

# MEMORANDUM

**To:** Saqib Shirazi, P.E., Innovative Water Technologies, Texas Water Development Board (TWDB)

**FROM:** Lianfa Song, Ph.D., Texas Tech

**SUBJECT:** Demonstration of High Recovery and Energy Efficient RO System for Small-Scale Brackish Water Desalination

**DATE:** June 1, 2012

**CONTRACT:** 1004831107

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## **Recent Project Activities:**

During the current quarter, the following project activities have been completed:

1. A paper summarizing laboratory-generated specific energy data for the pilot RO system and comparing experimental data with published specific energy values for large-scale RO systems is being finalized for journal submission.
2. Planning has been completed for field testing of the RO system at the Brackish Groundwater National Desalination Research Facility (BGNDRF) in Alamogordo, New Mexico. Field testing is anticipated to begin on June 5, 2012.

## **Issues Encountered:**

1. Brackish groundwater from sources at the BGNDRF has been identified as having high scaling potential. Planning for field testing has taken this into account and appropriate mitigation measures, such as the use of anti-scaling chemicals, will be used.

## **Items to be Addressed and Anticipated Project Activities:**

1. Field testing of the pilot RO system at BGNDRF is planned from June 5, 2012 to July 19, 2012.
2. Drafting of a journal article presenting results of the field testing is anticipated following completion of tests at BGNDRF.