

# HAWKE'S BAY REGIONAL COUNCIL

## Job Description

Position Title:	Senior/Principal Groundwater Modeller		
Group/Section Details:	Group: Integrated Catchment Management	Section: Environmental Science	
Responsible to:	Team Leader Principal Scientist Hydrology/Hydrogeology		
Responsible for:	N/A		
Salary Range:*	\$100,620 (85%)	\$118,376 Mid-Point	\$136,132 (115%)
* <i>Note: Progress above the Mid-Point is based on sustained individual performance.</i>			

### Section Aims

The Environmental Science team provides the following role and functions as part of the Integrated Catchment Management Group:

- Provides the scientific expertise required to meet the goals and objectives of Hawke's Bay Regional Council's (HBRC) Annual and Long Term Plan in an efficient manner.
- Designs and conducts a variety of scientific and environmental investigations and studies in an effective and efficient manner.
- Analyses data and other information to provide verbal advice and a range of written reports, including State of the Environment reports.
- Provides effective and high quality input to HBRC's policy development, planning and regulatory activities.
- Maintains effective working relationships with other sections in HBRC.
- Provides scientific services to external clients.
- Develops or implements reliable databases.
- Maintains quality standards, including ISO9001:2015 accreditation for all activities undertaken by the Science section.

### Role of Principal Groundwater Modeller

The position of Principal Groundwater Modeller provides input to the activities and functions outlined above in a manner that ensures that the Science Section achieves its objectives. These requirements will make extensive use of technical skills gained through education and experience. They will also provide opportunities for professional development. This role is primarily one of technical expert, with some requirement to routinely direct or mentor team members. A key focus of this position is the development of fit for purpose numerical models that will assist with the management of water resources in the region, specifically groundwater quantity and quality. Expectations will be regularly discussed with you – these will be fair and reasonable and within the framework outlined in this job description.

## **Role Expectations**

- Accurate advice is provided in expert manner to assist in the achievement of goals and objectives of the HBRC's Annual and Long Term Plans.
- Specific and appropriate knowledge is applied to the interaction between surface water and groundwater resources that shows a thorough understanding of surface water and groundwater resource assessment field practices and provides quality information for wider Council use.
- Methods for determining the extent of the connection between surface water and groundwater are provided in an appropriate and timely form to assist with resource assessment, allocation and regulation of abstraction.
- Appropriate and well proven techniques and accurate modelling is provided for nutrient transport in terrestrial environments which shows the impact on surface water and groundwater resources.
- Appropriate conceptual groundwater models are constructed as required.
- A high level of confidence is evident with managing the surface water and groundwater modelling components of complex technical projects.
- Online tools are developed that are appropriate for rapid and simple replication of model functionality.
- A high level ability to analyse complex data and ability to clearly interpret the results for various audiences is evident.
- Clear, accurate and logically defined information and data requirements are available in a timely manner for internal or external providers
- Relevant Annual Plan goals and objectives are completed in a timely and efficient manner.
- Various scientific and environmental investigations are completed to a high standard within acceptable time frames.
- Input is provided during the development of HBRC's scientific research and investigation programmes.
- Scientific analysis is done in an accurate and timely manner and is presented appropriately.
- Effective and timely assistance is provided with State of the Environment reporting.
- Effective and timely input is provided into HBRC's policy development, planning and regulatory activities.
- Effective relationships are maintained with other sections of HBRC and cooperation is given a priority.
- Effective and efficient services are provided to external customers.
- When required, direction and assistance is provided to team members to ensure that data and databases are well-maintained, accurate and up to date.
- Working to high quality standards contributes to maintenance of ISO9001:2008 accreditation of the Quality Management System.
- Accountability and professionalism is clearly evident.

## **Commitment and Expectations**

Hawke's Bay Regional Council (HBRC) staff are expected to display Council's vision, purpose and values in their work and maintain a high level of professionalism and integrity. This means:

- Agree clear expectations of performance requirements.
- Take responsibility for your performance and accountability for your work.
- Show honesty, fairness, respect and consistency in dealings with others.
- Request regular performance conversations and coaching, particularly if not regularly forthcoming.
- Respect professionalism in peers.
- Display consistent behaviour when interacting with peers.
- Display excellent communication skills.
- Be approachable and show a willingness to listen actively.
- Demonstrate personal integrity.
- Admit when wrong or when a mistake is made.
- Adopt a 'no surprises' approach with your manager.

## **Continuous Improvement**

All Hawke's Bay Regional Council (HBRC) staff are expected to actively and enthusiastically promote the concept of continuous improvement in their work for HBRC. This means:

- Maintaining a positive overall attitude in the workplace, including promoting HBRC in a positive manner, as assessed by your peers and Manager.
- Taking part in training opportunities provided by HBRC with an open mind, as assessed by pre and post training meetings with your Manager.
- Practicing the skills provided in training offered by HBRC, as assessed by regular feedback meetings with your Manager.
- Showing a strong team commitment, as indicated by peer feedback and your Manager's assessment.
- Practicing the concept of continuous improvement by showing initiative with new ideas and positively acknowledging others ideas.
- Giving honest and open feedback as and when required, aiming to constructively deal with all issues, as assessed by regular feedback meetings with your Manager.
- Active involvement in decision making processes when the opportunity is made available.

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- Working in a collegial manner.
- Ensure you play your respective part in good information flows between different work sections.
- Deliver on project outcomes: on time and on budget.
- Being realistic about estimating resource requirements for projects.
- Displaying sound judgment and making responsible decisions.
- Managing public expectations and being customer focused.
- Maintaining high levels of technical skills relevant for the role.

## **Health and Safety**

All staff are expected to follow established health and safety procedures while working for HBRC, and in accordance with policies developed by HBRC. This means:

- Complying with and adhering to HBRC's accepted standards and procedures.
- Where appropriate, taking responsibility for workplace hazards/risks you identify and communicated to management.
- Undertaking regular reviews of workplace risks/hazards that are present in your work.
- Where appropriate, advise other organisations you are working with of the known risks in the work being undertaken.
- When, and if, necessary, participate in the investigation of accidents/incidents according to HBRC procedures.
- Undertaking appropriate and effective staff training when required or necessary.
- Promoting a healthy and safe workplace.
- Actively supporting health and safety initiatives.
- Maintaining a clean and tidy workspace.
- Comply with any rehabilitation plan designed with you for a return to work after an accident.

## **Emergency Management**

All HBRC staff are expected to undertake such Emergency Management functions as are determined appropriate to meet HBRC's role and function in this area. This means:

- Undertaking such a role as is allocated for emergency management requirements.
- Participating in such exercises as are required to maintain a state of preparedness in HBRC.

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- Responding to such requests to assume an emergency management role as are required by events.
- Understanding the contents of the relevant section of the Business Continuity Plan (BCP) and its implications for your role.
- Where the requirements of the role require it, review the relevance of the BCP for your team, section or Group on a regular basis.

## **Key Skills**

### **Knowledge**

- Appropriate experience and tertiary qualification in an environmental science or engineering discipline.
- Specific knowledge regarding the interactions between surface water and groundwater resources, including:
  - Familiarity with methods for determining the extent of connection between these resources to assist with resource assessment, allocation and regulation of abstraction.
  - Experience with hydrological and hydrogeological modelling, including the development of coupled surface water and groundwater models.
  - A thorough understanding of surface water and groundwater resource assessment field practices and techniques.
  - An ability to design and manage routine monitoring programmes.
  - An ability to construct conceptual groundwater models, often using less than perfect datasets.
  - An ability to design, implement and/or manage the development of numeric models required for assessment and management of water resources, with emphasis on managing the quantity and allocation of groundwater and linked surface water resources.
- Nutrient transport in terrestrial environments and subsequent impact on surface water and particularly, groundwater resources, using techniques such as contaminant transport modelling.
- Previous experience with managing the surface water and groundwater modelling components of complex (multi-disciplinary, multi-agency and multi-objective) technical projects will be essential.
- Knowledge of fate and transport processes in relation to contaminants, nutrients and microbes in surface and groundwater.
- Knowledge of processes whereby contaminants, nutrients, sediments and microbes are input to surface water and groundwater.
- Knowledge of strategies to minimise the impact of these contaminants on surface and groundwater resources will be useful.
- Sound knowledge of Tangata Whenua values and interaction with aquatic science.

### **Skills**

- Advanced computer skills are essential, including:

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- Intermediate to advanced skills with the Microsoft Office software suite.
- Familiarity with relational database functions.
- Ability to use the ESRI GIS software suite.
- Competency with the Hilltop Hydrological software suite or similar.
- Advanced experience in the use of specialist hydrology and hydrogeology modelling software, such as MODFLOW, the MIKE 11 modelling package and the MT3DMS solute transport model (or equivalents).
- Familiarity with at least one statistical software package; experience with the R software environment for statistical computing will be highly regarded.
- Ability to collate and analyse complex data and interpret the results for technical and non-expert audiences in verbal and written form.
- Excellent report writing skills, with significant experience and ability in:
  - Preparation and delivery of reports that meet a diverse range of client requirements.
  - State of the Environment reporting.
  - Preparing scientific evidence for regulatory panels.
- Strong presentation skills.

### Personal Attributes

- Ability to work in the field assisting and directing team members as required.
- Ability to work alone or as part of a team, either as team member or project team leader.
- Current driver's licence.
- Enjoy working with Community Groups to deliver science that identifies practical solutions to real-water management problems.

## HBRC's Vision, Purpose and Values

**Our Vision:** A healthy environment, a vibrant community and a prosperous economy.

**Our Purpose:** We work with our community to protect and manage the region's precious taonga of rivers, lakes, soils, air, coast and biodiversity for health, wellbeing and connectivity.

**Our Values:** **Partnership and Collaboration** We work with our community in everything we do

**Accountability** We hold ourselves to account to deliver results, be responsive to community expectations, and the best use of ratepayers' funds and assets

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**Transparency**

We report on what we do and the value this delivers for our community

**Excellence**

We set our sights and expectations high, and never stop striving to do better