



Kastania Pump Station Project Update

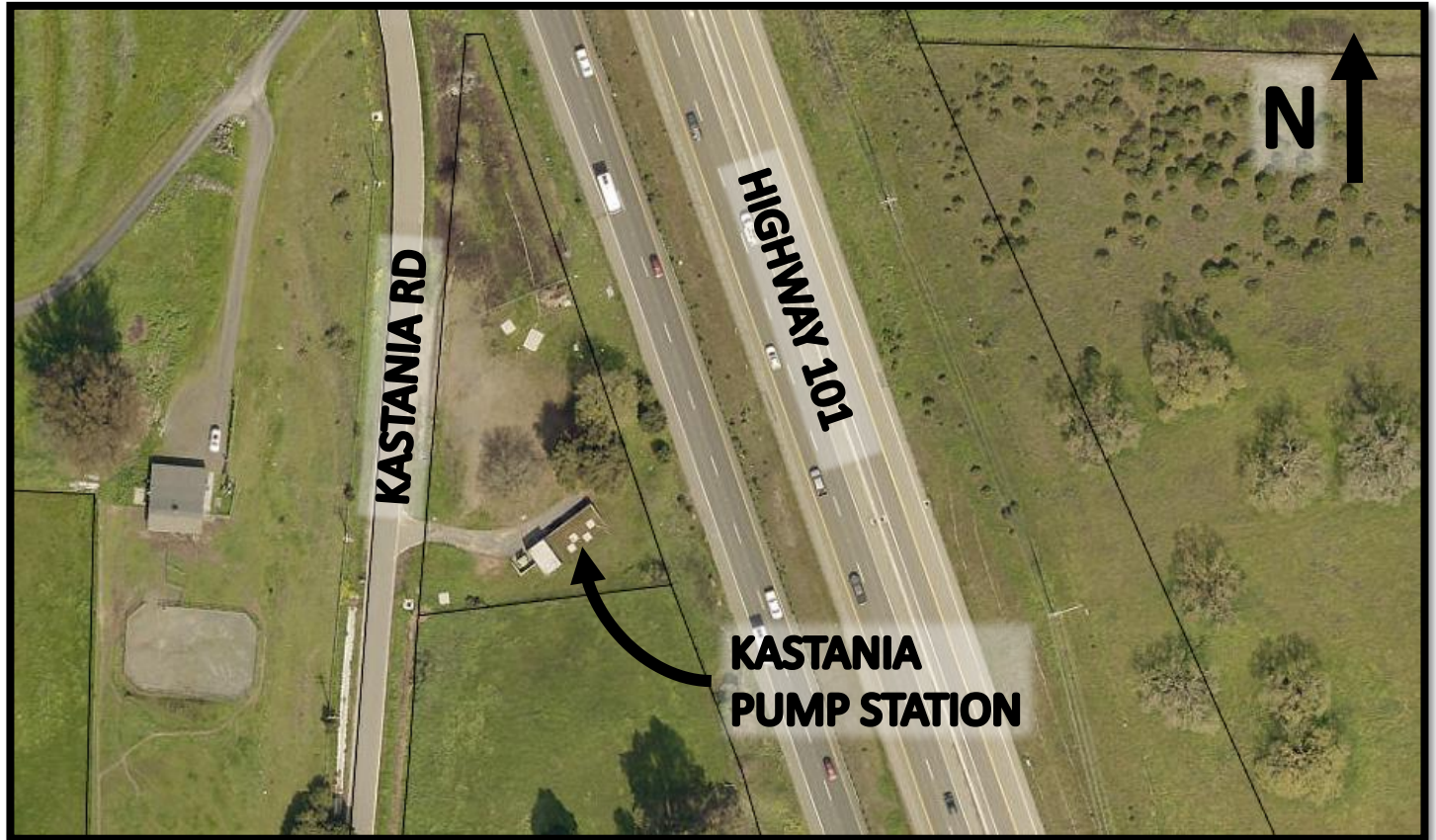
Operations Committee

December 17, 2021



Kastania Pump Station Project Update

- Background and History of Kastania PS
- Overview of Hydraulic Improvements
- Status of the Agreements
- Construction Progress and Photos
- Accomplishments
- Next Steps



Background and History

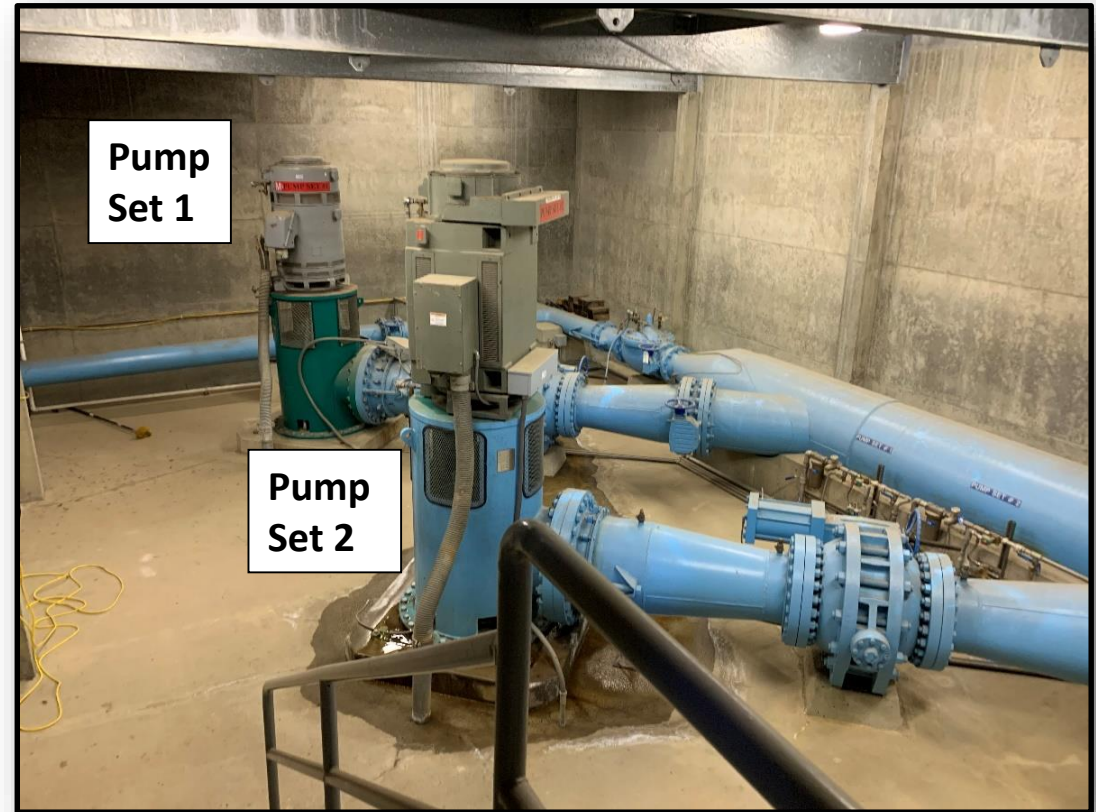
- Constructed in 1977 by MMWD
- Increase flow and pressure in North Marin Aqueduct
- MMWD owned and operated 1977 – 1999



Kastania Pump Station, Kastania Rd, Petaluma

Background and History

- MMWD transferred ownership to SCWA in 1999
- Taken offline in 2015
- Equipment:
 - Two 400 hp pumps
 - Motors, valves, electrical controls



Interior of Kastania Pump Station

Flows Available to North Marin Aqueduct – Existing Conditions (w/out Kastania)

Flowrate	~15 mgd (17-18 mgd intermittently)
North Marin Demand (Spring 2021)	<u>~11 mgd</u>
Available to MMWD	4 mgd

Flows Available via North Marin Aqueduct – Existing Conditions (with Kastania)

Available Flowrate with Kastania

21.5 mgd

Condition	North Marin Demands (mgd)	Available Water to MMWD (mgd)		Limiting Factor	MMWD Capacity (mgd)	Difference, mgd (%)
		Without Kastania	With Kastania			
Spring 2021	~11	4	10.5	MMWD System	10-12 ⁽¹⁾	6.5 (160%)

Notes:

1. Capacity of MMWD distribution system

Future Capacity with Improvements to the MMWD Distribution System

Objective - Increase operational efficiency to realize contractual import allotments and/or additional winter water supply from the Sonoma County Water Agency.

Imported Water Capacity with Kastania* (MGD)	Current Capacity AF/Yr	Contractual Allotment AF/Yr	Minimum System Improvement**
10.5-11.2	12,500	14,300	1.6+ MGD

Notes:

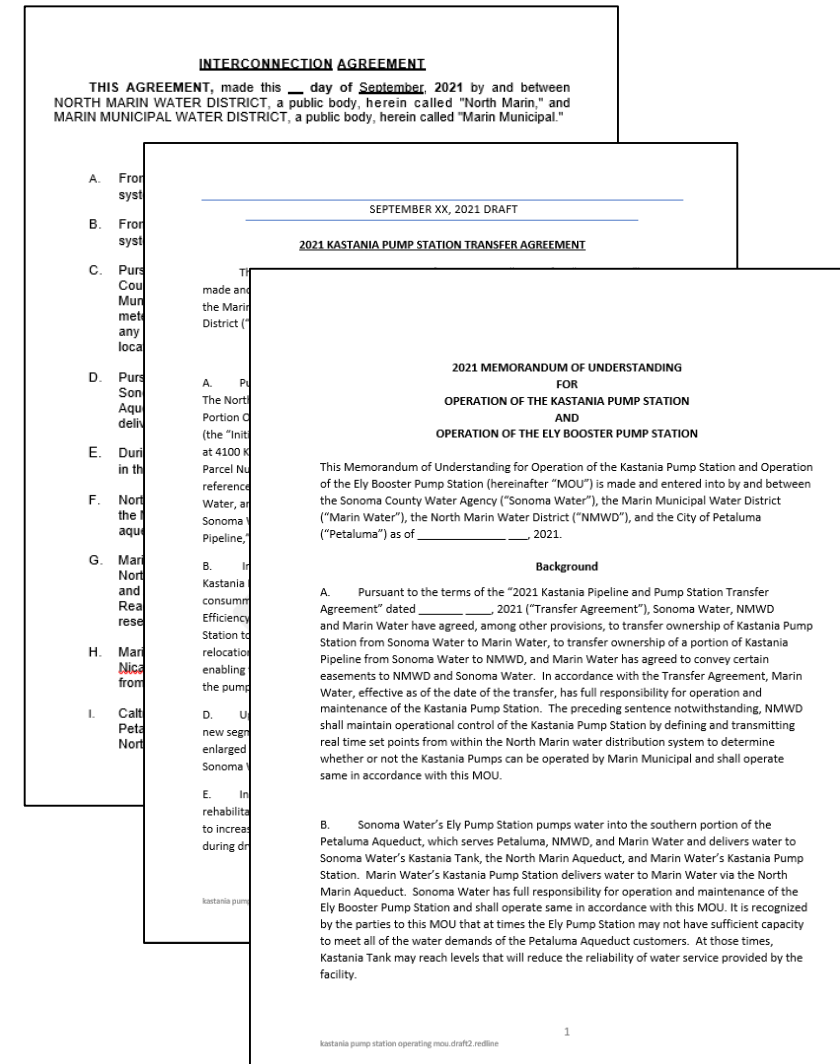
1. Current capacity of MMWD distribution system
2. Additional Improvement needed to Import Winter Water

Kastania Pump Station Agreements

- **Transfer Agreement:** Provides for the transfer of the Kastania Pump Station From Sonoma Water to the District, and subsequent conveyance of easements.
- **Interconnection Agreement:** Mechanism between the District and North Marin Water District for sharing facilities to mutually benefit both District's customers.
- **Operation MOU:** Understanding between water service providers for the operation of the Pump Station.

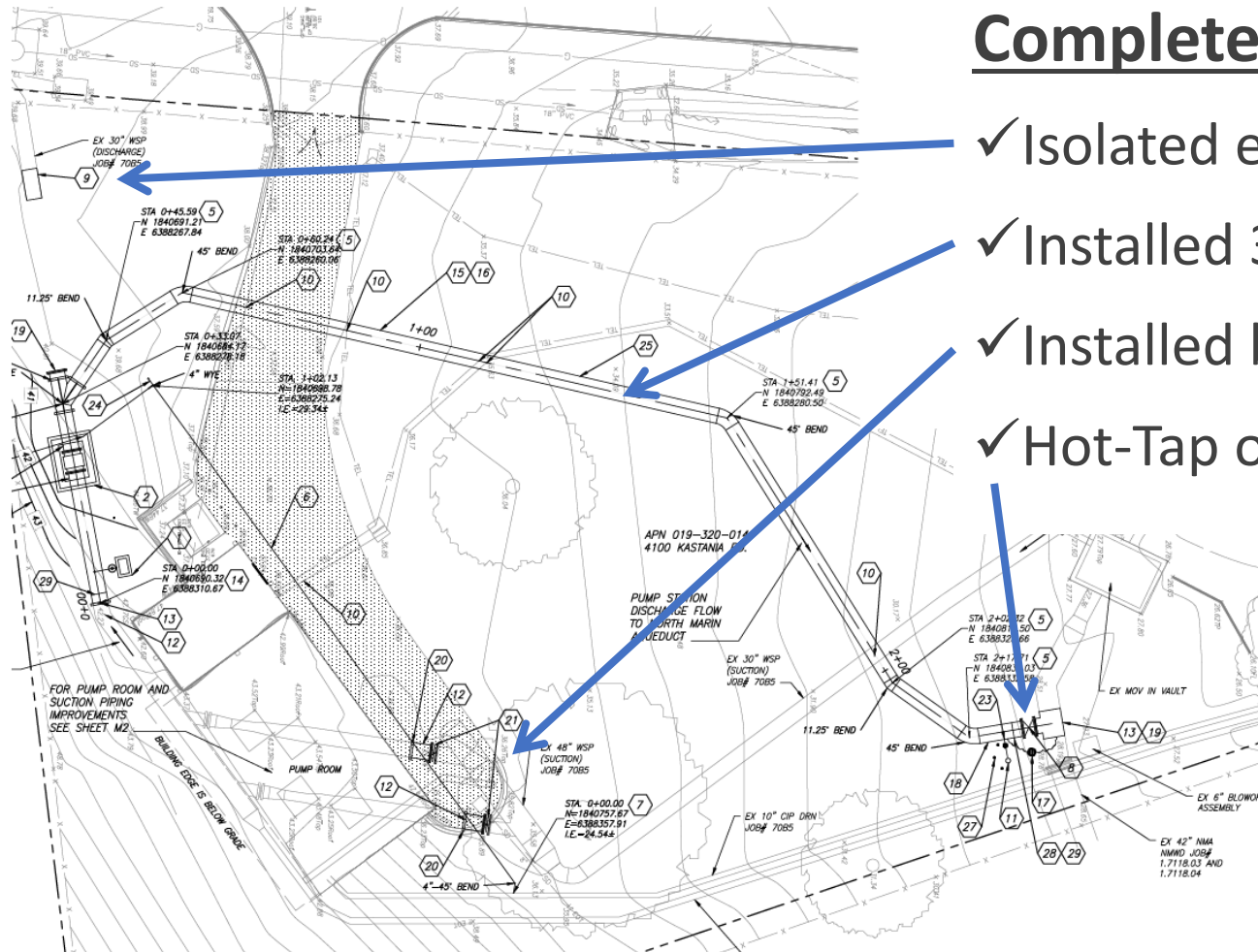
Status On Agreements

- On November 2, Marin Water and Sonoma Water Boards authorized General Managers to Execute Transfer Agreement
- On December 7, North Marin Water District Board authorized General Manager to execute Transfer and Interconnection Agreements
- Currently finalizing agreements for signature and preparing real property documents



Construction

Construction Progress



Complete:

- ✓ Isolated existing water pipeline in Kastania Road
- ✓ Installed 30-Inch piping
- ✓ Installed both butterfly valves on suction piping
- ✓ Hot-Tap of North Marin Aqueduct

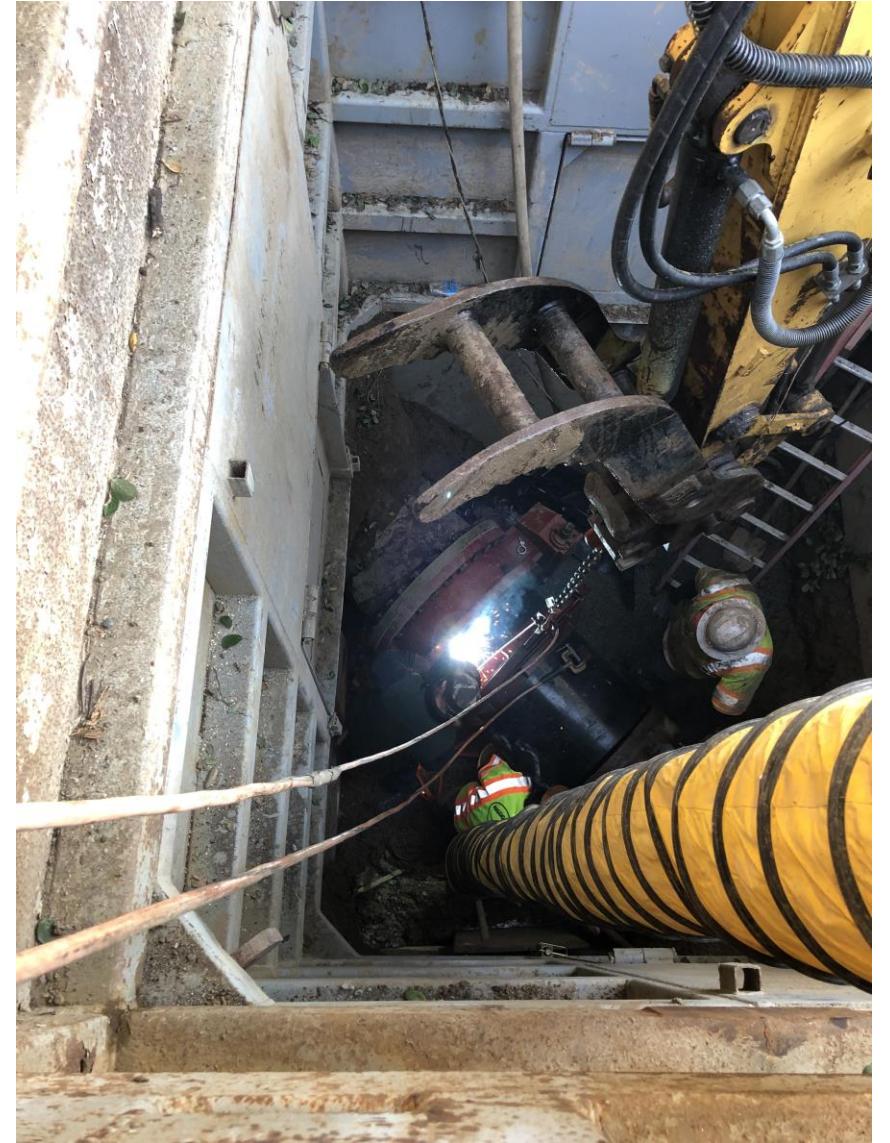
Pending:

- ☐ Testing and Disinfection
- ☐ Tie-in to North Marin Aqueduct
- ☐ Pump Station Start-up

Construction

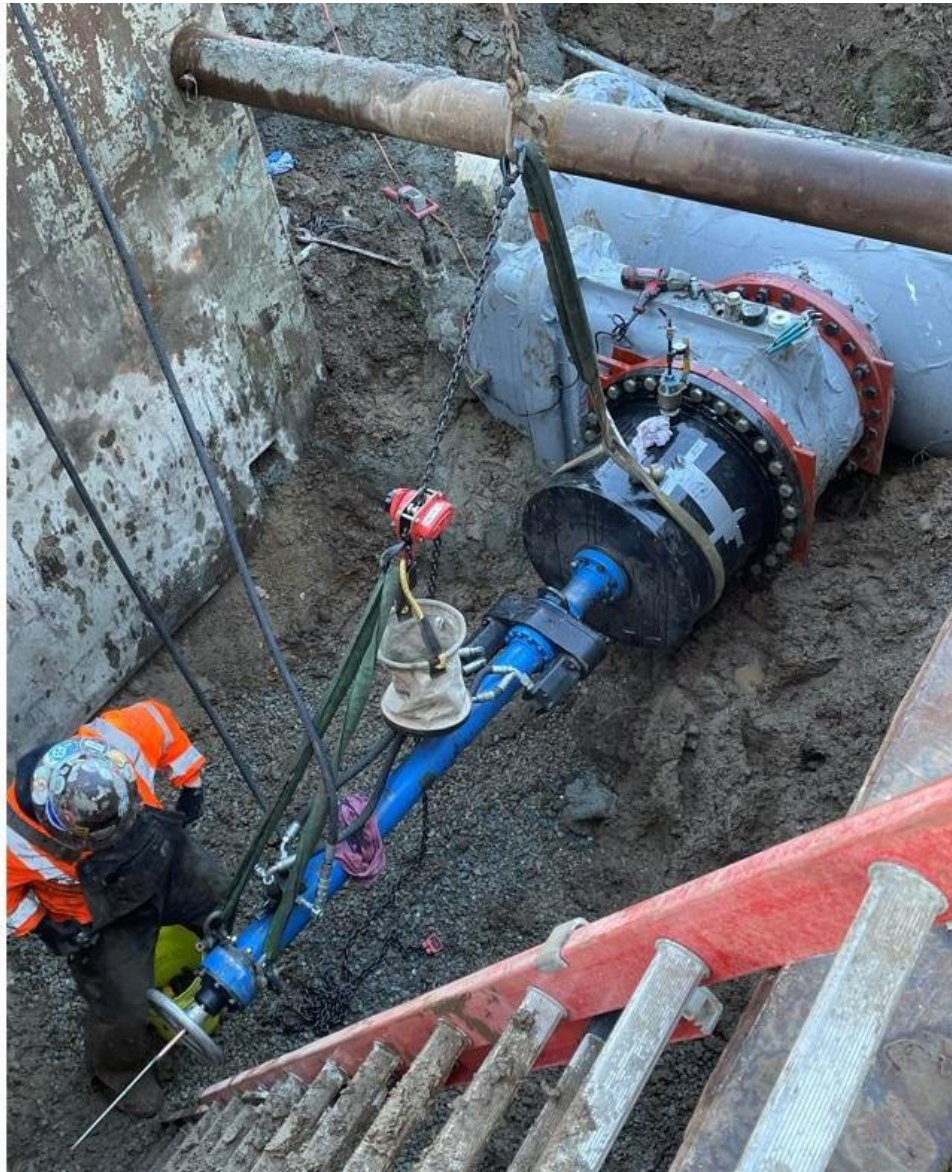


Construction



Construction





Construction



Accomplishments

- Completed design on October 12 and started construction on November 9.
- Completed Pump Station Agreements
- Completed over 80% of construction work
- Rapidly working towards commissioning pump station by beginning of January

Next Steps

- Complete right of way acquisition of the Pump Station and issue easements (week of Jan 3, 2022)
- Issue Notice of Substantial Completion and Pump Station Start-Up (week of Jan 3, 2022)
- Replace Motor for Pump No. 1 as Contract Change Order to expedite full pump station operation and redundancy (Jan/Feb 2022)
- Begin design of Phase II improvements under a traditional CIP delivery schedule for electrical and various civil improvements.

Questions?