Opening Date: June 25, 2020
Closing Date: Open Until Closed
Work Location: Austin, Texas
Posting Number: 20-61
Monthly Salary: $5,258.67 - $6,941.50*
Group/Class: B25/2466 or 2155
Travel %: 15%
Division/Department: WSC/SW/Coastal Science
Number of Positions: 1

***Salary commensurate with experience and qualifications**

JOB VACANCY NOTICE
Coastal Flood Modeler
(Hydrologist V/Engineer IV)

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 OR
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 680X-LDO-Meteorology/Oceanography, 8831 Environmental Engineering Management Officer, 9S100 – Scientific Applications Specialist, 72D – Environmental Science/Engineering Officer, 510X-SC – Civil Engineer Corps, 653S-LDO – Civil Engineer Corps, ENG10 – Engineer, ENG13 – Civil Engineer, 62EX – Developmental Engineer 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_NaturalResources.pdf
http://www.hr.sao.texas.gov/Compensation/MilitaryCrosswalk/MOSC_EngineeringandDesign.pdf

Job Description Summary

Performs advanced to highly advanced (senior-level) modeling and/or engineering work for the Coastal Science Program in the Surface Water Division to support regional and state flood planning in Texas. Work involves developing, maintaining, and applying hydrologic, hydraulic, and hydrodynamic models across river, estuary, and open ocean scales. Work involves establishing goals, objectives, technical standards, methods, and procedures for coupling inland and coastal models to assess compound (riverine and storm surge) flood risk. Plans, oversees, and participates in scientific and engineering studies of state streams, rivers, bays, estuaries, and ocean. Serves as a liaison and gives presentations concerning coastal flood modeling at public meetings; provides technical support to stakeholders and customers; and, develops working relationships with state and federal agencies, academic institutions, and private contractors to advance coastal modeling. May train others. Works under limited to minimal supervision, with considerable to extensive latitude for the use of initiative and independent judgment. Reports to the Manager of the Coastal Science Department.

Essential Job Functions

Female and minority applicants are encouraged to apply.

The Texas Water Development Board does not discriminate on basis of race, color, national origin, sex, religion, sexual orientation, 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.

Texas Water Development Board

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.

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).

- Plays a senior technical role in the Coastal Science department to improve existing models, operationalize new models, and develop the strategy and methods for coupling inland and coastal models to support compound flood risk analyses in Texas.
- Develops, maintains, and applies hydrologic, hydraulic, and hydrodynamic models of rivers, estuaries, and open ocean.
- Writes, executes, and maintains programs and scripts for model execution, analysis, and data visualization.
- Writes, reviews, and evaluates scopes of work, technical memos, reports, work process, and policy documents.
- Serves as a liaison for the TWDB at public meetings and develops working relationships with federal, state, and local agencies, academic institutions, and private contractors to advance coastal flood modeling.
- Provides quality customer service and technical support to internal and external customers and stakeholder committees.
- Delivers presentations to technical and non-technical audiences.
- Manages contracts related to inland and coastal modeling or monitoring.
- Assists with planning field studies and resulting data management; may assist with on-site work, equipment installation, and data acquisition.
- 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 of surface water resources, or a related field.
- Experience developing, applying, or running hydrologic/hydraulic models (e.g., HEC-HMS, HEC-RAS, NWM, HL-RDHM, SWMM, ADH, GSSHA, or similar models), and hydrodynamic models (e.g., ADCIRC, DELFT3D, SCHISM, ROMS, SUNTANS, FVCOM, ADH, or similar models).
    - For the Hydrologist V classification: seven years of experience.
    - For the Engineer IV classification, five years of experience.
- For Engineer IV, 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.
- Relevant education and experience can be substituted for each other on a year-for-year basis.

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 of surface water resources, or a related field.
- Experience modeling storm surge, wind wave, and coastal inundation processes.
- Experience processing, analyzing, interpreting, and displaying large scientific datasets in different formats (ASCII, NetCDF, binary, etc.).
- Experience using Unix/Linux operating systems and/or scripting/programming languages, such as Python, Perl, Bash, MATLAB, Fortran, SAS, R, etc.
- Experience using numerical/visualization tools, such as MATLAB, Scipy, Numpy, Pandas, Tecplot, Gnuplot, VisIT, etc.
- Experience using parallel computing (MPI or OpenMP) on High Performance Computing (HPC) systems.

Knowledge, Skills, and Abilities (KSAs)

- Knowledge of local, state, and federal laws and regulations relevant to Coastal Science and of the principles and practices of public administration.

- Knowledge of relevant hydrologic, hydraulic, and hydrodynamic models; and scientific, engineering, and statistical principles, techniques, and procedures; and standard guidelines for flood risk analysis and mapping for coastal water levels.
- 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, and hydrodynamic and salinity transport models.
- Skills in scientific data organization, management, analysis, and interpretation, particularly of hydrologic data.
- Skills in manipulation of data sets for hydrologic, hydraulic, and hydrodynamic modeling, including topographic (e.g. LiDAR, DEM), bathymetric, landcover, and other data sets. Skill in working with very large spatial and temporal data sets.
- Skills in programming/scripting languages, such as Python, Fortran, C, MATLAB, SAS, R, or equivalent, for conducting analyses and to maintain automated processes.
- Skills in using numerical/visualization tools (*e.g.*, MATLAB, Scipy/Numpy, Pandas, Matplotlib, Tecplot, Gnuplot, *etc*.)
- Skills in mapping, spatial analysis, and data storage using GIS applications.
- Skills in writing technical memos, reports, work process, and policy documents.
- Skills in project management and contract administration, including developing scopes-of-work.
- Skills in communicating with elected, local, state, and federal officials, stakeholders, and the public.
- 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.
- 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.