

**Request for Qualifications # 1248311375
For Technical Support for Development of
Nueces BBASC Recommendations Report**

925-35

Requests for Statements of Qualifications for Water Research

Pursuant to 31 Texas Administrative Code §355.3, the Texas Water Development Board (TWDB), on behalf of the Nueces River and Corpus Christi and Baffin Bays Basin and Bay Expert Science Team (Nueces BBEST) and Area Stakeholders Committee (BBASC), requests the submission of Statements of Qualifications (SOQs) from interested applicants for “**Technical Support for Development of Nueces BBASC Recommendations Report**”

The selected Contractor will perform services in accordance with the Objective, Methods and Parameters summarized as follows at the direction of the Nueces BBEST and BBASC or their designated representative(s).

Objective

The Nueces BBEST has received a request from the BBASC for technical support to assist the BBASC evaluation of the BBEST recommendations.

The work to be provided may include, but is not limited to, the following:

Task 1 - Planned Water Supply Project Evaluations

- a) Compute the firm yield of two example large scale water supply projects in the 2012 State water plan (e. g. the Nueces Off Channel Reservoir and the Lower Sabinal Edwards Recharge Dam) subject to senior water rights, appropriate hydrologic assumptions, and the following environmental flow standards:
 - i) No instream flow requirement;
 - ii) Texas Commission on Environmental Quality Default (Modified Lyons);
 - iii) Regional Planning (Consensus Criteria for Environmental Flow Needs); and
 - iv) BBEST Recommendations.¹
 - v) Quantify the percentages of maximum potential example project firm yield committed to the environment subject to each of the above environmental flow standards.
 - vi) Estimate the capital, annual, and unit costs of firm water supply associated with example projects and environmental flow standards. Compare these unit costs to one another and to the unit cost of those for projects recommended in the 2012 State Water Plan.
 - vii) Evaluate magnitudes, frequencies, and durations of instream flows and estuarine inflows downstream of the example projects and consider quantitative ecological ramifications in the forms of relative differences in species abundance, suitable habitat area, and/or other factors.
 - viii) BBASC to consider whether an appropriate balance between firm water supply and environmental flow needs has been achieved. If an appropriate

¹ Modeling tools are expected to include the Nueces River Basin Water Availability Model (Nueces WAM), the Nueces River Basin Model (for recharge enhancement simulation), the Flow Regime Application Tool (FRAT), and the Corpus Christi Water Supply Model (CCWSM)

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balance has not been achieved or further research is needed to formulate recommendations, proceed to Task 3.

Task 2 - Potential Standard and Strategy Evaluations

- a) Perform additional unspecified CCWSM runs (which include tabulation of yield, bay inflow statistics, and other readily accessible information) for exploration of strategies to meet potential BBASC recommended environmental flow standards.
- b) Evaluate Rincon Bayou Pipeline strategies for meeting salinity targets recommended by the Nueces BBEST within the Nueces Delta.
- c) Evaluate effects of potential environmental flow standards including simplified base flow criteria and / or pulse exemption criteria on water availability, instream flows, habitat availability, and sediment transport for the Nueces River at Laguna, Cotulla, and Three Rivers.

Task 3 - BBASC Recommendations Regarding Environmental Flow Standards

- a) If additional firm water supply from an example project or water available for permitting is necessary to achieve an appropriate balance, then evaluate potential modifications of BBEST flow regime recommendations in accordance with the following steps:
 - i) Successively reduce or eliminate BBEST flow regime components perceived to be the least critical for maintenance of a sound ecological environment (e.g., tiered seasonal pulses or tiered base flows).
 - ii) Quantify resulting percentages of maximum potential example project firm yield or unappropriated streamflow committed to the environment.
 - iii) Perform unit cost comparisons for example projects.
 - iv) Consider quantitative ecological ramifications based on relative differences in downstream flows.
 - v) Iterate steps i. through iv. until an appropriate balance has been achieved, one (1) iteration per site/project.
- b) If additional water for environmental flow needs is necessary to achieve an appropriate balance, then evaluate potential modifications of BBEST flow regime recommendations in accordance with the following steps:
 - i) Successively increase or add to BBEST flow regime components perceived to be the most critical for maintenance of a sound ecological environment (e.g., tiered seasonal pulses, tiered base flows, or subsistence flows).
 - ii) Quantify resulting percentages of maximum potential example project firm yield or unappropriated streamflow committed to the environment.
 - iii) Perform unit cost comparisons for example projects.
 - iv) Consider quantitative ecological ramifications based on relative differences in downstream flows.
 - v) Iterate steps i. through iv. until an appropriate balance has been achieved, one (1) iteration per site/project.

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Task 4 - BBASC Meetings, Technical Reporting and Additional Services

- a) Prepare and deliver presentations and limited report documentation summarizing technical support work described in Tasks 1 through 3.
- b) Participate in up to 8 meetings of the BBASC.
- c) Provide additional technical support to BBASC as directed within schedule and budget constraints.

Tentative Schedule:

Work Product	Schedule of Deliverables
Task 1. Planned Water Supply Project Evaluation	To be completed by 4 weeks from contract initiation
Task 2. Potential Standard and Strategy Evaluations	To be completed by May 16, 2012
Task 3. BBASC Recommendations Regarding Environmental Flow Standards	To be completed by June 20, 2012
Task 4. BBASC Meetings, Technical Reporting and Additional Services	To be completed by August 31, 2012

Description of Funding Consideration

Up to \$22,000 has been identified for this research study from the TWDB's Research and Planning Fund.

Following the receipt and evaluation of all SOQs, oral presentations may be required as part of qualification review. However, invitation for oral presentation is not an indication of probable selection. Up to 100 percent funding may be provided to individual applicants; however, applicants are encouraged to contribute matching funds or services, and funding will not include reimbursement for indirect expenses incurred by political subdivisions of the state or other state and federal agencies. In the event that acceptable SOQs are not submitted, the TWDB retains the right to not award funds for the contracts.

Deadline, Review Criteria, and Contact Person for Additional Information

Six double-sided copies of complete SOQs, including the required attachments, must be filed with the TWDB prior to 12:00 noon, Wednesday, February 29, 2012. SOQs shall be limited to 10 pages including resumes of proposed team members. SOQs must be directed either in person to David Carter, Texas Water Development Board, Stephen F. Austin Building, 1700 North Congress Avenue, Austin, Texas; or by mail to David Carter, Texas Water Development Board, P.O. Box 13231-Capitol Station, Austin, Texas 78711-3231.

SOQs will be evaluated according to 31 Texas Administrative Code §355.5 and the SOQs Review Criteria rating form included in the TWDB's Guidelines for Water Research Grants and on the basis of the following factors:

1. Ability to perform the services requested in a timely manner.
2. Familiarity with the hydrology and ecology of the Nueces River Basin.
3. Familiarity with the Nueces Estuary freshwater inflow requirements as per the Texas Commission on Environmental Quality (TCEQ) 2001 Agreed Order.

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4. Experience in applications of: a) Water Availability Models (WAMs) developed for and maintained by the TCEQ; b) Corpus Christi Water Supply Model, and b) Supplemental tools and techniques for analyses of daily flows.
5. Familiarity with and participation in the surface water rights permitting process and the environmental flows process established by SB3 of the 80th Texas Legislature.
6. Ability to clearly communicate the results of requested analyses in graphical, written, and oral formats.
7. Experience in performing work under contracts with the TWDB.

Research shall not duplicate work planned or underway by state agencies.

Guidelines for SOQs may be found at the TWDB website at:

http://www.twdb.texas.gov/financial/programs/WaterResearch_Grant.asp

Requests for information, the TWDB's rules covering the Research and Planning Fund, detailed evaluation criteria, more detailed research topic information, and the guidelines may be directed to Mr. Carter at the preceding address or by calling (512) 936-6079.