Site Visit:

One site visit was arranged on 10/03/2022, at 10:00 a.m. (Jordan Time) with the GWP-Med representative in Jordan (Dr. Ghazi Abu Rumman, GWP-Med Head of Jordan Operations) with contact number 0777064444 and email address ghazi.aburumman@gwpmed.org. The exact location of the meeting was communicated by Dr. Rumman upon contact.

Request for 2nd Site Visit:

No second site visit can be offered. The notes from the site visit are provided. Additionally, as stated in the sub-chapter 3.1. of ToR: “The applicants are invited to visit the Farms Site to establish and thoroughly appraise the extent and nature of the required works.”

Request for Extension:

No extension of the deadline for submission can be offered.

1. Electrical feeding criteria for Mr.Kloub & Al-Hallieq farms (7 & 6) KWp respectively, should be determined & selected within one of the three solutions below, in order to make our designs & prices based on it & we are pleased that you are hearing our point of view for the three options to contribute in selecting the criteria:
2. Wheeling option: would you please point the location of the service transformer/point of connection, in order to size the cable & its quantity, also we would inform that the wheeling option could be not approved through JEPCO since the quantity of PV is less than the approved one which is 30 KW & using several lands to serve one electric meters
3. On-grid option: it will be a very good option, if the location of the utility meters is nearly for the PV systems (within the same land)
4. Standalone option: it could be a good option through pumping inverters since the system will feed only one pump,

Wheeling was foreseen the best option. Please keep wheeling as the main option and other options (e.g. on-grid or standalone) may be suggested as alternative ones by providing a separate description and cost estimation. The awarded contractor will receive a supportive letter by GWP-MED requesting JEPCO exempting this internationally funded project from the minimum capacity option, which has been done previously with other internationally funded projects. If this option cannot proceed, the alternative options, which you will provide, will be examined.

As stated in the ToR, the Successful Contractor is responsible for all fees required for obtaining all approvals and permits required for the Assignment including the GIS fees. Additionally, the farm owners have agreed to provide electricity wherever it is needed in the farm.

The notes from the site visit are provided.

1. In Annex 5 p16, describing the minimum required specs for the PV modules, it’s mentioned that the manufacturer should be tier 1 or Jordanian factory with 100 MW annual production, meanwhile in p9 mentions that the good origin must be only USA, European or Japan made, so please clarify?

All four options as valid.

1. Solar PV wheeling system approvals for the 6kW and 7kW systems at the Haleeq and Kloub farms will be very difficult to secure within the project duration. In addition, the connection points for the solar systems are not defined, which may cause a serious increase in cost as the farms do not have electricity meters on-site. **Question: Where are the connection points and what if approvals cannot be secured for these systems, which is a high probability.**

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The notes from the site visit are provided.

1. The team noticed the farm owners were not in agreement with the proposed designs, especially related to location and land area for the proposed wetlands. Mr. Al Hallieq (one of the land owners) suggested during the site visit an alternative plot, which is not suitable because of slope and lack of access for required equipment/machinery. **Question: Please re-confirm the locations of the proposed wetlands in both farms, and re-confirm the area for each.**

The notes from the site visit are provided.

1. For the third farm (Abu Taleb), the requirement is for a net-metering solar system (24kW), which again poses a risk of slow approvals (in Amman, it is taking around 3-5 months to get an approval these days). **Question: Please re-confirm the location of the proposed PV system as the owner suggested a location that needs to be confirmed.**

The location was agreed upon during the site visit and in consultation with the landlord. NbS will be nearby the water source and PVs will be at the entrance of the farm.

The notes from the site visit are provided.

1. For Mr. KLOUB Farm and Mr. ALHALLIEQ FARM we suggest installing off grid PV Solar system (pumping system) instead of wheeling systems because the wheeling system needs long time for approval from Electricity company and costly.

We Know from JEPCO, that the minimum capacity for the PV wheeling system is 30kw, and your systems are 6kw & 5kw, do you have an exception?

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1. If the Electricity company required (in Grid impact study (GIS)) installing transformer for the PV systems or any other equipment, Who will cover the cost, the owner or the contractor?

As stated in the ToR, the Successful Contractor is responsible for all fees required for obtaining all approvals and permits required for the Assignment including the GIS fees. Additionally, the farm owners have agreed to provide electricity wherever it is needed in the farm.

1. Recirculation, under article Operation Consideration, it was mentioned that a recirculation pump is required. Kindly clarify the Electric Power Source for these pumps in general and in particular for the Farms (Kloub & Al Hallieq) which will be provided with Wheeling.

The recirculation pumps should have the capacity of 7 m3/day in order to recirculate the effluent to the entrance of the constructed wetland (influent). The recirculation time should be 4 hours (1,75 m3/h). The power source for the recirculation pumps should be the PVs. The recirculation pumps will become operational from time to time, if needed. Therefore, their operation will not compromise the operation of the irrigation pumps.

Additionally, the farm owners have agreed to provide electricity wherever it is needed in the farm.

1. Item (B-03) of the Bill of Quantities, is to provide 3 timed irrigation pumps, kindly specify the Pumps Capacity and clarify the Electric Power Source for these pumps in general and in particular for the Farms (Kloub & Al Hallieq) which will be provided with Wheeling.

The timed pumps should have the same features as the existing ones in the three farms (3, 4, and 18,5 kW respectively). The quantity of the pumps is not 3 but 6 (1 duty and 1 standby per farm). The power source for the recirculation pumps should be the PVs. In the case of Mr. Al Hallieq, an additional pump of 1,5 hp is required to deliver water to the upper part of the farm.

1. Regarding "Lining" under article 2.2.1. Kindly clarify if we should consider the placement of. Geotextile below & above the HDPE lining.

In compliance with the international standards, the geotextile should be placed below the HDPE liner.

1. Bed Maintenance, under article Operation Consideration, it was mentioned "where multiple SSFCW cells are used in parallel'', kindly clarify if this statement meant that the project Wetland should be constructed in 2 or 3 parallel cells having the total surface area of 160 m2.

That paragraph was meant to discuss the maintenance and provided information on the different types of cells. The present ToR foresees the construction of a single cell. However, should you wish to include the option of parallel cells, you are welcome to do so separately from the main offer while providing a cost estimation.

1. Last line under article Operation Consideration, it was mentioned "The following table (7) .... ", please note that table (7) is missing, kindly arrange to provide this table.

Table 7: Maintenance operations frequency for SSFCW

Tasks 1 and 2 are to be performed by the farmers after training. The Successful Contractor is to visit the plant periodically to guarantee the correct plant operation.

Task 5 will be performed by independent contractor and is not included in the requested services of the present Call.

1. Upon visiting the 3 Farms, we have noted that at least 2 farmers were surprised about the size of the wetland and they expressed reservations about the Wetland Size & our recommended locations for the Wetland and the Solar System. The 2 farmers insisted on certain locations for the Wetland & the Solar System which will result in increasing the construction cost, but also will result in extensive pumping and power requirement. Kindly clarify if GWP has influence on these selected farmers to solve such issues. Alternatively, in case that the farmers rejects the project, kindly advise the responsibility or procedure to find alternative farm site.

The notes from the site visit are provided.

As stated in the sub-chapter 3.1. of ToR: “The applicants are invited to visit the Farms Site to establish and thoroughly appraise the extent and nature of the required works.”

1. Regarding the PV system at Mr. Kloub and Mr. Alhallieq farms it was mentioned that the PV system will be connected through the wheeling scheme. However, electric distribution companies such as JEPCO demand a minimum of 30kW system in order to approve the project. Moreover, according to regulations, it is not allowed to connect load on the wheeling system. Kindly advise if GWP will assist in approaching JEPCO to overcome the above two issue.

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1. Regarding the cleaning of the PV systems, under article "Operation, Maintenance and Cleaning" it was mentioned
* The Contractors shall include a detailed cleaning mechanism for the PV system.
* The Contractors shall include a cleaning schedule, an approximation of the amount of water that will be consumed in the cleaning process, and a list of the tools that will be used. The contractor shall provide water for the cleaning process.

Shall be understand that an automatic cleaning system is required, or is it only that the bidder shall account for a cleaning schedule, tools & consumable, as needed for manual cleaning during the (2) Two years of Operation, Maintenance & Cleaning. Kindly clarify.

We GWP-MED will develop this through Service Level Agreement with the landlords.

1. Article 2.2.3. Portable Moisture Meters, please note that we are unable to locate Portable Moisture Meters that meets the Tender Specifications, can you possibly specify I advise us on one or two models I manufacturers.

Please offer the closest model you can possibly locate.

1. Item (B-01) of the Bill of Quantities, Site cleaning for the constructed wetland and the solar panels (in each farm). Kindly Clarify the if this item is meant for the (2) Years of the Operation, Maintenance & Cleaning or is it meant to be related to the construction period (site clearing & leveling).

It refers to the construction period (site cleaning and leveling).

1. Items (9 & 10) of the Bill of Quantities included Fencing, you are kindly requested to provide us with minimum specifications of the required fence & gate.

Indicative description for fencing: Metal poles of 2 m height (above ground) and 2” diameter placed in a distance of 2 m from each other. Plastic cap to be used on the top of the poles. Each pole should be placed in a hole of 30 cm diameter and 40 cm deep and be supported with concrete. Wire mesh to be placed tightly around the fencing perimeter. The wire mesh will be welded on the metal poles.

1. Based on the design scope stated in the Terms of Reference, our initial process modelling indicates that the requested wetland design and sizing will not be sufficient to meet the requested treated water quality requirements for TN and E.coli. Page 5 of the TOR document states that the main objective of the assignment is to reduce the E. coli to < 1000 MPN/100mL to facilitate safe irrigation of fruit trees on these rural farms. Is it acceptable if we include in our bid some technical modifications to the design to meet the E. coli concentration (<1000 MPN/100mL) in the treated water, but without meeting the TN concentration (15 mg/L) or therefore fully complying with JS 893/2021 Category B irrigation quality (which we believe will be near impossible within the stated budget, area and desired simplicity of O&M)?

The ToR foresees the specific design for the construction of the wetlands. However, should you wish to provide additional designs / modifications in your offer, you are welcome to do so as a separate option while providing a description and a cost estimation for that option.

1. Please confirm that there are not any contractual or remuneration consequences for the bidder if we deliver the treatment wetland systems as per the design requested in the TOR, and they don’t fully achieve the requested treatment quality performance (while performing and functioning in every other aspect)?

The quality of the NbS effluent is affected by the quality of the WTTP effluent (NbS influent). If the WWTP delivers water of lesser quality, the NbS effluent will not meet the “Anticipated Effluent Parameters” stated in 2.1. of the ToR. This is the reason for including the recirculation mechanism.

GWP-Med will review the water analysis report for the effluent / influent in order to assess the effectiveness of the NbS. If the cause of incompliance was due to the lesser influent quality, then the contractor has no liability and will receive the remuneration following the signed contract.

1. Can you provide a topographical survey or contour map for the three project sites for the purpose of bidding?

No topographical survey or contour map is available for the three project sites. Only the photographs included in the ToR. Additionally, the coordinates of the three farms are provided. You may be able to find a map and cross check those coordinates.

1. Can you provide any geotechnical information for the three sites for the purpose of bidding?

No geotechnical information is available for the three sites.

1. is there scope to vary the length and width dimensions of the wetlands from what is stated in the TOR (4.5m x 36m), depending on site conditions?

The ToR foresees the specific dimensions of 4.5m x 36m. However, variations may be accepted during construction as long as a description of those potential variations are mentioned in the initial technical offer in the form or potential risks and a cost estimation is provided.

1. We have a note question about the solar system for 2 projects that you want to obtain to implement as a wheeling project, these two projects are small scale with inverters (6,5) KW. And we asked the distributer electrical company (JEPCO) about regulations and their requirement for this case. They tell us the wheeling system should be not less than 30 kW ac.

For the more about wheeling system needs (step-up transformer and RMU (delivery station)) also, there are 6% losses that will be curtailment from all the energy yield monthly and there are 0.007 jod\kwh as a wheeling fees.

So our thinking is that not feasible for customers to install a wheeling system on this small scale. And if that suitable for you to make another site survey to find a way and solution to implement the projects as a NET- metering.

Wheeling was foreseen the best option. Please keep wheeling as the main option and other options (e.g. on-grid or standalone) may be suggested as alternative ones by providing a separate description and cost estimation. The awarded contractor will receive a supportive letter by GWP-MED requesting JEPCO exempting this internationally funded project from the minimum capacity option, which has been done previously with other internationally funded projects. If this option cannot proceed, the alternative options, which you will provide, will be examined.

As stated in the ToR, the Successful Contractor is responsible for all fees required for obtaining all approvals and permits required for the Assignment including the GIS fees. Additionally, the farm owners have agreed to provide electricity wherever it is needed in the farm.

The notes from the site visit are provided.

1. The wheeling system cannot be installed on Mr. Kloub's farm and Mr. ALHALLIEQ Farm, and the reason for this is that according to the laws of the Ministry of Energy and local electricity distribution companies in Jordan, we cannot install a wheeling system with a capacity of less than 30 KVA.

Suggested solutions:

1. We can install a solar energy system directly connected to the pump to operate the pump according to the number of working hours required (Solar pumping system).
2. We can make a wheeling system for the three farms at once to cover their consumption, and this is allowed according to the instructions of the Electricity Distribution Company, Where the total generated energy is distributed on a monthly basis to the three farms according to the share of each farm from the system.

To make a wheeling system for farms, the capacity of the renewable energy system must be no less than 40 kilowatts (there is a value of six percent deducted from generation) to cover the consumption of the three farms and an area of about 150-200 square meters

-We do not have any problems in the Abu Talib farm, where we can install the required system through net metering and connect it directly with the grid.

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1. Will tender rules allows proposing of extra ideas that can help? we can validate the use of hydrogen peroxide generated at site (H2O2 generated from water only without any chemicals) and dosing in low concentrations to oxidize organic materials and to get disinfection? this low concentration hydrogen peroxide is safe for irrigation and plants

*Although not explicitly stated in the ToR, in the context of healthy competition, the applicants should not deviate from the main requested works. If they wish to provide additional ideas, they can do it in the form of “extra material”.*

*They should:*

* *Describe those ideas (what the idea is)*
* *How can they be incorporated into the main work*
* *What advantage will offer to the main work*
* *What is the additional cost of this idea*

*In any case, the total cost should not deviate from the assigned budget.*

1. The Call for reuse of effluents from WWTPs Jordan require participants to be licensed to perform work in Jordan. Does this apply only to the building company or all members of the consortia/joint venture?

Τhe joint venture must be a legal entity and thus it should be licensed to perform works in Jordan.