

**Opening Date:** May 15, 2020  
**Closing Date:** Open Until Closed  
**Work Location:** Austin, TX  
**Posting Number:** 20-44  
**Monthly Salary:** \$5,784.58-\$8,562.25\*  
**Group/Class:** B26 /2156 & B27/2157  
**Travel %:** 15%  
**Division/Department:** WSC/FSCA/Flood Modeling  
**Number of Positions:** 2

*\*Salary commensurate with experience and qualifications*

## **JOB VACANCY NOTICE**

### **Senior Water Resources Engineer**

### **[Engineer V-VI]**

*Texas Water Development Board, Stephen F. Austin Building  
1700 North Congress Ave., Room 670, Austin, Texas 78701  
Please contact Human Resources for accommodation requests.  
Phone: (512) 475-2142  
Apply at: Work in Texas [www.workintexas.com](http://www.workintexas.com) OR  
[HR@twdb.texas.gov](mailto:HR@twdb.texas.gov)*

**We offer a competitive compensation and benefits package including medical, dental, vision, 401(k), flexible spending, and flexible work hours so you can have a work/life balance! For more information about these benefits and more visit: <http://www.twdb.texas.gov/jobs/benefits.asp>**

**Texas Licensed Engineering candidates external to TWDB will be eligible to receive a \$5,000 recruitment bonus if selected**

#### **Veteran's Preference**

Veterans, Reservists or Guardsmen with an MOS or additional duties that fall in the fields of 72D Environmental Science/ Engineering Officer, 510X SC - Civil Engineer Corps, ENG10 Engineering, 8831 Environmental Engineering Management Officer, or other related fields pertaining to the minimum experience requirements may meet the minimum qualifications for this position and are highly encouraged to apply.

Additional Military Crosswalk information can be accessed at

[http://www.hr.sao.texas.gov/Compensation/MilitaryCrosswalk/MOSC\\_EngineeringandDesign.pdf](http://www.hr.sao.texas.gov/Compensation/MilitaryCrosswalk/MOSC_EngineeringandDesign.pdf)

#### **Job Description Summary**

Performs highly advanced (senior-level) modeling and/or engineering work within the Texas Water Development Board's (TWDB) newly created Flood Modeling Department. Work involves providing a senior leadership role in a successful floodplain modeling program and coordinating flood mapping tasks with existing agency efforts to support regional and state flood planning. As Senior Engineer, serves as an advisor on engineering-related matters and oversees applicable work conducted by staff. Ensures floodplain model compliance with agency-approved technical standards and procedures and accuracy of models and associated data. Work involves establishing goals and objectives; developing guidelines, procedures, policies, rules, and regulations; and developing schedules, priorities, and standards for achieving established goals. Serves as a liaison and gives presentations concerning floodplain modeling, mapping, and management in the state. Plans, assigns, and oversees the work of others. May train others. Works under minimal supervision, with considerable to extensive latitude for the use of initiative and independent judgment. Reports to the Manager of the Flood Modeling Department.

#### **Essential Job Functions**

- Provides a senior leadership role in the Flood Modeling Department
- Provides senior technical leadership to the statewide floodplain modeling program designed to inform stakeholders of flood risk and to support regional and state flood planning, including the development of relevant technical standards and procedures.

Female and minority applicants are encouraged to apply.

Males born on or after January 1, 1960, will be required to present proof of Selective Service registration on the first day of employment or proof of exemption from Selective Service registration requirement. All offers of employment are contingent upon the candidate having legal authorization to work in the United States. Failure to present such authorization within the time specified by the U.S. Department of Labor will result in the offer being rescinded. Candidates must be eligible to work in the United States without requiring sponsorship. Only applicants interviewed will be notified of their selection or non-selection. Resumes will not be accepted in place of a completed State of Texas application unless indicated.

The Texas Water Development Board does not discriminate on basis of race, color, national origin, sex, religion, age, or disability in employment or provision of services, programs, or activities. Please visit TWDB Career Page: <http://www.twdb.texas.gov/jobs/> for more information.

TWDB participates in E-Verify! Information from each new employee's Form I-9 will be provided to the Social Security Administration (SSA) and, if necessary, the Department of Homeland Security (DHS) to confirm work authorization.



The TWDB is in compliance with the Americans with Disabilities Act and makes reasonable accommodations for applicants and employees with disabilities. If a reasonable accommodation is needed to participate in the job application or interview process, to perform essential job functions, and/or to receive other benefits of employment, please contact the Human Resources Division for assistance at (512) 475-2142. Deaf and hard of hearing applicants may contact our office via Relay Texas at 1-800-735-2989 (TTY/TDD).

HR-002 (Non-Supervisory)

Revised 1/15/2020

## Job Vacancy Notice (cont.)

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- Manages certain project activities within the department, to include coordinating external activities and training, leading, and assigning or prioritizing the work of the team.
- Develops and applies floodplain models according to agency-approved technical standards and procedures.
- Supports efforts of the Federal Emergency Management Agency (FEMA) Cooperating Technical Partners (CTP) Program.
- Coordinates with federal, state, and local entities to collect NFIP and RiskMAP engineering data in support of floodplain mapping needs.
- Develops, reviews, and implements policies and procedures and the results of special investigations, audits, and research studies to improve program operations.
- Writes, reviews, and evaluates scopes of work, memos, reports, work process, and policy documents.
- Serves as a liaison for the TWDB at meetings with federal, state, and local entities or the public throughout Texas to support floodplain modeling and mapping.
- Provides presentations to technical and non-technical audiences.
- Manages contracts related to floodplain modeling and mapping and assists in training and overseeing staff contract managers.
- Ensures the provision of quality customer service from the department to both internal and external stakeholders.
- Maintains confidential and sensitive information.
- Ensures individual and team files (electronic and hard versions) are appropriately maintained and timely disposed of in accordance with the agency's records retention procedures and schedule.
- Maintains required certifications and licenses and meets the continuing education needs and requirements of the position to include, attending mandatory training courses.
- May be required to operate a state or personal vehicle for business purposes.
- Performs other duties as assigned.

### **Minimum Qualifications**

- Graduation from an accredited four-year college or university with major coursework in Engineering, Physical/ Natural/Environmental sciences with emphasis in Hydrologic/Hydraulic/Hydrodynamic Modeling, Surface Water Resources, or a related field.
- Seven to nine years of relevant work experience conducting or leading studies of surface water resources, floodplain management or modeling, or a related field.
- Experience developing, applying, or running hydrologic/hydraulic models using HEC-HMS, HEC-RAS, or similar models.
- Three years progressively responsible professional work experience managing projects and/or staff (including multi-disciplinary teams.)
- Relevant education and experience may be substituted on a year-for-year basis.
- Licensed as a Professional Engineer (PE) by the State of Texas or licensed in another U.S. state and able to obtain a Texas PE license within six months of hire.

### **Preferred Qualifications**

- Graduate degree from an accredited college or university with major coursework in Engineering, Physical/ Natural/Environmental sciences with emphasis in Hydrologic/Hydraulic/Hydrodynamic Modeling, Surface Water Resources, or a related field.
- Experience with a wide range of hydrologic methods and models for a variety of watershed sizes.
- Experience developing unsteady, two-dimensional, or other complex hydraulic models. Experience in developing automation techniques for hydraulic models.
- Experience with Federal Emergency Management Agency (FEMA) flood hazard mapping and Base Level Engineering techniques.

## Job Vacancy Notice (cont.)

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- Experience developing flood modeling policies and guidelines for communities or regional/state/federal agencies.
- Experience with developing flood mitigation planning, modeling, and design solutions.
- Certification as a Certified Floodplain Manager.

### **Knowledge, Skills, and Abilities (KSAs)**

- Knowledge of local, state, and federal laws and regulations relevant to flood modeling and floodplain management; and of the principles and practices of public administration.
- Knowledge of relevant hydrologic/hydraulic/hydrodynamic techniques and models, including standard models and methods used to develop FEMA Base Level Engineering.
- Knowledge of the National Flood Insurance Program (NFIP), FEMA flood hazard mapping, Flood Insurance Rate Maps (FIRMs), Flood Hazard Boundary Maps, CLOMR/LOMR submittals, and floodplain management.
- Skills in using Microsoft Office programs such as Word, Excel, and Access.
- Skills in use of internet, email, word processing, spreadsheet, presentation, and database software.
- Skills in developing, applying, or running hydrologic/hydraulic models (e.g., HEC-HMS, HEC-RAS, SWMM, InfoWorks, AdH, GSSHA, etc.) or other computational/numerical models.
- Skill with GIS applications; skill using ESRI ArcGIS 10 (or later) software product suite with knowledge of Spatial and 3D Analyst extensions and exposure to geodatabase use and design.
- Skills in reading and interpreting engineering documents, surveys, topographic information, and aerial photography.
- Skills in manipulation of data sets for hydrologic and hydraulic modeling, including topographic (e.g. LiDAR, DEM), soils, landcover, and other data sets. Skill in working with very large data sets.
- Skills in scientific data management, analysis, and interpretation, particularly of hydrologic data.
- Skills in using numerical/visualization tools, e.g., Matlab, Surfer, Octave, Scipy/Numpy, Matplotlib, Tecplot, Gnuplot, HEC-DSS, etc.
- Skills in using programming language such as Fortran, C, etc. and/or scripting languages such as Perl, Python, bash, etc.
- Skills in writing technical memos, reports, work process, and policy documents.
- Skills in project management and grant/contract administration, including developing scopes-of-work.
- Skills in communicating with elected, local, state, and federal officials, stakeholders, and the media.
- Ability to adhere to work schedules, follow procedures with respect to leave and submit accurate timesheets by prescribed deadlines.
- Ability to make mature, objective decisions and identify areas of potential problems.
- Ability to perform effectively and willingly when changes occur in scope and nature of the work and work environment.
- Ability to perform routine and non-routine work assignments accurately and on-time with little or no supervision.
- Ability to perform assigned duties and improve work habits and/or output.
- Ability to complete assigned work, on time, neatly and with infrequent errors.
- Ability to interpret policies, procedures, and regulations.
- Ability to provide prompt, courteous and accurate assistance and clear and concise communication to internal and external stakeholders both verbally and in writing.
- Ability to work and cooperate with others in a team environment.
- Ability to manage multiple tasks.
- Ability to stand/sit/move with no physical limitations or aids to perform activities such as retrieve/replace files in a large file system for boxes up to 30 lbs.

## Job Vacancy Notice (cont.)

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- Ability and willingness to travel 15% of the time, primarily within the State of Texas.
- Ability to operate a vehicle (state or personal) for state business and maintain a driver's license and driving record that complies with state and agency requirements.
- Ability to work days that may exceed 8 hours, including early mornings, nights, and weekends.
- Ability to train others.

### **Remarks**

- Copy of required academic transcripts and/or licensures and driving record must be submitted at the time of hire. Failure to provide required documentation will result in no further consideration for employment.
- Important Notice: Otherwise qualified candidates who are ultimately considered for potential employment with the Texas Water Development Board may be the subject of a request for any criminal history record information maintained by the Texas Department of Public Safety (DPS). Evidence of a criminal conviction or other relevant information obtained from the DPS shall not automatically disqualify an individual from employment with the Texas Water Development Board.