



# Palau Public Utilities Corporation

## REQUEST FOR QUALIFICATION RFQ PUCW18-009; ASSESSMENT FOR KOROR-AIRAI WATER TREATMENT PLANT AND SOURCES

**Issued on** : August 31, 2018  
**Closing on** : **October 03, 2018**  
**Request For Qualification No. (RFQ No.)** : **RFQ PUCW18-009**  
**Employer** : **Palau Public Utility Corporation (PPUC)**  
PO Box 1372, Oldiais Building, Medalaii, Koror  
Republic of Palau 96940  
**Country** : **Republic of Palau**

# Table of Contents

1.	PREFACE	3
2.	PURPOSE	3
3.	SCOPE OF WORK	3
4.	SUBMITTAL REQUIREMENTS	5
5.	BACKGROUND	5
6.	STATEMENT OF QUALIFICATIONS REQUIREMENTS:	12
7.	PPUC ADVICE AND ASSISTANCE	12
8.	OBTAINING RFQ	12
9.	SUBMISSION OF PROPOSALS	13
10.	EVALUATION AND SELECTION PROCESS	13
A.	Criteria	14
11.	GENERAL CONDITIONS	14
12.	CONTRACT CLAUSES	15
13.	CONTACT DETAILS	15
	APPENDIX 1- BID FORM	16
	Appendix 2: Schedules of Rates and Prices	17

## 1. PREFACE

Notice is hereby given that Palau Public Utilities Corporation (PPUC) is requesting Statement of Qualifications/Proposals from multi-disciplined engineering consulting firms desiring to perform thorough assessment and recommendations for Koror-Airai Water Treatment Plant (KAWTP) and its sources. Statements of Qualification/Proposal and other submittals will be accepted from \_\_\_\_\_ 2018 to \_\_\_\_\_ 2018. All Statements of Qualification/Proposal shall be reviewed and evaluated by PPUC personnel authorized to participate in the evaluation process until after the conclusion of negotiations and contract award to the firm to undertake the assessment for KAWTP and sources.

This Request for Qualification/Proposal (RFQ / RFP) had been prepared by Palau Public Utilities Corporation and wishes to receive proposals from all interested people or firms with the capability to undergo the said activity in the Republic of Palau.

## 2. PURPOSE

The purpose of this consultancy is to determine actual KAWTP production capacity and if it is sufficient in supplying the present and forecasted demands. Included is a full and thorough assessment the whole treatment plant processes and components to determine damages and flaws and formulate recommendations on how to repair and upgrade the plant. An analysis of the product and raw water shall be conducted to identify what other technologies that can be incorporated in the treatment facility to produce potable water within EQPB standards.

## 3. SCOPE OF WORK

The selected people or firm is expected and required to provide the following Scope of Work as directed by Palau Public Utilities Corporation (PPUC) for Koror-Airai Water Treatment Plant (KAWTP):

1. Determine actual treatment plant production capacity,
2. Determine forecasted demand based on system losses, population growth, economic progress and development, and influx of foreign tourist,
3. Assess and investigate all facilities and processes inside KAWTP covering mechanical, electrical, and civil aspects,
  - Wet well and backwash tank
  - Sedimentation, coagulation, and flocculation basins
  - Gravity filters
  - Chemical feeders
  - Clear well
  - Sludge drying bed
  - Laboratory
  - Chemical storage
  - Transmission pumps
  - Power and electrical system
  - Back-up generator
  - Fencing and security
4. Conduct laboratory analysis (physical, chemical, and biological analysis) for treatment plant product and raw water. Sampling, storing, and transport of water samples should be in accordance with industry standards. Laboratories that will test the samples should be certified laboratories with good industry records.

5. Formulate suitable recommendations and design if needed to all findings based on the assessment done on all facilities.
6. Recommend technologies and systems to be incorporated to the existing treatment facility to improve water production capacity to cope up with forecasted demand.
7. Recommend technologies and systems to be incorporated to the existing treatment facility to improve water quality as per EQPB's potable water standards.
8. Formulation and preparation of RFP with complete scope of work for refurbishment, improvement, and repair of the whole KAWTP system.
9. Formulation and preparation of RFP for the supply and installation of new technologies or system that will be incorporated with the existing system.
10. Prepare detailed costing for refurbishment, repairs, and upgrades,
11. Prepare detailed costing for technologies or systems to be incorporated with the existing system.
12. Planning and scheduling of repairs and refurbishment.
13. Planning and scheduling of incorporating new systems and technologies.
14. Preparation of other pre-bid documents needed for repair and upgrade project.
15. Preparation of other pre-bid documents needed for supply and install of new technologies or system that will be incorporated with the existing system.
16. Draft contract based on FIDIC standards for the refurbishment and repair of the existing system.
17. Draft contract based on FIDIC standards for supply and installation of the new technology or system that will be incorporated with the existing system.

**DELIVERABLES:**

- All assessment and investigation records in soft and hard copies.
- Itemized list of all assessed items or components for all systems.
- Raw and product water analysis results.
- All recommendations and designs based on the assessment and investigation done. Soft and hard copies are to be submitted to PPUC.
- Formulated RFP as per PPUC format or proposed format.
- Bid documents.
- Detailed costing.
- Planning and scheduling.
- Drafted contracts based on FIDIC standards.

**4. PROJECT SCHEDULE**

The following schedule identifies the estimated assessment and recommendation phases for this project and the estimated durations.

**PROJECT PHASE ESTIMATED DURATION (Calendar Days)**

1. Site Access Approvals & Assessment Kick-off Meeting	15
2. Assessment and water sampling and analysis Phase (Minimum)	45
3. Recommendation formulations and designs	15
4 Final documentation and submittals of deliverables	<u>15</u>
	90

## 5. SUBMITTAL REQUIREMENTS

### I. General

All consultants/firms responding to this RFQ shall provide sufficient information and data to fully allow a complete evaluation of their qualification. Information and data submitted by each consultant with the proposal shall be incorporated into documents by reference.

### II. Required Information

Consultants/firms must present satisfactory evidence to PPUC indicating their ability to meet all the scope of work in this RFP, in addition, to ensure consistency, proposals should generally conform to the following:

1. Cover Letter
2. Company history and overview
3. Provide organizational chart, and qualification of key personnel
4. Relevant project experience in the pacific region including references.
5. Synopsis of key personnel, project managers and facilities
6. Firm's overall approach to planning, organizing, project management, and project execution
7. Any additional information that demonstrates the firm's available resources, specialized experience and any other relevant information for this project
8. Evidence of financial stability and capability to complete this project
9. Signature of person with authority to commit firm to contract

## 6. BACKGROUND

### A. Palau and PPUC

The Republic of Palau comprises of 350 tropical islands and islets located in the westernmost part of Micronesia about 600 miles (960 kilometers) East of Mindanao, Philippines and some 800 miles (1,280 kilometers) southwest of Guam. Palau lies between 8°10'N/3°N Latitude and 132°45'/134°25'E Longitude.

The Palau Public Utilities Corporation (PPUC) is a public corporation established to manage and operate the electrical power and the water and wastewater systems of the Republic of Palau.

Comprised of seven board members appointed by the President with the advice and consent of Senate, the board of directors leads the affairs and exercises the corporate powers of PPUC.

Less than a decade ago, the villages in Babeldaob and the outer states of the Republic had limited hours of electricity and water. As the integration of technology into Palauan society increased the demand for the electricity and water, PPUC invested millions into the utilities infrastructure, providing access to electricity and water and 24-hour service to Palauan communities from Kayangel State all the way to Angaur State. As the local population continues to spread throughout Babeldaob, PPUC must continue to increase the utilities infrastructure to accommodate the demand. As



continued reliability of service to our customers remains a priority, quick response to emergencies lessens the inconvenience of power and water outages.

## B. Overview

Koror-Airai Water Treatment Plant (KAWTP) is the main water treatment facility in the Republic of Palau. This facility is located in Airai State (see Appendix3), and serves only Koror and Airai states customers.

KAWTP is a conventional treatment facility with a designed production rate of 4 million gallons per day (GPD). The facility is supplied by raw water by two sources, namely, Ngerimel dam and Ngerikiil Pumping Station.

This facility was commissioned in the year 1998. From the time of commissioning until the present, there were no major repairs and upgrades done with the facility. In the course of its operation, many components and parts were already damaged and are beyond repair. These parts and components may be obsolete and hard to procure.

Below are an overview of the present situation of the components and process of the treatment facility:

1. Wet well and backwash tank,
  - Transfer pumps



*Originally, 4-20Hp vertical turbine pumps are installed, as of the present, 3units are operational at present.*

- Wet Well and Backwash Tank





Wet well and backwash tank are incorporated in one structure. The backwash tank is much more deeper pit where the silts and sediments are collected. As planned, the backwash water from the gravity filters are collected by the backwash tank then pumped to the sludged drying bed, currently the sump pump is not operational, thus the backwash water is directly released to the drain and sludged are manually removed.

2. Sedimentation, coagulation, and flocculation basins,
  - Railings



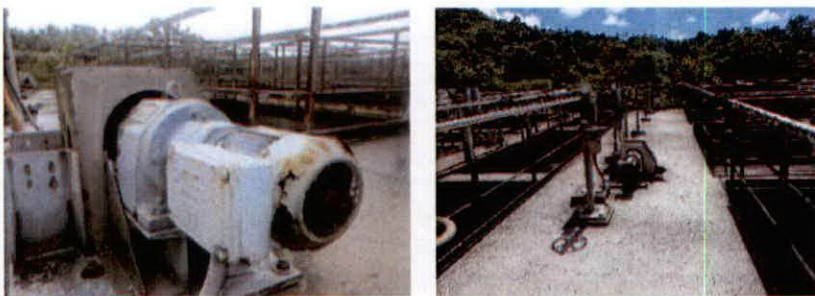
Due to the direct exposure to the elements, the fibers of the railings are exposed and are health hazards.

- Flocculator/Mixers (6 units)



3 sets of mixers are non operational.

- Sludge Collector Drive



These equipment have been running 24/7 for nearly two decades. Cooling fan covers of all three motors are wearing out, not in good shape anymore. Broken fan covers may cause motor overheating and eventually damage the winding.

3. Gravity filters,



*Gravity filters utilizing sand filter media. 5 units are commissioned, 3 units were serviced last 2015, changing sand filter media and other maintenance.*

4. Chemical storage and feeder building (chemical feeders),

- Chemical Feeders



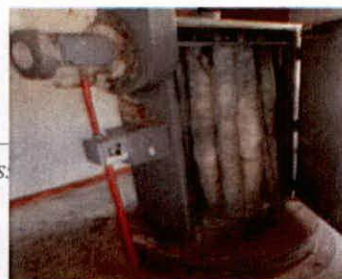
*Conical hoppers, mixing tanks and covers, feeders, electrical components, and all moving parts are already damaged.*

- Chlorine Agitator/Mixer



*This Chlorine Agitator & tank was commissioned in late 1998. Tank has already been replaced, and the motor was replaced only once. At present, the condition for all components is very poor.*

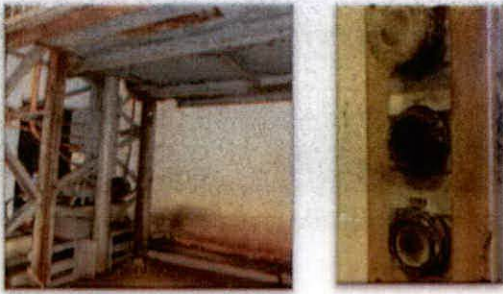
- Dust Collector (4 units)





*Casing of the dust collector system are already corroded, specially at the base. Tube filters are already not functional due to clogs that had settled and solidified.*

- Material Lift



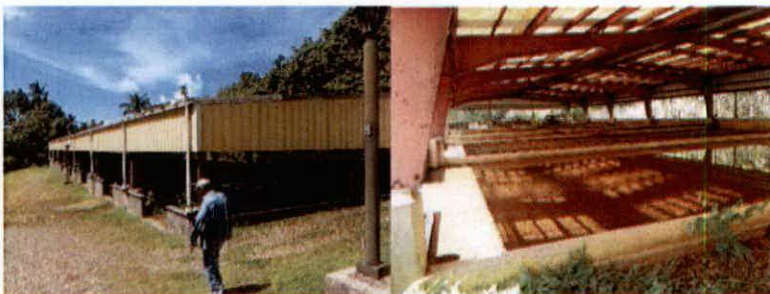
*This machine takes heavy materials, tools and bags of chemicals from the ground floor to the chemical room/storage at the first floor. The only repair that has been done since commissioning in 1998 was the replacement of the ram cylinder packing kit. It has been showing signs of deterioration especially the bottom top of the platform. The metal structure has been corroding fast rendering it unsafe to load more than 75% of the lift capacity.*

5. Clear well,



*The main clearwell area is where the final treated water is stored prior to distribution, another small bypass clearwell is located beside this structure. Currently the the structural walls fo the maini clearwell are cracked and there is an ingress of ground water.*

6. Sludge drying bed,



The sludge drying bed is housed in a steel structure where the steel are already corroded and the roofing system are leaking. The plumbing system of the drying beds are not functioning as per design. Instead of water from the silts being filtered and returning back to the wet well, it is now left to evaporate.

7. Laboratory,



KAWTP laboratory is a simple laboratory conducting mostly chemical residue testing, ph level testing and turbidity. This laboratory was not improved since its inception, the apparatus used were old and needs to be modernized.

8. Chemical storage building,



Chemical storage area is a concrete structure that is not properly ventilated. Due to corrosive effect of chlorine fumes, all the metal components inside the room are already corroded and damaged. Proper ventillation is needed.

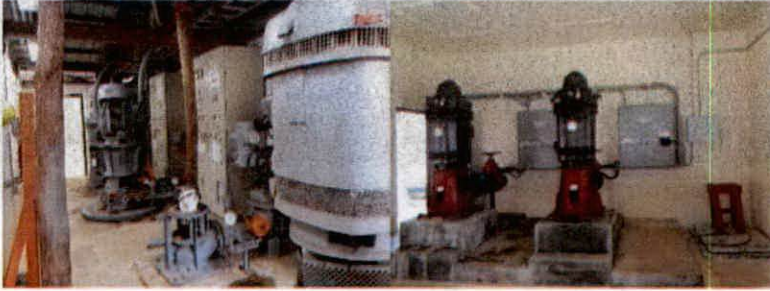
9. Pump house (flow monitoring, transmission pumps and motors),  
- Flow Monitoring System





Flow monitoring system utilizes a magnetic flow converter that is installed along the transmission line and the monitor is situated inside the pump house. The monitoring system needs to be calibrated.

- Transmission Pumps



There are 6 units of transmission pumps and motors, 4 units are 100hp vertical turbine pumps, only 3 are in operations, and 2 units 150hp vertical turbine pumps that was installed last 2015, but 1 is not in operational due to electrical problems.

10. Power and electrical system,

- GE 8000 Line Motor Control Center



**GE 8000 Line Motor Control Center**

Amp: 800, Volt: 480, Ph: 3, Wire: 4, Hz: 60. This MCC controls all 4 Wet Well pumps, 6 Flocculator Mixers, 2 Backwash Submersible pumps, 4 Sludge Collector Drives, 4 Chemical Feeders, 4 Dust Collectors, Material Lift, Lab Instruments, Plant Lightings and Air Conditioning systems.

This Control Center which was commissioned in late 1998 houses all motor controllers (Panels) with different capacities. Each panel is a rack-in-rack-out type and designed so compact that only the original electrical components may fit inside. Circuit breakers, contactors and relays have shown signs of deterioration and therefore will require replacement.

- Transformers

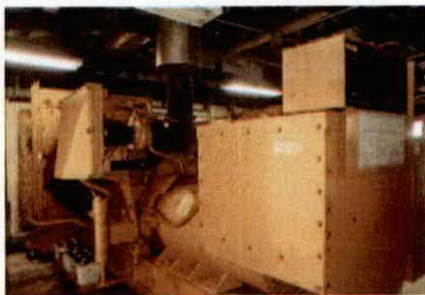




The 3x100 Kva transformers in front of the Generator building supplies a three phase 208 vac power to the 4x100Hp pump motors and their auxiliaries. They are mounted on a concrete pad enclosed with wire linked fence 6 feet height. This type of transformers are designed to be mounted above ground or on the pole. The enclosure has no access door or gate and the high voltage (13,800Volts) bushings (A) of the transformers have no insulation or protection.

11. Back-up generator (generator set),

- KAWTP Emergency Standby Generator, 750 kW, 208 V, 60 Hz



This emergency standby generator is being run since early 1990s, every time there is island power outage. It has been serviced by Caterpillar representative about ten years ago. This machine cannot function normally to power the two 150 Hp pumps. The engine/generator display module is completely not functioning.

(See Appendix 4 for KAWTP Schematic, Process Appendix5 for KAWTP Layout)

## 7. STATEMENT OF QUALIFICATIONS REQUIREMENTS:

Interested firms and individuals may submit a Statements of Qualification to the Palau Public Utilities Corporation, P.O. Box 1372, Koror, Palau 96940. Hard copies, one (1) original plus Six (6) copies and One (1) soft copy (USB) of the Statement of Qualification labelled "**Assessment of Koror-Airai Water Treatment Plant and Sources**" are due by the time and date listed above. Due to slow and sometimes unreliable internet and telecom services, Electronic or Fax submittals are not accepted.

## 8. PPUC ADVICE AND ASSISTANCE

Interested firms and individuals are advised to conduct a site visit to these facilities at their own expense. Travel and accommodation costs for site inspections are not PPUC's responsibility.

PPUC will provide support for preliminary inspections by bidders, to ensure that the location and status of these facilities are known and defined.

## 9. OBTAINING RFQ

Electronic copies of the RFQ may be obtained by emailing the nominated Contact Officer below, or from the PPUC website [www.ppuc.com](http://www.ppuc.com). All prospective bidders are requested to provide their contact



details (company name and website, contact person, email and telephone number) to ensure they receive any updates to the RFQ.

PPUC will also issue hard copies of the RFQ on request at Palau Public Utilities Corporation (PPUC), Oldiais Building, Medalaii, Koror PO Box 1372, Republic of Palau 96940.

The contact officer for this RFQ is:

**Mr SOFRONIO B. MAHOR**

*Chief Procurement Officer*

PPUC

Oldiais Building, Medalaii, Koror

PO Box 1372,

Republic of Palau 96940

Telephone No.: 680-488-3870/3872

E-mail Address: [ponz@ppuc.com](mailto:ponz@ppuc.com)

## **10. SUBMISSION OF PROPOSALS**

Interested firms and individuals may submit their sealed Proposal hardcopy to PPUC- Main Office, 2nd Floor, Oldiais Building, Medalaii, Koror, Palau 96940, or by email to the nominated Contact Officer. For inquiries regarding submission of quotations, please contact Mr.Mahor as noted above.

## **11. EVALUATION AND SELECTION PROCESS**

PPUC retains the right to award any or all portions of the work if it is in its best interest to do so. PPUC will select the firm that in its sole opinion best meets its requirements. A business license in Palau is not required in order to enter into a contract with PPUC.

PPUC will evaluate and rank all the bidders who submit their Statements of Qualification in response to this Request for Qualifications. Negotiation may then be conducted with those responsible bidders determined by PPUC to be most qualified for the project to further assess their qualifications and capability to undertake the work. In conducting any negotiation, PPUC shall not disclose any information derived from competing consultants. Bidders shall be accorded fair and equal treatment with respect to any opportunity or discussion.

The first ranked bidder may be invited to Palau for an interview.

PPUC will enter into negotiations with the top ranked firm and/or individuals with the purpose of reaching mutual agreement regarding budget, schedule and other factors of the work. If PPUC cannot reach a mutual agreement with top ranked firm or individual, negotiations will be terminated and negotiations shall be undertaken with the second highest ranked firm and so on to the third and fourth ranked consultant, etc. until a satisfactory agreement can be reached between the parties and the contract awarded.

Award shall be made to the responsible bidder whose qualifications are determined to be most advantageous to PPUC taking into consideration evaluation factors such as completeness of information provided in the RFQ process, detail and clarity of Statement of Qualification, past experiences in this type of work, and other factors set forth in the submitted information.

After evaluation, selection, negotiation and award, the Designer shall be required to execute a contract with PPUC for the work.

#### A. Criteria

Each proposal will be evaluated initially by a specially convened committee in line with the criterion set forth in this section. All proposals and their separate components will be subjected to the same evaluation criteria and process.

The criteria used to evaluate the RFQ responses will include, but not be limited to the following:

1. **Compliance with proposal requirements (15%)**. All proposals will be reviewed for their compliance with instructions set forth herein by PPUC and meets the requirements of this RFP.
2. **Bidders Qualifications (40%)**. All proposals will be evaluated as to the quality of the "team" and the background and experience of the organization submitting proposals. Main focus of evaluation would be bidder's ability to deliver products and services in this RFP. Screening analysis to identify areas of each proposal which needs clarifying will also be done.
3. **Bidders Capability(25%)**. All proposals will be reviewed / evaluated as to the Bidders capacity to complete the project and financial stability.
4. **Cost Proposal (20%)**.

## 12. GENERAL CONDITIONS

- A. Bidders are required to submit their proposals based upon the conditions expressed in these instructions
  - i. ***RFQ Modification:*** This RFQ does not commit PPUC to award a contract; to pay any costs incurred in the preparation of the proposal under this request, or to procure or contract for services. PPUC also reserves the right to accept or reject any or all proposals received under this request, to negotiate with qualified Bidder, or to cancel in whole or in part this RFP, if it is in the best interest of PPUC to do so. Prospective Bidder under this RFQ may be required to participate in negotiations and to submit any price, or technical revisions to their proposals as may result from the negotiation process.
  - ii. ***Transfer of property:*** All proposals shall become PPUC property.
  - iii. ***Conformity:*** The PPUC procurement regulations shall apply to all proposals and winning contractor shall be bound by them.
  - iv. ***Submission of the Proposal:***
    1. A cover page with a table of contents
    2. An executive summary page that summarizes the corporate history, contractor's ability to satisfy the requirements of this RFQ, project cost and a synopsis of salient details required in this RFQ.
    3. The proposals shall be sealed in a package and should include:
      - a. The Contractors information (i.e., Name, Address, and Contact) on the outside package



- b. The RFQ# on the outside of the package that should be submitted NO LATER THAN 4:00 PM of CLOSING DATE-Palau Time.  
[Note: The RFP # should be in big fonts.]
- c. The sealed package should include hard copies, one (1) original plus Six (6) Copies and One (1) Soft Copy (USB).

v. **Inquiries:** Any inquiries, requests, clarification, or additional information pertaining to this RFP shall be made in writing, by email or fax through the contacts provided

### 13. CONTRACT CLAUSES

All contracts shall, at a minimum, contain the following clauses:

- |   |                          |
|---|--------------------------|
| 1. Governing Regulations                                      | 13. Commencement of Work |
| 2. Penalties for Violation of Regulations                     | 14. Liquidated Damages   |
| 3. Contract Disputes  | 15. Schedule             |
| 4. Gratuities   | 16. Clear Title          |
| 5. Kickbacks  | 17. Taxes                |
| 6. Representation of Contractor<br>Concerning Contingent Fees | 18. Force Majeure        |
| 7. Changes  | 19. Relationship         |
| 8. Stop Work Order  | 20. Entire Agreement     |
| 9. Termination for Defaults or Convenience                    | 21. Assignment           |
| 10. Approvals, Certificates, Permits and Licenses             | 22. Subcontract          |
| 11. Laws and Regulations                                      | 23. Contracting Officer  |
| 12. PPUC's right to inspect                                   |                          |

These contract clauses are subject to change.

### 14. CONTACT DETAILS

**Sofronio "Pons" Mahor**

PPUC Contracting Officer  
PPUC Procurement Division  
Tel: (680) 488-5320 Fax: (680) 488-4499  
Email: [ponz@ppuc.com](mailto:ponz@ppuc.com)

**Dave Dengokl**

Acting WWO Manager  
PPUC Water and Wastewater Operation  
Tel: (680) 488-8760 & 488-8762  
Email: [dave@ppuc.com](mailto:dave@ppuc.com)

**Anthony Rudimch**

PPID Manager  
PPUC PPID  
Tel: (680) 488-5320 Fax: (680) 488-4499  
Email: [arudimch@ppuc.com](mailto:arudimch@ppuc.com)

**Richard Basiya**

PPID Civil Engineer  
PPUC PPID  
Tel: (680) 488-5320 & 488-8762  
Email: [r.basiya@ppuc.com](mailto:r.basiya@ppuc.com)

**APPENDIX 1- BID FORM**

**Letter of Proposal**

Date: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

RFQ No.: **RFQ-PUCW18-009**

**Assessment for Koror- Airai Water Treatment Plant and Sources.**

To: **The Chief Executive Officer / General Manager  
Palau Public Utilities Corporation**

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the RFP, including Addenda issued in accordance (if any);
- (b) The price of our Bid, excluding any discounts offered in item (d) below is the sum of: *[amount of local currency in words], [amount in figures]*
- (c) Our bid shall be valid for a period of . . . . . days from the date fixed for the bid submission deadline in accordance with the RFP, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (e) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
- (f) We accept full responsibility for the health and safety of persons employed by us in completing the works under this Quotation.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date.....

## Appendix 2: Schedules of Rates and Prices

### Price Schedules

#### General

1. The Request for Qualification will be a Lump Sum Quotation for completion of all specified works.
2. The Schedules generally describe the works to be performed. Bidders shall be deemed to have read the RFQ and visited the sites to ascertain the full scope of the requirements prior to filling in the price. The entered price shall be deemed to cover the full scope as aforesaid, including overheads and profit.
3. If bidders are unclear or uncertain as to any item, they shall seek clarification in writing prior to submitting their bid.

#### Pricing

4. Prices shall be entered in indelible ink, and any alterations necessary due to errors, etc., shall be initialled by the Bidder.
5. Bid prices shall be quoted in United States Dollars, in the manner indicated in the Bid Form of the RFP. For each item, bidders shall complete each appropriate column in the respective Schedules, giving the price breakdown as indicated in the Schedules.
6. Payments will be made to the Contractor in United States Dollars.
7. When requested by the Employer for the purposes of making payments or partial payments, valuing variations or evaluating claims, or for such other purposes as the Employer may reasonably require, the Contractor shall provide the Employer with a breakdown of any composite or lump sum items included in the Schedules.

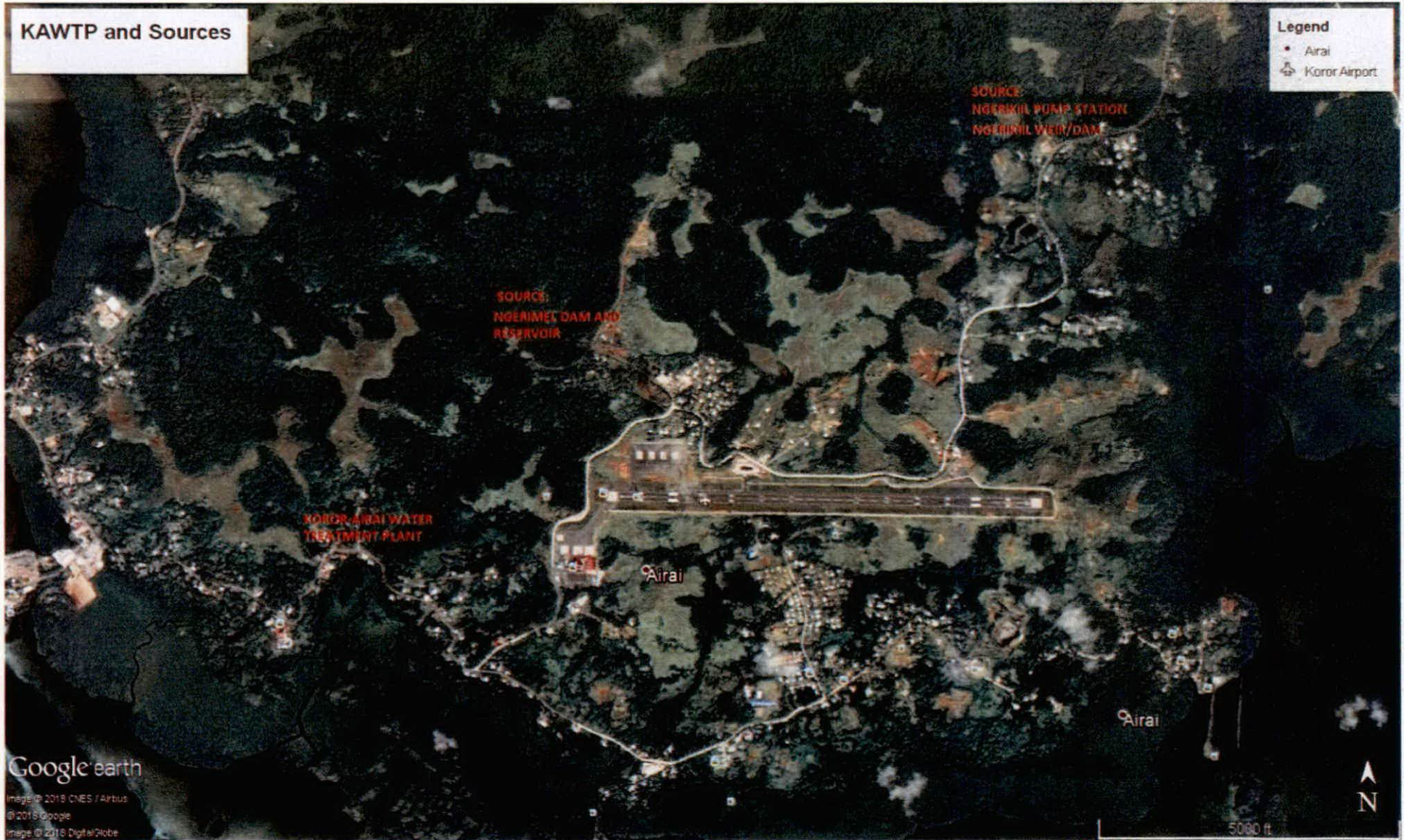
ITEM	DESCRIPTION OF WORKS	Price USD (Include Taxes and Duties)
1	Mobilization / Demobilization	
2	KAWTP Assessment	
3	Water sampling and lab test	
4	Deliverables	
5	Miscellaneous	
<b>TOTAL COST PROPOSAL</b>		\$ _____

Name of Bidder \_\_\_\_\_

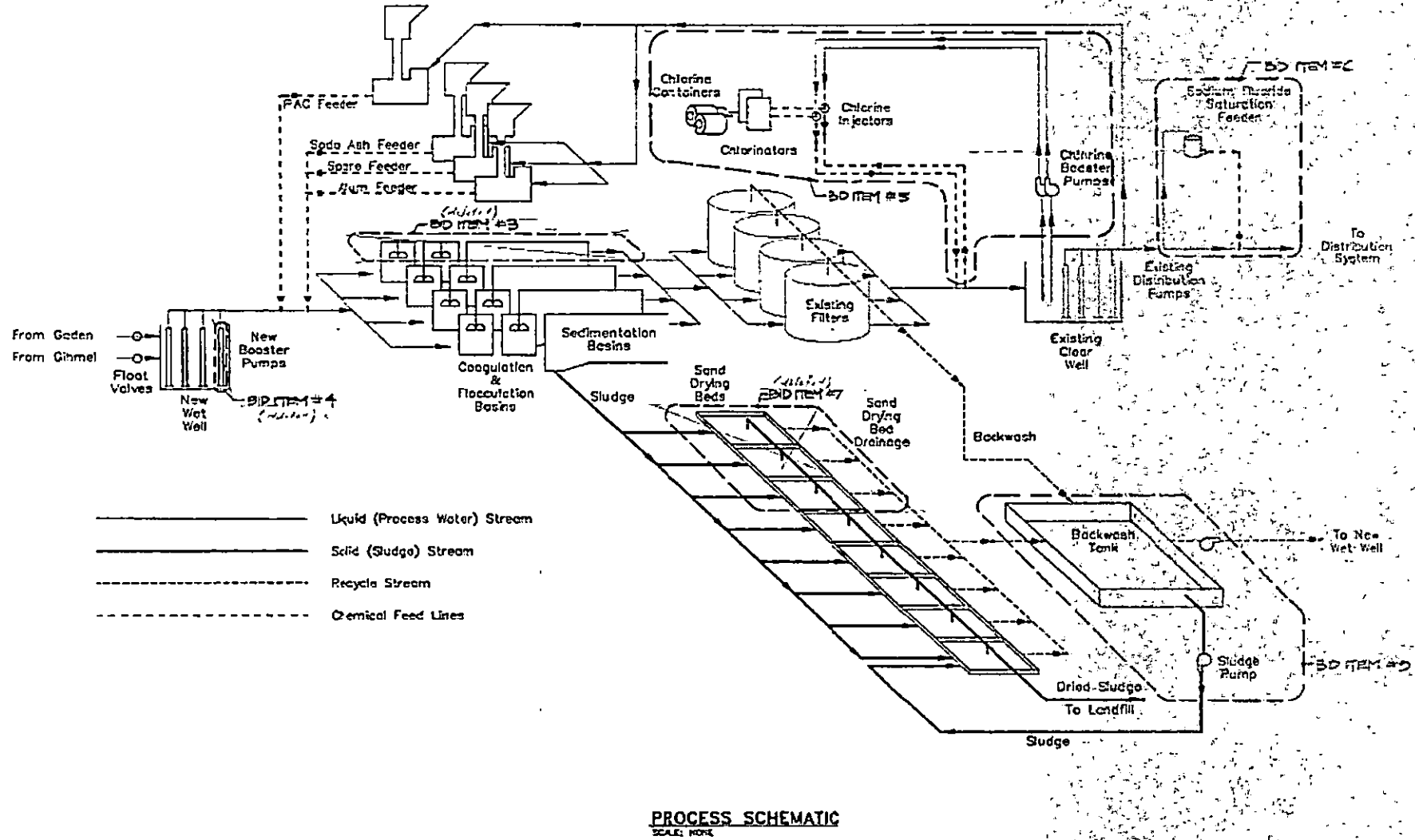
Signature of Bidder \_\_\_\_\_



### Appendix 3: Location Map



# Appendix 4: KAWTP Process Schematic



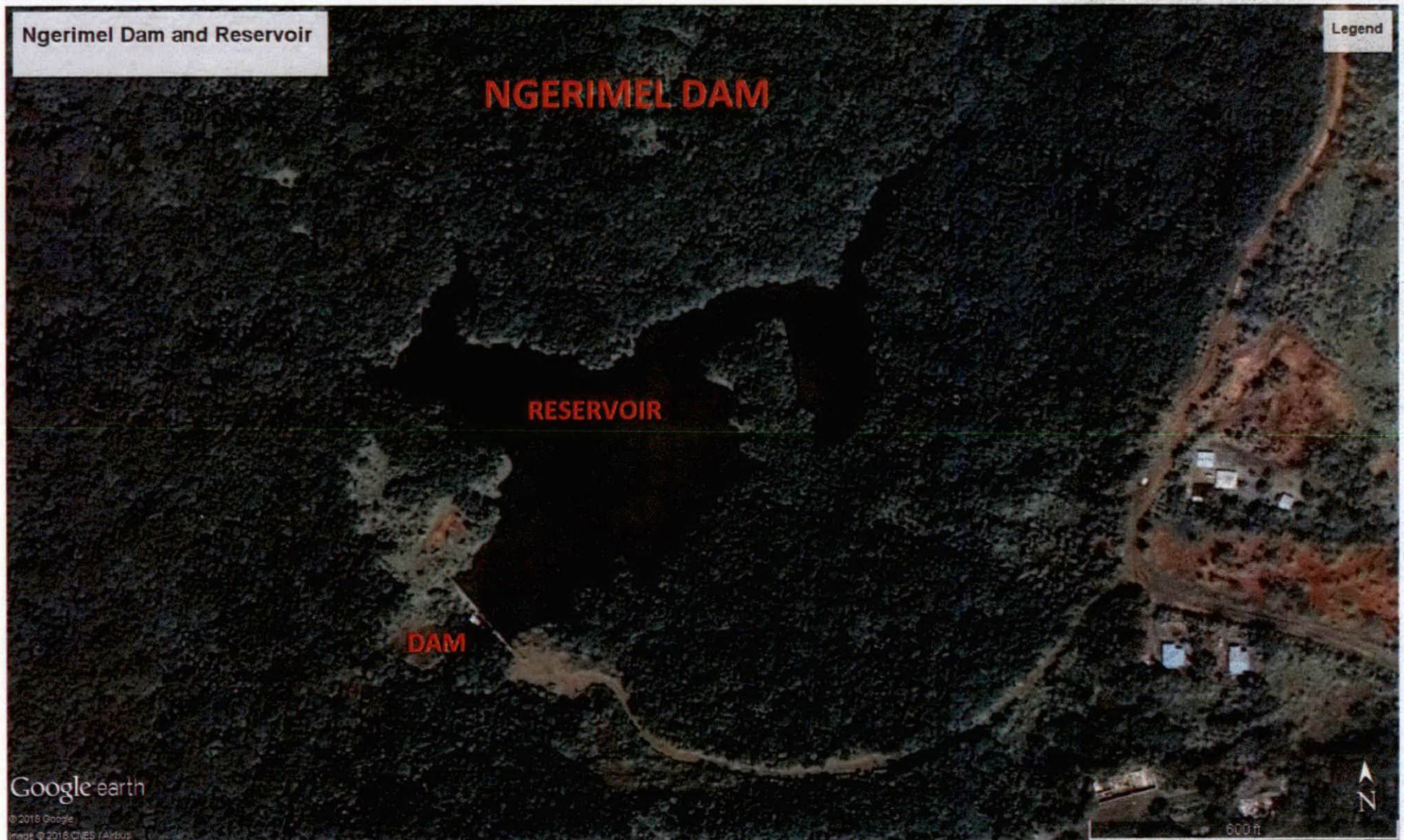


## Appendix 5: KAWTP





## Appendix 6: Ngerimel Dam





## Appendix7: NgerikiilRiverIntake

