions <ul style="list-style-type: none"> ○ river depth and width variation ○ structure and substrate of the riverbed ○ structure of the riparian zone <p>Chemical and physico-chemical elements supporting the biological elements</p> <ul style="list-style-type: none"> • General <ul style="list-style-type: none"> ○ Thermal conditions ○ Oxygenation conditions ○ Salinity ○ Acidification status ○ Nutrient conditions • Specific pollutants <ul style="list-style-type: none"> ○ Pollution by all priority substances identified as being discharged into the body of water ○ Pollution by other substances identified as being discharged in significant quantities into the body of water 	<p>Biological elements</p> <ul style="list-style-type: none"> • Composition, abundance and biomass of phytoplankton • Composition and abundance of other aquatic flora • Composition and abundance of benthic invertebrate fauna • Composition, abundance and age structure of fish fauna <p>Hydro-morphological elements supporting the biological elements</p> <ul style="list-style-type: none"> • Hydrological regime <ul style="list-style-type: none"> ○ quantity and dynamics of water flow ○ residence time ○ connection to the groundwater body • Morphological conditions <ul style="list-style-type: none"> ○ lake depth variation ○ quantity, structure and substrate of the lakebed ○ structure of the lake shore <p>Chemical and physico-chemical elements supporting the biological elements</p> <ul style="list-style-type: none"> • General <ul style="list-style-type: none"> ○ Transparency ○ Thermal conditions ○ Oxygenation conditions ○ Salinity ○ Acidification status ○ Nutrient conditions • Specific pollutants <ul style="list-style-type: none"> ○ Pollution by all priority substances identified as being discharged into the body of water ○ Pollution by other substances identified as being discharged in significant quantities into the body of water

When applying the procedures to heavily modified or artificial surface water types, references to high ecological status shall be construed as references to maximum ecological potential.

Parameters that should be included in biological assessment methods for biological quality elements are shown in the table below:

Biological Quality Element	Taxonomic composition	Abundance*	Disturbance sensitive taxa	Diversity	Age structure	Frequency and intensity of algal blooms	Biomass**	Absence of major taxonomic groups
Phytoplankton	X	X				X	X	
Macrophytes and Phytobenthos	X	X						
Benthic invertebrate fauna	X	X	X	X				X
Fish fauna	X	X	X		X			
* - or depth distribution/cover for macroalgae and angiosperms								
** - only lakes								

For specific pollutants quality elements, parameters will be selected based on the best applicable practice.

Where type-specific reference conditions for a quality element in a surface water body type cannot be established due to significant natural variability—beyond seasonal variations—that element may be excluded from the ecological status assessment for that water body type. In such cases, a detailed explanation for the exclusion should be provided.

Type-specific reference conditions for biological elements and for supporting hydro-morphological, chemical and physico-chemical elements can be derived as:

- spatially based or
- based on modelling, or
- using a combination of these methods

If the application of these methods is not possible, the Consultant may establish the reference conditions based on the expert judgement.

The confidence levels for the values of the reference conditions should be estimated.

When defining high ecological status in relation to concentrations of specific pollutants, the detection limits should be considered in accordance with available techniques for synthetic and undisturbed background levels for non-synthetic substances.

For biological elements and supporting hydro-morphological, chemical and physico-chemical elements, five classes system will be developed for status assessment and four classes for potential, respecting the normative descriptions set in the WFD.

The procedure of aggregating the status / potential of individual parameters into the status of quality elements, groups of quality elements and the overall status / potential will be defined, respecting the WFD stipulations.

When developing the classification system, the impact of eutrophication on the status / potential should be considered.

Monitoring, field and laboratory protocols, methodology for calculating indices/indexes and any other provisions necessary for transparent and repeatable monitoring and status assessment will be developed.

Additional requirements for hydro-morphological reference conditions, classification system and assessment are detailed in Task 3c.

Recommendations for classifying the status of small rivers and lakes below the WFD thresholds will be developed based on the expert judgement.

Chemical status classification system should be developed that covers the full range of pollutants and all environmental compartments as prescribed by the EU WFD and daughter directives requirements¹³. The presentation of the results of chemical status should consider an allowed separation of the impact on the chemical status of newly identified Priority Substances and existing Priority Substances with revised EQSs.

All activities undertaken and their results must be in line with the relevant EU Directives, the relevant EU legislation, the CIS Guidance documents¹⁴ and these Terms of References. In case of inconsistencies, the Consultant will consult with Outcome Manager on how to proceed. All results of the activity will be compiled in the report "Development of Reference Conditions and Classification System for the Vardar River Basin" including maps and data.

Task 3c. Hydro-morphological assessment in the Vardar River Basin

Unlike chemical, hydrological and biological monitoring, for which certain methods, sampling and assessments already exist and are common in national practice, experience with hydro-morphology is negligible.

For all required hydro-morphological quality elements, measurable indicators have to be defined based primarily on assessment of "state" (as defined in DPSIR approach) and not pressures. Methods should enable assessment for smaller hydro-morphologically homogenous parts of water bodies and transparent aggregation of those results to whole water body.

NOTE: Hydro-morphological reference conditions, classification system and assessment framework will be performed by separate task and the results will be made available.

Data collection and assessment should be based on transparent and repeatable procedures, understandable to major stakeholders (drivers of hydro-morphological alterations, from which application of mitigation measures is expected),

Assessments in this planning cycle should rely primarily on already available data such as aerial and satellite images, detailed DTM data, hydrological monitoring data, information on existing pressures etc. However, extension of monitoring to field surveys can be foreseen for next planning cycles.

Based on developed assessment framework, the Company will conduct hydro-morphological assessment on the level of homogenous water body parts and aggregate them on the level of the water bodies. Results for both levels will be delivered in the Vardar River basin spatial data (VRBSD) in GIS database format.

Task 3d. Chemical status classification system for the Vardar River Basin groundwater bodies

For all identified and delineated groundwater bodies of the VRBD provided by Outcome Manager, Consultant will perform:

- Initial characterisation of chemical composition of groundwater
- Identification and description of surface ecosystems dependent on groundwater
- Specification of the contributions of pressures to chemical composition of groundwater including description of pollutants

¹³ If any change of WFD Classification Scheme (such as EUR-Lex - 52022PC0540 - EN) become adopted on EU level during the duration of the Project, the consulting company is obliged to correct all deliverables accordingly.

¹⁴ Non-exhaustive list of relevant EU directives, decisions including their proposals and amendments as well as guidance, standards and reports is in Annex 3

- Select all pollutants and indicators of pollution which, pursuant to the characterisation performed, characterise groundwater bodies and their impact cannot be considered as negligible. **NOTE: Groundwater bodies delineation and quantitative elements of groundwater bodies status assessment, as well as the identification and collection of pressures will be performed by separate project and the results will be made available. The task for groundwater bodies characterization will be performed by separate project and it is not part of this assignment /ToRs.**

Based on the best practice, to facilitate chemical groundwater status assessment, Consultant will for all groundwater bodies in the Vardar River Basin District,

- Revise and make more stringent, if needed, groundwater quality standards of Annex 1 of Groundwater Directive (nitrates and active substances in pesticides, including their relevant metabolites, degradation and reaction products),
- Establish background, threshold and screening values for pollutants and indicators of pollution listed in part B of Annex II of Groundwater Directive, as well as for all pollutants and indicators of pollution selected as non-negligible in the characterisation step.
- For the pollutants being (or likely to be) transferred to the groundwater dependent terrestrial ecosystems, identified in characterisation step, estimate appropriate maximal acceptable concentrations “non causing harm” as a support to “Test of significant damage of terrestrial ecosystems directly dependent on the groundwater body”
- Identify relevant contaminants (chemical, radiological and microbiological) posing a risk of deterioration of Drinking Water Directive protected areas and their baseline levels as a support to “Test Drinking Water Protected Areas”
- Support development of “Test Saline or other intrusions” regarding interpretation of relevant chemical parameters and inclusion of additional if needed.
- Interpret results of reference conditions and classification system for surface waters for application in “Test Surface Water”, taking into consideration typological system B and its spatial relation to groundwater bodies
- Provide inputs for “Test General Quality Assessment” regarding chemical parameters and assess its reliability from the water quality point of view

All activities undertaken and their results must be in line with the EU Groundwater Directive, other relevant EU Directives, the relevant EU legislation, the CIS Guidance documents¹⁵ and this Terms of References. In case of inconsistencies, the Consultant will consult with Outcome Manager on how to proceed.

All results of the Task 3c will be compiled in the report “Development of Chemical Status Classification System for the Vardar River Basin Groundwater Bodies” including maps and data.

Task 4: Application of reference conditions and classification system

Based on the developed reference conditions and the classification system for the Vardar River Basin, the Consultant will:

- Perform a preliminary delineation of surface water bodies,
- Assess the ecological and chemical status of the water bodies, by using the developed system,

and provide the following deliverables:

- Atlas of the Vardar River Basin Typology

¹⁵ Non-exhaustive list of relevant EU directives, decisions including their proposals and amendments as well as guidance, standards and reports is in Annex 3

- Report on the Reference Conditions and Classification System for the Vardar River Basin.
- Database of all data used in the Project (in digital format).
- Vardar river basin spatial data (VRBSD) in GIS database format updated with the results of the project (water categorization, System A and System B typology, preliminary water bodies, results of hydro-morphological assessment, results of status assessment, etc).

Note: The Consultant is responsible for delivering the updated VRBSD, however the GIS infrastructure of the database is maintained by the GIS in-house expert provided by the Programme. The in-house expert is responsible to control the quality of the updated VRBSD and suggest the consistency of the content of the updated database and GIS files. Before the start of the creation of the spatial database the Consulting company will receive predefined guidance as type of files, attribute tables, metadata requirements and other details and type of needed data formats from the GIS in-house expert. The Outcome Manager will facilitate and ensure this collaboration and data exchange.

- Provide technical input in drafting of a legal document on Typology, Reference Conditions and Classification System.
- To prepare Manual for Monitoring and Assessment of Status taking in consideration any existing national level documents (bylaws, guidelines, etc.) .
- Report on the Further Development of the Typology, Reference Conditions and Classification System

The results of the Project will be presented to interested parties in a workshop organized by Outcome Manager.

Task 5. Stakeholder participation and consultation

Each of these tasks will support inclusive and meaningful stakeholder engagement and ensure that the system for typology and delineation, classification and reference conditions establishment is well-informed, locally relevant, and broadly supported. With overall responsibility of the Programme for securing stakeholder involvement in each of the stages of the previous tasks, the Consultant is expected to consider the following aspects in this task:

- Establish linkage and engage with stakeholders, including local communities, government agencies, and NGOs, to gather input on the classification criteria.
- Participate in stakeholder meetings facilitated by the GWP programme and take leading role in gathering feedback from the process.
- Provide stakeholders with easily accessible, clear information on the assignment goals, timeline and expected outcomes in advance of consultations to ensure informed participation.
- Ensure participation and presentation of the findings of various tasks, and share if relevant information, reports and updates with stakeholders to ensure transparency throughout the project.

Participation and presentation of results at least two workshops are foreseen:

➤ In the framework of task 2 “Foundations for the development of National Status Assessment System for Vardar River Basin”, the main goal of the workshop is:

- To verify that all available information has been collected and
- To discuss and approve the general approach to the development of the typology, reference conditions and classification system

The target groups are mainly scientists, practitioners, governmental institutions, water users and NGOs.

➤ In the framework of task 4: “Application of reference conditions and classification system”, the main goal of the workshop is:

- To inform all stakeholders and the general public about the results of the Project and its significance
- To initiate the administrative adoption procedure
- To initiate activities to further develop the typology, reference conditions and classification system for River Basin Management Plans beyond year 2028

MAIN DELIVERABLES

The main deliverables of the assignment are defined in such way to enable:

- Informed decision making
- Timely delivery of foundations needed for Plan development
- Transparent decision making and stakeholder involvement in the process
- Capturing of the whole process to enable easier follow up in the future

Deliverable	Timeline	Results of	Main purpose	Indicative topics ¹⁶ (not limited to)
Deliverable 1: <ul style="list-style-type: none"> ➤ Summary Report on Data Collection (Short report with lists of material collected)	X. 2025	Task 1: Data collection and preliminary analysis	<ul style="list-style-type: none"> • To enable informed decision making on further activities / tasks • To help identify if all relevant data sources have been included and if additional data exist (for additional data collection) • Preparation of data base for <ul style="list-style-type: none"> ○ Project activities ○ Plan development and ○ Provision of data used for Plan development to interested parties, upon request (WFD requirement) 	Summary Report on Data Collection <ul style="list-style-type: none"> • Identification of potential data sources • Results of communication with Institutions • Overview of data and information collected • Overview of data relevant to other River Basins • Data processing and systematisation • Assessment of data and information applicability • Conclusions • Appendix <ul style="list-style-type: none"> ○ List of data and information collected ○ List of existing but not available data
Deliverables 2: <ul style="list-style-type: none"> ➤ Report “Foundations for the Development of National Status Assessment System” accompanied with the following documents: ➤ Maps of water categories (rivers, lakes, artificial and potentially heavily modified), 	XII. 2025	Task 2: Foundations for the development of National Status Assessment System (including results of Task 1)	<ul style="list-style-type: none"> • Formulation of further way forward alternatives • Informing wider, mostly scientific, community (workshop envisaged) on findings and way forward • Making informed decisions • Preparing first results of the Project for: <ul style="list-style-type: none"> ○ Further use within Project ○ Testing of data manipulation, exchange and transfer ○ Informing others involved in planning activities 	Foundations for the development of National Status Assessment System <ul style="list-style-type: none"> • Summary of relevant national legal provisions and practice • Summary of relevant legal provisions at EU level • Gap assessment • Overview of data available (conclusions of Summary Report on Data Collection) • Surface water categories of VRBD • WFD System A typology of VRBD • Summary of existing monitoring • Summary of pressures identified • Conclusions on baseline for research • Expected way forward regarding: <ul style="list-style-type: none"> ○ Improvement of categorization and delineation of water bodies

¹⁶ During the Project, based on proposal of Consultant, Content Manager can revise list of topics to document all relevant research undertaken

<p>types according to system A, monitoring stations and identified pressures</p> <ul style="list-style-type: none"> ➤ Data collected, in digital form 				<ul style="list-style-type: none"> ○ Inclusion of additional optional descriptors for system B typology ○ Methodology for the selection of specific (non)synthetic pollutants to be included in the classification system ○ Definition of reference conditions including: <ul style="list-style-type: none"> ▪ Feasible methodologies for the development of reference conditions ▪ Candidate descriptors and parameters ○ Assessment of the eutrophication impact on the water status ○ Approach for status assessment for waters below the WFD thresholds (small rivers and lakes) ○ General approach for chemical status assessment of all relevant environmental compartments (matrix: water, biota, sediment) ● Other important findings for definition of reference conditions and status assessment ● Timetable of activities <p>Maps</p> <ul style="list-style-type: none"> ● Water categories (rivers, lakes, artificial and potentially heavily modified), ● Types according to system A, ● Monitoring stations and ● Identified pressures
<p>Deliverables 3:</p> <ul style="list-style-type: none"> ➤ Development of System B Typology for the Vardar River Basin ➤ Development of Reference Conditions and Classification System for the Vardar River Basin ➤ Conducting hydro-morphological assessment in the Vardar River Basin <p>(Due to time constraints of Plan development set in WFD, reports are expected</p>	<p>V. 2026</p>	<p>Task 3 (and all before)</p>	<ul style="list-style-type: none"> ● Detailed scientific documenting of research and results on development of typology, Reference conditions and classification systems. ● Providing documents for timely: <ul style="list-style-type: none"> ○ Preparation of planning activities ○ Revision and correction 	<p>Development of System B Typology for the Vardar River Basin</p> <ul style="list-style-type: none"> ● Overview of surface water categories of VRBD ● Overview of WFD System A typology of VRBD ● Selection of candidate optional System B factors ● Testing and optimisation of optional factors and their division in classes ● Formulation of System B typology for VRBD ● Recommendations for extension of typology on other national RBDs ● Recommendations regarding waters below WFD thresholds ● Proposal of further research activities regarding System B typology ● Annex: Map of System B types for VRBD <p>Development of Reference Conditions and Classification System for the Vardar River Basin</p> <p>For each system B type and for each quality element, if relevant:</p> <ul style="list-style-type: none"> ● Type summary ● Selection of relevant monitoring sites (reference sites, alternative benchmark sites, gradient assessment sites, best available sites if applicable) ● Review of Monitoring data set ● Review of pressures

<p>to contain all relevant content, data and information but do not have to be edited and prepared for final publishing).</p>				<ul style="list-style-type: none"> • Assessment of preliminary status • Biological analyses and description • Selection and description of the assessment method <ul style="list-style-type: none"> ○ General ○ Sampling and laboratory methods ○ Metrics selection and description ○ Metric combination and multi-metric index • Support to the hydro-morphological reference conditions, classification system and assessment framework • Calculation and discussion • Final pressure-response relationship • Evaluation of annual and seasonal effects and confidence levels • Class boundary and EQR values setting • WFD compliance checking • Comparison to guidance recommendations • Comparison to existing national assessment methods and their results, if applicable • Comparison to relevant EU MS methods, if applicable • Proposals for future research • Conclusions • References • Selection of relevant specific pollutants • Assessment of class boundaries for specific pollutants • Selection of parameters, establishment of ranges, levels and class boundaries for the physico-chemical quality elements • Checks for assessing whether a level or range for a general physico-chemical quality element is more or insufficiently stringent to meet the Directive's requirements • Impact of eutrophication on status • Recommendations for classifying the status of small rivers and lakes (under WFD thresholds of 10 km² catchment area and 0.5 km² lake area) • Aggregation of the status / potential of individual parameters into the status of quality elements, groups of quality elements and the overall status / potential • All other relevant topics
<p>Deliverables 4:</p>	<p>V. 2026</p>	<p>Task 3 (and all before)</p>	<p>Timely delivery of data needed for:</p> <ul style="list-style-type: none"> • Plan development • Adoption procedure of regulation 	<p>Draft of regulation on Typology, Reference Conditions and Classification System</p> <ul style="list-style-type: none"> • Technical part of regulation containing all information needed for typological differentiation of rivers and lakes of VRBD according to system B

<ul style="list-style-type: none"> ➤ Vardar river basin spatial data in GIS database format (VRBSD) updated with the results of the project (water categorization System A and System B typology, preliminary water bodies, results of status assessment etc), ➤ Draft of regulation on Typology, Reference Conditions and Classification System ➤ Development of Chemical status classification system for the Vardar River Basin ground water bodies 				<ul style="list-style-type: none"> • Technical part of regulation containing all information needed for classification of <ul style="list-style-type: none"> ○ ecological status/potential ○ chemical status for surface and for groundwater bodies <p>Development of Chemical Status Classification System for the Vardar River Basin Groundwater Bodies</p> <ul style="list-style-type: none"> • Characterisation of chemical composition of ground water • Surface ecosystems dependent on groundwater • Pressures to chemical composition of ground water • Relevant pollutants and indicators of pollution • Derivation of groundwater quality classifications for: <ul style="list-style-type: none"> ○ GWD Annex 1 ○ GWD Annex II, part B and ○ Other relevant substances • Support to status assessment tests: <ul style="list-style-type: none"> ○ Saline or other intrusions ○ Groundwater dependent terrestrial ecosystems ○ Drinking Water Protected Areas ○ Surface Water ○ General Quality Assessment • Other relevant issues <p>VRBSD GIS database update: (for all rivers with catchment area equal of larger than 10 km² and all lakes with area equal or larger than 0.5 km² of the Vardar River Basin District, including natural, artificial and potentially heavily modified)</p> <ul style="list-style-type: none"> • Water categories, • System A typology, • System B typology, • preliminary water bodies (draft), • results of hydro-morphological assessment (draft) • results of status assessment, biological quality elements (draft)
<p>Deliverables 5:</p> <ul style="list-style-type: none"> ➤ Atlas of the Vardar River Basin Typology ➤ Report on the Reference Conditions and 	<p>XI. 2026</p>	<p>Task 4: Application of reference conditions and classification system</p>	<ul style="list-style-type: none"> • Finalisation of Project results and • Preparation for their distribution, presentation and further use as a support for Plan adoption procedure. • Formulation of future research needs 	<p>Atlas of the Vardar River Basin Typology</p> <ul style="list-style-type: none"> • Summary of report “Development of System B Typology for the Vardar River Basin”, focusing on results • For each System B type: <ul style="list-style-type: none"> ○ Ranges of type descriptors ○ Short summary of biological reference conditions ○ Photographs of characteristic locations

<p>Classification System for the Vardar River Basin</p> <ul style="list-style-type: none"> ➤ Database of all data and results used in the Project (in digital format) ➤ Vardar river basin spatial data (VRBSD) in GIS database format updated with the results of the project (water categorization System A and System B typology, preliminary water bodies, results of status assessment etc). ➤ Provide technical input in drafting of a legal document on Typology, Reference Conditions and Classification System. ➤ Manual for Monitoring and Assessment of Status ➤ Report on the Further Development of the Typology, Reference Conditions and Classification System 		(and all before)		<ul style="list-style-type: none"> ○ Map of type spatial distribution in VRBD and reference monitoring sites ○ Other relevant information ● Annexes: <ul style="list-style-type: none"> ○ Map of system A typology ○ Map of system B typology <p>Report on the Reference Conditions and Classification System for the Vardar River Basin</p> <ul style="list-style-type: none"> ● Report Development of Reference Conditions and Classification System for the Vardar River Basin (Deliverable 4) edited and prepared for publishing ● Results of preliminary delineation of surface water bodies with methodological approach ● Results of ecological and chemical status/potential assessment for: <ul style="list-style-type: none"> ○ monitoring stations ○ water bodies, using the developed system, ● Conclusions of status assessment results ● Overall conclusions ● Summary of future research ● All data in attached database ● Maps of: <ul style="list-style-type: none"> ○ Water categories ○ System B typology ○ Monitoring network ○ Pressures ○ Water bodies ○ Results of ecological status assessment for each quality element and aggregated ○ Results of chemical status assessment <p>Manual for Monitoring and Assessment of Status</p> <ul style="list-style-type: none"> ● Short summary of legislative framework ● Short summary of typology and reference conditions ● Preparatory office activities ● Work in field ● Transport of samples ● Laboratory analysis ● Calculation of metrics, indexes, etc ● Relevant standards ● Other relevant information needed for practitioner ● Appendices
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				<p>Report on the Further Development of the Typology, Reference Conditions and Classification System</p> <ul style="list-style-type: none"> • Gaps identified during the Project • Measures and research activities needed for closing of the gaps with estimation of resources needed • Assessment of short term and long-term priority measures • Action plan <p>VRBSD GIS database update: (for all rivers with catchment area equal of larger than 10 km² and all lakes with area equal or larger than 0.5 km² of the Vardar River Basin District, including natural, artificial and potentially heavily modified)</p> <ul style="list-style-type: none"> • Water categories • System A typology • System B typology, • preliminary water bodies • results of hydro-morphological assessment • results of status assessment, all quality elements for <ul style="list-style-type: none"> ○ monitoring locations ○ water bodies
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Indicative timetable

task		2025												2026												duration
		3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
T1																								8		
T2										W														9		
T3																								12		
T4																							W	10		
D										D1							D3						D5			

T - Task
D - deliverable
W - workshop

D. QUALIFICATION REQUIREMENTS

The company shall have extensive experience in developing and managing complex projects in the area of water resources / watershed management, environment or sustainable development. It must have a record of at least 5 projects of comparable nature and degree of complexity (e.g., river basin management plans, flood risk management plans, environmental monitoring programs, feasibility studies/management plans, revalorisation studies for complex environmental projects, etc.). List of projects should be submitted along with contact details for reference checking (please provide e-mail addresses of contact persons).

The scope of work requires a **mixed national and international interdisciplinary team** of qualified professionals with previous experience in similar environmental/water resources/watershed management projects. Team members must have excellent relevant technical and drafting skills in order to successfully implement the assignment.

The team of experts shall be able to respond to the requirements of the following mandatory areas of expertise.

	Team members and/or areas of expertise	Qualification requirements
1.1	Team Leader/ ¹⁷	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (Water resources management, Civil Engineering, Environment, Biology, Ecology or similar) ○ Minimum 10 years of professional experience in similar assignments (development and management of complex environmental / water resources / watershed / sustainable development projects, environmental monitoring programmes) ○ Relevant experience from at least 3 projects of comparable nature and degree of complexity (environmental / water resources / watershed/ river basin projects) ○ Experience as a team leader from at least 2 relevant projects (environmental / water resources / watershed / sustainable development projects, environmental monitoring programmes)
Surface Water Bodies		
2	Ecological status	
2.1	Biological Quality element (algae- (phytoplankton and Phytobenthos)	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers ○ Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar in regard to algae as biological quality element, preferably based on EU WFD requirements, EU intercalibration assessment methods
2.2	Biological Quality element (macrophyte)	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers ○ Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to aquatic vegetation (macrophytes) as biological quality element, preferably based on EU WFD requirements, EU intercalibration assessment methods
2.3	Biological Quality element (benthic invertebrates)	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers ○ Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to benthic invertebrates as biological quality element preferably based on EU WFD requirements, EU intercalibration assessment methods
2.4	Biological Quality element (fish)	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers ○ Relevant experience from at least 2 assignments that involve development

¹⁷ Bidders may propose a Deputy Team Leader position to be preferably held by a local expert from North Macedonia

		and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to fish as biological quality element preferably based on EU WFD requirements, EU intercalibration assessment methods
2.5	Hydro-morphological Quality Element	<ul style="list-style-type: none"> ○ Minimum University degree in relevant field (Water resources management, biology, ecology, aquatic ecosystems, environment, civil engineering, or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers ○ Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to hydro-morphology as biological quality element, preferably based on EU WFD requirements
3	Chemical status	
3.1	Chemical Quality Element (physico-chemical, specific pollutants and priority substances)	<ul style="list-style-type: none"> ○ Minimum University degree. in relevant field (chemistry, environment, technology, aquatic ecosystems, environment or similar) ○ Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes of river basins or similar ○ Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to (physico-chemical, specific pollutants and priority substances preferably based on EU WFD requirements

NOTES:

- The estimated number of required expert-days per areas of expertise is to serve for orientation purposes only. Companies may adjust the expert-days number in accordance with their proposed methodologies and qualifications of team members.
- There is no limit on the number of experts per area of expertise both in the mandatory areas listed in the table and the pool of experts. Including experts capable of addressing all defined areas of expertise in the table is mandatory. Failure to provide relevant expertise for each area may lead to disqualification. In cases where multiple experts are proposed for the same area, companies must designate a key expert whose qualifications will influence the scoring and evaluation process.
- During the evaluation of offers, only experts proposed for key positions in the table will be scored. Individual experts listed in the pool will not undergo evaluation, but the ability to mobilize them as needed for the Program will impact the overall score.
- Considering the country's limited practical experience in developing of such assignments, it is expected the project team to include at least one international expert per thematic area (Biological and Chemical Quality Elements) from an EU Member State with relevant experience on the establishment and implementation of classification systems. Although there is no limit to the number of consultants with international experience, it is expected that the majority of the services will be led and completed by the national consultants.
- Companies are encouraged to involve local experts in both key and non-key positions, as well as other support personnel, wherever feasible. While not mandatory, local expertise should comprise at least 50% of the planned expert-days, which will be considered advantageous.

E. TERMS AND CONDITIONS

- Language

Language of products/deliverables is listed in the Main Outputs/Deliverables section above. The quality of the documents is subject to review prior to approval. High quality proofreading is mandatory.

- Duration of the assignment

The maximum available time for completing the assignment is 22 months upon signing of the contract.

- Methodology

The interested bidders need to develop a concise methodology describing the approach and all the steps to be undertaken that will lead toward successful completion of the assignment. The methodology will be evaluated for the demonstrated knowledge of the local context, responsiveness to the requirements of the TORs, as well as creativity of ideas and overall presentation.

- Travel and associated costs

Representatives of the Contractor are expected to travel to North Macedonia to participate in presentations of the work/reports/deliverables which will be agreed in prior with the Programme staff. Costs for the accommodation and travel costs for such events will be organized and covered by the Programme.

- Ownership and submission of data, reports and other material produced

All primary data, reports, photos, video material, visual elements and other products during this assignment shall be made available to the Programme in electronic format. The Programme keeps the right to use all products without any restrictions (e.g., in various publications, websites, presentations).

- Payment schedule

The payment will be processed in instalments based on the deliverables/milestones defined in the contract signed and in accordance with the company's proposed methodology and approach.

- Consultations process

The facilitation of the consultation process for the needs of the assignment preparation will be primarily responsibility of the Contractor. The responsibility for organizing workshops and working meetings will be shared between the Contractor and the project. The Contractor shall be responsible for: preparation of working material and agenda, ensuring participation of the key team members as required, communication/coordination with the invited stakeholders (if deemed necessary), preparation of minutes and etc. The project will be responsible for: distributing the invitations and ensuring adequate participation, selecting the workshop venue, and for covering various associated costs such as rental of venues, travel and accommodation of participants, printing, refreshment, or similar.

Annex 1. List of available documentation

1. EuropeAid/132108/D/SER/MK – Project “Technical Assistance for Strengthening the Institutional Capacities for Approximation and Implementation of Environmental Legislation in the Area of Water Management”
 - Draft Report on Typologies, Delineation and GIS Files of Water Bodies – Vardar River Basin & Republic of Macedonia
 - Draft Methodology for Water Body Delineation in the Vardar River Basin
 - Pressure – Impact Analysis Risk Assessment
 - Identification and Mapping of Protected Areas for Vardar River Basin
 - River Vardar River Basin Management Plan – Initial Elements
 - Road map towards WFD-compliant monitoring and assessment of water bodies in the Republic of Macedonia
 - Proposals for WFD Surface Water Monitoring Programme for the Vardar River Basin 2016 – 2021
 - Stakeholder analysis and stakeholder involvement plan
 - Action Plan for the coordination and exchange of information among stakeholders for VRBMP development
2. MK 13 IPA EN 01 16 – Twinning Project on Strengthening the capacities for effective implementation of the acquis in the field of water quality
 - Technical Report – Vardar River Basin Management Plan
3. Bregalnica River Basin Management Project – Development of Bregalnica River basin management plan
4. EuropeAid/139107/IH/SER/MK Project - Development of the Environmental Monitoring Information System
 - National Environmental Monitoring Strategy and Program for Water
 - Establishment of National Environmental Information System
5. Strategy for upgrading overall water monitoring and analytical capacity on surface and groundwater 2024 prepared by the GWP Programme
6. Individual GAP assessment report of the technical report “Vardar River Basin Management Plan”, 2024 prepared by the GWP Programme
7. Rulebook on the Methodology and parameters for water quality and quantity monitoring of all water bodies, except for water bodies intended for human consumption and bathing zones (Official Gazette of NRM:86/2022)
8. Decree on classification on surface water bodies (Official Gazette of NRM:99/2016)

<https://drive.google.com/drive/folders/1k0tIMP-xG16HkFmbNzIUukOkngyXsL5c?usp=sharing>

Annex 2. The list of parameters to be covered with implementation of two-year initial surveillance monitoring programme for surface bodies in Vardar (2025-2026)

Surface water bodies

Rivers

1. Biological elements

Phytobenthos\Phytoplankton

- Composition and abundance of species
- Various biotic indices

Macroinvertebrates

- Composition and abundance of species
- Various biotic indices

Macrophytes

- Composition and abundance of species
- Various biotic indices

Fish

- Composition and abundance of species
- Various biotic indices

2. Chemical and physico-chemical elements supporting the biological elements

Based on previous observations and the potential impacts on water quality, the following physico-chemical parameters will be analysed in samples of surface water from the proposed measuring points. Physical and chemical measurements to be performed in the field are:

General Physico-chemical parameters

- Water temperature
- Turbidity
- pH
- Alkalinity
- Electro-conductivity
- Oxygen Demand
- BOD5
- Total water hardness (mg/l CaCO₃)

Nutrients

- ammonium ion (NH₄-N)
- nitrate (NO₃-N)
- nitrite (NO₂-N) and
- phosphate (PO₄-P)
- total phosphorus P

Other Specific Pollutants (OSP):

- COD, Cr, Zn, Cu, Mn, and Fe (dissolved metals) in water samples.

Priority Substances (PS):

- Cd, Pb, Ni, and Organochlorine pesticides. Standard methods for each of these are given in Annex 4.

3. Hydro-morphological monitoring

Hydrological regime

- Water level
- Discharge, current velocity

Morphological conditions

- Cross section

Lakes/reservoirs

1. Biological elements

Composition, abundance, and biomass of phytoplankton
Composition and abundance of other aquatic flora
Composition and abundance of benthic invertebrate fauna

2. Chemical and physico-chemical elements supporting the biological elements

General

Transparency
Thermal conditions (water temperature)
Oxygenation conditions (DO, BOD5)
Salinity (Chloride)
Acidification status (pH)
Nutrient conditions (NO2, NO3, NH4, PO4)

Specific pollutants

Pollution by all priority substances identified as being discharged into the body of water (Cd, Ni, Pb, and Organochlorine pesticides)
Pollution by other substances identified as being discharged in significant quantities into the body of water (COD, Fe, Mn, Zn, Cr total – dissolved metals)

The surface water monitoring program for the Vardar River basin will take place 2 times (seasonally: spring and autumn) in rivers and lakes/reservoirs for general physico-chemical elements that support biological elements and other specific pollutants (heavy metals), and 2 times for biological elements (spring and autumn) in rivers and lakes/reservoirs. Hydro-morphological elements 4 times, seasonal measurements have been selected to capture seasonal variations in the flow regimes within the water bodies. Winter measurements are omitted for biological elements due to the life cycle of these elements; in winter many of these will either still be in eggs or larvae, which will negatively skew results. For priority substances, monitoring will take place 2 times (spring and summer). Organochlorine pesticides will be analysed in those water bodies under the influence of agricultural pollution. Table outlines the general monitoring frequency for the specified elements.

Table: Monitoring frequencies for specified elements

Group	Element	Quantity / Period*
Biological	Phytobenthos	2 (spring, autumn)
	Benthic invertebrate fauna	2 (spring, autumn)
	Macrophytes	2 (spring, autumn)
	Phytoplankton	2 (spring, autumn)
	Fish	2 (spring, autumn)
General physico-chemical	Turbidity	2 (spring, autumn)
	Thermal conditions	2 (spring, autumn)
	Salinity	2 (spring, autumn)
	Oxygenation	2 (spring, autumn)
	Nutrients	2 (spring, autumn)
Hydro-morphological elements	Hydrological regime	4 (winter, spring, summer, autumn)
	Morphological conditions	4 (winter, spring, summer, autumn)
	Structure and substrate of the river	4 (winter, spring, summer, autumn)
	Structures of the riparian zone	4 (winter, spring, summer, autumn)

Group	Element	Quantity / Period*
Priority substances	Heavy metals and organo-chlorine pesticides	2 (spring, summer) 2 (spring, summer)

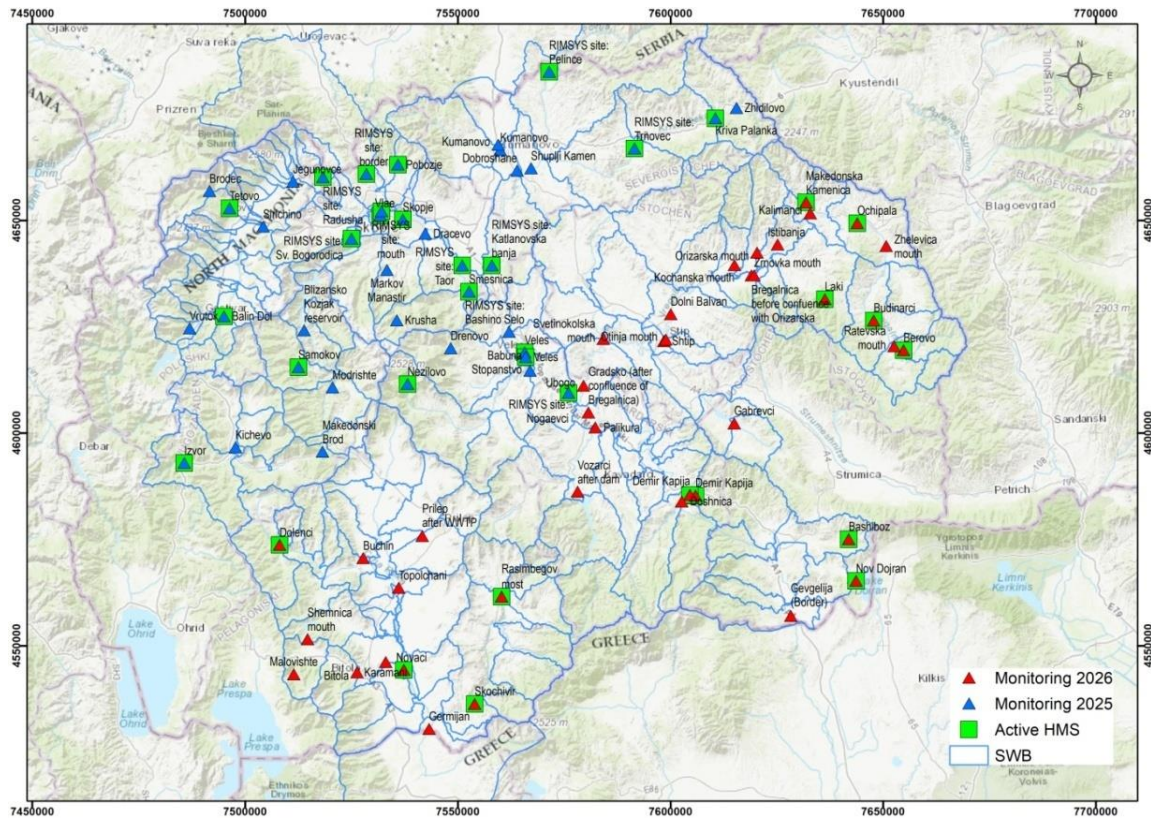


Figure: Map of monitoring locations in Vardar RB for 2025 and 2026 year

Ground water bodies

The groundwater monitoring program for the Vardar River basin which will take place in 2025 and 2026 will include network of 90 piezometers in total. It is expected in this number to be constructed 20 new piezometers.

The proposed monitoring stations are given on the map, while details about the locations are given in the table below:

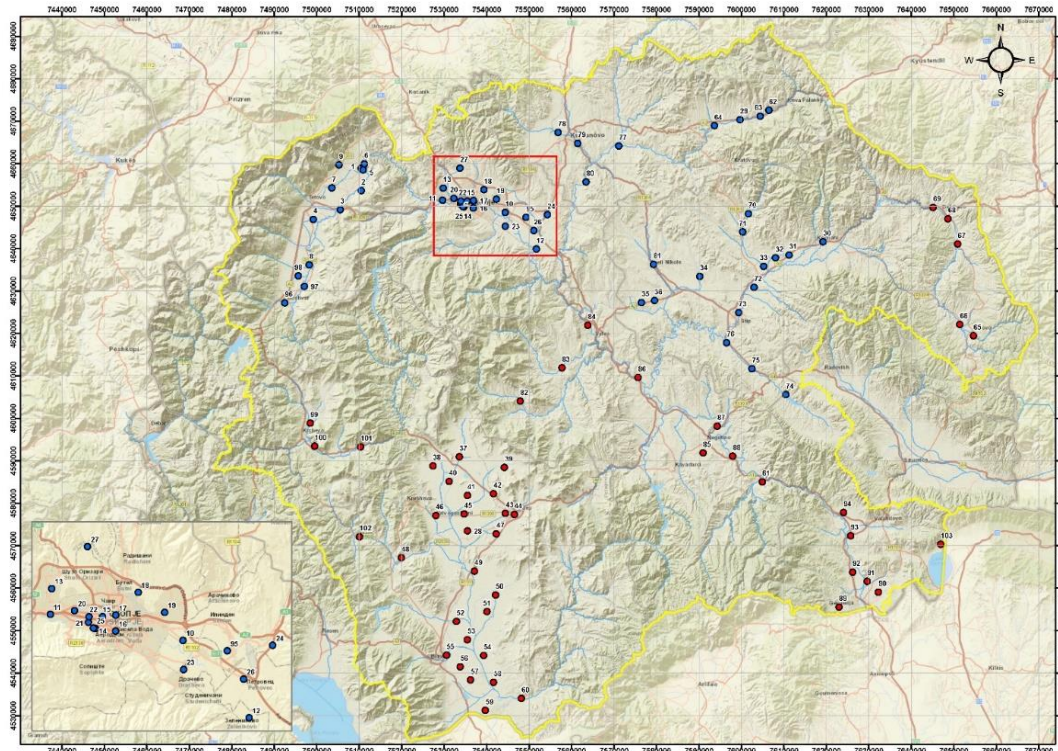


Figure: Map showing 90 proposed monitoring stations for the short-term period 2025-2027

On all specified sampling points (90 in total- 45 in 2025 and 45 in 2026) groundwater samples for qualitative and physico-chemical analyses will be taken according to **ISO 5667-11:2009 Water quality. Sampling - Guidance on sampling of groundwaters.**

The following set of core parameters shall be monitored in all the selected groundwater bodies:

Physic-chemical parameters:

- Temperature
- pH value
- Dissolved oxygen
- Conductivity
- Total water hardness mg/l CaCO₃

Major Ions:

- Nitrate: NO₃-N and Nitrite: NO₂-N
- Ammonium ion: NH₄-N
- Phosphate: PO₄-P
- Chloride
- Sulphate SO₄
- Na, K, Ca, and Mg

Metals:

- Cr (total), Cu, Mn, Fe, Ni, Pb, Cd

Priority substances:

- Analysed Organochlorine pesticides

The groundwater monitoring program for the Vardar River Basin will take place 2 times per year (seasonally: spring and autumn) to account for high and low water measurements. Table below outlines the general monitoring frequency for the specified elements.

Table: Groundwater quality elements and sampling frequency

	Water Quality Elements	Sampling frequency during the monitoring period of 12 months
1.	Physico-chemical parameters	Two times / Spring (April) and autumn (October)
2.	Major Ions	Two times / Spring and autumn
3.	Metals	Two times / Spring and autumn
4.	Pesticides a. Organo chlorine pesticides	Two times / Spring and autumn

Annex 3. Vardar river basin spatial GIS database

Information about all available GIS files for Vardar River Basin is available in the excel file attached in the link below.

<https://docs.google.com/spreadsheets/d/1q06Yjl-ygOu7gnCwHaSJm80jem6ZnSdmN/edit?usp=sharing&oid=107133839265122195460&rtpof=true&sd=true>

Annex 4. Relevant directives, guidelines and reports

Non-exhaustive list of relevant EU directives, decisions including their proposals and amendments as well as guidelines, standards and reports:

Directives:

- DIRECTIVE 2000/60/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2000 establishing a framework for Community action in the field of water policy as amended by:
 - DECISION No 2455/2001/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2001, L 331 1 15.12.2001 (establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC)
 - DIRECTIVE 2008/32/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 2008, L 81 60 20.3.2008 (amending Directive 2000/60/EC establishing a framework for Community action in the field of water policy, as regards the implementing powers conferred on the Commission)
 - DIRECTIVE 2008/105/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008, L 348 84 24.12.2008 (on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council)
 - DIRECTIVE 2009/31/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Text with EEA relevance of 23 April 2009, L 140 114 5.6.2009 (on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006)
 - DIRECTIVE 2013/39/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Text with EEA relevance of 12 August 2013, L 226 1 24.8.2013 (amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy Text with EEA relevance)
 - COUNCIL DIRECTIVE 2013/64/EU of 17 December 2013, L 353 8 28.12.2013
 - COMMISSION DIRECTIVE 2014/101/EU Text with EEA relevance of 30 October 2014, L 311 32 31.10.2014 (following the amendment of the status of Mayotte with regard to the European Union)
- DIRECTIVE 2008/105/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on environmental quality standards in the field of water policy amended by:
 - Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013, L 226 1 24.8.2013
- DIRECTIVE 2006/118/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006 on the protection of groundwater against pollution and deterioration amended by:
 - Commission Directive 2014/80/EU of 20 June 2014 L 182 52 21.6.2014 (amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration)

Proposal of directive:

- **Proposal for a** DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2000/60/EC establishing a framework for Community action in the field of water policy, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration and Directive 2008/105/EC on environmental quality standards in the field of water policy

CIS Guidance documents

- N° 1 - Economics and the Environment - The Implementation Challenge of the Water Framework Directive
- N° 2 – Identification of Water Bodies
- N° 3 - Analysis of Pressures and Impacts

- N° 4 – Identification and Designation of Heavily Modified and Artificial Water Bodies
- N° 5 - Transitional and Coastal Waters - Typology, Reference Conditions and Classification Systems
- N° 6 - Towards a Guidance on Establishment of the Intercalibration Network and the Process on the Intercalibration Exercise
- N° 7 - Monitoring under the Water Framework Directive
- N° 8 - Public Participation in Relation to the Water Framework Directive
- N° 9 - Implementing the Geographical Information System Elements (GIS) of the Water Framework Directive
- N° 10 - Rivers and Lakes - Typology, Reference Conditions and Classification Systems
- N° 11 - Planning Processes
- N° 12 - The Role of Wetlands in the Water Framework Directive
- N° 13 - Overall Approach to the Classification of Ecological Status and Ecological Potential
- N° 14 - Guidance on the Intercalibration Process (2004-2006)
- N° 15 - Groundwater Monitoring (WG C)
- N° 16 - Groundwater in Drinking Water Protected Areas
- N° 17 - Direct and indirect inputs in the light of the 2006/118/EC Directive
- N° 18 - Groundwater Status and Trend Assessment
- N° 19 - Surface water chemical monitoring
- N° 20 - Exemptions to the environmental objectives
- N° 21 - Guidance for reporting under the WFD
- N° 22 - Updated WISE GIS guidance (Nov 2008)
- N° 23 - Eutrophication Assessment in the Context of European Water Policies
- N° 24 - River Basin Management in a changing climate
- N° 25 - Chemical Monitoring of Sediment and Biota
- N° 26 - Risk Assessment and the Use of Conceptual Models for Groundwater
- N° 27 – Deriving Environmental Quality Standards – version 2018
- N° 28 - Preparation of Priority Substances Emissions Inventory
- N° 29 - Reporting under the Floods Directive
- N° 30 - Procedure to fit new or updated classification methods to the results of a completed intercalibration exercise
- N° 31 – Ecological Flows (final version)
- N° 32 - Biota Monitoring
- N° 33 - Analytical Methods for Biota Monitoring
- N° 34 - Water Balances Guidance (final version)
- N° 35 - WFD Reporting Guidance
- N° 36 - Article 4(7) Exemptions to the Environmental Objectives

CIS thematic documents

- EU Water Framework Directive: Statistical aspects of the identification of groundwater pollution trends and aggregation of monitoring results
- Groundwater Body Characterisation
- Groundwater Monitoring
- Groundwater Risk Assessment
- Groundwater Management in the Mediterranean
- Groundwater Dependent Terrestrial Ecosystems
- Recommendations for the review of Annex I and II of the Groundwater Directive 2006/118/EC
- Methodologies used for assessing Groundwater Dependent Terrestrial Ecosystems
- Groundwater Associated Aquatic Ecosystems
- Technical Report on Aquatic Effect-Based Monitoring Tools
- Technical Background Document on Identification of Mixing Zones
- Policy Document on Natural Water Retention Measures
- Guidelines on Water Reuse
- Technical Report on Voluntary Groundwater Watch List Concept & Methodology

- Technical Report on Threshold Value Variability Analysis
- Report summarising the results of the questionnaire on better consideration of drinking water resource protection in river basin management planning
- Best practice for establishing nutrient concentrations to support good ecological status

Standards:

- EN ISO 5667-3:2012 Water quality — Sampling — Part 3: Preservation and handling of samples
- EN 15204:2006 Water quality — Guidance standard on the enumeration of phytoplankton using inverted microscopy (Utermöhl technique)
- EN 15972:2011 Water quality — Guidance on quantitative and qualitative investigations of marine phytoplankton
- ISO 10260:1992 Water quality — Measurement of biochemical parameters — Spectrometric determination of the chlorophyll-a concentration
- EN 15460:2007 Water quality — Guidance standard for the surveying of macrophytes in lakes
- EN 14184:2014 Water quality — Guidance for the surveying of aquatic macrophytes in running waters
- EN 15708:2009 Water quality — Guidance standard for the surveying, sampling and laboratory analysis of phytobenthos in shallow running water
- EN 13946:2014 Water quality — Guidance for the routine sampling and preparation of benthic diatoms from rivers and lakes
- EN 14407:2014 Water quality — Guidance for the identification and enumeration of benthic diatom samples from rivers and lakes
- EN ISO 10870:2012 Water quality — Guidelines for the selection of sampling methods and devices for benthic macroinvertebrates in fresh waters
- EN 15196:2006 Water quality — Guidance on sampling and processing of the pupal exuviae of Chironomidae (order Diptera) for ecological assessment
- EN 16150:2012 Water quality — Guidance on pro rata multi-habitat sampling of benthic macro-invertebrates from wadeable rivers
- EN ISO 19493:2007 Water quality — Guidance on marine biological surveys of hard-substrate communities
- EN ISO 16665:2013 Water quality — Guidelines for quantitative sampling and sample processing of marine soft-bottom macro-fauna
- EN 14962:2006 Water quality — Guidance on the scope and selection of fish sampling methods
- EN 14011:2003 Water quality — Sampling of fish with electricity
- EN 15910:2014 Water quality — Guidance on the estimation of fish abundance with mobile hydroacoustic methods
- EN 14757:2005 Water quality — Sampling of fish with multi-mesh gillnets
- EN 14614:2004 Water quality — Guidance standard for assessing the hydromorphological features of rivers
- EN 16039:2011 Water quality — Guidance standard on assessing the hydromorphological features of lakes

Reports:

- Geoff Phillips, Martyn Kelly, Heliana Teixeira, Gary Free, Gabor Varbiro, Ioanna Varkitzi, Agnieszka Kolada, Anne Lyche Solheim & Sandra Poikane **Best practice for establishing nutrient concentrations to support good ecological status** 2nd edition

- European Commission, Joint Research Centre, Kelly, M., Teixeira, H., Lyche Solheim, A., Free, G., Phillips, G., Salas Herrero, M.F., Kolada, A., Varbiro, G. and Poikane, S., **Physico-chemical criteria to support Good Ecological Status in Europe**, Publications Office of the European Union, Luxembourg, 2024, <https://data.europa.eu/doi/10.2760/355815>, JRC136407.
- Phillips, G., Teixeira, H., Kelly, M. G., Lyche Solheim, A., Free, G., Salas Herrero, M.F., Kolada, A., Varbiro, G. and Poikane, S. (2024). **Establishing supporting element standards. A revised approach and applications.** Publications Office of the European Union. Luxembourg, 2024.

Annex 2: Bidder Submission Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
RFP reference:	[Insert RFP Title]		

We, the undersigned, offer to provide the services for [Insert Title of services] in accordance with your Request for Proposal No. [Insert RFP Reference Number] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and our Financial Proposal sealed under a separate envelope.

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

1. have no conflict of interest in accordance with Instruction to Bidders Clause 4;
2. have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;
3. undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the GWP.

We declare that all the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification.

We offer to provide services in conformity with the Bidding documents, including the General Conditions of Contract and in accordance with the Terms of Reference.

Our Proposal shall be valid and remain binding upon us for the period of time specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Proposal you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Proposal and bind it should GWP accept this Proposal.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Annex 3: Bidder Information Form

The legal name of Bidder	
Legal address	
Year of registration	
Bidder's Authorized Representative Information	
Country/ies of operation	
No. of full-time employees	
Quality Assurance Certification¹⁸ (e.g. ISO 9000 or Equivalent) (If yes, provide a copy of the valid Certificate):	
Does your Company hold any accreditation such as ISO 14001 related to the environment? (If yes, provide a copy of the valid Certificate):	
Person the GWP may contact for requests for clarification during the Proposal evaluation	

¹⁸ The possession of such certification is not a mandatory requirement. However, it may result in acquiring slightly higher score on the Bidder's qualifications, capacity and experience assessment.

Annex 4: Qualification Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
RFP reference:	[Insert RFP Title]		

Documents to be submitted along with Annex 4:

Previous Relevant Experience

Please list only previous similar assignments successfully completed [as per the requirements in the Terms of Reference related to relevant experience].

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by the GWP.

No.	Project name and a brief description	Client & Reference Contact Details	Contract Value	Period of activity and status
1				
2				
3				
4				

Expertise

Please list all experts and their qualifications in the list provided in addition to requirements under Annex 5 [as per the requirements in the Terms of Reference related to relevant experience].

No.	Position	Relevant projects are (please check the requirements in TOR for the relevance of projects)	Education	Total-experience/experience in relevant projects (years)	Other
1.		1.			
		2.			
		3.			
2.		1.			
		2.			
		3.			

Annex 5: Technical Proposal Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
RFP reference:	[Insert RFP Title]		

The Bidder's proposal should be organized to follow this format of Technical Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

SECTION 1: Bidder's qualification, capacity and, expertise

- 1.1 Brief description of the organization, including the year and country of incorporation, and types of activities undertaken.
- 1.2 General organizational capability which is likely to affect implementation: management structure, financial stability and, project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).
- 1.3 The relevance of specialized knowledge and experience on similar engagements done in the region/country.
- 1.4 Quality assurance procedures, accreditations and certificates (such as ISO or similar), and risk mitigation measures.
- 1.5 Organization's commitment to sustainability.

SECTION 2: Proposed Methodology, Approach and Implementation Plan

This section should demonstrate the bidder's responsiveness to the TOR by identifying the specific components proposed, addressing the requirements, providing a detailed description of the essential performance characteristics proposed and demonstrating how the proposed approach and methodology meets or exceeds the requirements. All important aspects should be addressed in sufficient detail and different components of the project should be adequately weighted relative to one another.

- 2.1 A detailed description of the approach and methodology for how the Bidder will achieve the Terms of Reference of the project, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 2.2 The methodology shall also include details of the Bidder's internal technical and quality assurance review mechanisms.
- 2.3 Explain whether any work would be subcontracted, to whom, how much percentage of the work, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 2.4 Description of available performance monitoring and evaluation mechanisms and tools; how they shall be adopted and used for a specific requirement.
- 2.5 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 2.6 Demonstrate how you plan to integrate sustainability measures in the execution of the contract.
- 2.7 Any other comments or information regarding the project approach and methodology that will be adopted.

SECTION 3: Management Structure and Key Personnel

- 3.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of the project describing the relationship of key positions and designations. Provide a spreadsheet to show the activities of each

- personnel and the time allocated for his/her involvement.
- 3.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the Scope of Services.

Format for CV of Proposed Key Personnel

At a minimum, the CV shall include the following information outlined in the table below

Name of Personnel	[Insert]
Position for this assignment / Area of Expertise (from the TORs)	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i>
	[Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i>
	<ul style="list-style-type: none"> ▪ Name of institution: [Insert] ▪ Date of certification: [Insert]
Employment Record/Experience	<i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, the title of position held, and location of employment. For experience in the last five years, detail the type of activities performed, degree of responsibilities, location of assignments, and any other information or professional experience considered pertinent for this assignment.]</i>
	[Insert]
References	<i>[Provide names, addresses, phone and email contact information for two (2) references]</i>
	<p>Reference 1: [Insert]</p> <p>Reference 2: [Insert]</p>

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

Signature of Personnel

Date (Day/Month/Year)

Annex 6: Financial Proposal Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
	[Insert RFP Title]		

We, the undersigned, offer to provide the services for **[Insert RFP Title]** in accordance with your Request for Proposal No. **RFP 01/2025** and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and our Financial Proposal sealed under a separate envelope.

Our attached Financial Proposal is for the sum of [Insert amount in words and figures].

Our Proposal shall be valid and remain binding upon us for the period of time specified in Description of Requirements [Annex 1].

We understand you are not bound to accept any Proposal you receive.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with the official stamp of the Bidder]

The Bidder is required to prepare the Financial Proposal following the below format and submit it in an envelope separate from the Technical Proposal as indicated in the Instruction to Bidders. Any Financial information provided in the Technical Proposal shall lead to Bidder's disqualification. The Financial Proposal should align with the requirements in the Terms of Reference and the Bidder's Technical Proposal.

The currency of the proposal: For national bidders in **MKD**, for international in **EUR**.

Table 1: Summary of Overall Prices

	Amount(s)
Professional Fees (from Table 2)	
Other Costs (from Table 3)	
Total Amount of Financial Proposal	

Table 2: Breakdown of Professional Fees (THIS IS JUST a SAMPLE)

Name	Position	Fee Rate	No. of	Total
		A	Days/months/ hours	Amount
			B	C=A+B
In-Country				
Home Based				
Subtotal Professional Fees:				

Table 3: Breakdown of Other Costs

Description	UOM	Quantity	Unit Price	Total Amount
International flights	Trip			
Subsistence allowance	Day			
Miscellaneous travel expenses	Trip			
Local transportation costs	Lump-Sum			
Out-of-Pocket Expenses				
Other Costs: (please specify)				
Subtotal Other Costs:				

Table 4: Breakdown of Price per Deliverable/Activity

Deliverable/ Activity description	Time (person-days)	Professional Fees	Other Costs	Total
Deliverable 1				
Deliverable 2				
Deliverable 3				
.....				

Payment is deliverables based

Annex 7: Evaluation Criteria

Two stage procedure will be utilized for evaluation of the proposals taking in consideration as evaluation criteria all requirements specified in the Annex 1 (Terms of Reference). The cumulative method will be applied in the evaluation of the applications. The contract will be awarded to the bidder achieving the highest cumulative score from the technical and financial parts of the proposal. The technical part accounts for 70% of the total score and the financial proposal will account for 30% of the total evaluation score. Only candidates obtaining a minimum of 490 points (70%) in the technical evaluation shall be considered for the financial evaluation. For the financial evaluation, the offer with the lowest price will be awarded the maximum of 300 points. The remaining offers will be scored proportionally based on their price relative to the lowest offer.

Technical Evaluation Criteria

Summary of Technical Proposal Evaluation Forms		Points Obtainable
1.	Bidder's qualification, capacity and experience	150
2.	Proposed Methodology, Technology, Approach and Implementation Plan	250
3.	Management Structure and Key Personnel	300
Total		700

Technical Proposal Evaluation Form 1		Maximum Points obtainable
Expertise of the Firm/Organization		
1.1	Company profile and evidence of capacity/organization capability	50
1.2	Extensive experience in developing and managing complex projects in the area of water resources / watershed management, environment or sustainable development. Record of projects of comparable nature and degree of complexity (e.g., river basin management plans, flood risk management plans, environmental monitoring programs, feasibility studies/management plans, revalorisation studies for complex environmental projects, etc.). Minimum 5 projects required.	100
		150

Technical Proposal Evaluation Form 2		Maximum Points obtainable
Proposed Methodology, Approach and Implementation Plan		
2.1	To what degree does the Proposer understand the task? Is the scope of task well defined and does it correspond to the TOR?	70
2.2	Have the important aspects of the task been addressed in sufficient detail?	70
2.4	Is the proposal based on a survey of the project environment and was this data input properly used in the preparation of the proposal?	60
2.7	Is the presentation clear and is the sequence of activities and the planning logical, realistic and promise efficient implementation to the project?	50
		250
Management Structure and Key Personnel		

3.1	Team Leader			
		YES/NO for minimum requirements		
	Minimum University degree in relevant field (Water resources management, Civil Engineering, Environment, Biology, Ecology or similar)		Max 9 for relevant BSc Max 10 for relevant MSc	10
	Minimum 10 years of professional experience in similar assignments (development and management of complex environmental / water resources / watershed / sustainable development projects, environmental monitoring programmes)		Max 17 for 10 years Max 19 for 13 years Max 20 for 15 years and more	20
	Relevant experience from at least 3 projects of comparable nature and degree of complexity (environmental / water resources / watershed/ river basin projects)		Max 15 for 3 projects Max 18 for up to 5 projects Max 20 for more than 5 projects	20
	Experience as a team leader from at least 2 relevant projects (environmental / water resources / watershed / sustainable development projects, environmental monitoring programmes)		Max 7 for 2 projects Max 8 for up to 4 projects Max 10 for more than 4 projects	10
		Max points:		60
3.2	Biological Quality element (algae-phytoplankton and Phytobenthos)			
	Qualifications of the Lead Expert	YES/NO for minimum requirements		
	Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar)		Max 9 points for relevant BSc Max 10 points for relevant MSc	10
	Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers		Max 17 for 10 years Max 19 for 13 years Max 20 for 15 years and more	20
	Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar in regard to algae as biological quality element, preferably based on EU WFD requirements, EU intercalibration assessment methods		Max 8 for 2 projects Max 9 for up to 5 projects Max 10 for more than 5 projects	10

		Max points:		40
3.3	Biological Quality element (macrophyte)			
	Qualifications of the Lead Expert		YES/NO for minimum requirements	
	Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar)			Max 9 points for relevant BSc
				Max 10 points for relevant MSc
	Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers			Max 17 for 10 years
				Max 19 for 13 years
	Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to aquatic vegetation (macrophytes) as biological quality element, preferably based on EU WFD requirements, EU intercalibration assessment methods			Max 20 for 15 years and more
				Max 8 for 2 projects
				Max 9 for up to 5 projects
				Max 10 for more than 5 projects
			Max points:	40
3.4	Biological Quality element (benthic invertebrates)			
	Qualifications of the Lead Expert		YES/NO for minimum requirements	
	Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar)			Max 9 points for relevant BSc
				Max 10 points for relevant MSc
	Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers			Max 17 for 10 years
				Max 19 for 13 years
	Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to benthic invertebrates as biological quality element preferably based on EU WFD requirements, EU intercalibration assessment methods			Max 20 for 15 years and more
				Max 8 for 2 projects
				Max 9 for up to 5 projects
				Max 10 for more than 5 projects
			Max points:	40

3.5 Biological Quality element (Fish)				
Qualifications of the Lead Expert		YES/NO for minimum requirements		
Minimum University degree in relevant field (biology, ecology, aquatic ecosystems, environment or similar)			Max 9 points for relevant BSc	10
			Max 10 points for relevant MSc	
Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers			Max 17 for 10 years	20
			Max 19 for 13 years	
			Max 20 for 15 years and more	
Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to fish as biological quality element preferably based on EU WFD requirements, EU intercalibration assessment methods			Max 8 for 2 projects	10
			Max 9 for up to 5 projects	
			Max 10 for more than 5 projects	
Max points:				40

3.6 Hydro-morphological Quality Element				
Qualifications of the Lead Expert		YES/NO for minimum requirements		
Minimum University degree in relevant field (Water resources management, biology, ecology, aquatic ecosystems, environment, civil engineering, or similar)			Max 9 points for relevant BSc	10
			Max 10 points for relevant MSc	
Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes, ecological characterization of rivers			Max 17 for 10 years	20
			Max 19 for 13 years	
			Max 20 for 15 years and more	
Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to fish as biological quality element preferably based on EU WFD requirements, EU intercalibration assessment methods			Max 8 for 2 projects	10
			Max 9 for up to 5 projects	
			Max 10 for more than 5 projects	
Max points:				40

3.7	<u>Chemical Quality Element (physico-chemical, specific pollutants and priority substances)</u>			
	Qualifications of the Lead Expert	YES/NO for minimum requirements		
	Minimum University degree. in relevant field (chemistry, environment, technology, aquatic ecosystems, environment or similar)		Max 9 points for relevant BSc	10
			Max 10 points for relevant MSc	
	Minimum 10 years of professional experience in development and implementation of water quality monitoring programmes of river basins or similar		Max 17 for 10 years	20
			Max 19 for 13 years	
			Max 20 for 15 years and more	
	Relevant experience from at least 2 assignments that involve development and/or implementation of water quality monitoring programmes, analysis of water quality monitoring data or similar, in regard to (physico-chemical, specific pollutants and priority substances preferably based on EU WFD requirements		Max 8 for 2 projects	10
			Max 9 for up to 5 projects	
			Max 10 for more than 5 projects	
			Max points:	40
	Total Part 3:			300

Annex 8: General Terms and Conditions for Contracts

1. LEGAL STATUS

The Contractor shall be considered as having the legal status of an independent contractor vis-à-vis the GWP. The Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of the GWP. For the purposes of this agreement, the Contractor is defined as a business that agrees to conduct work for the GWP as specified under the terms of a contract. The term "Contract" includes the general terms and conditions set forth in the body of this document (the "General Terms and Conditions for Contracts").

2. SOURCE OF INSTRUCTIONS

The Contractor shall neither seek nor accept instructions from anyone else but the GWP in connection to its services under this contract. The Contractor shall refrain from any action that may adversely affect the GWP and shall fulfil its commitments with the fullest regard to the interests of the GWP.

3. CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES

The Contractor shall be responsible for the professional and technical competence of its employees and will select, for work under this Contract, reliable individuals who will perform effectively in the implementation of this Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.

4. ASSIGNMENT

The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Contractor's rights, claims, or obligations under this Contract except with the prior written consent of the GWP.

5. SUB-CONTRACTING

In the event, the Contractor requires the services of sub-contractors in the course of the implementation of the assignment (unless specified in the Proposal/Offer/Bid), the Contractor shall obtain the prior written approval and clearance of the GWP for all sub-contractors. The approval of GWP of a sub-contractor shall not relieve the Contractor of any of its obligations under this Contract. The terms of any sub-contract shall be subject to and conform to the provisions of this Contract.

6. OFFICIALS NOT TO BENEFIT

The Contractor warrants that no official of GWP has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.

7. INDEMNIFICATION

The Contractor shall defend, indemnify and hold harmless, at its own expense, the GWP, its officials, agents, servants, and employees from and against all third-party claims, suits, obligations, causes of action, demands, and all losses, damages, judgments, the liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Contractor, or the Contractor's employees, officers, agents or sub-contractors, in the performance of this Contract. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability, and liability arising out of the use of patented inventions or devices, copyrighted material, or other intellectual property by the Contractor, its employees, officers, agents, servants

or sub-contractors. The obligations under this Article do not lapse upon termination of this Contract.

8. INSURANCE AND LIABILITIES TO THIRD PARTIES

The Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or the equivalent, with respect to its employees to cover claims for personal injury or death in connection with this Contract.

The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.

9. LIENS

The Contractor shall not cause or permit any lien, attachment, or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with the GWP against any monies due or to become due for any work done or materials furnished under this Contract, or by reason of any other claim or demand against the Contractor.

10. TITLE TO EQUIPMENT

Title to any equipment and supplies that may be furnished by GWP shall rest with GWP and any such equipment shall be returned to GWP at the conclusion of this Contract or when no longer needed by the Contractor. Such equipment, when returned to GWP, shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear. The Contractor shall be liable to compensate GWP for equipment determined to be damaged or degraded beyond normal wear and tear.

11. COPYRIGHT, PATENTS, AND OTHER PROPRIETARY RIGHTS

Except as is otherwise expressly provided in writing in the Contract, the GWP shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Contractor has developed for the GWP under the Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the contract and the Contractor acknowledges and agrees that such products, documents, and other materials constitute works made for hire for the GWP.

To the extent that any such intellectual property or other proprietary rights consist of any intellectual property or other proprietary rights of the Contractor: (i) that pre-existed the performance by the Contractor of its obligations under the Contract, or (ii) that the Contractor may develop or acquire, or may have developed or acquired, independently of the performance of its obligations under the Contract, the GWP does not and shall not claim any ownership interest thereto, and the Contractor grants to the GWP a perpetual license to use such intellectual property or other proprietary right solely for the purposes of and in accordance with the requirements of the Contract.

All maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, and all other data compiled by or received by the Contractor under the Contract shall be the property of the GWP, shall be made available for use or inspection by the GWP at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to GWP authorized officials on completion of work under the Contract.

12. USE OF NAME, EMBLEM OR OFFICIAL SEAL OF GWP

The Contractor shall not in any manner whatsoever use the name, emblem, or official seal of the GWP in connection with its business or otherwise unless expressly allowed in writing by authorized GWP officials.

13. CONFIDENTIALITY

Information and data that is considered proprietary by either Party and that are delivered or disclosed by one Party ("Discloser") to the other Party ("Recipient") during the course of performance of the Contract, and that is designated as confidential ("Information"), shall be held in confidence by that Party.

The recipient ("Recipient") of such information shall:

- a) use the same care and discretion to avoid disclosure, publication or dissemination of the Discloser's Information as it uses with its own similar information that it does not wish to disclose, publish or disseminate; and,
- b) use the Discloser's Information solely for the purpose for which it was disclosed.

Provided that the Recipient has a written agreement with the following persons or entities requiring them to treat the Information confidential in accordance with the Contract, the Recipient may disclose Information to:

- a) any other party with the Discloser's prior written consent; and,
- b) the Recipient's employees, officials, representatives, and agents who have a need to know such information for purposes of performing obligations under the Contract, and employees' officials, representatives, and agents of any legal entity that it controls it, or with which it is under common control, who have a need to know such information for purposes of performing obligations under the Contract.

The Contractor may disclose Information to the extent required by law, provided that the Contractor will give the GWP sufficient prior notice of a request for the disclosure of information in order to allow the GWP to have a reasonable opportunity to take protective measures or such other action as may be appropriate before any such disclosure is made.

The GWP may disclose Information to the extent as required by national law in North Macedonia.

These obligations and restrictions of confidentiality shall be effective during the term of the Contract, including any extension thereof, and, unless otherwise provided in the Contract, shall remain effective following any termination of the Contract.

14. FORCE MAJEURE; OTHER CHANGES IN CONDITIONS

In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Contractor shall give notice and full particulars in writing to the GWP, of such occurrence or change if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. The Contractor shall also notify the GWP of any other changes in conditions or the occurrence of any event that interferes or threatens to interfere with its performance of this Contract. On receipt of the notice required under this Article, the GWP shall take such action as, in its sole discretion; it considers to be appropriate or necessary in the circumstances, including the granting to the Contractor of a reasonable extension of time in which to perform its obligations under this Contract.

If the Contractor is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, the GWP shall have the right to suspend or terminate this Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

Force majeure means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force.

15. TERMINATION

Either party may terminate this Contract for cause, in whole or in part, upon thirty (30) days' notice, in writing, to the other party.

GWP reserves the right to terminate without cause this Contract at any time upon 15 days prior written notice to the Contractor, in which case the GWP shall reimburse the Contractor for all reasonable costs incurred by the Contractor prior to receipt of the notice of termination.

In the event of any termination by the GWP no payment shall be due from the GWP to the Contractor except for work and services satisfactorily performed in conformity with the express terms of this Contract.

Should the Contractor be adjudged bankrupt, or be liquidated or become insolvent, or should the Contractor make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Contractor, the GWP may, without prejudice to any other right or remedy it may have under the terms of these conditions, terminate this Contract forthwith. The Contractor shall immediately inform the GWP of the occurrence of any of the above events.

16. SETTLEMENT OF DISPUTES

The parties shall use their best efforts to settle amicably any dispute, controversy, or claim arising out of this Contract or the breach, termination, or invalidity thereof. This Contract shall be construed and interpreted, and the legal relations created hereby shall be determined in accordance with the laws of the Republic of North Macedonia. The parties' consent to the exclusive jurisdiction of, and agree that venue lies solely with, the state courts located in the Republic of North Macedonia.

17. TAX EXEMPTION

GWP is exempt from all direct taxes, except charges for public utility services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognize the GWP's exemption from such taxes, duties, or charges, the Contractor shall immediately consult with the GWP to determine a mutually acceptable procedure.

Accordingly, the Contractor authorizes the GWP to deduct from the Contractor's invoice any amount representing such taxes, duties, or charges, unless the Contractor has consulted with the GWP before the payment thereof and the GWP has, in each instance, specifically authorized the Contractor to pay such taxes, duties or charges under protest. In that event, the Contractor shall provide the GWP with written evidence that payment of such taxes, duties, or charges has been made and appropriately authorized.

18. OBSERVANCE OF THE LAW

The Contractor shall comply with all laws, ordinances, rules, and regulations bearing upon the performance of its obligations under the terms of this Contract.

19. AUTHORITY TO MODIFY

Only the GWP Authorized Official possesses the authority to agree on behalf of the GWP to any modification of or change in this Contract, to a waiver of any of its provisions, or any additional contractual relationship of any kind with the Contractor. Accordingly, no modification or change in this Contract shall be valid and enforceable against the GWP unless provided by an amendment to this Contract signed by the Contractor and jointly by the GWP.