Terms of Reference

For the Construction of a Wastewater Refill Station and the Expansion of the Irrigation Network in Spyros Kyprianos Park, in the Municipality of Aglantzia, Cyprus

In the framework of
the "Mission Water Cyprus: Blue for Green" project

Funded by
The Coca-Cola Foundation

1. Background

1.1. The "Mission Water Cyprus: Blue for Green" Project

Cyprus is a highly water-stressed EU country, with extreme climatic phenomena like droughts historically lasting 2-3 consecutive years, and currently increasing in magnitude and frequency. With water challenges mounting due, for example, to population growth, economic development, changing consumption patterns and climate change impacts, the country is pioneering policy and technical responses towards water security. Water-related priorities in the National Adaptation Strategy and Plan (2017) include maintenance/repair of water distribution networks; control of water-demanding activities in water-stressed areas; water efficiency increase in urban, agriculture and industrial uses, including wide utilization of nonconventional water resources (NCWR). Furthermore, increasing and conserving urban and peri-urban green spaces is a priority at the national and municipal level, which helps preserve natural capital in areas under developmental pressures, constitutes a key response to climate change impacts, and provides recreational options. Public awareness and education rank high as key contributors for achieving sustainable development. The national and local authorities as well as stakeholders, including civil society and the private sector, are engaged in related action. Given the magnitude of challenges faced, and limitations in related public investments (e.g. for infrastructure works) and private spending (e.g. related to installing or upgrading water efficiency systems) due to the financial crisis and the severe economic impacts of the COVID-19 pandemic in the local economy, there is an urgent need for tangible actions towards meeting needs, both for their practical contribution at the local level, as well as a trigger towards greater nationwide commitment and action.

Since 2013, GWP-Med, the Coca-Cola Foundation and system, and national and local partners in Cyprus have, through the Mission Water Programme, contributed to water efficiency and related authorities' and stakeholders' engagement objectives through local technical interventions of demonstration content and awareness raising activities, contributing to national and local priorities and plans. Within these, 19 technical interventions have materialized, yielding an annual water volume of 40 million liters, directly benefitting more than 83,000 people in the country.

Building on global and Mediterranean best practices and responding to national political priorities and local operational plans, the proposed 'Mission Water Cyprus: blue for green' Project aims at increasing water efficiency and utilising replenished water in support of municipal green spaces

in Cyprus, contributing to water security and climate change adaptation. The Programme is funded by The Coca-Cola Foundation and is supported by the Coca-Cola System in Greece and Cyprus.

The Project will (i) apply NCWR technical solutions in a smart-city context, like greywater reuse, rainwater harvesting (RWH), information & communication technologies (ICT) for smart watering, water efficiency applications, etc., for replenishing and reusing water for non-potable uses, exploiting these saved resources for watering and increasing vegetation in public urban/peri-urban green spaces; and, (ii) raise inhabitants', visitors' and the general public's awareness on the importance of conserving municipal green spaces, with an emphasis on the role of water resources needed to achieve this, making a valid and up-to-date contribution towards a new 'water culture'.

Interventions would be implemented in the Municipality of Aglantzia.

2. Description of the Assignment

2.1. Objective

The objective of the assignment is the Construction of a Wastewater Refill Station and the Expansion of the Irrigation Network in Spyros Kyprianos Park, in the Municipality of Aglantzia, Cyprus.
The purpose of the refill station is to provide the infrastructure for water tracks to be refilled with treated wastewater for the irrigation of the green spaces of the Municipality of Aglantzia.

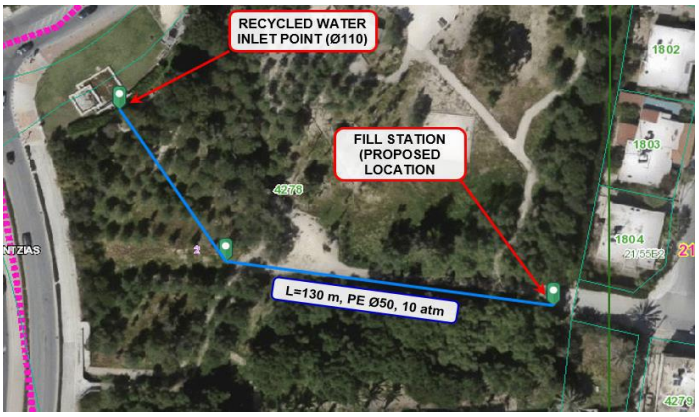
2.2. Requested Services

The wastewater refill station consists of the following components:

- The connection piping between the treated wastewater inlet (picture 1) to the park and the refill station (picture 2). The pipe will be placed underground (depth 30 – 40 cm).
- The supply, delivery and installation of a plastic tank of 20 m^3 (indicative diameter 3,40 m and indicative height 2,90 m). The tank will be equipped with a level switch and an electrovalve to stop / start the filling of the tank.
- The construction of a reinforced concrete slab for the placement of the tank (indicative dimensions 4,00 x 4,00 x 0,20 m).
- The supply, delivery and installation of a chlorination system and piping (to eject chlorine in the treated wastewater) including Redox sensor (including hydraulic and electrical connection).
- The supply, delivery and installation of an electric pump, 1-phase, at 25 m^3/h, 2 – 3 bars, to refill the water track (including hydraulic and electrical connection). Both options of a submersible or surface pump are acceptable.
- The connection piping between the tank and the water track. The piping will be flexible HDPE, PN 6, of the necessary length.
- The construction of a tap and sink for potable water (including hydraulic connection).

- The construction of a simple fence and gate to prevent unauthorized entrance to the refill station.

Picture 1. Treated wastewater inlet in the park.



Εικόνα 2. Piping between the treated wastewater inlet and the refill station.

The expansion of the existing irrigation network will be connected to the treated wastewater inlet (picture 1). The components of the works are included in table 2.3. Deliverables. The expansion of the irrigation network (routing) will be made under the instructions of the representatives of the Municipality of Aglantzia (please see Chapter 9: Site Visit).

2.3. Deliverables

A/A	Service / Task	Quantity
A. Treated Wastewater Refill Station		
A1	Connection piping (PE, Φ50, 10 atm) between the treated wastewater inlet to the park and the refill station. The pipe will be placed underground (depth 30 – 40 cm).	130 – 150 m
A2	Digging and covering for the placement of the piping (30 – 40 cm).	130 – 150 m
A3	Supply, delivery and installation of a plastic tank of 20 m^3 (indicative diameter 3,40 m and indicative height 2,90 m).	1 pc
A4	Level switch for the tank	1 pc

A5	Electrovalve to stop / start the filling of the tank.	1 pc
A6	Reinforced concrete slab.	3,20 m^3
A7	Dosing pump (minimum 3lt/h).	1 pc
A8	Redox sensor.	1 pc
A9	Hydraulic and electrical installation of the chlorination system.	Lump Sum
A10	Electric pump, 1-phase, at 25 m3/h, 2 – 3 bars (submersible or surface)	1 pc
A11	Hydraulic and electrical installation of the pump	Lump Sum
A12	Connection piping between the tank and the water track. The connection piping between the tank and the water track. The piping will be flexible HDPE, PN 6, of the necessary length.	Lump Sum
A13	Construction of a tap and sink for potable water.	1
A14	Hydraulic connection of the sink / tap.	Lump Sum
A15	Construction of a simple fence and gate.	Lump Sum
A16	Electrical board for the pump, the dosing pump and the electrovalve.	Lump Sum
B. Expansion of the Irrigation Network		
B1	Irrigation programmer 12-station with Wifi	1 pc
B2	Electrovalve of 2”	10 pcs
B3	Electrovalve maniforld	1 pc
B4	Disc filter 2”	1 pc
B5	Plastic, waterproof box for programmer	1 pc
B6	Irrigation pipe Φ50, 6 atm	1.700 m
B7	Irrigation pipe Φ25, 4 atm	4.000 m
B8	Saddle 50x1	60 pcs
B9	Starter 25x1	60 pcs
B10	Cap 25 mm	60 pcs
B11	Connection 25 mm	60 pcs
B12	Drip sprinkler 0 – 70 lt/h	800 pcs
B13	Ground hook	1.300 pcs
B14	Groundwork, sleeve installation and rehabilitation	Lump Sum
B15	Anything else required for the proper operation of the irrigation system	Lump Sum
C. Drawings		
C1	AS BUILT drawings (hydraulic and electrical) for both components of the work.	Lump Sum

The above-mentioned quantities should also include the labor / installation of the respective equipment.

This tender is not divided into lots, and tenders must be for the study / report indicated.

2.4. Assignment Outputs

1. The construction and delivery of a Wastewater Refill Station in Spyros Kyprianos Park for the filling of the water tracks with treated wastewater for the irrigation of the green spaces of the Municipality of Aglantzia, Cyprus.

2. The expansion of the existing irrigation network at Spyros Kyprianos Park.

2.5. Obligations

During the construction phase of the project, the following obligations are put into force:

- The refilling station will be placed outdoors. Thus, all the materials should be selected based on this context.
- Removal of any vegetation, to be limited to the minimum degree required and exclusively for the construction needs of the project.
- All necessary measures (marking, fencing, etc.) to avoid accidents, to protect residents and workers from danger that may be created during the construction of the project, to be taken.
- Storage of materials, even temporary, at the construction area is prohibited.
- After the completion of the construction, the rehabilitation of the construction area needs to be conducted.
- Pictures of the work progress should be collected and sent to GWP-Med.
- A final list of materials and equipment to be sent to GWP-Med.

2.6. Health and Safety Precautions

Responsibility for all aspects concerning health and safety issues for the duration of this project is vested entirely in the contractor entrusted to do this job, who will exercise all control over operations, materials, his employees, and all other factors respecting health and safety norms.

2.7. Reporting line

The awarded contractor will communicate directly with Dr. Nikos Skondras, Senior Program Officer at GWP-Med (Contracting Authority).
Additionally, the awarded contractor will consult with and work under the direct supervision of the technical representatives of the Municipality of Aglantzia (Supervising Authority).

2.8. Monitoring and Progress Controls

Dr Nikos Skondras, Senior Programme Officer at GWP-Med, and Mr. Charalampos Lappas, Programme Officer at GWP-Med, will be providing oversight and guidance from the side of the Project Team. Coordination calls between the consultant and the Project Team will be held at weekly basis, to monitor the progress of the assigned services.
Services will be rendered and will be considered completed upon approval of the deliverables by the Project Coordinator and the GWP-MED Executive Secretary.

3. Duration of the Contract

Delivery of the works should be completed by 07/04/2023
The overall duration of the contract will be maximum by 30/04/2023.

The date of the commencement of the contract execution shall be the last signing of the contract.

4. Contract Price, Schedule of Payments

The maximum fee for this assignment is **45,000 EUR**. This amount includes all other costs, income taxes and any other amount payable or cost that may be required for the completion of the work/service, **including VAT**.

The schedule of payments is as follows:

- 20% payment upon completion of the works A1, A2, A3, A6 and A12 (written approval by the Municipality, of the works performed).
- 20% payment upon completion of works B6 to B12 (written approval by the Municipality, of the works performed).
- 60% payment upon satisfactory completion of the works (written acceptance by the Municipality, of the works performed).

5. Guarantee

The awarded contractor will provide a Guarantee on all equipment for a minimum period of 12 months against faulty workmanship and materials and on the operation of the system as a whole. If during this period any parts or equipment have to be changed (due to faulty workmanship and not due to the selected operation conditions), the guarantee on that part is to be renewed for another year from date of replacement. The initial guarantee as well as the replacement guarantee include the equipment cost (transfer, labour cost, taxes, insurance etc.).

In the event that there are delays in the execution of the contract the awarded contractor shall be liable to pay compensation in the form of a penalty. The amount of the flat rate compensation per day of delay (penalty) shall be of 1% of the net contract value per week up to a limit of 10% of the total contract value. For the calculation of penalties, the number of days of delays shall be converted into weeks by rounding down to the nearest week.

The awarded contractor agrees to submit to the Contracting Authority one Performance Guarantee accounting to 5% of the contract value.
The successful participant shall, within ten (10) calendar days of the receipt of the contract, sign and date the contract and return it together with a copy of the Performance Guarantee. Any Performance Guarantee issuance expenses bear's the successful participant.
The Performance Guarantee shall be released after the completion of three (3) months from the written acceptance of the works performed by the Municipality of Aglantzia.
The Contracting Authority will not affect any payment to the Contractor until the Performance Guarantees have been submitted.

6. Selection Criteria (Pass / Fail)

Successful participants must provide the following documents:

A. <u>Technical Offer:</u>

- Proof of enrolment in one of the official professional or trade registries in your country of registration.
- License to perform works in Cyprus.
- Statement of adequate resources to perform the requested tasks.
- Statement of understanding the requested objective, services and deliverables.
- Graphic Works Schedule - Program of Works in the form of a Gantt Chart.
- Datasheet of the offered pumps.
- Signed statement certifying that the equipment is new and unused.
- CE certificates or equivalent for the pumps and any other major material / equipment to be used.
- A warranty for good operation for at least:
  - 1 year for the offered pump and the dosing pump
  - 5 years for the LLDPE tank
- Have Minimum ten (10) years of experience in related hydraulic and electrical installations (official registration document and company profile).

B. Financial Offer (Annex 2)

Failure to provide the minimum required qualifications is considered ground for disqualification.

7. Awarding Criterion and Evaluation Process

Award criterion is the Most Economically Advantageous offer with criterion the lowest price for the offers satisfying the technical requirements as described in the attached document.

8. Submission of Offers

Please refer to the **Call for Offers Document** for the proper submission of the Technical and Financial Offer.

9. Site visit

The applicants are encouraged to visit the construction site and send their queries to GWP-Med at procurement@gwpmed.org.
The contact person at the Municipality of Aglantzia is Mr. Yiangos Yiangou, yiangos.yiangou@aglantzia.org.cy and Mr. Christos Tsikkouras christos251010@gmail.com.