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**JOB DESCRIPTION**

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| **Job Title:** | **Hydrogeologist** |
| **Division/Programme:** | Geoscience, Energy and Maritime Division (GEMD) / Disaster & Community Resilience Programme (DCRP) |
| **Location**: | Suva |
| **Reporting to:** | Water Resources Assessment and Monitoring Coordinator, Disaster & Community Resilience Programme |
| **Number of Direct Reports:** | None |
| **Purpose of Role**: | Working as part of the Water Resources Assessment, Monitoring, and Management team the Hydrogeologist will provide support for the development, and implementation of water and sanitation projects across the Pacific within the Water and Sanitation Unit, including – “Managing Coastal Aquifers Project (referred to as “**MCA Project**”, and “Managing Water Scarcity through Strengthened Water Resources Management” Project (referred to as “**Atoll** **Water Scarcity Project**”). |
| **Date:** | November, 2021 |

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| **Organizational Context and Organization Chart** |

The **Geosciences, Energy and Maritime (GEM)** Division of SPC is comprised of three programmes and one Programming Performance and Systems Unit. The three programmes are: i) Oceans and Maritime (ii) Georesources and Energy; and iii) Disaster and Community Resilience.

The **Disaster and Community Resilience Programme** (DCRP), which works with SPC’s member countries and territories to support sustainable development outcomes through evidence-based action & partnerships for resilience. In support of this, the DCRP manages a large portfolio of disaster risk reduction, climate change adaptation and water and sanitation projects at the regional and sub-regional levels.

Identified projects include the **“Managing Coastal Aquifers Project” (MCA Project**), which the DCRP is implementing across, Marshall Islands, Palau and Tuvalu. With the support of the Global Environment Facility (GEF) and in partnership with UNDP the Project is assisting these countries to improving the understanding, use, management and protection of coastal aquifers towards enhanced water security, including in the context of a changing climate. The Project commenced in November 2020.

The **“Managing Water Scarcity through Strengthened Water Resources Management” Project** (referred to hereafter as the **“Atoll Water Scarcity Project”**), which the DCRP is implementing across five Pacific atoll countries, including the Cook Islands, Kiribati, Marshall Islands, Tokelau and Tuvalu. With the support of the New Zealand Ministry of Foreign Affairs and Trade, the Project is assisting these countries to implement practical measures to build the skills, systems and basic infrastructure to better anticipate, respond to, and withstand the impacts of drought. The Project commenced in July 2020.

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| **Key Result Areas (KRAs):** |

The position of **Hydrogeologist** encompasses the following major functions or Key Result Areas:

1. **Technical advice and support** under the theme of Water and Sanitation including projects[[1]](#footnote-1) under this portfolio of work.
2. **Networking and Communications** to promote water resource information, for improved assessment, development, management, and protection across the region.
3. **Capacity Building** of regional staff and country counterparts across all aspects of water and sanitation. Design and implementation of training programs in hydrogeology, geophysics, and other water resource assessment and analysis skills.
4. **Provision of high-quality technical reporting** to ensure SPC standards are maintained and extended across the SPC WRAM team.
5. Assist with other cross Disaster & Community Resilience Programme (DCRP) activities where required including the “Enhancing water-food security and climate resilience in volcanic island countries of the Pacific Project” (WELLs).

***The performance requirements of the Key Result Areas are broadly described below***

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| **Jobholder is accountable for** | ***Jobholder is successful when*** |
| **KRA 1: Technical Advice and Support**   * Provide high quality technical advice and support on water resource related technical and research needs at the regional, national and local levels. | * Member countries and SPC are able to demonstrate improvements in water resource monitoring and reporting with improvements in water security and sanitation * Water resource data sets and information needs improved and with greater accessibility * Technical and administrative requirements of projects are delivered as agreed and within time to a standard which meets expectations of SPC, and project partners * Geophysical surveys are undertaken in an efficient way producing high quality data with confidence in analysis and interpretation of results. * Timely response and advice to countries and SPC on hydrometeorological disasters. * Project development and design needs are supported resulting in relevant and appropriate project design and mobilization of resources * Conceptual models supported by observations, experience and available literature on groundwater water systems developed |
| **KRA 2: Networking and Communications**   * Establish and develop effective communication and relationships within member countries, development partners, and SPC to promote water resource assessment and development for the region. * Ensure accurate, audience focused sensitive water resource information is accessible and available to a wide variety of relevant stakeholders. | * Relationships are cultivated resulting in long term effective communications with country counterparts and other stakeholders to the mutual benefit of all. * Water information is archived according to SPC formats which promotes security and accessibility of data. * Information products are accessible and relevant, provided in a timely manner upon request in formats understanding at both the community and technical level * Strategic communications to promote the application and awareness of water resource information in line with regional strategies supported |
| **KRA 3: Capacity Building**   * Actively support and encourage the development of capacity building to strengthen the long-term capacity of country counterparts in water resources assessment and monitoring through on the job training and specially designed training. * Actively develop capacity building across SPC and with counterparts including design and delivery of specific training in hydrogeology, geophysics, data analysis, GIS and water resource management, technical report writing and sanitation skills | * Water resource monitoring, assessment, and groundwater management skills including data management, analysis, and reporting skills are demonstrably improved within SPC and country counterparts. * Improved technical capacity developed within SPC and country beneficiaries for hydrogeology, geophysics, water resource management and assessment, data analysis, GIS, and technical report writing needs. |
| **KRA 4: Provision of high-quality technical reporting**   * Provision of high-quality technical reports ensuring SPC standards are met for publication. | * High quality timely technical reports produced in accordance with SPC standards and within expected timeframes. |

The above performance requirements are provided as a guide only. The precise performance measures for this job will need further discussion between the jobholder and supervisor as part of the performance development process.

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| **Most Challenging Duties Typically Undertaken (Complexity):** |

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| Multi-tasking in a complex multi stakeholder environmentHigh workloads requiring prioritization in an often-intense environment for time and attentionEnsuring technical advice is relevant and appropriate to diverse needs of donor, SPC and country requirementsMeeting project timelines |

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| **Functional Relationships & Relationship Skills:** |

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| Key internal and/or external contacts | Nature of the contact most typical |
| ExternalSPC Focal Points of member countries (technical and administrative)Funding partners, such as UNDP, FAO, DFAT, MFAT, World Bank, USAID etcWater and Sanitation NetworksRegional partners and donors  * Contractors and consultants * Suppliers and service providers | Direct in country liaisonDirect on island interaction for consultation, planning and project implementationProvision of technical support, remote and in country |
| **Internal**   * SPC Finance, Travel, and Procurement units * Water Resources Monitoring and Assessment Coordinator * Water Governance Coordinator * DCRP Deputy Director * Water and Sanitation Team members * GEM Division and specifically DCRP staff * Cross Divisional SPC staff | * Develop linkages with other projects and activities, coordinate these actions for the benefit of projects and countries. * Provide strategic advice on project activities. * Reporting on the technical and management issues with SPC managers.  Technical support with other professional staff. |

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| Level of Delegation: |

Routine Expenditure Budget: *0 Euro*

Budget Sign off Authority without requiring approval from direct supervisor: *None*

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| **Personal Specification:** |

*This section is designed to capture the expertise required for the role at the 100% fully effective level. (This does not necessarily reflect what the current position holder has.) This may be a combination of knowledge / experience, qualifications or equivalent level of learning through experience or key skills, attributes or job specific competencies.*

**Qualifications**

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| Essential: | Desirable: |
| * A Master of Science degree (MSc) with a specialisation in a relevant field such as hydrology, hydrogeology, groundwater modelling or water resources engineering (and/or equivalent work experience) | * PhD * Qualifications and/or equivalent work experience) in one or more of the following fields: natural resource management, groundwater modelling, Sanitation and Hygiene (WASH), water supply/sanitation engineering, emergency response in WASH |

**Knowledge/Experience**

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| Essential: | Desirable: |
| * At least 7 years of experience in water resource assessment and monitoring. * Experienced in the application of hydrological data and databases to develop information products. * Demonstrated experience in the use and application of QGIS * Demonstrated experience in groundwater management. * Excellent communication and report writing skills. * Demonstrated project management and organisational skills * Demonstrated experience of working and managing projects in remote locations. * Demonstrated experience in resource mobilisation and project design. * Knowledge of Gender Equity and Social Inclusion (GESI), and People Centred Approaches (PCA) in delivery of projects | * Demonstrated experience in the use and application of groundwater modelling, of commonly used groundwater simulation packages such as MODFLOW, SEAWAT, and SUTRA. * Experience in hydro-chemistry and/or isotope hydrology * Programing skills, including coding with Python. * Demonstrated experience of working in water and sanitation in Pacific Island environments * Experience in hydro-chemistry and/or isotope hydrology. * Development of drought management strategies * Financial management experience * Demonstrated experience in the application, design, analysis and interpretation of geophysics for groundwater assessments |

**Key Skills/Attributes/Job Specific Competencies**

The following levels would typically be expected for the 100% fully effective level:

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| Expert level | * Water Resources monitoring and assessment in island settings * Advanced technical reporting skills |
| Advanced level | * Advanced knowledge in the application and use of numerical groundwater modelling in coastal and island settings * Project management skills * Hydrological data management * Advanced data analysis skills * Advanced geophysics suitable for groundwater assessment * Analysis of climate information * Computer skills including data handling and the use of word processing, spreadsheet and database applications with Microsoft Word, Excel, PowerPoint |
| Working knowledge | * Programing skills, including coding with Python * Design and construction of sustainable water abstraction technologies suitable for remote locations * Water and sanitation needs in developing countries in particular Pacific Island countries * WASH in emergency situations * Skills and toolkits associated with effective community consultation and outreach, and GESI * Alternative water and sanitation options applicable in the pacific such as RWH, desalination, alternative sanitation technologies. |
| Awareness | * Understands SPC’s role in Pacific Island’s development and resource management * Aware of international and Pacific regional initiatives in disaster resilience and water resources management. * Awareness of Pacific Island cultures and range of challenges in the regional, national and local scales. |

**Key Behaviours**

*All employees are measured against the following* ***Key Behaviours*** *as part of Performance Development:*

* Change and Innovation
* Interpersonal Skills
* Teamwork
* Promotion of Equity and Equality
* Judgement
* Building Individual Capacity

**Personal Attributes**

* High level of professional integrity and ethics
* Friendly demeanor
* Demonstrated high level commitment to customer service
* Physically fit
* The ability to work unsupervised
* Clear and effective communicator
* Good leadership and supervisory skills.
* Highly motivated and strong affinity to teamwork

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| **Change to Job Description:** |

From time to time it may be necessary to consider changes in the job description in response to the changing nature of the work environment - including technological requirements or statutory changes. Such change may be initiated as necessary by SPC. This Job Description may also be reviewed as part of the preparation for performance planning for the annual performance cycle.

1. *Projects over the next 4 years (2020–2024) include: GEF Funded Project “Managing Coastal Aquifers Project (EURO4.8M); and other projects and components of projects as required.* [↑](#footnote-ref-1)