STATE OF SOUTH DAKOTA CLASS SPECIFICATION

Class Title: Natural Resources Engineer **Class Code: 40871**

A. Purpose:

Reviews plans and specifications and engineering reports, develops permits, and conducts inspections within an assigned engineering program and under the direction of a team leader to develop working knowledge of state and federal rules and regulations governing environmental protection and natural resources management, and department standards and procedures.

B. Distinguishing Feature:

Natural Resources Engineers are entry-level positions and work under direct supervision of other engineering staff for a minimum of one year to learn the application of standard engineering techniques to environmental protection and natural resources management. Natural Resources Project Engineers are assigned complete projects or portions of projects and work under general supervision.

C. Functions:

(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)

1. Reviews consultant plans and specifications and engineering reports to determine compliance with state and federal environmental regulations and reports recommendations to a supervisory engineer.

2. Writes permits for assigned portions of projects to ensure compliance with applicable environmental laws.
   a. Calculates effluent limitations.
   b. Develops statements of basis.

3. Inspects the operation and maintenance of environmental control and natural resources facilities to determine safety and efficiency in operation.
   a. Makes engineering recommendations for corrective actions.
   b. Evaluates management plans and practices.

4. Conducts construction inspections to check compliance with plans and specifications.

5. Compiles information for use in preparation of environmental and natural resources management plans.

6. Prepares cost estimates, cost-benefit analyses, cost-sharing equities, etc., to assist local entities in development and formulation of natural resources projects.

7. Performs other work as assigned.

D. Reporting Relationships:

Reports to a Natural Resources Administrator. Does not supervise.

E. Challenges and Problems:

Challenged to learn and apply state and federal laws and engineering principles to natural resources projects. This is challenging because of the wide scope of applicable laws. Further challenged to be able to explain the laws and engineering practices to the regulated community, the public, local governments, and contractors.

Problems include applying proper policies, procedures, and standards to work assignments.

F. Decision-making Authority:

Decisions are limited to activities related to work assignments, unusual situations or circumstances are referred.

G. Contact with Others:

Daily contact with engineering staff for training purposes and to receive work direction; and occasional contact with the regulated community, the public, and consulting engineers when working on assigned projects.

H. Working Conditions:

Works in a typical office environment, on construction sites, and around environmental management facilities; is exposed to varied weather conditions, construction equipment, hazardous materials, and infectious bacteria.

I. Knowledge, Skills, and Abilities:

Knowledge of:

- engineering principles and practices as applied to the control of water pollution, water supply, air pollution, solid waste, or hazardous waste;
- chemical, biological, and physical characteristics of pollutants.

Ability to:

- read, interpret, and evaluate engineering plans and specifications for acceptable engineering practices;
- organize, analyze, and evaluate available information and draw reasonable conclusions;
- communicate information clearly and concisely.