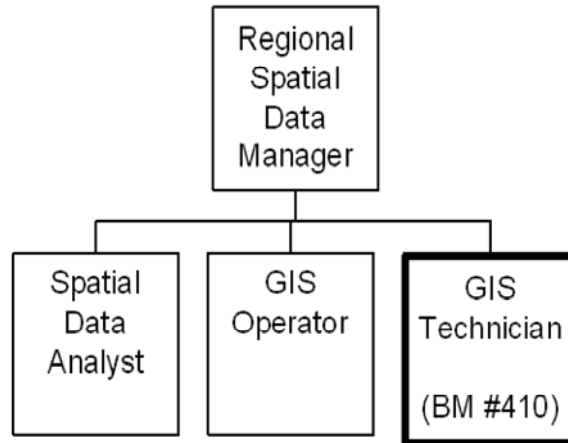|	
Position:	**Benchmark Job #410**
Ministry:	Various
Working Title:	**GIS Technician**
Branch:	Various
Level:	Range 18
Location:	Regional Office
NOC Code:	2255

PRIMARY FUNCTION

Creates various digital, graphical and descriptive products to support resource planning through the use of Geographic Information System applications and Relational Database Management Systems.

JOB DUTIES AND TASKS

1. Creates and maintains spatial and attribute data bases used in Geographic Information System (GIS) applications
    a. provides guidance to others on data structure and data format for use in GIS applications
    b. populates and maintains linkages between data bases
    c. updates data bases as information becomes available
    d. translates, integrates and manipulates data from various sources and formats to ministry standards
    e. conducts quality assurance on digital products and deliverables to ensure that technical standards are met
    f. consults with data providers to resolve data anomalies and performs data capture from source documents
2. Operates GIS related software and Relational Database Management Systems (RDBMS) to produce spatial products, terrain models, graphics, descriptive statistics and to depict various resource themes
    a. determines, clarifies and understands the format and nature of the end product that has been requested by the client and the nature of analysis that the product is intended to support
    b. reviews project production requirements to ascertain if required data is available and deadlines can be met, consults with clients regarding project outputs, prepares the production schedule, organizes work sequences, and identifies available data sources
    c. verifies and checks input data to ensure continuity, integrity and compliance with standards; compiles, enhances, and digitizes source information for the creation of various resource themes, data bases, spatial products and related models
    d. operates multiple GIS related software and RDBM Systems to manipulate spatial and attribute data to produce spatial analysis products
    e. enhances the aesthetic quality of output products for presentations
    f. imports and inspects map files for content and cartographic design and quality, identifies and resolves technical conflicts, applies vector cleaning routines, curve smoothing, line definition and other enhancement measures
    g. liaises with other ministries and agencies to share data and minimize duplication in the development of output products

3. Provides support to regional GIS and spatial analysis functions
    a. assists in the development and implementation of quality control procedures, visual output standards, and in-house procedures
    b. assists in the testing and evaluation of GIS related hardware and software
    c. provides training and guidance to other ministry staff on the use of GIS software and applications
    d. verifies completion of contract work and determines if expected results were achieved

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                    │  Regional   │
                    │  Spatial    │
                    │   Data      │
                    │  Manager    │
                    └──────┬──────┘
          ┌────────────────┼────────────────┐
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   │  Spatial    │  │    GIS      │  │    GIS      │
   │   Data      │  │  Operator   │  │  Technician │
   │  Analyst    │  │             │  │             │
   │             │  │             │  │  (BM #410)  │
   └─────────────┘  └─────────────┘  └─────────────┘
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FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
1	**JOB KNOWLEDGE** Understand the principles of geographic information systems (GIS) to create and maintain spatial and attribute data bases, operate GIS related software and relational data base systems, and produce a variety of spatial output products to support resource planning initiatives.	G	250
2	**MENTAL DEMANDS** Judgement to apply structured study and analysis to translate, integrate and manipulate data from various sources and choose an approach requiring the precise review and manipulation of sophisticated resource based data by subjecting it to a number of phases and processes to apply the data to terrain models, descriptive statistical models, graphical representations and related spatial resource theme products where a high degree of accuracy, validity and reliability is required.	F	175
3	**INTERPERSONAL COMMUNICATION SKILLS** Discretion required to exchange information needing explanation to determine and clarify geographic information requirements with resource professionals.	C	30
4	**PHYSICAL COORDINATION AND DEXTERITY** Significant coordination and dexterity required to use a computer to prepare cartographic and graphical products that require precise manipulation with a computer mouse.	D	22.5
5	**RESPONSIBILITY FOR WORK ASSIGNMENTS** Guided by general procedures or instructions, selects alternative course of action to operate different types of geographic information systems and relational data base software, populate and maintain linkages between data bases, complete projects with standardized resource theme outputs and provide support to larger spatial analysis projects.	D	75
6	**RESPONSIBILITY FOR FINANCIAL RESOURCES** Moderate financial responsibility to verify the completion of contract work and use discretion to determine if the expected results were achieved.	D	22.5

FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
7	**RESPONSIBILITY FOR PHYSICAL ASSETS/INFORMATION** Considerable responsibility to control processes used to resolve discrepancies with input data and format translations to ensure accuracy in resource modelling and product deliverables.	E	33
8	**RESPONSIBILITY FOR HUMAN RESOURCES** Responsibility to provide training to other staff of GIS software and applications.	B	9
9	**RESPONSIBILITY FOR WELL BEING/SAFETY OF OTHERS** Responsibility for own well-being and safety in a low risk environment.	A	5
10	**SENSORY EFFORT/MULTIPLE DEMANDS** Intense sensory concentration to almost always visually focus on a computer screen and printed material.	D	18
11	**PHYSICAL EFFORT** Relatively heavy physical effort to almost always focus visual attention to view computer screens and printed material.	D	18
12	**SURROUNDINGS** Exposure to office setting with minimal disagreeable elements.	A	2
13	**HAZARDS** Moderate exposure to hazards from almost always keyboarding and using a mouse.	C	6

Total Points: 666

Level: Range 18