



## **Job Opening Ecological Restoration Engineer**

**Position Open Until Filled.**

### **Description**

The Department of Fish & Game works to preserve the state's natural resources and people's right to conservation of those resources, as protected by Article 97 of the Massachusetts Constitution. To carry out this mission, the Department exercises responsibility over the Commonwealth's marine and freshwater habitats that support them.

The Division of Ecological Restoration is charged with restoring and protecting the health and integrity of the Commonwealth's rivers, wetlands, and watersheds for the benefit of people and the environment. This mission is critical to the success of the Department of Fish and Game that manages, protects, and restores the natural resources of the Commonwealth.

The Division of Ecological Restoration works with community-based partners to restore aquatic ecosystems. The Division's ecological restoration work brings clean water, recreation opportunities, and other ecosystem services to the citizens of Massachusetts.

The Department of Fish and Game, Division of Ecological Restoration is accepting resumes and applications for the position of Ecological Restoration Engineer (Civil Engineer III).

**A cover letter and resume must be submitted as part of the application process and attached "as relevant" to the requisition.**

#### GENERAL STATEMENT OF DUTIES AND RESPONSIBILITIES:

The Civil Engineer III / Ecological Restoration Engineer assists with ensuring proper design and integrity of ecological restoration projects implemented by DER's Habitat Restoration Program and provides engineering technical assistance to DER staff and partners for aquatic habitat restoration projects, including but not limited to dam removal, culvert replacement, and tidal and freshwater wetland restoration. The Civil Engineer III / Ecological Restoration Engineer will manage selected ecological restoration projects and will help identify and evaluate potential ecological restoration opportunities. This position also performs duties in support of DER operations, such as monitoring, training, and outreach to partners and stakeholders.

#### DETAILED STATEMENT OF DUTIES AND RESPONSIBILITIES:

1. Assist with ensuring proper design and integrity of ecological restoration projects implemented by the Habitat Restoration Program and provide engineering technical assistance to DER staff, partners, and projects.

- Provide engineering technical assistance to DER Priority Projects and potential projects, municipal culvert replacement projects supported by DER's Stream Continuity Program, and to partners and stakeholders, as assigned. Ecological restoration projects may include, but are not limited to dam removal, culvert replacement/road-stream crossings, and tidal and freshwater wetland restoration.
- Conduct technical review of DER ecological restoration project design and engineering products produced by others, including but not limited to data, engineering reports and technical analyses, plans, specifications, and cost estimates.
- Coordinate with DER staff, partners, and outside consultants to resolve problems that arise during design or construction of ecological restoration projects; recommend corrective actions, alternate methods, and/or substitution of materials.
- Review and interpret current literature, methodologies, and engineering technical advances related to aquatic ecosystem restoration.

2. Serve as project manager for selected aquatic habitat restoration projects including but not limited to dam removal, salt marsh restoration, freshwater wetland restoration, road-stream crossings, or other project types.

- Provide project management and support as needed for assigned projects, including forming teams, developing project plans, securing technical services, obtaining funding (including federal grants and corporate donations), developing public support, coordinating interagency activities and deliberations, complying with regulatory requirements, supporting the project team through the construction phase of the project, and facilitating public outreach & education.
- Manage consultant contracts and ensure successful contractor performance of scopes of work and production of quality deliverables.
- Maintain current project digital and paper files, including Division project database and GIS assets, and reports on projects as needed.

3. Assist with identification and evaluation of aquatic habitat restoration opportunities, including dam removal and wetland restoration.

- Identify and evaluate potential restoration projects for ecological and public safety benefits.
- Conduct site reconnaissance studies and develop conceptual design plans and cost estimates for high priority ecological restoration sites.
- Coordinate with agencies and landowners.

4. Perform duties in support of DER operations:

- Provide monitoring, technical, and research support to DER ecological restoration projects and other activities.
- Provide information as requested to support DER outreach such as project updates, newsletters, brochures, web site pages, and program reports.

- Conduct training and participate in other outreach and education activities related to ecological restoration.
- Provide technical and organizational support to other DER staff and directors.
- Maintain project files, including DER's project database, and provide status reports as needed.

PREFERRED QUALIFICATIONS:

- Professional Engineer Certificate of Registration (PE) issued by the Commonwealth of Massachusetts Division of Professional Licensure Board of Registration of Professional Engineers -OR- Engineer-In-Training (EIT) Certificate issued by the Commonwealth of Massachusetts Division of Professional Licensure Board of Registration of Professional Engineers
- A Master's degree in water resources engineering, environmental science, ecology, natural resources, or a related field.
- Five or more years of professional experience in wetland, river and/or other aquatic ecosystem restoration, water resources engineering, wetland and river ecology, hydrology, and/or fluvial geomorphology.
- Academic training or work experience in fluvial geomorphology, hydrology, or river engineering.
- Extensive experience interpreting, reviewing, and commenting on hydrologic and hydraulic calculations and models, and engineering designs and specifications, including elements such as elevations and datums, resource delineations, geotechnical analysis, dewatering, erosion controls, construction staging and sequencing, cost opinions, and overall best management practices.
- Extensive aquatic ecosystem restoration field experience and ability to identify aquatic habitat stressors and potential restoration treatments.
- Experience identifying, assessing, and implementing complex aquatic ecosystem restoration projects with infrastructure components or constraints such as roads, bridges, culverts, utilities, and buildings.
- Experience in aquatic ecosystem monitoring and data collection, analysis, and reporting for parameters in freshwater and coastal environments, including vegetation, water chemistry, nekton, and hydrology.
- Experience developing project plans, coordinating project teams, preparing and managing budgets, developing public support, preparing scopes of work, and managing consultant contracts.
- Experience working with federal, state, and local agencies and non-governmental organizations on collaborative projects involving natural resource management or ecological restoration.
- Experience complying with regulations, coordinating interagency activities and deliberations, managing construction, and facilitating public outreach & education.
- Solid knowledge and work experience with environmental permitting at local, state, and federal levels.
- Ability to work effectively in a collaborative team environment on multiple tasks with varying deadlines. Ability to work independently and with self-initiative, and to exercise sound judgment and discretion.

- Must be a team player with strong interpersonal skills and a proven ability to motivate and persuade others, effectively manage controversy, and forge and maintain partnerships.
- Excellent written and verbal communication skills.
- Exceptional troubleshooting and problem solving skills.
- Knowledge of social, economic, legal, technological and scientific factors, trends and problems associated with planning and implementing aquatic habitat protection and restoration activities.
- Ability to effectively and strategically manage large and complex projects, direct and coordinate work of project teams, and make management and budgetary decisions.
- Proven ability to write successful funding proposals and administer multiple funding sources.
- Ability to travel statewide and to participate in occasional evening and weekend site visits and meetings.
- Experience and full competency with MS Office, including Access and Excel. Excellent all-around computer skills including data management and use of GIS software (ArcMap 10.x) as well as GPS hardware and software and statistical analysis software.

#### LICENSE AND/OR CERTIFICATION REQUIREMENTS

- Possession of a current and valid Class D Motor Vehicle Operator's License.
- Engineer-In-Training (EIT) Certificate issued by the Commonwealth of Massachusetts Division of Professional Licensure Board of Registration of Professional Engineers

#### **Qualifications**

**First consideration will be given to those applicants that apply within the first 14 days.**

#### MINIMUM ENTRANCE REQUIREMENTS:

Applicants must have at least (A) four years of full-time, or equivalent part-time, technical or professional experience in civil engineering work in such areas as construction, survey, design, transportation, hydraulics, structural, sanitary, drafting, environmental, highway, architectural, airport, soils and materials of which (B) at least two years must have been in a professional capacity, or (C) any equivalent combination of the required experience and the substitutions below.

#### Substitutions:

- I. An Associate's degree with a major in civil engineering\*\* or civil engineering technology\*\* may be substituted for a maximum of one year of the required (A) experience.\*
- II. A Bachelor's degree with a major in civil engineering\*\* or civil engineering technology\*\*, may be substituted for a maximum of two years of the required (A) experience.\*
- III. A Graduate degree with a major in civil engineering\*\*, may be substituted for a maximum of two years of the required (A) experience and one year of the required (B) experience.\*

**\*\*NOTE:** The terms civil engineering and civil engineering technology include related engineering disciplines, such as construction, survey, hydraulics, design, transportation, structural, soils, sanitary, environmental, drafting, highway, architectural, mining, airport and materials.

\*Education toward such a degree will be prorated on the basis of the proportion of the requirements actually completed.

NOTE: Educational substitutions will only be permitted for a maximum of one year of the required (B) experience.

Special Requirements: Based on assignment, possession of a current and valid Massachusetts Class D Motor Vehicle Operator's License may be required.

**An Equal Opportunity / Affirmative Action Employer. Females, minorities, veterans, and persons with disabilities are strongly encouraged to apply.**

Official Title: Civil Engineer III

**Primary Location:** United States-Massachusetts-Boston - 251 Causeway Street

**Job:** Engineering

**Agency:** Department of Fish And Game

**Schedule:** Full-time

**Shift:** Day

**Job Posting:** Nov 7, 2018, 9:38:28 AM

**Number of Openings:** 1

**Salary:** 62,064.60 - 90,014.34 Yearly

If you have Diversity, Affirmative Action or Equal Employment Opportunity questions or need a Reasonable Accommodation, please contact Diversity Officer / ADA Coordinator: Johanna Zabriskie - 617-626-1599

Bargaining Unit: 09-MOSES - Engineers/Scientists

Confidential: No

**Apply Online**

at [https://massanf.taleo.net/careersection/ex/jobdetail.ftl?job=1800079D&tz=GMT-05%3A00&tzname=America%2FNew\\_York](https://massanf.taleo.net/careersection/ex/jobdetail.ftl?job=1800079D&tz=GMT-05%3A00&tzname=America%2FNew_York)