

Emergency Intertie Maintenance Test (Intertie Test) with East Bay Municipal Utility District



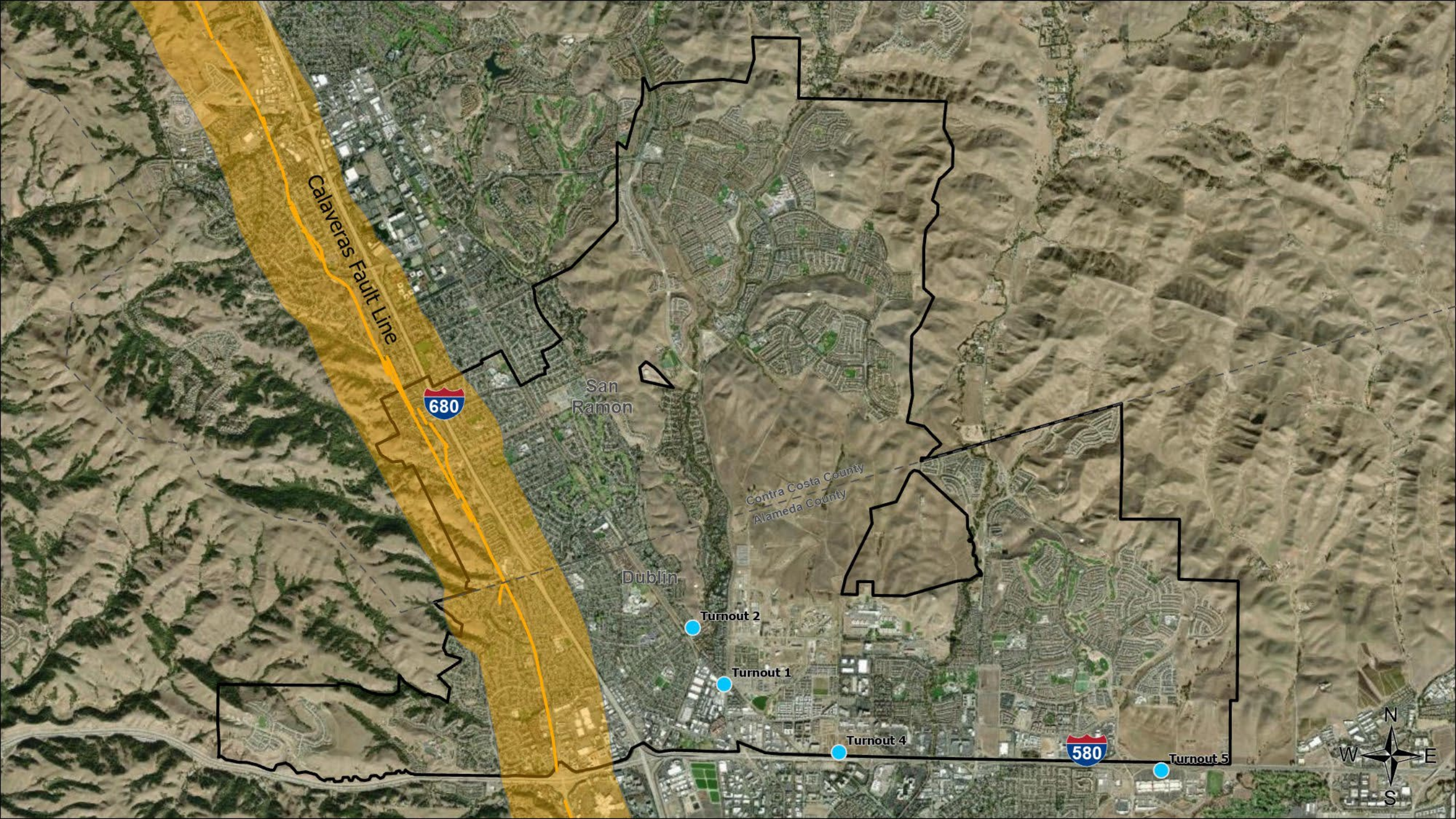
**Dublin San Ramon
Services District**

Water, wastewater, recycled water

Sukhpreet Mann

DSRSD Board of Directors Meeting

December 5, 2023



Calaveras Fault Line

680

San Ramon

Contra Costa County
Alameda County

Dublin

Turnout 2

Turnout 1

Turnout 4

580

Turnout 5



Proposed Emergency Intertie Maintenance Test

- » Receive Water from EBMUD
- » Supply Water to EBMUD
- » Understand flow capacities



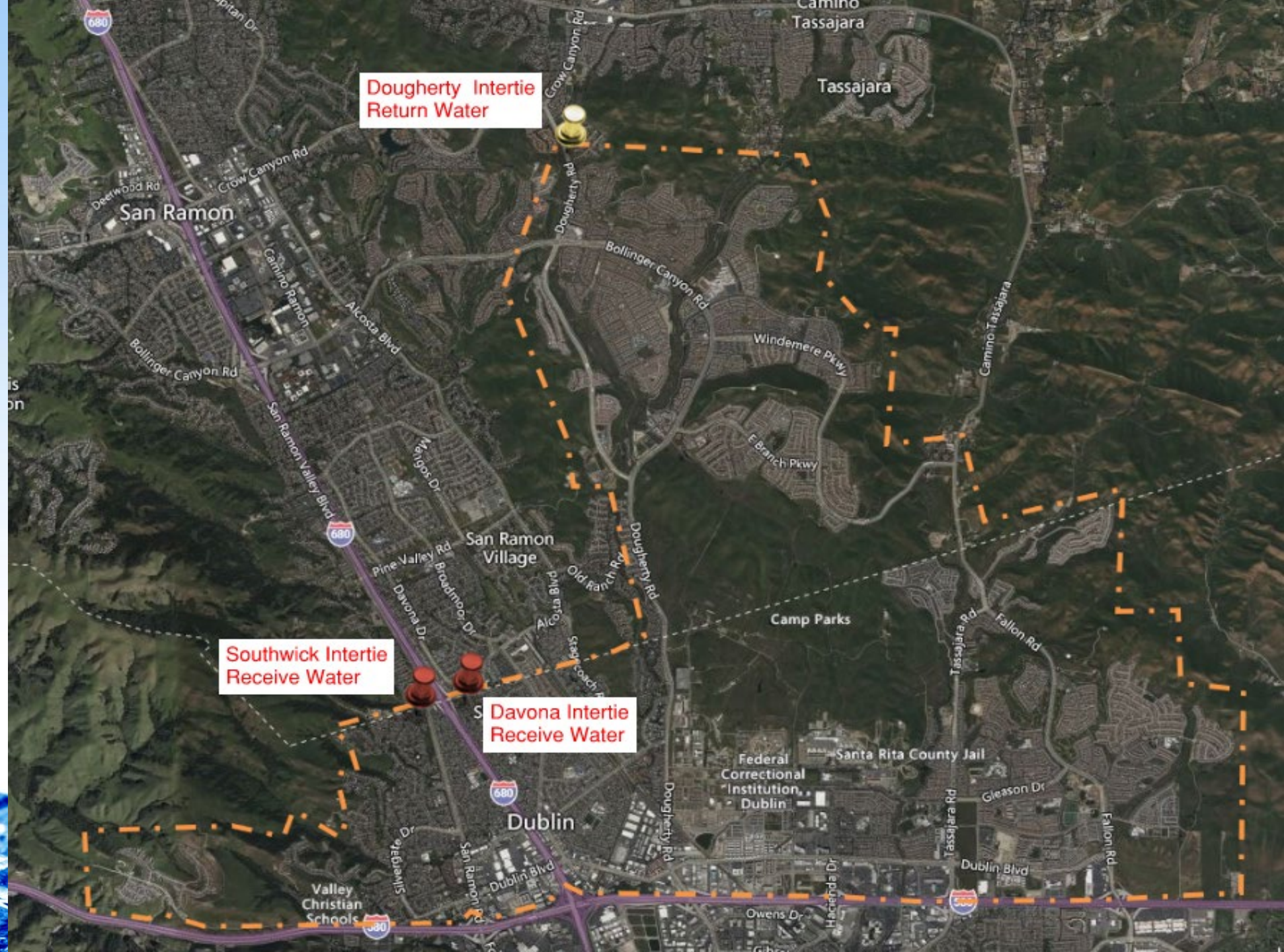
District's Strategic Goals

» The Intertie Test supported the following District Strategic Goals and Action Items:

- *Enhance our ability to respond to emergencies and maintain business continuity*
- *Work collaboratively with our Tri-Valley partners in the development of a more diversified and resilient water supply*



Locations of EBMUD – DSRSD Emergency Interties



Planning

» Established an operational plan with EBMUD

Dublin San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) Emergency Intertie Testing and Connection Operational Plan October 2023 – November 2023

DSRSD and EBMUD operate two emergency water supply interties on the northern DSRSD service area border, herein referred to as the Davona and Alcosta/Southwick interties, and one emergency water supply intertie in Dougherty Valley, herein referred to as the Dougherty intertie.

DSRSD will conduct a comprehensive test with EBMUD to determine the maximum flow capacity into DSRSD’s potable water system via the Davona and Alcosta/Southwick interties. Because of the pressure differential between the EBMUD and DSRSD water distribution systems, no pumping is needed for the transfer of water from the EBMUD to DSRSD. Temporary above-ground pressure regulators will be installed to regulate the flow of water from EBMUD to DSRSD.

The total amount of water transferred to the DSRSD distribution system will be returned to the EBMUD via the Dougherty intertie. The exercise will result in a “net-zero” transfer of water between the two utilities.

Quantity and Test Period

The total test duration is approximately 2 - 3 weeks to deliver water from EBMUD to DSRSD and to return the water from DSRSD to EBMUD. **The test will start on October 24, 2023.**

To test the capacity transfer between the EBMUD and DSRSD potable water distribution systems, a total quantity of up to 65 acre-feet of water (inclusive of any water utilized for flushing) will be transferred from EBMUD to DSRSD via the Davona and Alcosta/Southwick interties over a 5-7 day period.

The total amount of water transferred from EBMUD to DSRSD via the Davona and Alcosta/Southwick interties will be transferred back to EBMUD. The transfer of water from DSRSD to EBMUD will be returned to EBMUD over a continuous or intermittent 5-7 day period.

Intertie Locations

The Davona intertie is located in the City of San Ramon, near the southwest corner of the intersection of Alcosta Boulevard and Davona Drive. The distribution main serving the EBMUD connection point is a 12” ACP with a 12” flanged connection for interconnections to DSRSD. The distribution main serving the

WATER TRANSFER: EBMUD TO DSRSD (Phase 1, 2 and 3)

Pre-Test Preparation

Date	Activity	Responsible Agency	Tentative Date
60 days prior to startup	Procure materials (PRVs, flowmeters, piping, fittings, valves, appurtenances)	DSRSD	9/1/2023 - Completed
30 days prior to startup	Submit water quality data (pH, hardness, alkalinity, conductivity, turbidity, color, chlorine residual, fluoride) that will be transferred to DSRSD via the Davona and <u>Alcosta/Southwick</u> Interties. Submit upstream static pressure data.	EBMUD	8/31/2023 - Completed
30 days prior to startup	Submit water quality data (pH, hardness, alkalinity, conductivity, turbidity, color, chlorine residual, fluoride) that will be transferred to EBMUD via the Dougherty Intertie. Submit upstream static pressure data.	DSRSD	8/16/2023 - Completed
30 days prior to startup	Notify DDW of test plan	DSRSD /EBMUD	Completed
21 days prior to startup	Notify City of San Ramon and secure encroachment permit. Notify nearby property owners.	DSRSD	10/3/2023 - Completed
21 days prior to startup	Exercise isolation valves at respective intertie locations to confirm proper operation	DSRSD / EBMUD	10/2 – 10/6 – In Process
21 days prior to startup	Flush pipeline (approximately two to three pipe volumes) from EBMUD and DSRSD distribution systems to respective intertie points and set up BMPs at Davona and <u>Alcosta/Southwick</u> sites. Field estimate flushing volume. Collect post-flush bacteriological samples and test. Close EBMUD and DSRSD intertie isolation valve.	DSRSD / EBMUD	10/2 – 10/6 – In Process
15 days prior to startup	Complete pre-assembly of temporary piping, PRVs, flowmeters, etc. between Davona and <u>Alcosta/Southwick</u> interties (except final connections to each respective distribution system)	DSRSD	10/19/2023 – Scheduled

Coordination



Oct 27, 2023 at 2:21:01 PM
Dougherty Rd
San Ramon, CA 94582
United States



- Budget in Brief
- ▼ Current Projects
 - Replacing Aging Water Mains
 - Essential Upgrades to Water System
 - Flushing Dead-End Water Pipes
 - Reservoir 1A Landscape Improvement
 - ▶ Emergency Intertie Test
 - ▶ Invest for the Future
 - ▶ Increase Efficiency
 - ▶ Increase Savings
 - ▶ Protect Health & Environment

[Your Dollars at Work](#) » [Current Projects](#)

EMERGENCY INTERTIE TEST

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Connecting Water Agencies and Ensuring Emergency Water Reliability

During major emergencies, municipal agencies work together closely to meet basic community needs, including access to safe and clean drinking water. At three strategic points throughout the DSRSD water system, DSRSD and East Bay Municipal Utility District (EBMUD) have established interties, or points of system interconnection, that allow for temporary exchange or delivery of water between the two water systems: two water supply interties are located on the northern DSRSD service area border, and a third water supply intertie is located in Dougherty Valley.

Starting October 24, 2023, DSRSD and EBMUD will test the interties by transferring water between the two respective water systems. By deploying the personnel and infrastructure necessary to facilitate the water transfer, the emergency simulation will improve each agency's abilities to respond to future emergencies and will ensure the proper operation of these temporary facilities. The test is anticipated to be finished by mid-November.

During this maintenance and test period, customers may notice slight differences in water quality and water pressure. To minimize the impact for residents, the testing will take place during regular business hours of 8 a.m. to 5 p.m., Monday through Friday.



For more information, contact the project manager:

Sukhpreet Mann, Associate Engineer, mann@dsrds.com or 925-875-2264





control panel



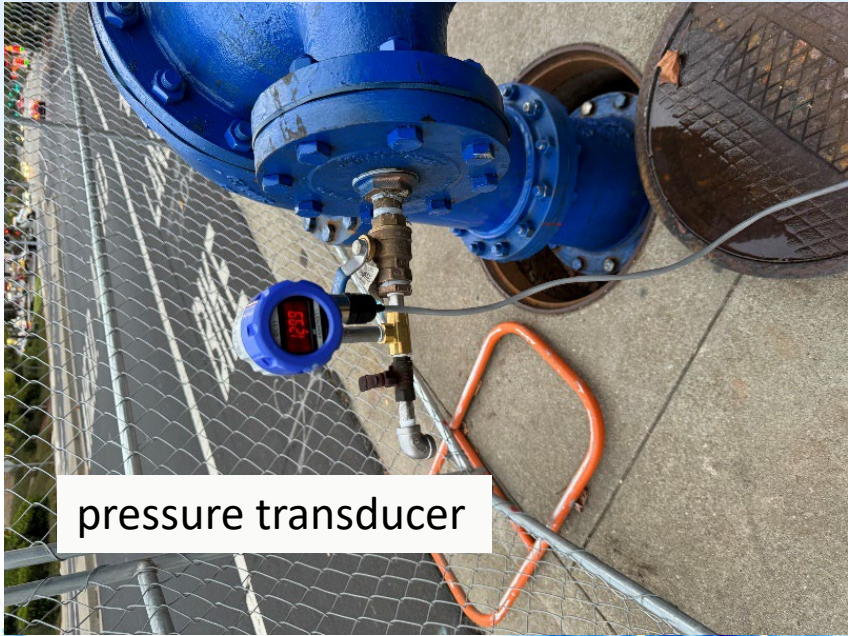
flow meter





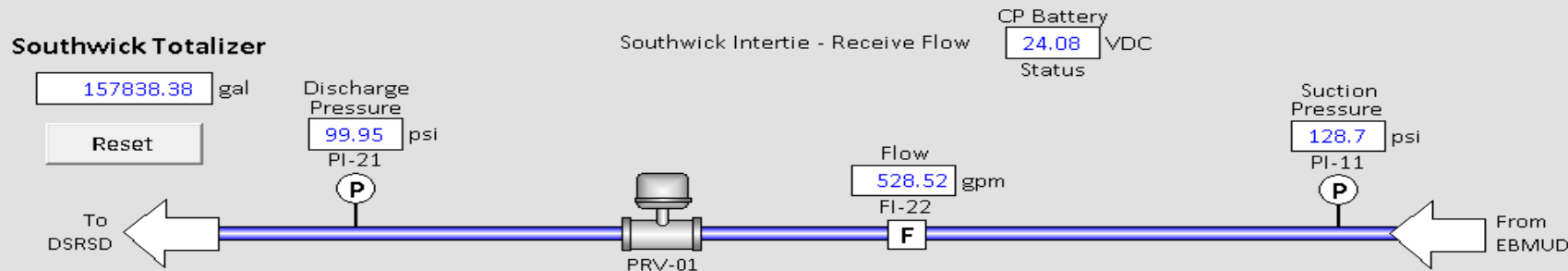
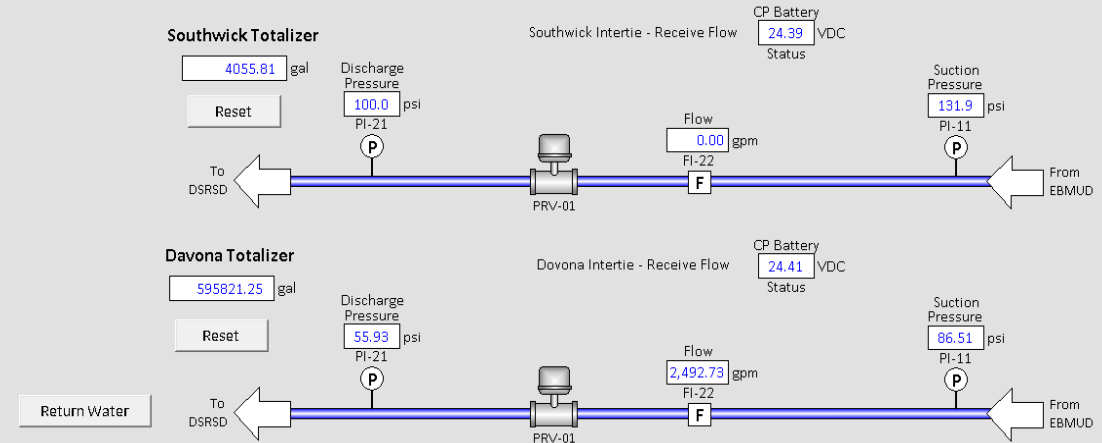
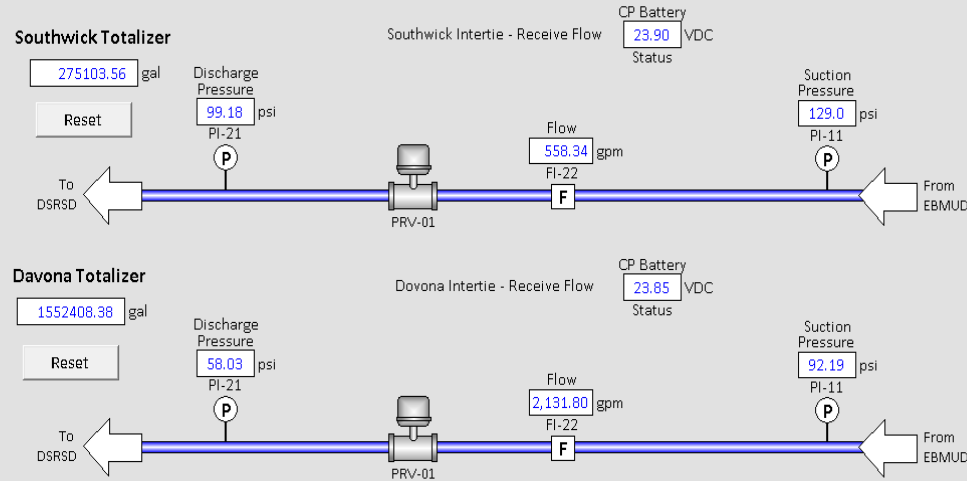
Pressure Reducing Valve (PRV)

<p>Steady State Operation</p>	<p>Monitor Davona Intertie flow and system pressures in respective water systems. Adjust system operations to maintain system pressure and steady state flow.</p> <p><i>PRV Settings</i> Downstream setting (DSRSD side): 55-75 psi Upstream setting (EBMUD side): 80 psi (minimum)</p>	<p>DSRSD / EBMUD</p>	<p>10/24/2023 Scheduled</p>
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pressure transducer





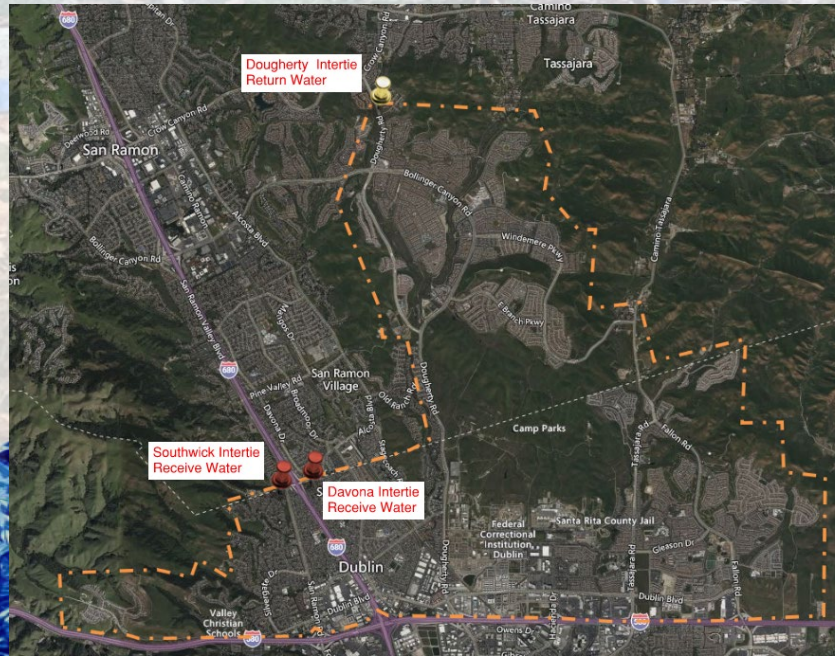




Davona Intertie

» Receive water from EBMUD to DSRSD

- Average Flow: 2,423.5 GPM (3.5 MGD)
- District's Fiscal Year 2023 Average Daily Demand was 8.11 MGD
- Assuming 8.11 MGD Daily Average Demand, we can meet 43% of our demand from Davona Intertie



Southwick Intertie

» Receive Water from EBMUD to DSRSD

- Average Flow: 1,224.3 GPM (1.75 MGD)
- Assuming 8.11 MGD Daily Average Demand, we can meet 22% of our demand from Southwick Intertie.

Davona Intertie & Southwick Intertie

» Davona Intertie

- Average Flow: 1,298.9 GPM

» Southwick Intertie

- Average Flow: 840.5 GPM

» **Total to Zone 1: 2,139.4 GPM (3 MGD)**

» **Assuming 8.11 MGD Daily Average Demand, we can meet 37% of our demand from both interties**

Dougherty Intertie

» Return water to EBMUD from DSRSD

- Average Flow: 656.4 GPM (0.95 MGD)



Summary



- » We proved that we can at most receive 3.5 MGD from EBMUD in an emergency (43% of total average daily demand)
- » Strengthened partnership with EBMUD





Questions?