MEMORANDUM

To: Erika Mancha, P.E., Innovative Water Technologies, Texas Water Development Board (TWDB)
FROM: Eva Steinle-Darling, Carollo Engineers
SUBJECT: Progress Report No. 4 Testing Water Quality in a Municipal Wastewater Effluent Treated to Drinking Water Standards Quarterly Report
DATE: December 2014

CONTRACT: 1348321632

Recent Project Activities:

Task 1: Prepare for Sampling

- Continued preparation work for sampling scheduled for fall, then postponsed to early 2015
- Revision of the protocol in response to TWDB, TCEQ, and CRMWD comments. Finalization of the protocol is pending TCEQ approval letter for testing.
- Approval by CRMWD to complete MS2-Trasar RO challenge testing is contingent upon manufacturer approval, which has not been given. TWDB approval of full protocol is contingent upon CRMWD approval.

Task 2: Implement Testing Protocol

- Coordination of upcoming testing in February
- Compilation and analysis of data from July sampling event
- Processing invoices from laboratories.
- Supported CRMWD in developing exception request letter to obtain TCEQ approval for membrane challenge testing

Task 4: Support CRMWD with Additional Sampling

- No *Cryptosporidium/Giardia* samples were collected in September, October, or November due to plant shut-down.
- Provided results from previous sampling (July, August) to CRMWD.

Issues Encountered:

- SNWA encountered some issues with the bioassay samples and was only able to provide "presence/absence" instead of quantitative results. They will provide analysis of the same samples free of charge during the next sample event.
- No other analytical issues were encountered.
- The RWPF was not in operation for much of this quarter but issues appear to be resolved now. The second sampling event was delayed again and is currently scheduled for the week of February 9, 2014.

Items to be Addressed and Anticipated Project Activities:

- The next sampling event is scheduled for the week of February 9, 2015.
- TCEQ approval for testing must be obtained prior to the testing date.
- Testing protocol must be finalized in accordance with the approval conditions.
- Continued support for Task 4 components will be provided.