State of Minnesota
Position Description

Board of Water and Soil Resource

Position Description A

Employee's Name:

Agency/Division

Classification Title: **Temporary Unclassified/Research Analyst Specialist**

Prepared by:

Position Control Number:

Activity:

Working Title: Outcomes Analyst

Appraisal Period:

Signatures

Employee Signature_____Date signed_____

(this position description accurately reflects my current job)

Supervisor Signature:_____Date signed_____

(this position description reflects the employee's current job)

Position purpose

This position will develop and execute technical statistical analysis of watershed tools and end user services to agency partnerships. Coordinates analysis data from state systems such as eLINK, watershed decision support tools such as PTMapp, and other BWSR applications in clear, concise and understandable forms useful for reporting information to decision makers and program development. This position will be responsible for the development and execution of water and climate tools, which partners are utilizing to plan and measure local and statewide resource outcomes.

Reportability

Reports to: This position reports to the Central Region Manager

Supervises: No direct supervisory authority but can direct and guide work activities on projects

Dimensions:

Budget: None; informs decisions that relate to contracts and other agency budget expenses

Clientele: Principal client is the Minnesota Board of Water and Soil Resources staff and leadership, State Legislature, Soil and Water Conservation Districts (SWCDs), Watershed Districts (WDs), counties and cities, federal government staff especially the U.S. Environmental Protection Agency (EPA) and the Natural Resources Conservation Service (NRCS); staff of other State of Minnesota agencies especially the Minnesota Pollution Control Agency (MPCA), Minnesota Department of Agriculture (MDA), Minnesota Department of Natural Resources (MDNR), the Minnesota Department of Health (MDH), the University of Minnesota, private sector consultants, and non-profit institutions.

Position Description B

Employee's Name: PCN:

1. Principal Responsibility

Serving as an agency expert, develop and implement systems and strategies that utilize the most current and user-friendly tools for planning and measuring outcomes to land, water, and climate. Facilitate statewide priorities and data with local activities and strategies, comprehensively evaluating multiple fields of study. Create manageable timelines for developing strategies and successfully implementing those strategies among partners and clientele.

Priority A

% of time: 50

Discretion: A

Task Statements

    A. Develop and lead the statewide analysis of natural resource data for watershed restoration and protection strategies, comprehensive watershed plans, on the ground implementation, and environmental outcome reporting.

    B. Provide guidance and training programs for clientele on watershed decision support tool(s) used for:
   - a. outcome estimation
   - b. identifying priority sub-watersheds
   - c. selecting best management practices
   - d. prioritizing the placement of practices

    C. Develop and visualize data analytics using data science tools and principles.

    D. Establish short and long term goals for developing and executing strategies.

    E. Collaborate with Outcomes Coordinator to align tools with BWSR related strategies for resource outcome strategies across the agency.

    F. Writes and evaluates complex studies or projects, including objectives, methodology, timetables, assumptions and constraints.

Performance Indicators

1. Data science needs are completed within agreed-on timeframes and in desired formats.

2. Data management and analysis of BWSR applications and programs

Evaluates the implementation of data management tools and analyses of clientele success in executing the tools. .

Priority: A

% of time: 40

Discretion: A

Task Statements

A. Use of data visualization tools (Tableau, Power BI, R Studio) to create custom queries or web enabled applications for external use.
B. Use of data visualization tools and databases (Excel, Oracle) to query data for internal BWSR staff use and reports.
C. Use Arc Online and Story Maps to communicate data analysis.
D. Provide basic training to internal users on using GIS tools to edit maps, statistical analysis, and data analytics.
E. Develop and run test cases for PTMApp and other BWSR applications.
F. Complete work for the Tillage and Erosion, PTMApp, eLINK management, easement database, or other BWSR programs as assigned.

Performance Indicators:

1. Complete tasks in timeframe requested.
2. Due dates are completed in requested timeframe 95% of the time.

3. Consult and Advise BWSR staff to support legislatively directed strategies or reports. Current examples include; CWF Performance Report, MN Nutrient Reduction Strategies and other annual reports.

% of time: 10

Discretion: B

Task Statements

A. Inventory data from agency data bases and applications to complete analysis reports for internal or external uses
B. Develop maps, tabular datasets, and visuals.
C. Create and edit text, including contextual references for visuals and datasets.
D. Coordinate and communicate with MPCA, MDA, and BWSR staff in analyzing data and developing tabular datasets and visuals for the future Nutrient Reduction Strategy (NRS) update.

Performance Indicators

1. Complete tasks in timeframe requested.
2. Due dates are completed in requested timeframe 95% of the time.

Minnesota

Position Description C

Employee's Name: PCN:

NATURE AND SCOPE

The incumbent of this position will provide leadership and guidance related to data management analysis to lead business processes and data structures in collaboration with the Measures and Outcomes Coordinator and other staff. The position will be responsible for the chain of communication between statewide outcome goals and the execution of clientele to measure those goals.

RELATIONSHIPS

This individual must be capable of communicating new and innovative approaches in a way that fosters trust among statewide partners, the public and end user clientele. The incumbent is expected to cultivate effective working relationships with staff in other programs, with partners in state & federal agencies. In addition, the incumbent will also need to work closely with other Agencies such as MPCA assisting with watershed decision support tools, and with local government units.

KNOWLEDGE, SKILLS, AND ABILITIES

The employee must have proficient computer skills and knowledge of data science principles including knowledge or course work in Geographic Information Systems, statistics, data management, and assessment of data with the ability to present data to both technical and general audiences. The candidate should have strong organizational and prioritization skills.

The incumbent must be able to use a wide variety of data science tools and methods to independently design, develop and conduct data analysis projects, developing answers and insights from the examination of a wide variety of data sets including:

- SRI Arc Pro 2.X proficiency, programming skills (python, SQL), and knowledge of ESRI Arc On-Line (AOL) environments (web maps, story maps, and dashboards).
- Ability to use standard Microsoft and Adobe products, but reference if some exposure to Tableau, Power BI, or R-Shiny apps. Exposure or skills in making videos.
- Minimum use Excel for stats, but prefer if some experience or exposure to R, python/anaconda, SPSS, SAS, or MATLAB.

PROBLEM SOLVING AND CREATIVITY

The incumbent must be able to appraise and evaluate problems, then develop procedural solutions to those problems. They must be able to prepare and complete comprehensive reports. The incumbent must also work cooperatively with any other staff within the agency as well as a working knowledge of data management, statistics and other tools to help analyze data. The incumbent must be creative and willing to dive in and learn as technology is rapidly changing and BWSR stays on the cutting edge. The incumbent should be a self-starter and

able to learn and apply tools with the ability to troubleshoot unexpected issues in order to move projects forward.

FREEDOM TO ACT

Within established policy guidelines, this position has considerable independence and freedom to act in areas related to fulfillment of job responsibilities - to ensure requests for products, analysis, technical guidance, instruction and data and tool development. The employee must report to the Central Region Manager as often as necessary to provide program updates and receive direction.