HYDROLOGIST 5

KIND OF WORK

Managerial hydrology, hydraulics, and water resource management work.

NATURE AND PURPOSE

Under general direction, manages the activities of a technical section of professionals specializing in hydrology, land use management or water resource development to ensure the wise use, conservation, and preservation of the state's water resources. This position requires a seasoned technical proficiency gain through wide exposure or experiences combining a broad grasp of involved practices and precedents in hydrologic theory and principles plus an ability to understand, select, develop, motivate, and supervise people; develops policies, procedures, and long-term goals for lower level hydrologists and other staff and frequently solve problems requiring inductive thinking to develop new solutions; as a primary accountability for programs involving significant staff and budget resources with discretion limited by functional precedents and policies; performs related work as required.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Supervises the preparation of rules, regulations, and procedural guidelines for implementation of water resource permit system in order to optimize overall efficiency in the review of permit applications for water appropriation, alteration of public waters including lake level controls, and utility crossing of public waters.

Directs the review and decision making on major individual water permit applications such as mining operations and power plant construction in order to ensure consistency with Department of Natural Resources' policies.

Develops policies and procedures for analysis of public drainage systems to ensure that hydrologic and hydraulic analysis of Minnesota watersheds and drainage systems are standardized and compatible with Natural Resources management objectives in the public interest.

Develops plans, policies and procedures for the uniform statewide implementation of local floodplane and shoreland management program so that the programs operate efficiently.

Recommends priorities for multi-purpose federal water resource projects and coordinates state involvement in the planning and development of such projects so that federal water resource activities recognize state needs and so that federal investments are optimized.
Directs public information and education services relative to water resource development management in order to promote public understanding and acceptance of water resource management programs.

Initiates and supervises studies of lake and stream hydrology, ground water management, climatology, and special projects so that present programs are evaluated and upgraded in a coordinated manner.

Develops, directs, and administers statewide programs and policies for the evaluation of statewide water resource availability, distribution, management and characteristics so that programs are consistent and uniform in their administration.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Knowledge of:

Principles of hydrology and hydraulics.

Principles and practices of land use planning and land use controls.

Principles and practices of water resource management.

Water law.

Local, state, and federal water resource programs.

Principles and practices of electronic data processing systems.

Ability to:

Integrate multi-disciplinary aspects of water resource management including fish and wildlife, recreation, open economies, and environmental quality.

Provide administrative direction to water resource programs of considerable complexity.

Apply modern management principles to accomplish program objectives.

Communicate effectively verbally and in writing.