

THE PROJECT 7 RESILIENCY PROGRAM

Workshop #1 Summary

Project Summary
30/60/90 Day Look-Ahead
Funding Summary
Raw Water Discussion

February 25, 2020



Agenda

MEETING PURPOSE & GOALS

- ✓ Define a Structure and Format for Workshops in 2021
- ✓ Present Water Supply Resiliency Program Progress Updates
- ✓ Plan for 2021 Funding and Community Outreach Efforts
- ✓ Present Technical Information on Raw Water Delivery to the Ridgway WTP Site



Agenda

AGENDA

- ✓ Introduction and Overview of Program
- ✓ 30/60/90 Day Look-Ahead
- ✓ Communications Planning & Community Outreach
- ✓ Funding Strategy: US BoR Grant – Signed Official Resolution
- ✓ Well Field Study – Preliminary Findings
- ✓ Raw Water Options Analysis Discussion

THE PROJECT 7 RESILIENCY PROGRAM

**Program Workshop
#1**

Program Overview

February 25, 2020

The P7 Resiliency Program ensures:

- Full access to Water Supply Portfolio
- Resiliency in Supply and Delivery

MAJOR PROGRAM COMPONENTS

01

New water treatment facility
(Location: South of Colona)

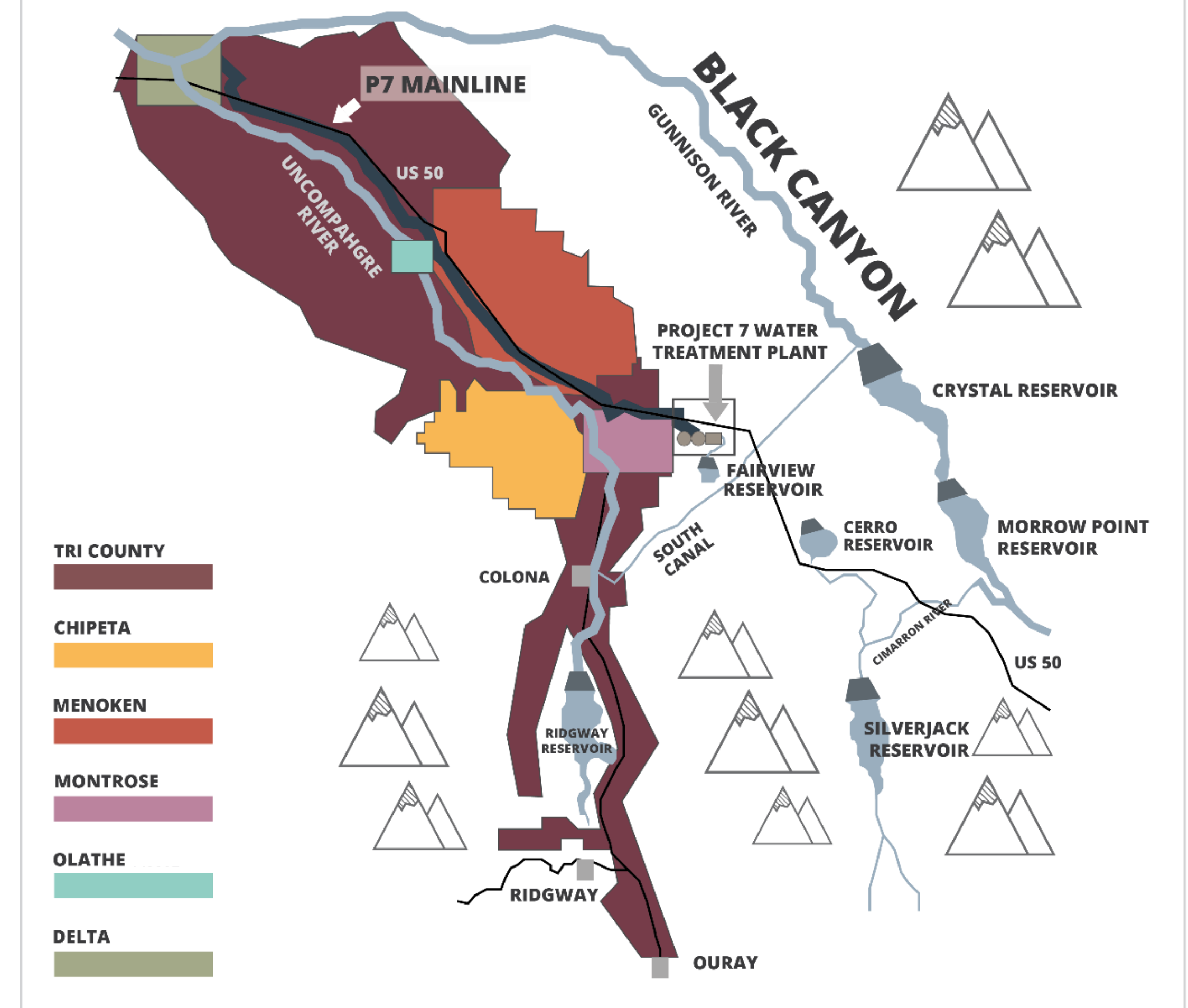
02

New raw water source
(Ridgway Reservoir storage water,
accessed via Uncompahgre flows)

03

New transmission pipeline
connections

PROJECT 7 WATER AUTHORITY SOURCE & TRANSMISSION LINES



Program Benefits

 We're financial stewards and cost conscientious.	 We understand the value of water.
 We're an "all for one, and one for all" community.	 We depend on a safe and reliable water system.

Shared Values



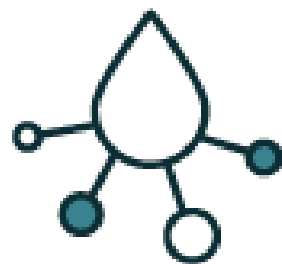
Invest in the Future

Realize P7's founding vision of a resilient and reliable water supply for the Uncompahgre and Gunnison Valleys.



System Strength

Develop a new water supply that reduces the risk of supply interruptions due to wildfire or drought in the Gunnison watershed, or transmission failures in the Gunnison Tunnel.



Direct Access

Directly use existing water rights in Ridgway Reservoir rather than relying on water trades to access this resource.



Reliable

Reduce the need to pump water around the valley which lowers maintenance costs and benefits the environment

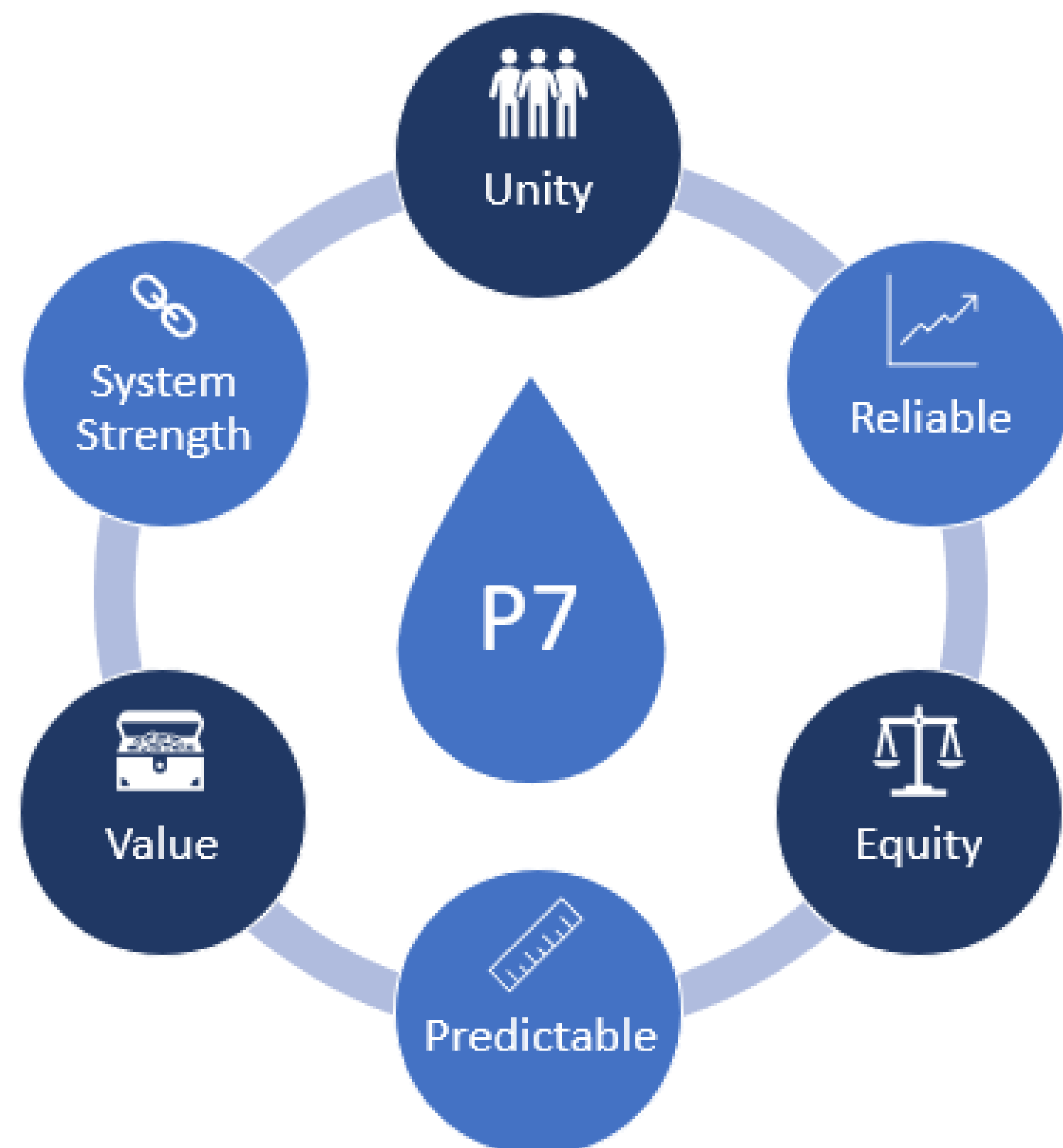
THE PROJECT 7 RESILIENCY PROGRAM

**Program Workshop
#1**

**Communications
Plan**

February 25, 2020

Goals & Objectives



Overarching Goals

- **System Strength:** Proactively manage major risk factors from wildfire, drought, distribution system and/or tunnel failures for all members
- **Reliability:** Secure a cost-effective regional drinking water system that is reliable, diversified, scalable and less dependent on pumping
- **Predictability:** Provide clear and transparent alternatives analysis, cost projections and specifics on how the ultimate program is paid for

Communications Objectives

- **Unity:** Generate understanding of why the project is needed and establish a strong regional coalition of informed community champions
- **Equity:** Demonstrate the significant regional benefits and return on investment for all communities served by the members of Project 7
- **Regional Value:** Maximize state and federal funding to multiply every dollar contributed locally and leverage the western Colorado workforce to simultaneously strengthen the regional economy and water supply.

Coalition Building



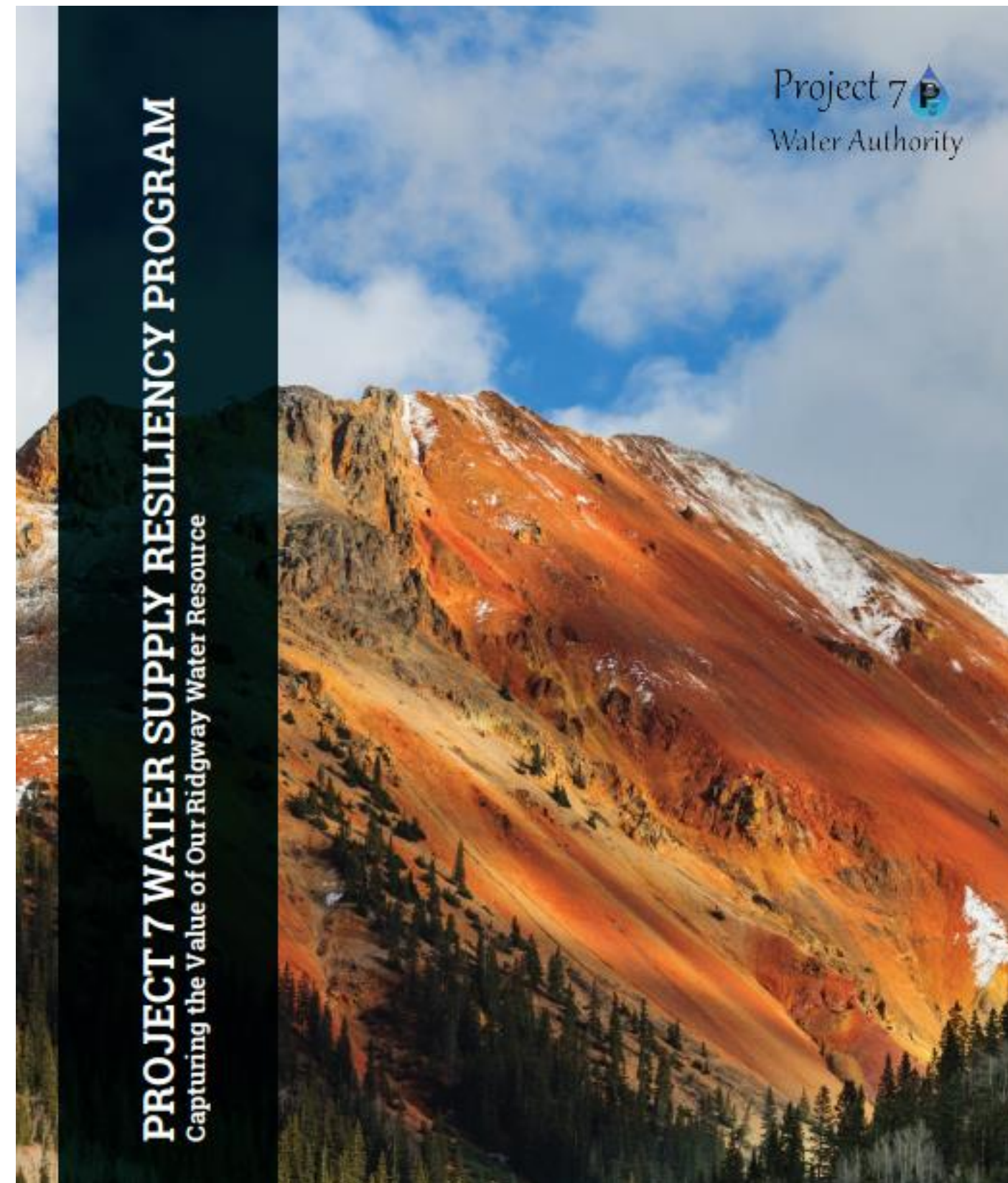
Board Facilitation: A series of board meetings will be planned and facilitated to advance strategic discussions at key project milestones:

- Q1-2021: Project planning and revenue strategy
- Q2-2021: Financial analysis and funding pursuit
- Q3-2021: Finalize project and treatment process design
- Q4-2021: Phasing and implementation planning

Community Outreach: Build a broad base of political support and community buy in.

- Leadership Briefings: Support individual P7 members in communicating with their respective leadership in a way that is right for their organization.
- Statements of Support: Cultivate individual commitments (in writing or via resolution, if possible) from each Project 7 governing body for the financial plan necessary to move the resiliency project forward.

Discussion Zone



- Who else should we be talking with?
 - Business, government, environmental, community and civic leaders



- How much awareness about the project exists today?
- With community leaders?
- With the general public?

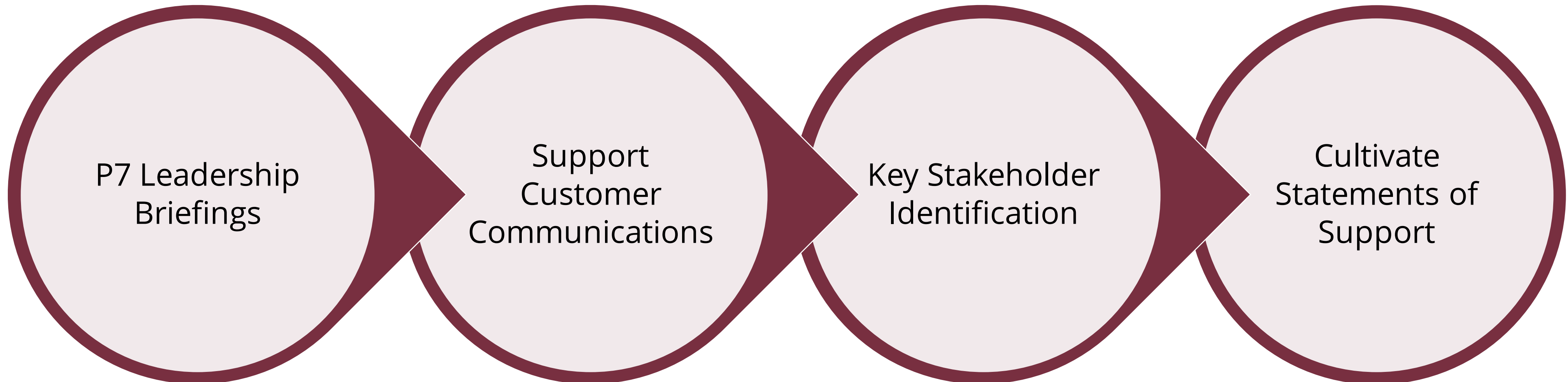


- How much awareness exists in the community today about regional water supply and potential risk factors?



- Where do you see opportunities?
- Where do you see challenges?
- How do we define success?

Next Steps



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**Program Workshop
#1**

Funding Brief

February 25, 2020

Common Funding Avenues

Schedule



State Revolving Fund (SRF)



Department of Local Affairs (DOLA)



Colorado Water Conservation Board



Office of Economic Development (Opportunity Zones)



USDA Rural Development Program



Water Infrastructure Finance and Innovation Act (WIFIA)



EPA and FEMA Risk Mitigation and Resiliency Initiatives



US Bureau of Reclamation

THE PROJECT 7 RESILIENCY PROGRAM

**Program Workshop
#1**

**Technical Discussion
(Site Investigations)**

February 25, 2020

- Survey completed in late 2020
 - Survey of finished water line alignment
 - Survey of building site on Ford Parcel
- Delivery of final survey materials expected in February

Survey



- Geotechnical completed in November / December of 2020
 - 8 exploratory boreholes
- Findings
 - Primarily fractured Dakota Sandstone
 - Excavatable and Load Bearing
 - Identified possibility of void spaces below building site

Geotechnical Investigation

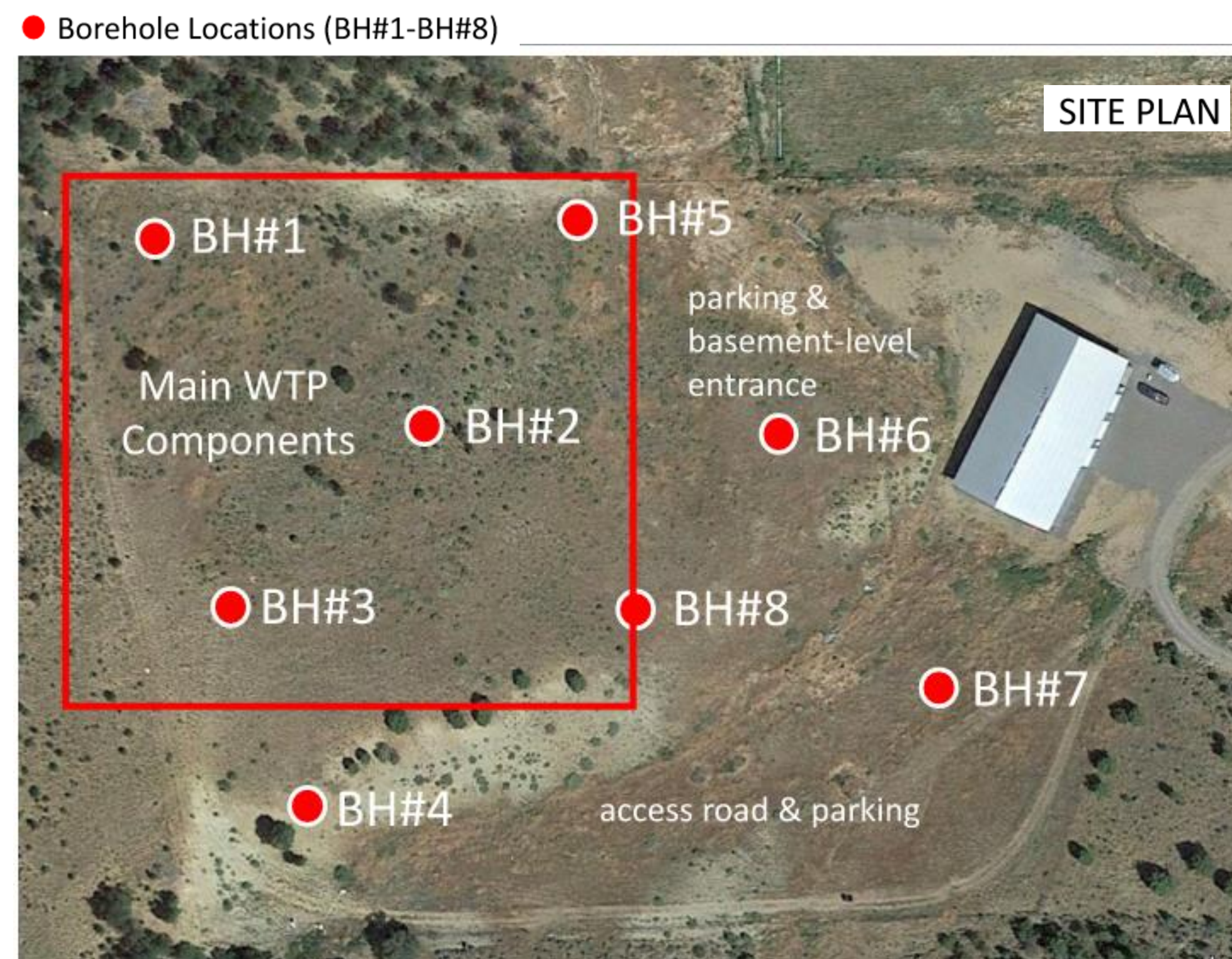
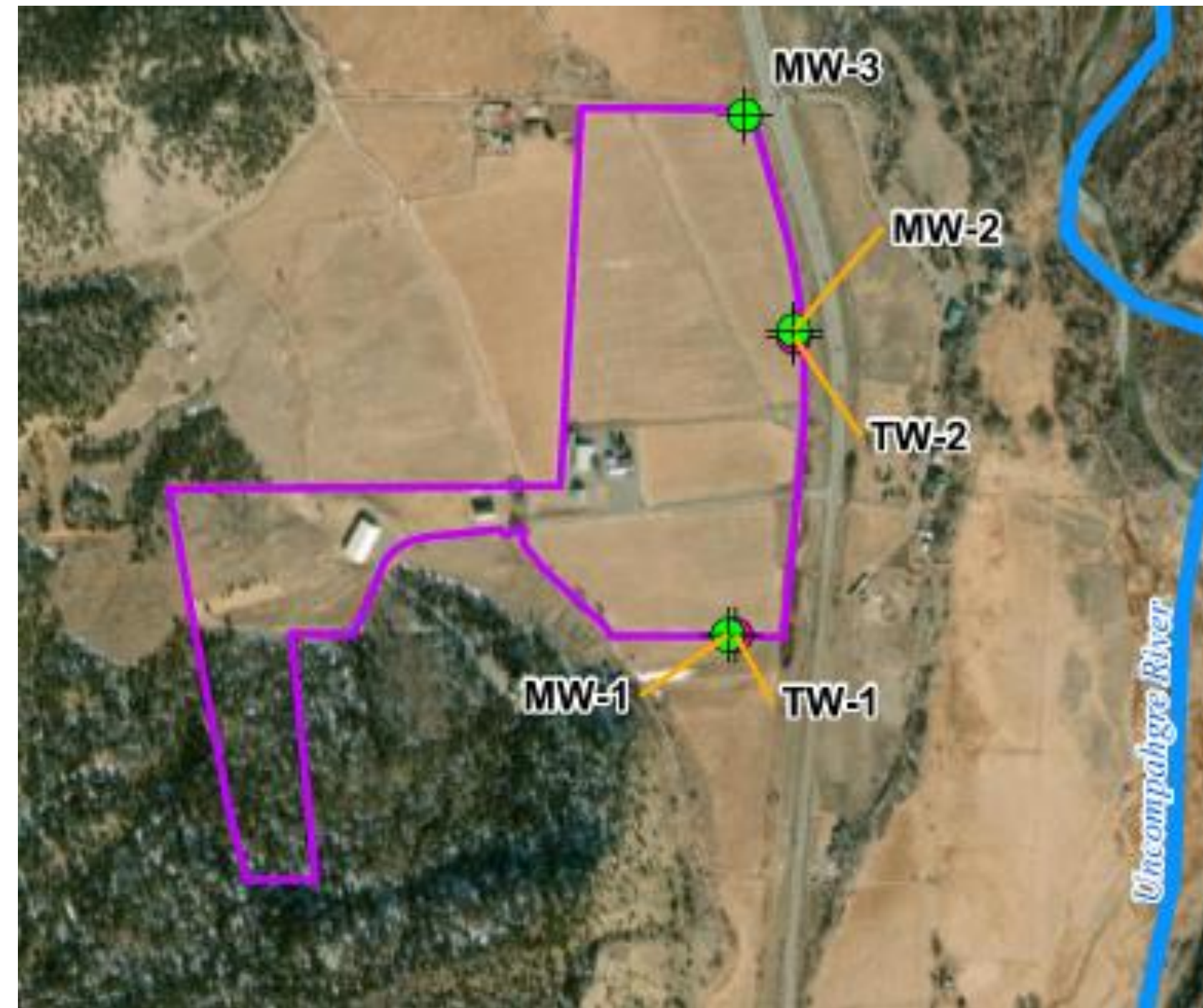


Figure 3 (left) are the rock core samples from BH#1 at 4 to 34 feet. Figure 4 (right) are the core samples from BH#2 at 40.5 to 52 feet.

- Test Wells installed in November 2020
- Analytical evaluation and draft report submitted in February 2021
- Modeling to assess horizontal/radial wells and optimized configurations ongoing (March 2021)

RBF Feasibility Study



Dry soil for the first 35 ft of drilling at TW-1



Sandstone and shale cuttings from MW-1



MW-3 transition to greenish brown thick silty clay



MW-3 shale and sandstone cuttings

THE PROJECT 7 RESILIENCY PROGRAM

**Program Workshop
#1**

**Technical Discussion
(Raw Water Delivery)**

February 25, 2020

- Goal 1: Develop sufficient conceptual alternatives to accurately estimate rough order of magnitude costs (capital and O&M)
- Goal 2: Use this information to make a sound engineering recommendation that is right for Project 7 and surrounding communities

Raw Water Delivery



- Three Options Evaluated

- Raw water transmission line from Ridgway Reservoir to Ridgway WTP site
- River bank filtration at Ridgway WTP site with in-river raw water transport
- Traditional river water diversion structure located adjacent to Ridgway WTP site with in-river raw water transport

Raw Water Delivery



Figure 3-1: Project Corridor and Alignment Segments (Note: Segment B is shown in green)



Figure 1 – RBF project site property boundary map (black polygon) with primary geophysics surveying areas of interest indicated with the yellow polygon and two river profiles extending east towards the Uncompahgre River. The conceptual well layout is also included in the figure, with tentative well placements indicated with red and blue pins.

- Surface Water Diversion
- Benefits:
 - Lowest anticipated cost
 - Easily scaleable (5MGD – 10 MGD)
- Challenges:
 - Most fluctuation in raw water quality
 - Requires easement acquisition
 - Pumping costs (higher O&M)
 - Requires additional permitting

Raw Water Delivery



- Raw Water Transmission Line
- Benefits:
 - Initial install at 10 MGD Capacity
 - Can be paired with small hydro
 - Lowest O&M Costs
 - More stable water quality than river diversion
- Challenges:
 - Higher cost alternative
 - Very challenging construction site
 - Easements will be required

Raw Water Delivery



- RBF Well Field
- Benefits:
 - Modular capacity (4 MGD now / 10 MGD later)
 - Most stable water quality
 - Ability to achieve natural treatment credits
 - Could reduce the size and complexity of the Ridgway WTP
- Challenges:
 - Low well yields make this a challenging option
 - Highest cost option (pending final report)
 - Easements will be required
 - Highest O&M Costs (due to well rehab requirements)

Raw Water Delivery



Questions and Discussion