



## **APPLIED ECOLOGICAL SERVICES, INC.**

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*SPECIALISTS IN ENVIRONMENTAL MANAGEMENT AND RESEARCH*

### **Job Description**

**Job Title:** Department Head, Principal Engineer  
**Department:** Engineering  
**Reports To:** Director of Consulting  
**FLSA Status:** Exempt  
**Prepared By:** Human Resources  
**Approved By:** General Manager  
**Approved Date:** June 6, 2007

#### **SUMMARY**

Serves as corporate principal engineer per regulatory and insurance requirements.

Provides overall technical leadership in the engineering discipline within and throughout the company.

Plans, designs, and manages ecological engineering projects in conjunction with other professionals by performing the duties described below. Project types include stream restoration, stormwater management/treatment and mine reclamation projects.

Develops and maintains partnerships with other engineering firms that can provide technical and business development support.

**ESSENTIAL DUTIES AND RESPONSIBILITIES** include the following. Other duties may be assigned.

Serves as corporate principle engineer per regulatory and insurance requirements as described below:

- Sets and defines consistent professional standards, procedures and guidelines.

- Facilitates the transfer of corporate knowledge across the branches.

- Oversees scheduling and staff needs within the department.

- Makes recommendations to branch managers for new hires based on work load and unfulfilled areas of expertise.

- Provides QA/QC as well as training and oversight to junior staff.

- Promotes your department to internal and external clients.

- Works to integrate engineering into our design process.

- Creates development plans for your department that includes assessing technical capabilities, strengths, weaknesses, and training opportunities.

Provides high level technical consulting services including:

Designs stormwater and natural stream systems from concept through implementation.

Employs computer software programs to model stormwater movement.

Provides high level support, modeling and design in hydrology, hydraulics and site design.

Analyzes reports, maps, drawings, blueprints, tests, and aerial photographs on soil composition, land cover, terrain, hydrological characteristics, and other topographical and geologic data to plan and design project.

Calculates cost and determines feasibility of project based on analysis of collected data.

Prepares or directs preparation and modification of reports, specifications, plans, construction schedules, environmental impact studies, and designs for project.

Inspects construction site to monitor progress and ensure conformance to engineering plans, specifications, and construction and safety standards.

Directs construction and maintenance activities at project site.

Uses computer assisted engineering and design software and equipment to prepare engineering and design documents.

### **SUPERVISORY RESPONSIBILITIES**

Initially two engineers and one EIT. Eventually up to twelve engineers, EITs and draftpersons.

**QUALIFICATIONS** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

### **EDUCATION and/or EXPERIENCE**

A Bachelor's or Master's Degree in Civil, Environmental, or Agricultural Engineering and ten or more years related experience and/or training; or equivalent combination of education and experience.

### **LANGUAGE SKILLS**

Ability to read, analyze, and interpret common scientific and technical journals, financial reports, and legal documents. Ability to respond to common inquiries or complaints from customers, regulatory agencies, or members of the business community. Ability to write speeches and articles for publication that conform to prescribed style and format. Ability to effectively present technical information and procedures to non-technical audiences.

### **COMPUTATIONAL SKILLS**

Ability to comprehend and apply principles of hydrology, hydraulics, and the chemical and physical principles of water quality. Ability to appropriately apply available computer modeling and design tools.

**REASONING ABILITY**

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

**CERTIFICATES, LICENSES, REGISTRATIONS**

Valid Drivers license and PE certification.

**PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to talk and hear. The employee frequently is required to stand; walk; sit; and use hands to handle or feel. The employee is occasionally required to reach with hands and arms; climb or balance; and stoop, kneel, crouch, or crawl. The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, peripheral vision, depth perception, and ability to adjust focus.

**WORK ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently exposed to variable weather conditions. The noise level in the work environment is usually moderate. Applied Ecological Services, Inc. (AES) is a broad-based ecological consulting, contracting and restoration firm that was founded in 1978. Our staff of experienced scientists and project managers is adept at tackling difficult and unique environmental problems on a variety of scales. AES has been the principal ecological consultant in many diverse, large-scale restoration and site remediation projects, including creative developments and beneficial reuse projects that have drawn national acclaim.

As industry leaders in ecological science and restoration, AES scientists have developed state-of-the-art mitigation and restoration techniques that are now employed by ecological contracting services throughout the country. In addition to expertise in restoration ecology, we have extensive experience with mine and quarry reclamation, brownfield mitigation and ecotoxicological assessment of environmentally sensitive habitats.

At AES, our consulting ecologists, engineers, landscape architects, planners and professional contracting staff approach all projects with a solid foundation in science. Informed decisions result in completed projects, satisfied clients and sustainable ecological systems.