

REQUEST FOR QUOTATION (RFQ)

FOR SERVICES

Project Title:	Managing Coastal Aquifers in Selected Pacific SIDS
Nature of the services	Optimization of infiltration gallery design through modelling.
Location:	remote
Date of issue:	24/05/2023
Closing Date:	7/06/2023
SPC Reference:	RFQ23-5419

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Part 1: INTRODUCTION

1.1 About the Pacific Community (SPC)

The Pacific Community (SPC) is the principal scientific and technical organisation of the Pacific region, established by treaty in 1947 with the signing of the *Agreement Establishing the South Pacific Commission* (the Canberra Agreement).

Our unique organisation covers more than 20 sectors and is renowned for knowledge and innovation in such areas as fisheries science, public health surveillance, geoscience and conservation of plant genetic resources for food security.

For more information about SPC and the work that we do, please visit our website: <https://www.spc.int/>.

1.2 SPC's procurement activities

SPC's procurement activities are guided by the principles of high ethical standards, value for money, open competition and social and environmental responsibility and are carried out under our Procurement Policy.

For further information or enquiries about SPC's procurement activities, please visit the procurement pages on our website: <https://www.spc.int/procurement> or email: procurement@spc.int

1.3 SPC's Request for Quotation (RFQ) Process

At SPC, procurement valued at more than EUR 2,000 and less than or equal to EUR 45,000 requires an evaluation of at least three quotations to determine the offer that provides the best value for money through a Request for Quotation (RFQ) process.

This RFQ sets out SPC's requirements for a project and it asks you, as a bidder, to respond in writing in a prescribed format with pricing and other required information.

Your participation confirms your acceptance of SPC's conditions of participation in the RFQ process.

Part 2: INSTRUCTIONS TO BIDDERS

2.1 Background

SPC invites you to submit a quotation to deliver the services as specified in [Part 3](#).

SPC has compiled these instructions to guide prospective bidders and to ensure that all bidders are given equal and fair consideration. Please read the instructions carefully before submitting your bid. For your quotation to be considered, it is important that you provide all the prescribed information by the closing date and in the format specified.

2.2 Submission Instructions

You must **submit your quotation and all supporting documents** in English and as an attachment to an email sent to peters2@spc.int and with the subject line of your email as follows: **Submission RFQ23-5419**. The email should also be copied to rfq@spc.int.

The supporting documents expected in this RFQ are:

- [The Conflict-of-Interest Declaration form](#) completed
- Technical proposal form
- CV

- Proposed Workplan

Your submission must be clear, concise and complete and should only include a quotation and information that is necessary to respond effectively to this RFQ. Please note that you may be marked down or excluded from the procurement exercise if your submission contains any ambiguities or lacks clarity.

Bids will be evaluated on the basis of information received by **11.59. Fiji Time on 7/06/2023**.

2.3 Evaluation & Contract Award

Each quotation validly received will be assessed against the evaluation criteria matrix set out in [Part 4](#). Any changes in the evaluation criteria will result in the RFQ process being re-issued.

SPC may award the contract once it has determined that a bidder has met the prescribed requirements and the bidder's proposal has been determined to be substantially responsive to the RFQ documents, provide the best value for money (highest cumulative score) and best serve the interests of SPC.

In the event of a bid being accepted, procurement will take place under SPC's [General Terms and Conditions of Contract](#) and depending on the value or nature of the procurement, the award will be made by issuing a purchase order or a signed and dated contract, or both.

2.4 Key Contacts

Please contact SPC should you have any doubt as to what is required or if we can help answer any questions that you may have.

Peter Sinclair will be your primary point of contact for this RFQ and can be contacted at peters2@spc.int. You should copy any communications into rfq@spc.int.

Details will be kept of any communications between SPC and bidders. This assists SPC to ensure transparency of the procurement process. While SPC prefers written communication in the RFQ process, at any point where there is phone call or other conversation, SPC expects to keep a file note of the exchange, with all forms of communication with prospective bidders to be retained as source documents for the procurement of the services.

2.5 Key Dates

Please see the proposed procurement timetable in the table below. This timetable is intended as a guide only and while SPC does not intend to depart from the timetable, it reserves the right to do so at any stage.

STAGE	DATE
RFQ sent to potential vendors	24/05/2023
RFQ Closing Date	7/06/2023
Award of Contract	16/06/2023
Commencement of Contract	1/07/2023
Conclusion of Contract	6/04/2024

2.6 Legal and compliance

Confidentiality: Unless otherwise agreed by SPC in advance or where the contents of the RFQ are already in the public domain when shared with the bidder, bidders shall at all times treat the contents of the RFQ and

any related documents as confidential. SPC will also treat the information it receives from the bidders as confidential.

Conflict of interest: Bidders must take all necessary measures to prevent any situation of conflict of interest. You must notify SPC in writing as soon as possible of any situation that could constitute a conflict of interest during the RFQ process. If you have any familial connection with SPC staff, this must be declared, and approval will then be sought for you to engage in the RFQ process. **In support of your response to this RFQ, you must submit to SPC [the Conflict-of-Interest Declaration form](https://spc.int/procurement) available on our procurement page website: <https://spc.int/procurement>.**

Breach of this requirement can result in SPC terminating any contract with a successful bidder.

Currency, validity, duties, taxes: Unless specifically otherwise requested, all proposals should be in AUD and must be net of any direct or indirect taxes and duties, and shall remain valid for 120 days from the closing date. The successful bidder is bound by their proposal for a further 60 days following notification they are the preferred bidder so that the contract may be awarded. No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during this period.

No offer of contract or invitation to contract: This RFQ is not an offer to contract or an invitation by SPC to enter into a contract with you.

Privacy: The bidder is to comply with the requirements of applicable legislation and regulatory requirements in force for the use of personal data that is disclosed for the purposes of this RFQ. SPC will handle any personal information it receives under the RFQ in line with its [Privacy Policy](#), and the [Guidelines for handling personal information of bidders and grantees](#).

Warranty, representation, assurance, undertaking: The bidder acknowledges and agrees that no person has any authority to give any warranty, representation, assurance or undertaking on behalf of SPC in connection with any contract which may (or may not) follow on from this RFQ process.

2.7 Complaints process

Bidders that consider they were not treated fairly during any SPC procurement process may lodge a protest. The protest should be addressed to complaints@spc.int. The bidder must provide the following information: (1) full contact details; (2) details of the relevant procurement; (3) reasons for the protest, including how the alleged behaviour negatively impacted the bidder; (4) copies of any documents supporting grounds for protest; (5) the relief that is sought.

Part 3: TERMS OF REFERENCE

A. Background/context

Infiltration galleries are wells designed to pump groundwater from coastal aquifers and freshwater lenses. They are typically constructed by excavating a trench or pit in the ground and filling it with a permeable material, such as gravel or sand, to create a porous channel for water to flow through. This channel is then connected to a pumping station, which draws water from the aquifer and delivers it to the surface for use.

Infiltration galleries are often preferred over other methods of extracting groundwater from coastal aquifers because they minimize the risk of saltwater intrusion. Saltwater intrusion occurs when seawater infiltrates an aquifer and displaces freshwater, making the water unsuitable for consumption. Infiltration galleries can be an effective and sustainable solution for accessing freshwater resources in coastal areas, but their design and construction must take into account the specific characteristics of the aquifer and surrounding environment to ensure their long-term viability.

The specific services are expected to help refine gallery design (length, placement, spacing, size, depth, pumps, materials), construction techniques (excavation, trenching, equipment, sequencing), and operation (flow rates, schedules), resulting in new and innovative approaches that can be documented and shared broadly to achieve increasingly resilient and sustainable water supply throughout the Pacific.





B. Purpose, objectives, scope of services

The major activities to be undertaken by the Contractor are:

1. Literature review of gallery designs used across the Pacific (linking with upcoming workshop "Groundwater Gallery Design Knowledge Exchange" on Kiritimati Island). SPC will provide relevant

literature references (including detailed designs of previous gallery constructions) to the Contractor.

Output 1: Presentation to SPC project team discussing the results of the literature review for incorporation into the development of numerical and physical models.

2. Development of numerical flow models to assess the impact of gallery design on flow rates and capture zones.

Output 2: Presentation to SPC project team with the results from the numerical flow models.

3. Development of solute transport models to investigate the implications of density-dependent flow and tides to gallery design. The numerical model should be ideally developed in conjunction with Activity 4 (lab-scale model) to allow for some level of calibration/validation of the numerical model with real observations (salinity) obtained in the lab.

Output 3: Presentation to SPC project team with the results from the solute transport models. Delivery of technical report describing literature review, modelling methodology, and model validation results.

4. Development of laboratory-scale model to investigate gallery performance under variable-density aquifer conditions in a controlled laboratory setting to validate the results and conclusions obtained by the numerical models. The Contractor is expected to have access to a lab where the experiment could be conducted.

Output 4: Presentation to SPC project team of lab-scale model.

C. Timelines

This consultancy will be delivered over a period of 40 weeks. The target date of commencement of the work is 1 July 2023 and the expected completion date is 6 April 2024. If necessary, the consultancy period may shift by one month to accommodate any unexpected delays preventing the commencement on the target date.

Projected number of days per activity:

Activity 1: 4 weeks

Activity 2: 6 weeks

Activity 3: 14 weeks

Activity 4: 16 weeks

D. Reporting and contracting arrangements

The consultancy will be managed by the Water Resources Assessment and Monitoring Coordinator within SPC's Disaster and Community Resilience Programme under the Geoscience Energy Maritime (GEM) Division. Progress reporting will be monitored via the delivery of the Consultancy Outputs as detailed in Section B. Additional progress reporting may be required by the consultancy manager as needed.

The Contractor is expected to interact and collaborate with SPC's team and potentially with key stakeholders around the Pacific with knowledge and experience operating infiltration galleries for groundwater production and supply (see Table below) in the course of this work. It is expected that

these institutions and stakeholders will have an active role in providing data and information necessary for the delivery of the work.

The Contractor is expected to be home based, but country visit(s) will be considered where justified by the Contractor. SPC will organise travel in economy class and accommodation during the travel. SPC will not be responsible for visa fees.

Stakeholder	Country
Majuro Water & Sewer Company (MWSC)	Republic of Marshall Islands
RMI Environmental Protection Authority (EPA)	Republic of Marshall Islands
Ministry of Infrastructure and Sustainable Energy (MISE) - Water and Sanitation Engineering Unit (WSEU)	Kiribati
Public Utilities Board (PUB)	Kiribati
Ministry of Line & Phoenix Islands Development (MLPID) – Water and Sanitation Division (WSD)	Kiribati
Palau Public Utilities Corporation (PPUC)	Palau
Water Works Division (Aitutaki Infrastructure)	Cook Islands

E. Skills and qualifications

SPC seeks to engage a consultant or consultancy team with groundwater modelling expertise. Skills required are as follows:

- Tertiary degree or equivalent in hydrogeology or similar discipline.
- At least 10 years' experience in modelling density-driven groundwater flow in islands and coastal areas. Experience in Pacific Small Island States would be an advantage.
- Excellent analytical skills.
- Excellent English communication skills (oral and written).
- Ability to work independently and/or in a small team and provide deliverables in a timely manner.

F. Scope of Bid Price and Schedule of Payments

- This is a milestone-based contract and will be paid in accordance with the payment schedule below.
- The terms of payment shall be in accordance with the provisions of Article 10 of the SPC General Conditions.

Milestone/deliverables	Deadline	% payment
Approved Final Workplan and schedule for conducting the consultancy	10 July 2023	20%
Output 1: Presentation to SPC project team discussing the results of the literature review for incorporation into the development of numerical and physical models.	31 July 2023	0%

Output 2: Presentation to SPC project team with the results from the numerical flow models.	15 September 2023	25%
Output 3: Presentation to SPC project team with the results from the solute transport models. Delivery of technical report describing literature review, modelling methodology, and model validation results.	31 December 2023	25%
Output 4: Presentation to SPC project team of lab-scale model.	31 March 2024	30%
TOTAL		100%

Part 4: PROPOSAL EVALUATION MATRIX

4.1 Competency Requirements & Score Weight

The evaluation matrix below reflects the obtainable score specified for each evaluation criterion (technical requirement) which indicates the relative significance or weight of the items in the overall evaluation process.

Evaluation criteria	Score Weight (%)	Points obtainable
Mandatory requirements		
<ol style="list-style-type: none"> 1. The Conflict-of-Interest Declaration form completed 2. Proposal Submission Forms 3. CV 4. Workplan 	Mandatory requirements. Bidders will be disqualified if any of the requirements are not met	
Technical requirements		
Technical requirement 1: Number of similar past experiences modelling variable density flow and solute transport in coastal aquifer/freshwater lens aquifer settings. Details of these experiences to be provided including the involvement of staff expected to work under this work.	25%	175
Technical requirement 2: Proposed workplan provided with clear description of staff involvement, proposed activities, timelines and deliverables per activity.	25%	175
Technical requirement 3: Access to laboratory with track record of constructing physical models for groundwater investigations, including variable density flow.	25%	175
Technical requirement 4: Alignment with expected skills and qualifications of the Consultant, as provided under Section E.	25%	175
Financial requirements		
Financial requirement 1: Price	30%	300
Total Score	100%	1000

Part 5: TECHNICAL AND FINANCIAL PROPOSAL FORMS

PART A – Background

RESPONSE BY BIDDER	
Name	
Physical Address	
Postal Address	
Telephone Contact	
Email	

PART B – Technical evaluation criteria

Technical Requirements	
Competency Requirements	Response by Bidder
<p>Experience: Evidence of the bidder's relevant experience must be submitted. Bidders shall provide details of three contracts that demonstrate their track record in completing works/services similar to the ToR in Part 3 of this RFQ. The bidder should provide contact details of one referee for each of the contracts. The contracts should have been completed or substantially completed within the last 8 years. Please attach CV(s) and any supporting information as necessary.</p>	<p>Details for two references</p>
	<p>1. Client's name: <i>[insert name of client 1]</i></p>
	<p>Contact name: <i>[insert name of contact]</i></p>
	<p>Contact details: <i>[insert contact details]</i></p>
	<p>Value contract: <i>[insert value of contract]</i></p>
	<p>2. Client's name: <i>[insert name of client 2]</i></p>
	<p>Contact name: <i>[insert name of contact]</i></p>
	<p>Contact details: <i>[insert contact details]</i></p>
	<p>Value contract: <i>[insert value of contract]</i></p>
	<p>3. Client's name: <i>[insert name of client 3]</i></p>
	<p>Contact name: <i>[insert name of contact]</i></p>
	<p>Contact details: <i>[insert contact details]</i></p>
	<p>Value contract: <i>[insert value of contract]</i></p>

1. Technical Requirement 1	
Number of similar past experiences modelling variable density flow and solute transport in coastal aquifer/freshwater lens aquifer settings. Details of these experiences to be provided including the involvement of staff expected to work under this work.	<i>[Bidder's answer]</i>
2. Technical Requirement 2	
Proposed workplan provided with clear description of staff involvement, proposed activities, timelines and deliverables per activity.	<i>[Bidder's answer]</i>
3. Technical Requirement 3	
Access to laboratory with track record of constructing physical models for groundwater investigations, including variable density flow.	<i>[Bidder's answer]</i>
4. Technical Requirement 4	
Alignment with expected skills and qualifications of the Consultant, as provided under Section E.	<i>[Bidder's answer]</i>

PART C – Financial proposal

All costs indicated on the Financial Proposal should be **inclusive** of all applicable taxes. The format shown below should be used in preparing the price schedule. All prices in the proposal must be presented in **AUD**.

Particulars	Amount (AUD)
Total financial offer (inclusive of taxes)	Maximum total fee AUD _____

Professional fees: Staff salaries, consultant fees and any other professional costs (with details on the level of effort of each person on the team. i.e. 50% full time, full-time, etc.).

SPC will organise travel in economy class and accommodation during the travel.

ex

SPC will not cover separate lines for visas, overheads/running costs, ... If these apply, the costs are to be taken into account in the fees charged for the delivery of the specific services.

No payment will be made for items which have not been priced. Such items are deemed to be covered by the financial offer.

Expenses associated with the purchase and freight of approved billing, metering, leak detection and other devices, equipment and materials under this contract will be covered by SPC as per the SPC Procurement Policy.

Bidders will be deemed to have satisfied themselves, before submitting their proposal and to its correctness and completeness, taking into account of all that is required for the full and proper performance of the contract and to have included all costs in their rates and prices.

For the Bidder: *[insert name of the company]*

Signature:

Name of the representative: *[insert name of the representative]*

Title: *[insert Title of the representative]*

Date: *[Click or tap to enter a date]*