MEMORANDUM

To: Saqib Shirazi, Ph.D., P.E., Innovative Water Technologies, Texas Water

Development Board (TWDB)

FROM: Justin Sutherland, Ph.D., P.E., Carollo Engineers

SUBJECT: Developing Practical Alternatives to Pilot Plant Studies for Innovative Water

Technologies Quarterly Report – September 2012

DATE: November 9, 2012

CONTRACT: 1148321310

Recent Project Activities:

Since submission of the previous Quarterly Report (ending May 2012):

1) Submitted a draft detailed outline for TCEQ's new guidance document for approving RO for brackish groundwater treatment.

- 2) The Project Team met with TCEQ staff on June 22 to discuss the guidance document outline, time needed for data analyses, and scheduling the next stakeholder meeting.
- 3) Reviewed draft guidance document developed by TCEQ staff.
- 4) Met with Project Team and TCEQ staff on July 25 to discuss review comments for draft guidance document.
- 5) Continue data acquisition and review for Phase II.
- 6) Continue evaluating data for Phase II.
- 7) Attended second TCEQ Stakeholder Meeting on August 29.

Issues Encountered:

TCEQ staff are developing the new guidance document in-house. The scope of work for the guidance document and outreach will need to be amended to allow preparation of a best practices manual for use of computer models to design full-scale RO systems.

Items to be Addressed and Anticipated Project Activities:

The following are anticipated project activities over the next quarter:

- 1) Meet with Project Team and TCEQ staff to discuss guidance document revision based on comments from the second stakeholder meeting.
- 2) Continue data acquisition and review for Phase II.
- 3) Continue evaluation of data for Phase II.
- 4) Begin preparation of draft report summarizing results from Phase II.