Opening Date: October 5,2009
Closing Date: Open Until Filled
Work Location: Austin, TX

Posting Number: 10-10
Monthly Salary: $3402 - $5000*
Group/Class#: B19/2460, B21/2464, B21/2151, B22/2152

***Salary commensurate with experience and qualifications.**

TEXAS WATER DEVELOPMENT BOARD
JOB VACANCY NOTICE

POSITION TITLE: Coastal Modeler (Hydrologist II/III - Engineer I/II)

JOB DESCRIPTION: Develop, maintain and apply complex hydrodynamic models in support of the Bays and Estuaries Program, including work in support of determining freshwater inflow needs for Texas estuaries. Investigate, develop, and implement use of improved methods and data for use in developing estuary hydrodynamic and transport models. Assist in the planning, execution and analyses of scientific and engineering field studies of state streams, rivers, bays, and estuaries. Work under limited supervision with considerable latitude for use of initiative and independent judgment.

ESSENTIAL JOB FUNCTIONS:

- Develop, maintain and apply hydrodynamic models of rivers and estuaries using 2-d and 3-d hydrodynamic models.
- Revise existing hydrodynamic model source code and implement new algorithms and functionality.
- Analyze and visualize field data and model results.
- Develop and apply scripts and programs to reformat input/output data files for model execution and for visualization of results.
- Perform mathematical and statistical analyses of various types of water resources.
- Assist with field studies, including planning, on-site work, equipment installation, data acquisition, and data management. Requires work outdoors possibly during inclement weather or under hot and cold temperatures.
- Serve as contract manager for research and monitoring contracts
- Write, review and evaluate technical memos, reports and policy documents; present expert testimony as required.
- Serve as liaison and provide technical support to stakeholder groups and scientific committees.
- Requires work days to occasionally exceed 8 hours, including early mornings and late nights.

MINIMUM QUALIFICATIONS:

- Graduation from an accredited four-year college or university with a Bachelor of Science in engineering, hydrology, oceanography or related field with emphasis in hydrology, hydrodynamics, water resources or scientific computing.
- Graduate degree with a focus in hydrodynamics, water resources, scientific computing, numerical modeling or related field.
- Experience in high-level programming languages (Fortran, C++, or equivalent).
- Experience in development and application of hydrodynamic or other computational/numerical models.
- Classification as Engineer I/II requires licensure as a Professional Engineer in the State of Texas.

PREFERRED QUALIFICATIONS:

- Experience preparing model inputs, model application, and analysis of results.
- Experience using scripting languages such as Perl, Python, bash etc.
- Experience with Unix/Linux operating systems is preferred.
- Experience with MPI programming or running models on parallel computing clusters is preferred.
- Experience with estuarine hydrodynamic models like SELFE, ADCIRC, FVCOM etc is preferred.
- Experience with grid generation packages like SMS is preferred.
- Experience using numerical/visualization tools, *e.g.,* Matlab, Octave, Scipy/Numpy, Matplotlib, Tecplot, Gnuplot etc.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Advanced knowledge of scientific, engineering, statistical, and hydrological principles and techniques.
- Ability to effectively communicate technical issues verbally and in writing to general and technical audiences.
- Ability to work independently and as a member of a team, accept assignments from multiple authorities, and accomplish several tasks concurrently.
- Ability and willingness to use field equipment such as flow meters and water quality instrument.
- Ability to conduct field research and familiarity with small boat operations.
- Ability and willingness to walk over varying terrain, carry equipment in varying weather, and to work in small boats.
- Ability and willingness to travel 15% of the time.

REMARKS:

- Copy of required academic transcripts and/or licensures must be submitted at the time of interview, if selected for interview. Failure to provide required documentation will result in no further consideration for employment.

- Satisfactory driving records are required for driving state or personal vehicles and motor driven equipment to conduct agency business. An acceptable driving record must be presented at the time of interview.

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. Only applicants interviewed will be notified of their selection or non-selection. Resumes will not be accepted in place of a completed application unless indicated.

APPLY VIA: Mail/Hand Delivery: Texas Water Development Board, 1700 N. Congress, Room 429, Austin, TX 78701; Or via fax (512) 463-7644

REFER TO: Human Resources	TELEPHONE: 512/475-2142	Equal Opportunity Employer
NO. of OPENINGS: 1	TRAVEL: 15%	DIVISION: WSC - Surface Water Resources

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. 1-800-RELAY TX (for Hearing-Impaired)

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