

Position: **Reference Job #IS01**

Ministry: Forests

Working Title: **Data Management Technician**

Branch: Research

Level: Range 11

Location: Victoria

NOC Code: 1422

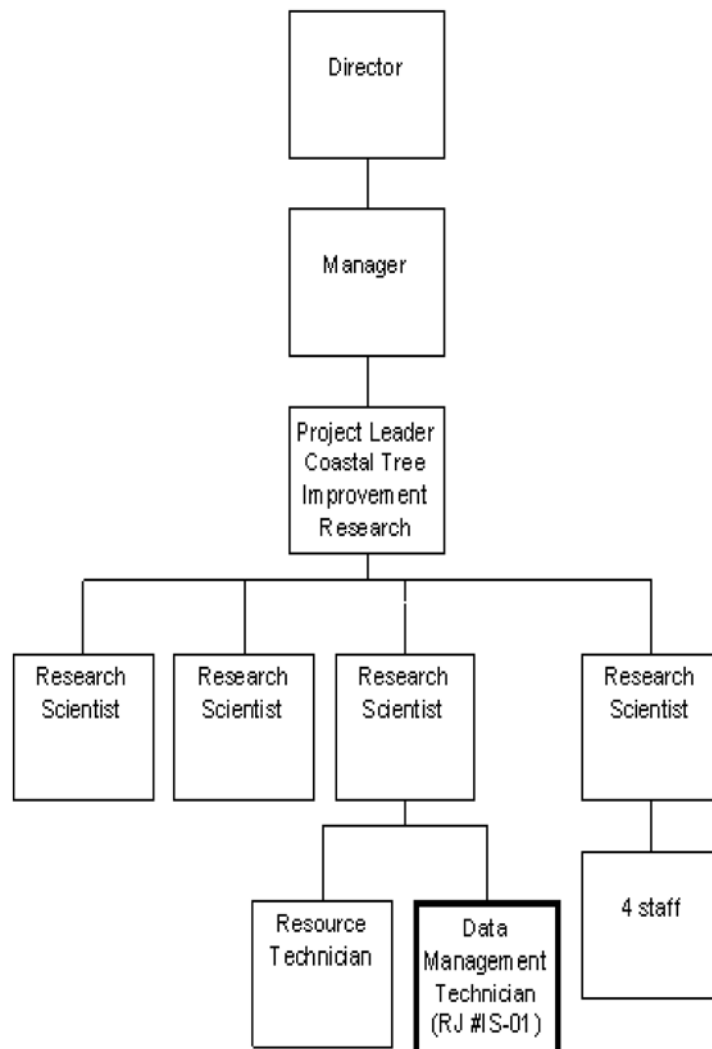
## PRIMARY FUNCTION

To carry out data manipulation, contract administration and organize a database of tree species and biogeoclimatic and other spatial/attribute information to support scientific research projects.

## JOB DUTIES AND TASKS

1. Carries out data manipulation
  - a. assembles the appropriate datasets to support scientific research projects in preparation for analysis
  - b. retrieves information from other sources such as Silviculture Branch
  - c. performs calculations according to statistical models provided by scientist (i.e. descriptive statistics, frequencies, variance, age to age correlations, cluster analysis, etc.)
  - d. checks data and calculations for errors and makes corrections
  - e. prepares output reports for the scientist in statistical, graphical and/or tabular summary format using a variety of statistical software packages such as SAS and EXCEL
  - f. creates computer generated survival/pest assessment maps and operates printers/plotters
  - g. creates and maintains master files of all species test site information
  - h. monitors and ensures proper data and security access by users
  - i. participates in planning of project priorities and objectives by providing input into data gathering and data representation
2. Organizes database comprised of measurements, observations and other records
  - a. designs data entry forms to facilitate uniform and efficient entry of information
  - b. standardizes data layouts and coding to minimize errors by field crews and other staff
  - c. receives and stores data, and arranges for keypunching
  - d. edits data for field or keypunches errors and updates as required
  - e. informs field technicians and/or crews of data corrections, format and backup
  - f. provides and exchanges information with graphics staff on mapping/graphics data requirements, administrative staff on contract processing and data entry requirements, and field staff on data accuracy and gathering
  - g. organizes, documents and backs up data for numerous test sites
  - h. prepares and organizes different types of data into a database such as species, latitude, elevation and climatic zones to produce accurate maps, graphs and tables
  - i. controls accuracy and integrity of data/information (i.e. geographic, scientific, botanical, climatic) entered and/or retrieved from a multi-user research database and provides access to the data

- j. transfers data to and from mainframe and personal computer
  - k. tracks reports and produces records of database activities, problems and systems changes to the supervisor
  - l. maintains a master file of data which integrates and classifies specific dataset components
  - m. establishes and maintains other support datasets as required
3. Performs other related duties
- a. monitors and reports on contract and operating budget expenditures
  - b. verifies accuracy of contractors time and expense claims
  - c. prepares and distributes project information and responds to requests for data (i.e. tables, handouts, transparencies, slides reports and publications) to federal government, universities, other agencies and industry
  - d. maintains records of project photos, negatives and slides
  - e. proofreads data, information and reports for correct scientific/technical terminology, such as Greek symbols, latin botanical names, formulas, and bibliographical references
  - f. ensures all relevant information, maps and graphs are included prior to sending for publication
  - g. assists scientist with special projects including nursery, laboratory and field work by preparing data sets and creating output reports
  - h. uses embossing machine to prepare tree labels



FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
1	<p><b>JOB KNOWLEDGE</b></p> <p>Understand accepted methods of data management for forestry research projects to maintain, calculate, retrieve and store tree species and biogeoclimatic data on database, design data entry forms and produce reports, charts, tables, overheads, slides and maps for research and presentations.</p>	E	145
2	<p><b>MENTAL DEMANDS</b></p> <p>Judgement to assess data and choose an approach using a combination of accepted procedures to maintain data on tree species to support scientific research projects, perform calculations according to statistical models provided; design data entry forms and receive, store and backup data; produce reports, charts, tables, overheads, slides and maps and maintain a library of project photos, slides and negatives.</p>	D	100
3	<p><b>INTERPERSONAL COMMUNICATIONS SKILL</b></p> <p>Discretion required to correct data errors and omissions with field crew and explain requirements to graphics and administrative staff.</p>	C	30
4	<p><b>PHYSICAL COORDINATION AND DEXTERITY</b></p> <p>Moderate coordination and dexterity required to drive to field sites.</p>	C	15
5	<p><b>RESPONSIBILITY FOR WORK ASSIGNMENTS</b></p> <p>Guided by specific procedures, select a course of action to complete assignments using previous instruction to organize and maintain a tree species database for research projects, produce and maintain master files of data; retrieve data from other sources; check data for errors; produce reports and graphic data and maintain records of project photos, negatives and slides for presentations.</p>	C	50
6	<p><b>RESPONSIBILITY FOR FINANCIAL RESOURCES</b></p> <p>Some financial responsibility to monitor and report on project contract and operating expenditures and to verify accuracy of contractors time and expense claims.</p>	C	15

<b>FACTOR</b>	<b>REASON FOR CLASSIFICATION</b>	<b>DEGREE</b>	<b>POINTS</b>
7	<b>RESPONSIBILITY FOR PHYSICAL ASSETS/INFORMATION</b> Significant responsibility to control quality and accuracy of data entered into multi-user research database.	D	22.5
8	<b>RESPONSIBILITY FOR HUMAN RESOURCES</b> Limited responsibility for human resources to give informal guidance to other workers on how to access data.	A	5
9	<b>RESPONSIBILITY FOR WELL BEING/SAFETY OF OTHERS</b> Limited care and attention to occasionally drive a vehicle to field sites.	B	10
10	<b>SENSORY EFFORT/MULTIPLE DEMANDS</b> Focused attention to detail to frequently examine alpha/numeric data for errors and proper column placement.	C	12
11	<b>PHYSICAL EFFORT</b> Moderate physical effort to frequently apply visual attention to computer screen to edit data.	C	12
12	<b>SURROUNDINGS</b> Exposure to working in isolated field conditions occasionally.	B	4
13	<b>HAZARDS</b> Limited exposure to hazards from frequent keyboarding.	B	4

Total Points: 424.5

Level: Range 11