

# KARLA MACPHERSON

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## GIS CONSULTANT

### TECHNICAL SKILLS

- ArcGIS Pro
- ArcGIS Online and Portal
- AutoCAD
- FME
- Survey 123
- Field Maps
- Cityworks
- VertiGIS
- QGIS
- Sharepoint
- Asana
- Microsoft Office

### PROJECTS

#### NG9-1-1 Address Data Development and Integration June 2024

- Designed and implemented two distinct address point datasets: one for general municipal use and another conforming to NG9-1-1 requirements.
- Developed and maintained separate FME workflows to manage and update each dataset, ensuring data integrity, operational efficiency, and adaptability.
- Ensured full compliance with National Emergency Number Association (NENA) GIS standards for NG9-1-1 readiness, including schema and data quality requirements.
- Established continuous quality assurance and validation procedures to uphold high levels of accuracy, consistency, and completeness across both datasets.

#### Asset Register Information Improvements Jan 2024

- Improved data completeness, accuracy and reliability by identifying and populating missing asset valuation information across water, sanitary, and stormwater infrastructure systems.
- Identified and resolved data gaps in infrastructure assets by analyzing record drawings and referencing connected infrastructure.
- Prepared comprehensive project documentation to support succession planning and ensure seamless knowledge transfer.

#### Web Mapping Platform (VertiGIS) Implementation Support Sept 2023

- Re-engineered legacy custom-coded web mapping applications to align with current VertiGIS platforms and best practices.
- Collaborated with the GIS team to design and implement new web mapping services in VertiGIS, enhancing usability and system integration.

### EDUCATION

#### Bachelor of Applied Technology Geographic Information Systems 2012 - 2013

- SAIT Polytechnic, Calgary, Alberta

#### Bachelor of Arts (Major in English Literature) 1994 - 1998

- Saint Thomas University, Fredericton, New Brunswick

### TRAINING

- AutoCAD Certificate of Completion - SAIT Polytechnic
- Infrastructure Asset Management Training Course - CH2M
- Certificate in Asset Management - The Institute of Asset Management
- Level 1 Water and Wastewater Operator Certification - AWWOA (expired)

## WORK EXPERIENCE

### Principal Consultant | KarMa GIS Consulting Services

2022 - present

- Provide high-level GIS consulting services to clients, aligning geospatial solutions with their business goals.
- Implement and maintain GIS-based asset management systems to support data-driven planning and decision-making for various assets.
- Create, maintain and update address layers and associated databases within enterprise GIS environments, supporting integration with systems such as NG9-1-1, permitting, and asset management.
- Create dashboards, web maps, reporting tools and workflows using ArcGIS, FME and related platforms to visualize asset health and optimize resource allocation.
- Utilize ArcGIS Pro, ArcGIS Online, and other GIS tools to create clear, accurate, and visually effective cartographic products.

### GIS Analyst | Eagle Engineering and Consulting

2021 - 2022

- Led GIS operations for large-scale fiber-to-the-home (FTTH) deployments in New Brunswick and Newfoundland, ensuring geospatial data accuracy and alignment with project milestones.
- Oversaw the generation of precise survey plans in GIS based on field-collected data, supporting construction and engineering teams.
- Designed and maintained GIS databases, including data creation, editing, and format conversion to support fiber network planning and execution.
- Delivered onboarding and technical training for new GIS staff; developed comprehensive documentation and standard operating procedures.
- Published interactive maps and developed web mapping applications for field crews using ArcGIS Online, improving field data access and operational efficiency.

### GIS Analyst | City of Airdrie

2018 - 2021

- Collected, processed, and analyzed geospatial data to support various municipal planning, infrastructure, and operational needs.
- Provided technical support and expertise to internal staff regarding GIS applications, tools, and spatial data products.
- Designed, developed, and maintained web map services and applications using ArcGIS Online and ArcGIS Enterprise (Portal), improving access to spatial data across departments.
- Produced and updated city maps in both digital and hard copy formats based on end-user requirements and operational use cases.
- Provided back-up support to the Addressing Technician, assisting with civic addressing tasks and maintaining addressing data integrity.

### Asset Management Specialist | City of Airdrie

2015 - 2018

- Seconded to support the implementation of Cityworks asset management system for the Water Services department during a term position.

### GIS/Addressing Technician | City of Airdrie

2013 - 2015

- Performed geospatial data management and civic addressing tasks, including map production, data maintenance and support for municipal GIS.