

To: Mountain Regional Water Administrative Control Board Members

From: Sam Grenlie Jessica DiCaprio

Date: January 16<sup>th</sup>, 2025

Re: 2025 Capital Project Preview

# **Background**

This memorandum is a preview of the District's 2025 engineering, construction, and improvement projects. These projects are broken into three 'tiers' (see explanation in blue) below.

This is solely for the Board's information, and there are no action items requested.

Tier 1 Projects (criteria listed below):

Quarterly Board updates minimum.

Contract amount 5% of District annual operating budget, or greater. Generally large, bid construction projects with external management support.

## 1. Matterhorn Terrace Water Line Replacement

- a. Project Summary:
  - i. This project replaces an undersized and original water line in Matterhorn Terrace in Summit Park. This is Summit County's priority roadway project for 2025, and Mountain Regional is utilizing the opportunity to replace and upsize this water line (from 6-inch to 10-inch) which is approximately 1,800 liner feet. This project is in a challenging area to access in the winter for repairs. Lastly, by upsizing the line it allows MRW to potentially abandon an off-road loop which is on an extreme grade and may not be possible to repair in the future.
- b. Budget:
  - i. \$910,000
- c. Schedule:
  - i. Substantial Completion September 15, 2025





## Tier 2 Projects (criteria listed below):

Annual Board summary, updates as necessary. Moderate sized, bid construction projects with partial external management support.

# 2. Browns Canyon Connection Betterment

- a. Project Summary:
  - i. This project is also a 'betterment' tied to Promontory's extension of their roadway, Painted Valley Pass, to the southeast terminating at Browns Canyon Road (~9,000 linear feet). Promontory has finalized the alignment and has moved forward with mass grading in preparation of the utilities and paving. The District 'betterment' is upsizing the water line (where necessary) to Browns Canyon for future use – whether that be additional development or expansion. This project has been scoped since the 2019 Impact Fee Facility Plan and is impact fee eligible.
- b. Budget:
  - i. \$255,000
- c. Schedule:
  - i. This is a Promontory managed project, and a proposed schedule will be provided during the preconstruction meeting.



Approved Alignment for Painted Valley Pass to Browns Canyon Road

# 3. Highway 224 Interconnect

- a. Project Summary:
  - i. The Highway 224 Interconnect is an additional connection between Park City (PCMC) and Summit Water Distribution Company (SWDC). This transmission line roughly follows Highway 224 from Holiday Ranch Loop Road north to just past White Pine Canyon Road (tying into an existing Summit Water line). This is approximately 10,500 linear feet of transmission line. As previously presented to the Board, this would allow 2,400 gallons per minute of flow from PCMC to SWDC and potentially free capacity in the Highway 40 System to allow for a connection between PCMC and Mountain Regional. With the interpretation of the Regionalization Agreement, all three parties are splitting costs in thirds.
- b. Budget:
  - i. \$2,319,554 (Awarded Contract to Whitaker Construction, Inc. in the amount of \$6,958,662)
- c. Schedule:
  - i. End of year, 2025. This project will be managed by PCMC.



Alignment for 224 Interconnect Village Round Drive to Holiday Ranch Loop Road

# 4. Promontory 'South Pond' Raw Water Storage

- a. Project Summary:
  - i. This project will expand the raw water system of Mountain Regional as we continue to serve Promontory's expanding development via a large raw water, surface reservoir. While development driven projects are not typically reported on in these updates, this raw water storage project is significant enough to warrant a quarterly update to the Board. This reservoir will sit at the same elevation as Signal Hill Pond and be connected via an existing raw water transmission line. This will serve as 1) equalization for the new Hills Short Course, 2) offset very high peaking factors within the Promontory Development, and 3) serve as additional emergency water storage.
- b. Budget:

i. TBD, at Promontory's expense to meet development build out.

- c. Schedule:
  - i. Final Acceptance September 15, 2026.



Proposed Pond Locations and Existing Raw Water Transmission Line

### **Tier 3 Projects**

Annual Board summary at a minimum. Mountain Regional internally managed system upgrades and construction.

#### 1. Summit Park Electrical and Well Improvements

- a. Project Summary:
  - i. Many facilities in Summit Park have outdated electrical or equipment that are scheduled for upgrades. The District has three key facilities slated for 2025:
    - 1. Innsbruck Booster Pump Station
      - a. A new Motor Control Center (MCC) will be built and installed. This is a four panel MCC including breakers, variable frequency drives, and relays. This is an essential part of managing and monitoring the electrical systems in the booster pump station. Innsbruck Booster Pump Station is also the location of Summit Park Well 2, which was rehabilitated in 2024. This project will also upgrade the controls of this well to allow automated use through the District SCADA system as a peaking source.
    - 2. Summit Park Well 5
      - a. This well is an 'as needed' source in Summit Park, but is not generally turned into the system. It was used extensively during the 2023 Summit Park Tank 1 project and may be needed in the future for emergency use. The electrical at this well site is also in need of repair with a MCC replacement in line with Innsbruck Booster Pump Station.
    - 3. Summit Park Well 7
      - a. Summit Park Well 7 is the most critical source in Summit Park and meets the demands for the highest pressure zone. This area of the system is difficult to reliably chlorinate, and the electrical system requires an upgrade:
        - i. A chlorination system will be installed at this well with a chlorine structure added to the facility. A booster pump will be needed to utilize a gas chlorine system in line with other District installations.
        - ii. The electrical will also be upgraded with a new MCC, per the previous projects.

- b. Budget
  - i. Innsbruck Booster Pump Station: \$180,000
  - ii. Summit Park Well 5: \$60,000
  - iii. Summit Park Well 7: \$80,000
- c. Schedule:
  - i. Completion end of year 2025.



# 2. Lost Canyon Pump 1 Upgrade

- a. Project Summary:
  - i. Lost Canyon Booster Pump Station has a smaller pump installed in the 'number one' can. This pump is not currently useful to the District under modern operating scenarios. To increase redundancy in the critical pump station, MRW will replace Pump 1 and its electrical to allow for two pumps to be taken offline at any time. This allows the District to hit peak flow rates with eight out of the ten total pumps in service (approximately 9,200 gpm).
- b. Budget
  - i. \$250,000
- c. Schedule:
  - i. Completion end of year 2025.



Final Measurements with a Pump Supplier on LC Pump 1

# 3. Old Ranch Booster Pump Station Electrical Improvements

- a. Project Summary:
  - i. This project is a continuation of the 2024 upgrades to Old Ranch Booster Pump Station. An on-site generator will be installed along with all necessary electrical improvements. Given the significance of this facility and focus on resiliency, this is the next logical site for a permanent generator installation. The Colony, Silver Springs, Sun Peak and the Olympic Park are directly (or indirectly) affected and/or supplied by this pump station.
- a. Budget
  - i. \$1,100,000 (reduced by 100,000 due to 2024 cost savings)
- b. Schedule:
  - i. End of year 2025



Old Ranch Road Booster Pump Station after 2024 Upgrades:

- 1) Mechanical Improvements
- 2) Reverse Flow Control Valve
- 3) Nitrogen Based Surge Protection
  - 4) Paved Access and Parking

# 4. Enterprise Asset Management Implementation

- b. Project Summary:
  - ii. The District's Enterprise Asset Management (EAM) solution has been selected in 2024 (OpenGov). EAM refers to the systems and strategies used by organizations to manage and maintain assets, throughout their lifecycle. Mountain Regional has a very large and intricate water system, but a limited number of customers. As such, we are put in a challenging position to maximize return on investment in our assets. It is our hope that the OpenGov system will allow MRW to work well across departments while being strategic in capital project selection. In addition, the system can be utilized in the future for:
    - 1. Asset tracking
    - 2. Inventory management
    - 3. Preventive and predictive maintenance
    - 4. Work order management
- c. Budget
  - i. \$156,000
- d. Schedule:
  - i. TBD, currently meeting January 15<sup>th</sup> to finalize schedule.

# 5. Lost Canyon Transmission Line Air Valve

- a. Project Summary:
  - i. We are planning on installing a combination air and vacuum valve along the Lost Canyon Transmission Line. During a recent study with Weber Basin Water Conservancy District, a location was identified for a possible air valve to improve the resilience against surge phenomenon in the transmission line. Since current Lost Canyon Booster Pump Station flows can have significant surge, this is a relatively inexpensive investment to increase protection of the transmission line.
- b. Budget
  - i. \$10,000 design
  - ii. \$40,000 construction
- c. Schedule:
  - i. November 2024

# 6. Signal Hill Insulation Repairs

- a. Project Summary:
  - i. Signal Hill Water Treatment Plant has failing insulation in the north end of the building as part of the plant original construction. The District has been working with fabricators and contractors to find a solution to repair the failing insulation – which has been a challenge over the past years. MRW has found a qualified contractor and lift capable of working in Signal Hill to make these repairs, which will be done in sections. The most critical repair will happen in conjunction with a plant shutdown to ensure no contamination in the treatment process.
- b. Budget
  - i. \$255,000
- c. Schedule:
  - i. Phased over 2025.



Failing Treatment Plant Insulation at Signal Hill Water Treatment Plant

# 7. Blackhawk Well 2R Rehabilitation

- a. Project Summary:
  - i. Blackhawk Well 2R is the only source on the 'North Ridge' area of the system – with the other water demands being fed from the Atkinson Zone. This well is due to rehabilitate as we continue to invest in our groundwater resources and preventative maintenance (following the Summit Park well rehabilitations in 2024).
- b. Budget
  - i. \$75,000
- c. Schedule:
  - i. Phased over 2025.

#### MOUNTAIN REGIONAL WATER 2025 PROJECT TRACKING

PROJECT TITLE			SCOPE COMPLETE			Janu	January		February			March			April			May			June				July			August		September				Oct	ober	ľ	November			Dec	er	
		MANAGER		BUDGET	12/30	1/6 1/13	1/20	2/3	2/10	2/17	3/3	3/10	3/17 3/24	3/31	4/7	4/14 4/21	4/28	5/5 5/12	5/19	5/26	6/3 6/9	6/16	6/23 6/30	717	7/14	7/28	8/4	8/11 8/18	8/25	9/1	9/8 9/15	9/22	9/29 4 n ie	10/13	10/20	1 U/ 2/ 11/3	11/10	11/17	11/24	12/8	12/15	12/29
1	Tier 1: Large Bid Construction Projects																																T		$\square$	T						T
1.1	Matterhorn Terrace Water Line Replacement	EDM	0%	*\$910,000																																						
2	Tier 2: Moderate Sized Bid Construction Projects																																									
2.1	Browns Canyon Connection Betterment	Promontory	20%	\$255,000																																						
2.2	Highway 224 Interconnect	WBWCD	0%	\$2,319,554																																						
2.3	South Pond Raw Water Storage	Promontory	0%	NA																																						
3	Tier 3: District Managed Projects																																									
3.1	Summit Park Electrical and Well Improvements	MRW	5%	\$320,000																																						
3.2	Lost Canyon Pump 1 Upgrade	MRW	20%	\$250,000																																						
3.3	Old Ranch Booster Pump Station Upgrades	MRW	45%	\$1,100,000																																						
3.4	Enterprise Asset Management Implementation	MRW	5%	\$156,000																																						
3.5	Lost Canyon Transmission Line Air Valve	MRW	10%	\$50,000																																						
3.6	Signal Hill Insulation Repairs	MRW	50%	\$255,000																															$\Box$							
3.7	Blackhawk Well 2R Rehabilitation	MRW	0%	\$75,000																																						
4	Tier 4: Design and Engineering Studies																																									
4.1	Signal Hill Water Treatment Plant 60% Design	Carollo	0%	\$1,404,981																																						
4.2	Canyons Tank Design	Aqua	0%	TBD																																						
4.3	Asset Management Systems	Jacobs	0%	TBD																																						
4.4	Upper Evergreen Water Line	EDM	80%	\$29,000																																						
4.5	Aquifer Storage and Recovery Project	LRE	0%	\$35,000																																						
4.6	Bear Hollow Booster Pump Station	Aqua	10%	TBD																																						

Red cells indicate last chart update date.

Light green cells indicate project schedule and duration.

Dark green cells track project progress.

Light gold cells indicate critical milestone.

Dark gold cells indicate completed milestone.