

May 5, 2018

Abigail Antolovich
Denver Water
3412 1600 W 12th Avenue
Denver, CO 80204

Subject: 75 Percent Progress Report PureWater Colorado Demonstration Project

Dear Abigail:

This letter includes attachments and schedule updates regarding the PureWater Colorado Demonstration Project. It is anticipated that the project is at 75 percent completion, with the major milestones being completion of all tours and decommissioning of pilot equipment. A breakdown by task of completed goals, obstacles encountered, associated deliverables included as attachments, and need for revision of scope of work and timelines is included in the following Table 1. Dates highlighted in Table 1 indicate a proposed schedule change following the updated schedule provided in the 50% progress report, with reasoning described in the milestones column.

Please let me know if you need additional information and if the proposed schedule and scope/deliverable changes and updates are acceptable.

Sincerely,

CAROLLO ENGINEERS, INC.

Austa M. Parker, PhD
Water Reuse Technologist

Author Initials: amp

Attachments: Attendee Summary/Feedback Report
Decommissioning Document

cc: Damian Higham, Denver Water
John Rehring, Carollo Engineers




Table 1. Project Progress, Deliverables, Milestones, and Schedule Updates by Task.

Task	Description	Task Status	Deliverables	Deliverables Status	Milestones	Project Timeline (12/28/2017)	Current or Expected Timeline
1	Equipment Installation and Project Kickoff	Complete	Commissioning and Test Plan Report	Included in 50% Progress Report	<ul style="list-style-type: none"> Equipment commissioned, delivered and successfully put into operation. Equipment commissioning was delayed by one week due to additional plumbing and electrical needs during setup. Test plan written with input and guidance from CDPHE and Carollo. 	1/22/2018 - 1/26/2018	1/22/2018 - 2/2/2018
2	Pure Water Production and Pilot Operation	Complete	Pilot operation report/water quality summary	Included in 50% Progress Report, all results available in final report	<ul style="list-style-type: none"> Pilot operation task delayed by one week as carry over from commissioning delay. Denver Water operations staff provided training by manufacturers and Carollo. Pilot plant successfully operated overnight and over the weekend. Demonstration facility operation ongoing. 	1/29/2018 - 4/6/2018	2/5/2018 - 4/13/2018
3	Facility Tours with Target Stakeholders and Policy Makers	Complete	Summary report of attendees/feedback	Complete (Attached)	<ul style="list-style-type: none"> Outreach stakeholder group determined it was better to provide tours to the target audiences when water was available for consumption, following operation and extensive analytical testing. Therefore tours with target stakeholders were delayed by ~2 weeks. Tours with target stakeholders have begun and are ongoing for one additional week than originally planned. 	2/26/2018 - 4/6/2018	3/16/2018 - 4/13/2018
4	Outreach	Complete	Outreach materials completed	Complete (Available with final report)	<ul style="list-style-type: none"> Outreach materials were completed one month ahead of schedule and before target audience tours began. All outreach materials for demonstration project have been designed and produced for outreach. 	1/22/2018 - 4/30/2018	1/22/2018 - 3/15/2018
5	Beverage Production	Delivery Complete	Documentation showing completion of beverage production – requesting change to water delivery confirmation	Included in 50% Progress Report	<ul style="list-style-type: none"> Beverage production will continue into June 2018. It is requested that the deliverable for this task be changed to pure water delivery to beverage manufacturer to comply with project schedule. A sterilized tanker was filled with ~4500 gallons of purified water on March 14 and March 15, 2018. Analytical testing on the pure water was completed (March 16 – April 4, 2018). Purified water tanker was successfully delivered to beverage partner (April 5, 2018). 	2/26/2018 - 4/30/2018	3/14/2018 - 4/5/2018
6	Decommission Pilot Equipment	Complete	Decommissioning Confirmation	Complete (Attached)	<ul style="list-style-type: none"> All equipment is off site and back to manufacturers. Decommissioning started one week later than originally planned to provide additional tours to target audience members. Decommissioning took an additional two weeks due to shipping constraints and manufacturer availability. 	4/9/2018 - 4/16/2018	4/16/2018 – 5/3/2018
7	Project Management and Final Report	Ongoing	Final project report	To be Completed	<ul style="list-style-type: none"> Project management including collecting materials and writing reports ongoing. Final report anticipated to be delivered by May 31, 2018. 	1/22/2018 - 5/31/2018	1/22/2018 - 5/31/2018