

# MATAWA FIRST NATIONS MANAGEMENT



## FOUR RIVERS GROUP Job Description

## ENVIRONMENTAL INFORMATION & SYSTEMS SPECIALIST

## **PURPOSE OF THE POSITION**

Established in 2011, the Four Rivers Group (FRG) provides environmental advisory and technical services, centered in supporting self-sufficient and self-reliant communities. Key services focus in the areas of Project Management, Communications & Engagement, Geospatial Information Systems & Mapping, and Environmental Services.

Four Rivers Group employees operate in a team environment, where tasks are shared between team members based on individual team member strength, availability and operational need. At this time, Four Rivers Group requires the skills of an Environmental Information & Systems Specialist to develop, collect, analyze, and maintain Four River's environmental data/databases (including IK) and all related information collection & storage systems. Working under the general supervision of the Manager of Environmental Programs or their designate, the Environmental Information & Systems Specialist will provide critical administrative and operational support systems to allow for successful delivery of all Four Rivers projects & services.

## **SCOPE**

Matawa First Nations Management (MFNM) is the parent organization to the Four Rivers Group. The Four Rivers Group carries out projects and initiatives both on behalf of MFNM and wholly owned subsidiaries of MFNM, including Four Rivers Inc. Those projects and initiatives of MFNM, which are publicly funded and in service of the Matawa member First Nations is referred to as the operations of Four Rivers Matawa. Those projects and initiatives of Four Rivers Inc., which are for-profit and in service of any community or group are referred to as the operations of Four Rivers Inc. The Environmental Information & Systems Specialist will support the advancement of any project or initiative affiliated with the Four Rivers Group, and the overall management and coordination of project across all organizations or initiatives.

The Four Rivers Group was initially established to support Matawa member First Nations in environmental stewardship and capacity building for resource development. Over the years Four Rivers Group has developed into a team of dedicated and enthusiastic professionals from a wide array of experiences and backgrounds. The team supports a large number of projects and initiatives across Northern Ontario throughout the year. Four Rivers Group strives to deliver services that are community centered and innovative.

The Environmental Information & Systems Specialist will manage and coordinate all Four Rivers Group information technology infrastructure, including data collection systems, provide technical support to the Four Rivers Team and clients, and administer all network maintenance. He/She will also oversee outputs for environmental information including use of web-based platforms, while also being responsible for proper data storage procedures. It is anticipated that the Environmental Information & Systems Specialist will support critical components of all Four Rivers initiatives, helping our team collect, store and analyze environmental and administrative information. Rooted in an environmental science/analytical background, the Environmental Information & Systems Specialist will need to possess a multitude of skills from customer service and public relations skills, to communication and organizational skills, as well as having a functional understanding of a variety of computer hardware & software (Microsoft Office Suite, GIS Applications, Data Collection Apps, website design) in order to carry out a wide variety of tasks and duties in a highly variable and dynamic work environment.

## **RESPONSIBILITIES**

The Environmental Information & Systems Specialist will assist with the operation and delivery of Four Rivers Group Projects through departmental and external client project support, as well as other duties and the delivery of special projects. Responsibilities include:

### **1. Environmental Information Collection, Organization & Analysis**

#### Main Activities

- a. Design, develop and enhance data collection methods, including making geospatial linkages, where possible, to capture:
  - Indigenous Knowledge,
  - Reported incidental vegetation and wildlife sightings,
  - Environmental field program reports, including site surveys & sampling programs,
  - Environmental monitoring data, including remote sensing units,
  - Weather monitoring/climate data,
  - Imagery, video or audio recordings,
  - Project administrative feedback, including financial & project management milestones, and,
  - Customer/employee requests & feedback.
- b. Organize/categorize data so that it can be easily extracted and analyzed for various needs.
- c. Analyze data to create meaningful information outputs including reports, presentations, tables, maps, factsheets, and infographics as required.
- d. Report on data inconsistencies and make recommendations for data collection program enhancements.
- e. Provide technical support and/or train non-technical employees or clients on data collection systems, organization & analysis as required.
- f. Develop policy, procedures, work instructions, forms and templates for data collection and analysis procedures and enforce quality assurance and management systems as applicable. This includes development and enforcement of data security policies and procedures.

### **2. Information Systems & Database Management**

#### Main Activities

- a. Administer information system user accounts, including performing account set-up, help-desk, back-up and other technical support functions.
- b. Implement and maintain network systems, including ArcGIS Server.
- c. Develop, update and maintain Four Rivers databases, including GIS spatial data. Must implement quality control measures for data (such as ensuring appropriate metadata files exist).
- d. Ensure data is organized within databases in such a manner that it can be easily extracted and analyzed for various needs.
- e. Develops and implement suitable data back-up procedures for all Four Rivers information and information storage systems (Share-Point; Teamwork; accounting; GIS files, etc.).
- f. Provide technical support and/or train non-technical employees or clients on use of databases as required.
- g. Develop policy, procedures, work instructions, forms and templates for data storage, back-up and database procedures and enforce quality assurance and management systems as applicable. This includes development and enforcement of data security policies and procedures.

### **3. Information Systems Hardware Maintenance & Management**

#### Main Activities

- a. Organize, monitor and maintain Four Rivers' information technology/systems equipment including, but not limited to, computers, servers, GPS units, mobiles phones, tablets, electronic field tech, cameras and all associated accessories. This includes establishing necessary maintenance schedules for applicable equipment, monitoring warranties and repairs, and overseeing equipment inventory and sign-in/out.
- b. Provide technical support and/or train non-technical employees or clients on use of equipment as required.
- c. Develop policy, procedures, work instructions, forms and templates for information system hardware and enforce quality assurance and management systems as applicable. This includes development and enforcement of data security policies and procedures.

### **4. Provide Project Management Supports to Assigned Affiliated Projects**

#### Main Activities

- a. Meet and liaise with clients, FRG and MFNM staff, and potential partners or stakeholders to build partnerships and develop and define projects and to report on project status.
- b. Research opportunities and develop project work plans and develop project proposals.
- c. Coordinate projects according to project scope, schedule, and available resources in accordance with identified constraints and against established milestones.
- d. Track project deliverables, resources and expenditures and prepare and submit all required project reports

*Note: It is specifically anticipated that the Environmental Information & Systems Specialist will be assigned specific project management duties associated with some of FRG's climate change initiatives namely coordination responsibilities under Matawa FNM's Climate Change Adapt project or the LU-BRACE Climate Change Specialist program.*

### **5. Outreach & Engagement**

#### Main Activities

- a. Coordinate meetings, workshops or forums to facilitate information exchanges and to communicate information system capabilities.
- b. Develop & update, Four Rivers or project websites, blogs, social media, team management & coordination platforms, customer engagement platforms, GIS platforms, any other applicable web based engagement platforms.
- c. Prepare and deliver presentations related environmental information and information systems as required.
- d. Develop policy, procedures, work instructions, forms and templates for outreach & engagement and enforce quality assurance and management systems as applicable. This includes development and enforcement of data security policies and procedures as applicable.

### **6. Technical Support, Training, Mentoring & Development**

#### Main Activities

- a. Provide technical support to all Four Rivers Group Staff and clients as requested & required with an aim to build capacity in environmental information & related systems.
- b. Expand Four Rivers Group staff and client access to ArcGIS applications and functionality, including, but not limited to ArcGIS Online, smartphone and tablet applications, and ArcGIS Pro.

- c. Provide advice and support for developing community geomatics systems and environmental data collection and storage systems as requested.
- d. Travel as required, including to member First Nation communities to deliver hands-on, in community technical support or training.
- e. Provide capacity building opportunities to youth whenever possible.

**7. General**

**Main Activities**

- a. Assist with the development and delivery of FRG programs and services.
- b. Assist with preparation of general correspondence and reports as required.
- c. Attend meetings as requested and required.
- d. Assist with the preparation of proposals and funding applications for various programs or projects as required.
- e. Assist with the development and delivery of capacity building initiatives.
- f. Adhere to the MFNM and FRG Quality Management System requirements and participate in the maintenance and advancement of standards.
- g. Support FRG staff, FRG programs & services and the Matawa First Nation communities.
- h. Travel to road-access or remote (air accessible) communities as required.

**8. Additional duties as requested or required.**

## **KNOWLEDGE, SKILLS AND ABILITIES**

### **Knowledge**

The incumbent must have proficient knowledge in the following areas:

- Required: Post-Secondary Degree in Science, Environmental Studies, or a related field.
- Required: Knowledge of First Nations Governments, Culture, Traditions and Lifestyles.
- Required: Knowledge of the methods and techniques of collecting, analyzing and reporting data, especially stewardship, environmental, natural resource and Indigenous Knowledge data.
- Required: Knowledge of ESRI ArcGIS platforms.
- Required: Working knowledge of database management systems and techniques with experience working with large databases or datasets.
- Required: Working knowledge of environmental or geospatial data collection applications (e.g. Survey 1,2,3; iNaturalist).
- Preferred: Candidates who have completed an undergraduate thesis as part of their academic studies or candidates who have a graduate degree.
- Preferred: Candidates with significant experience working with First Nations, preferably on issues related to natural resource management, resource development and stewardship.
- Preferred: First Nation Traditional Values/Indigenous Knowledge Mapping experience.
- Preferred: Working knowledge of website design, construction and maintenance.
- Preferred: Working knowledge of server deployment and maintenance.
- Preferred: Experience developing information collection applications and/or using web, social media and other forms of engagement tools to capture information and feedback.
- Preferred: Experience with Arc Server, ArcGIS Online and GIS smartphone and tablet applications.
- Asset: Knowledge of science, data, issues & adaptations relating to climate change.
- Asset: Candidates with pilot certificates for Remotely Piloted Aircraft Systems (advanced operations preferred).
- Asset: Candidates with experience working on research projects.
- Asset: Knowledge of Adobe Creative Cloud applications.

### **Skills**

The incumbent must demonstrate the following skills:

- Fundamental knowledge in the operation of Information Technology Systems, equipment and software.
- Ability to self-train in technical subject areas through the use of manuals and computer-based training.
- Proficiency in graphic design applications would be considered an asset.
- Experience with creating and editing media (video, photos, audio, posters) would be considered an asset.
- Excellent communication (oral and written) skills.
- Excellent organizational and multi-tasking skills.
- Excellent interpersonal skills.
- Must have strong analytical, evaluation and assessment skills.

- Strong leadership skills.
- Ability to think both conceptually/strategically, and to be detail oriented.
- Ability to handle and manage conflict.
- Ability to speak and understand Ojibway/Cree would be considered an asset; and
- Possession of a valid Ontario Driver's License.

**Personal Attributes**

The incumbent must maintain strict confidentiality in performing the duties of the Environmental Information & Systems Specialist. The incumbent must also demonstrate the following personal attributes:

- Must be self-motivated and able to work independently, with minimal supervision and general instructions.
- Must take initiative when performing duties.
- Ingenuity and interest in expanding community access to environmental information & GIS applications and functionality.
- Reliable.
- Punctual.

## **WORKING CONDITIONS**

The Environmental Information & Systems Specialist will work primarily in an office setting and may also be required to travel to the field (i.e. First Nation communities, remote communities, wilderness, lakes/streams, wetlands, heavily forested areas) to perform the roles and responsibilities associated with their position.

### **Physical Demands**

The Environmental Information & Systems Specialist may have to travel in all weather, in small aircraft or spend prolonged periods of time in a vehicle. He/She may have to lift, carry and manage office equipment and supplies. He/She may have to walk long distances outdoors over rough terrain, carrying heavy field equipment. He/She may have to wear specialized field or safety equipment which may be heavy and overly warm (i.e. steel toed boots, chest waders etc.). He/She, while outdoors, may be exposed to various insects, and weather conditions (hot, cold, rain, snow). He/She may have to work odd or long hours at a time to complete special requests or projects. He/She may have to spend long hours sitting and using office equipment, computers and attending meetings.

### **Environmental Conditions**

#### *Office setting:*

The Matawa Building may be a busy facility. The Environmental Information & Systems Specialist may have to work with a number of people and projects at one time, and may be interrupted frequently to meet the needs and requests of Matawa First Nation Communities and Four Rivers Environmental Services Group. He/She may find the environment to be busy, noisy and will need excellent organizational, and time/stress management skills to complete the required tasks.

#### *Field setting:*

The Environmental Information & Systems Specialist may be required to work in various weather conditions (hot, rain, snow cold). He/She may have to work alone in remote environments and wilderness. Field work can be physically demanding (carry heavy loads, walking for long periods in rough terrain). He/She may be required to carry and use safety gear (i.e. first aid, radios, life jackets, GPS, compass, protective gloves or glasses) and navigate by map. He/She may have to work for long periods of time outdoors, and may be exposed to various insects and some remote camping. Occasional site visits may be required to industrial sites. All site-specific safety controls must be adhered to, along with site specific safety training and equipment.

### **Sensory Demands**

Sensory demands can include reading and the use of computer which may cause eye/wrist strain and occasional headaches. The Matawa office at times may be noisy and busy making it difficult for the Environmental Information & Systems Specialist to concentrate.

### **Mental Demands**

The Environmental Information & Systems Specialist will have to manage a number of requests and projects at one time. He/She must be aware of Tribal Council policies and procedures. They may have to complete a number of tasks and responsibilities at one time, and must be prepared to deal with stressful situations. Travel and field work may cause fatigue.



# CERTIFICATION

<p>_____ Employee Signature</p> <p>_____ Printed Name                      Date</p> <p>I certify that I have read and understand the responsibilities assigned to this position.</p>	<p>_____ Manager of Environmental Programs</p> <p>_____ Supervisor's Title</p> <p>_____ Supervisor's Signature              Date</p> <p>I certify that this job description is an accurate description of the responsibilities assigned to the position.</p>
<p>_____ Chief Executive Officer's Signature              Date</p> <p>I approve the delegation of responsibilities outlined herein within the context of the attached organizational structure.</p>	

The above statements are intended to describe the general nature and level of work being performed by the incumbent(s) of this job. They are not intended to be an exhaustive list of all responsibilities and activities required of the position.