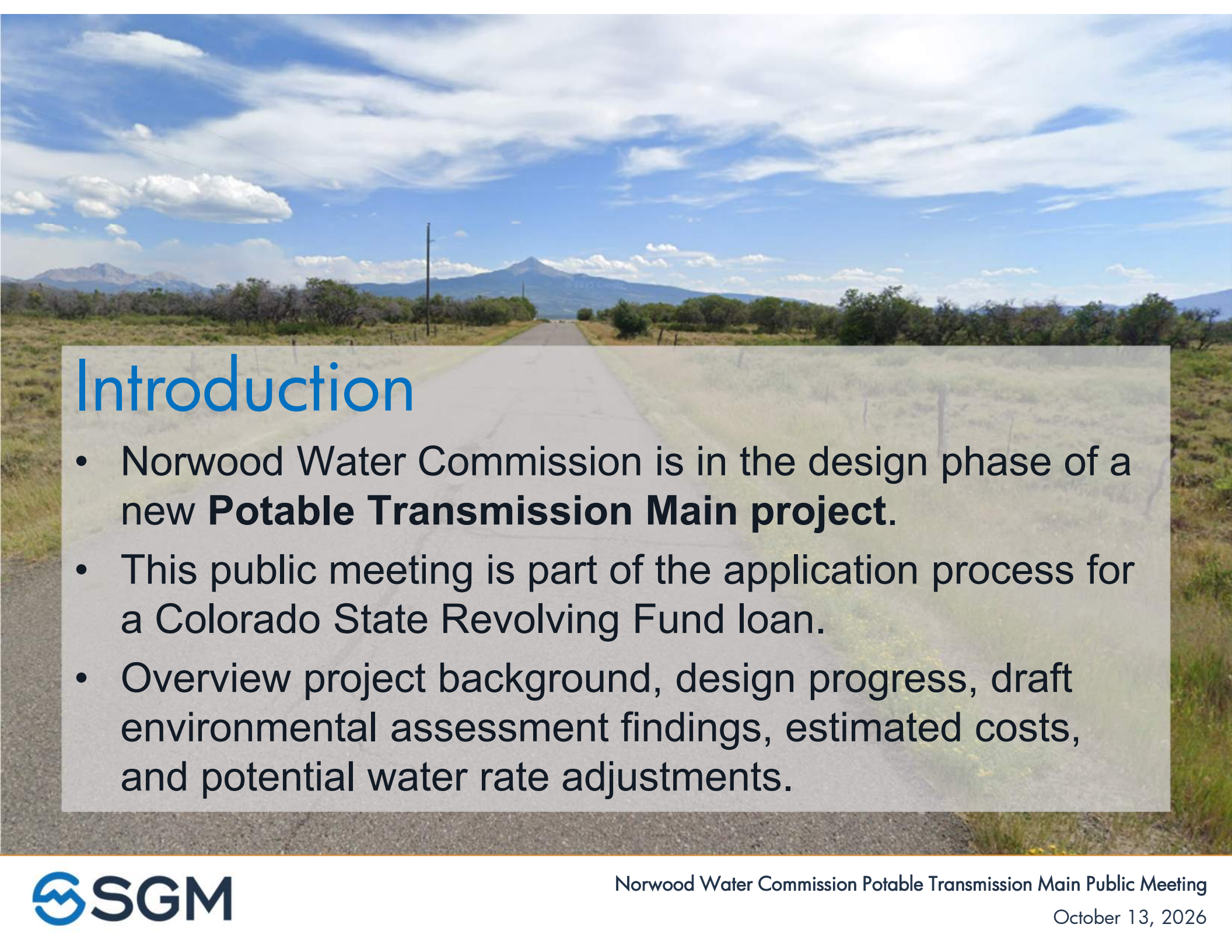




Norwood Water Commission Potable Transmission Main

Catherine Carella, PE

Design Engineer IV / Project Manager



Introduction

- Norwood Water Commission is in the design phase of a new **Potable Transmission Main project**.
- This public meeting is part of the application process for a Colorado State Revolving Fund loan.
- Overview project background, design progress, draft environmental assessment findings, estimated costs, and potential water rate adjustments.

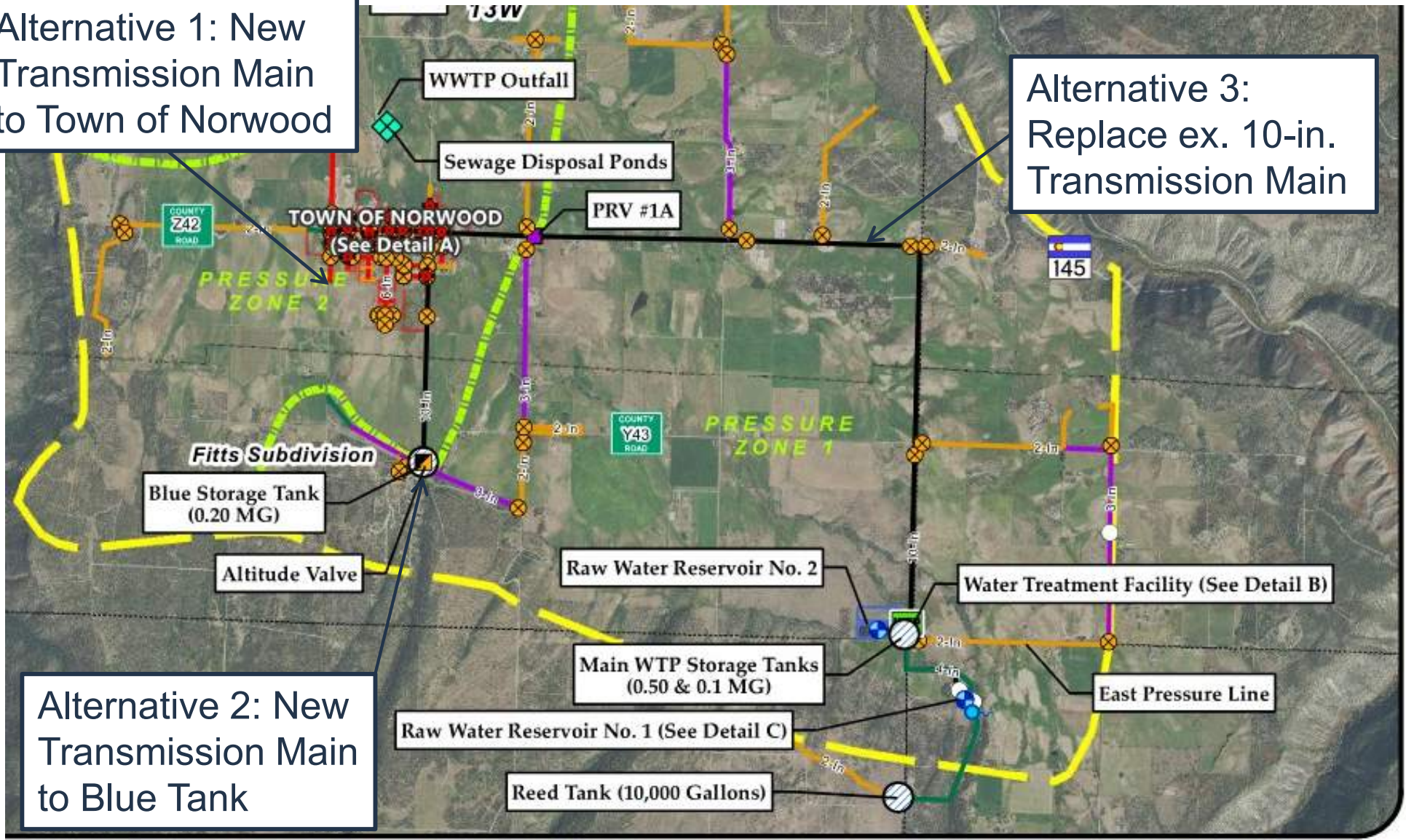
Purpose and Background

- Today, the entire water service area relies on a single transmission main that has experienced multiple failures, causing water outages, water loss, low pressure, reduced chlorine residuals, and limited fire-flow capacity.
- **Key Benefits** of the proposed Waterline
 - Improved water system reliability and redundancy
 - Reduced water outages
 - Better water quality for the community
 - Increased fire-flow capacity
 - Reduced water loss and emergency repairs
 - Enhanced resilience to drought and future growth

Project Alternatives and Phases

Alternative 1: New Transmission Main to Town of Norwood

Alternative 3: Replace ex. 10-in. Transmission Main



Transmission Main Cost Estimate

Pay Item No.	Item Description	Unit	Quantity	Unit Cost	Estimated Costs
12" Water Transmission Main - WTP to west side of Town of Norwood					
1	Stormwater Management/Erosion Control	DAY	360	\$ 90.00	\$ 32,400
2	Traffic Control Management & Devices	DAY	250	\$ 200.00	\$ 50,000
3	12" HDPE Waterline and Fittings (Incl. excavation, pipe, fittings, bedding, geotextile filter fabric above bedding, clay dams, testing) (Excl. imported backfill, asphalt paid elsewhere)	LF	22,715	\$ 220.00	\$ 4,997,300
4	Imported 1" Screened Rock, Assumes 25% of WL has unsuitable native material	TON	4,000	\$ 60.00	\$ 240,000
5	12" Gate Valves	EA	28	\$ 10,000.00	\$ 280,000
6	1" Air Release/Vacuum Valve Vaults	EA	5	\$ 15,000.00	\$ 75,000
7	PRV Vault	EA	2	\$ 168,000.00	\$ 336,000
8	Fire Hydrants	EA	1	\$ 7,500.00	\$ 7,500
9	Connection to Existing Waterlines	EA	6	\$ 5,000.00	\$ 30,000
10	3/4" Water Service Tap, Curb Stop, Meter Assembly	EA	4	\$ 8,000.00	\$ 32,000
11	Non-Potable Utility Crossing and Flowfill Backfill in Roadway	EA	8	\$ 10,000.00	\$ 80,000
12	Sawcut and Replace Hot Bituminous Pavement. Includes all material and labor necessary to provide full depth (4" Thickness) asphalt placement. Assumes 8-ft width patch.	TON	110	\$ 400.00	\$ 43,864
13	Cl. 6 Aggregate Gravel Shoulder/Driveway Replace, 8" Thickness, Assume 20% of WL	TON	2,700	\$ 65.00	\$ 175,500
14	Dewatering, Assume 20% of WL	LF	4,400	\$ 100.00	\$ 440,000
15	Restoration /Seeding	AC	9	\$ 8,400.00	\$ 75,600
Subtotal of Construction Items					\$ 6,896,000
Other Construction Costs					
	Mobilization	%	6.0%		\$ 414,000
	Bonds/Insurance	%	1.5%		\$ 103,000
	Management/Supintendent	%	3.0%		\$ 207,000
	Labor - Misc., General	%	10.0%		\$ 690,000
	Overhead and Profit	%	7.0%		\$ 483,000
	Geotechnical - Materials Testing	%	0.5%		\$ 34,000
	Construction Surveying	%	0.5%		\$ 34,000
	Construction Contingencies	%	10.0%		\$ 690,000
Subtotal of Other Construction Costs					\$ 2,655,000
Engineer's Opinion of Probable Construction Costs (EOPCC)					\$ 9,551,000
Additional Project Costs					
	Legal Services (Assumes 1 Private Easement and 1 SLB Lease)	LS	1	\$ 100,000.00	\$ 100,000
	Planning, PNA, Survey, Subsurface Utility Engineering (SUE), Env. Surveys and Permitting, Cultural Resources, Geotechnical	LS	1	\$ 306,000.00	\$ 306,000
	Project Mgt, Design Engineering, Funding Assistance, Bid Phase Support	LS	1	\$ 204,000.00	\$ 204,000
	Construction Mgt. Engineering	LS	1	\$ 150,000.00	\$ 150,000
	Construction Onsite RPR, Full-Time, Local	LS	1	\$ 70,000.00	\$ 70,000
Subtotal of Additional Project Costs					\$ 830,000
Engineer's Opinion of Probable Project Costs (EOPPC)					\$ 10,381,000

Transmission Main Project Funding

Total Estimated Project Cost	\$10.4M
1. Planning & Design Grants Awarded	\$0.5M
2. Construction	
• EPA Community Grant	\$1.25M
• San Miguel County	\$1.0M
• CO Office of Just Transition	\$0.5M
• State Revolving Fund Loan	\$7.0M
• Up to 50% Loan forgiveness ends in 2026	

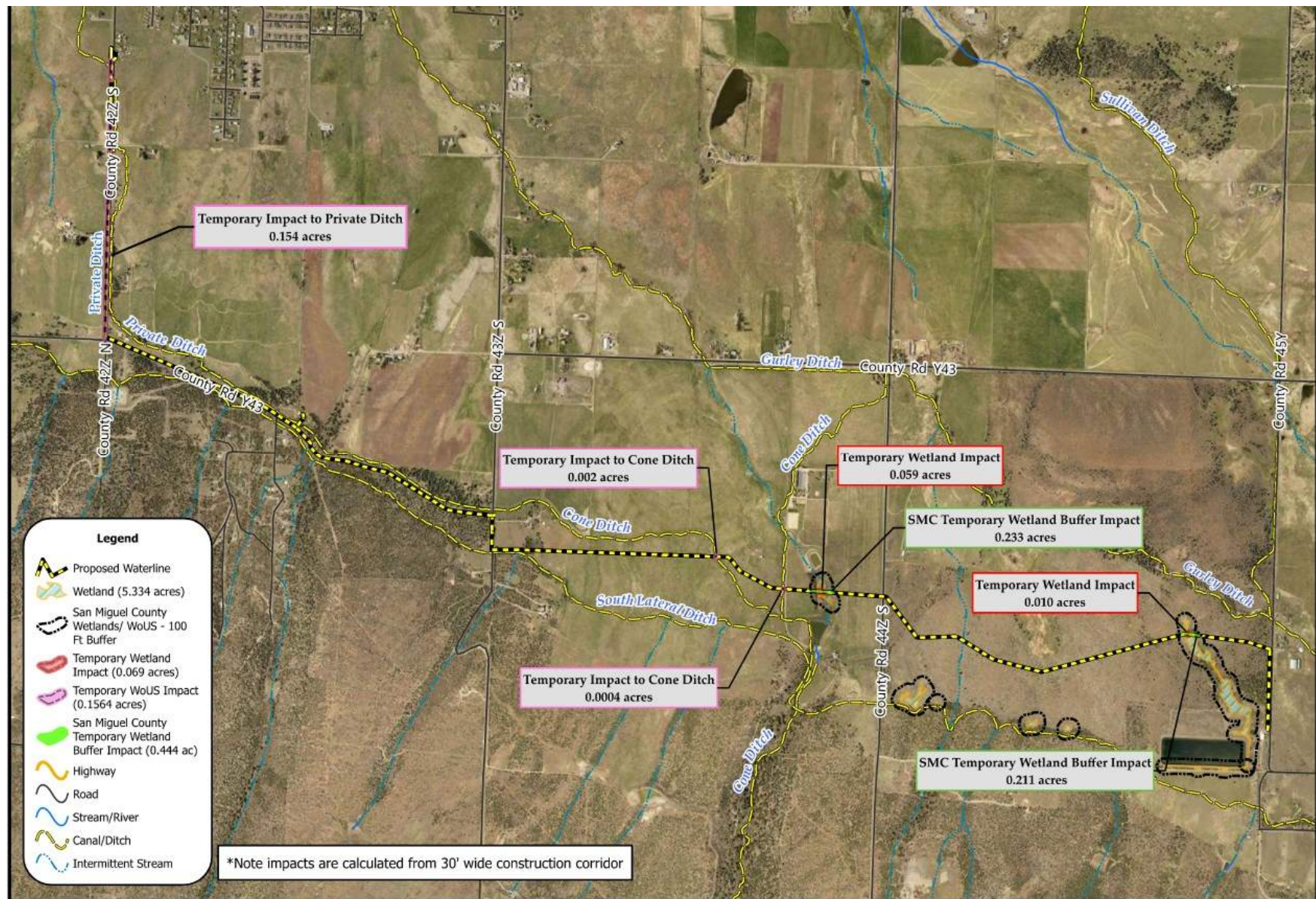
Estimated Water Rate Adjustment

- Years of Planning, Environmental Surveys, and Engineering
- Planning efforts span Multiple NWC Boards, Committed to project
- 2024 Base Rate Increase \$3
- 2025 Base Rate Increase 10%
- 2026 Base Rate Increase 10%
- Anticipated 2027 Base Rate Increase 5%

Draft Environmental Assessment (EA)

- The proposed project is expected to have no significant long-term environmental impacts to wetlands, floodplains, groundwater, wildlife habitat, or cultural resources.
- Construction will cause temporary disturbances including trenching, short-term traffic increases, noise, dust, and minor impacts to irrigation ditches and approximately 0.07 acres of wetlands, all of which will be restored following construction.
- Protective measures such as erosion and sediment controls, stormwater management, revegetation, and wetland restoration will be implemented to minimize impacts.

Delineated Wetlands



Next Steps

- Submit the loan application to CDPHE for review
- Finalize the construction funding strategy, necessary water-rate adjustments, and design.
- Incorporate agency review comments into environmental assessment and 30-day public comment period.
- Obtain landowner permissions and authorizations.
- Project documents are on display in the back of the room or may be viewed here: [NWC Potable Transmission Main Public Meeting](#)



Questions?

Catherine Carella, PE

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