City of Fountain Water Department’s Future Projects: 2019 and Onwards

Taylor Murphy, EIT
City of Fountain
Water Resource Engineer
The City of Fountain

- Home Rule City
- Population: 30,000+
- Two City run Public Utilities – Electric, Water
- Ft. Carson immediately West across I-25.
- Peterson AFB to the North.
- Significant portion of population are active duty associated with the regional bases.
36” Southwest Transmission Main Project (Multiple Stages/Phases)

- Accommodates projected expansion to the Southeast
- Connects City’s longest dead-end Main (~1 Mile).
- I-25 Crossing, RR Crossing, Creek Crossing, Road Crossing X2.
- Mixed use of HDPE & PVC.
Crest Mobile Home System Improvements

- Aging Private System in Disrepair.
- Forming Special District to make it public system.
- Design new layout with front-of-lot services.
- Potentially seek Design services mid 2019.
East Ohio PRV and RR Crossing

- Replace an existing undersized distribution Main, including crossing underneath the BNSF RR track.
- Relocate and replace an outdated and problematic Pressure Regulator Vault.
Northeast Transmission Main Project

- Approx. 6500 LF of 16”-24” (TBD) pipe installed adjacent to roadway.
- Accommodates planned subdivisions immediately east of terminus.
- Connects to Widefield’s Water system to the north.
Fountain Mesa Service Line Replacements

- Chronically failing area of domestic service taps.
- Constant service line ruptures have caused pavement failure.
- Replace remaining 32 unruptured services to curtail future leaks and accommodate roadway repaving.
- Includes replacement of failed mainline shutoff valves at intersections.
- Put to Bid February 2019.
Well #4 Raw Water Transmission Line Project

- Project to support forthcoming Treatment Plant in downtown Fountain.
- Will convey Raw Groundwater from nearby Well #4 to the Plant's influent.
- Trenchless crossing under CDOT Hwy 85/87.
- Includes relocation of existing commercial Service Taps.
- Will convert an existing potable main to non-pot.
- Put to Bid early Summer 2019.
How to Bid on City of Fountain Work

- All projects are advertised through Rocky Mountain BidNet: https://www.bidnetdirect.com/colorado/cityoffountain

And in the El Paso County & Fountain Valley Advertiser & News (Paper).

- All projects have a mandatory Pre-Bid conference; only Pre-Bid attendees are allowed to place a bid.

To inquire about future projects and timeframes contact:

<table>
<thead>
<tr>
<th>Mike Fink, PE</th>
<th>Taylor Murphy, EIT</th>
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</thead>
<tbody>
<tr>
<td>Water Superintendent</td>
<td>Water Resource Engineer</td>
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<td>City of Fountain Water</td>
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Fountain’s Comprehensive Water Treatment Facility

Project Manager: Hillary Weber
Native Hawaiian Veterans – Insight Engineering Joint Venture
Why are we talking about PFCs?

In 2013 and 2014, the EPA required large public water systems across the country to evaluate PFC levels as part of the Unregulated Contaminant Monitoring Rule (UMCR).

UMCR is program that gathers data to determine locations and amounts of unregulated substances in drinking water sources to determine if they should be regulated under the Safe Drinking Water Act.

Source: Kristy Richardson, CDPHE
Health Advisory

Provides a margin of protection from exposure to specific PFCs (PFOA and PFOS) in drinking water

2009 “Provisional” EPA Health Advisory

PFOA: 400 ppt
PFOS: 200 ppt

May 2016 EPA Health Advisory

Based on developmental effects

May 2016 Colorado Recommendation

PFOA + PFOS + PFHpA < 70 ppt
PFOA + PFOS < 70 ppt

Source: Kristy Richardson, CDPHE
PFCs were found in 108 U.S. public water systems

Source: Kristy Richardson, CDPHE

PFC levels in groundwater

Orange = exceed health advisory, size proportional to level

Blue = not detected (small) or below health advisory (large)

Source: Kristy Richardson, CDPHE
## How It Unfolded

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>2009</td>
<td>EPA issues Perfluorinated Compound (PFC) Health Advisory Level (HAL) of 200-400 ppt for individual specific compounds.</td>
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<td>2013 – 2014</td>
<td>EPA’s UCMR requires testing of drinking water for PFCs. PFCs below the HAL are discovered.</td>
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<td>April 2016</td>
<td>Southern Delivery System (SDS) comes online.</td>
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<tr>
<td>May 2016</td>
<td>HAL significantly changed to 70 ppt of combined PFCs. Fountain and neighbors exceeds new HAL.</td>
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<td>May 2016</td>
<td>Well Pumping Halted. Peak Reliance shifts to SDS Water.</td>
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<tr>
<td>July 2016</td>
<td>USAF commits to funding a rapid aid response to affected communities.</td>
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<td>Mid 2017</td>
<td>USAF furnishes temporary GAC treatment vessels as part of response.</td>
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<tr>
<td>Feb 2018</td>
<td>DOD commits to providing a permanent treatment facility</td>
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<tr>
<td>Summer 2018</td>
<td>Begin serving treated groundwater from GAC Facilities during peak summer peaks.</td>
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<tr>
<td>July 2018</td>
<td>USACE solicits proposals and conducts site walkthrough.</td>
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<tr>
<td>Sept 2018</td>
<td>Contract awarded to NHV-I to design and build Fountain’s Plant.</td>
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<tr>
<td>Feb – April 2019</td>
<td>Subcontractor procurement and construction start.</td>
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Comprehensive Groundwater Treatment Facility

- The Joint venture of Native Hawaiian Veterans - Insight Environmental Engineering and Construction (NHV-I) has been awarded the Design/Build Contract by the USACE.
- Ion-exchange treatment, 4 influent wells, SCADA Controls, Raw & Finished Water holding tanks.
- Contract is for Design & Construction of Plant, installation of Pipelines from Wells.
NHV-I is seeking local Tradesmen/Contractors to bid on the following tasks:

- Surveying
- Directional Drilling or Open Trench Waterline installations
- Plumbing
- Commercial Electrical
- Excavation
- Concrete (flatwork and foundations)
- Geotechnical and Materials Testing
- Site Maintenance
- Fencing (construction and permanent)

All Work will be executed as part of the Federal Contract and will require firms to adhere to the DBA and SCA wage determinations as applicable. Certified Payroll will not be required.
Important Dates/Events

Mid-February 2019

Site Walk for Well #3 Pipeline Installation Work

- ~0.5 Mile of new 8” Raw Water pipe under existing pavement through downtown Fountain.
- Crosses one high-traffic collector road and multiple low-traffic residential streets.
- Projected Work Start: Late March 2019
Important Dates/Events

Mid-April 2019
Site Walk for Aga Park Treatment Plant Construction

- Ion Exchange treatment train, Concrete Foundation, mechanical and electrical systems, SCADA control center

- Projected Work Start: Late May 2019
How to get involved

Send your contact information to:

<table>
<thead>
<tr>
<th>Sarah Lave</th>
<th>Hillary Weber</th>
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<tbody>
<tr>
<td>Project Coordinator</td>
<td>Project Manager</td>
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<td>NHV-I Joint Venture</td>
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<td><a href="mailto:HWeber@ieeci.com">HWeber@ieeci.com</a></td>
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Inquire about Site Walkthroughs and Bid dates if interested.