

# ROUND VALLEY RESERVOIR CLIMATE ADAPTATION AND NATURE BASED SOLUTIONS

Project update by:
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## **BACKGROUND**

- Plumas County applied for and received grant funding from FEMA in coordination with Cal OES through the FY 2022 Building Resilient Infrastructure and Resilient Communities (BRIC) Grant Program.
- The funded project will identify mitigation activities to protect critical water services and water security functions and enhance resilience against current and future risks to the Reservoir caused by recurring wildfires, increased flooding and erosional risks, and the expanding impacts of drought and climate change.
- Will include comprehensive planning, technical analyses, and stakeholder engagement to address infrastructure failure
  including its water supply and conveyance infrastructure, landslide/debris flow, and drought risks.
- At least three mitigation interventions will be explored (one no-action) evaluating level of protection increase, cost-effectiveness, feasibility, environmental compliance, and community/partnership support. Types of activities explored will include enhancing reservoir capacity, stabilizing banks, and reducing sedimentation to combat drought.
- Outcome → the selection and conceptual design of the preferred and most effective mitigation strategy.
- A Hazard Mitigation Assistance FEMA Subapplication will be prepared to seek funding for implementation, including a scope, schedule and budget for design/construction services.

# PLUMAS COUNTY AND THE INDIAN VALLEY COMMUNITY SERVICES DISTRICT



#### SHERWOOD DESIGN ENGINEERS

PRIME CIVIL ENGINEERING

#### LMNOP DESIGN INC.

SUB: COMMUNITY LIAISON, DESIGN + BUILD

#### RINCON CONSULTANTS, INC.

SUB: ENVIRONMENTAL PERMITTING & CLIMATE VULNERABILITY ANALYSIS

# CSU MONTEREY BAY WATERSHED GEOLOGY LAB

SUB: GEOMORPHOLOGY, HYDROLOGY & GEOSPATIAL ANALYSIS

#### **WILDLAND RES MGT**

SUB: WILDFIRE RESILIENCE & MANAGEMENT

#### **GEOSYNTEC CONSULTANTS**

SUB: GEOTECHNICAL ENGINEERING

#### SIERRA INSTITUTE

SUB: COMMUNITY ADVISEMENT, NEPA

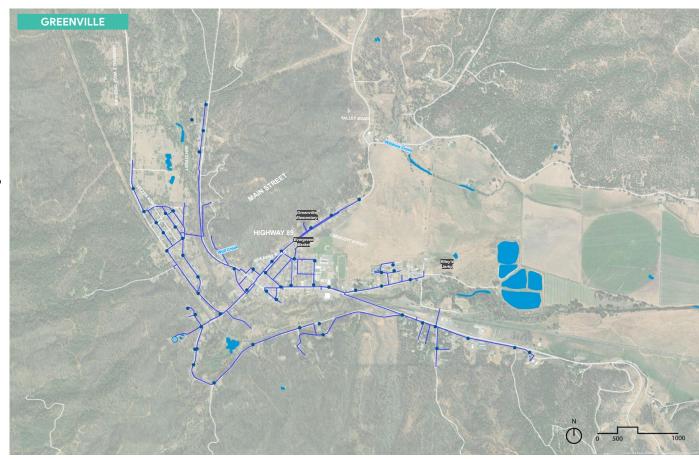
## WATER SYSTEM AND FIRE SUPPRESSION





In the past, the water system utilized local surface water resources supplied from Round Valley Reservoir and treated at a water treatment plant located above the town of Greenville. IVCSD moved to groundwater wells and abandoned the treatment plant to simplify the system's treatment and operational needs, and to reduce Operator training requirements.

During the Dixie Fire, the well pumps were destroyed causing the fire hydrants in the town to go dry. Additionally, the raw water supply line from Round Valley Reservoir and the water treatment plant were destroyed.



Potable Water Pipe

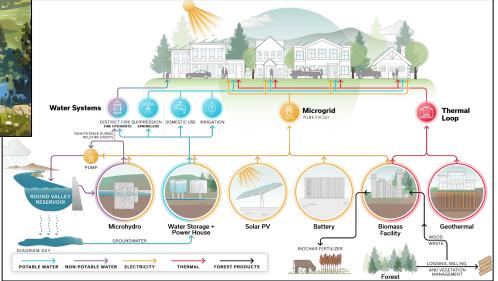
Fire Hydrant

Water Bodies

Water Tank

# PREVIOUS PLANNING





## PROJECT APPROACH

### Round Valley Reservoir as a...

vibrant recreational area
resilient non-potable emergency /
wildfire water supply
microhydro energy source

6 ) ENERGY AND BIOMASS HUB (STORAGE + DISTRIBUTION)

7) SOLAR FIELD

# Focus on:

- Climate resilience
- Future conditions
- Current site conditions
- Geotechnical investigations
- Stakeholder engagement
- Partnership building

gagement ding
Water PUMP
(TO RESERVOIR WHEN SURPLUS ENERGY)

8) FIRE HYDRANT

1) NATURAL WATERWAY DRAINAGE

3 ) MICRO-HYDROELECTRIC
4 ) WATER STORAGE

5) IRRIGATION

WILDFIRE

2) RESERVOIR

## **BUDGET**

• Approved federal funding: \$452,320, local match requirement of \$47,630 funded under state CalOES PrepareCA Match. The total project budget is \$499,950.

TASK	L	ABOR BUDGET	:
	Consultant	County	IVCSD
Task 1 – Pre-Award		\$28,800	
Task 2 - Project Management	\$7,000	\$1,980	\$7,260
Task 3 – Grant Management		\$23,650	
Task 4 – Procurement		\$10,560	
Task 5 – Evaluate Existing Conditions	\$101,000		
Task 6 - Alternatives Analysis	\$113,800	\$8,560	
Task 7 - Community Engagement and Outreach		\$5,664	\$1,416
Task 8 – Feasibility Assessment	\$85,600		
Task 9 - Environmental and Historic Preservation (EHP) /	\$29,000		
CEQA & Permitting			
Task 10 - Develop Hazard Mitigation Assistance (HMA)	\$40,000	\$5,500	
FEMA Subapplication			
Task 11 – Project Closeout	\$12,000	\$5,720	
Other (Fringe)		\$12,440	
TOTAL - \$499,950	\$388,400	\$102,874	\$8,676

#### **IVCSD STAFF BUDGET = \$8,676.00**

- Task 2 Project Management
  - o Task 2.1 Project Execution Oversight \$1,980.00
  - o Task 2.2 Interagency Coordination and Partnerships \$5,280.00
- Task 7 Community Engagement and Outreach
  - o Task 7.1 Stakeholder Management and Engagement \$1,416.00

# **SCOPE AND SCHEDULE**

	20	125	2026										2027				
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR
T2 - PROJECT MANAGEMENT																	
T5 - EVALUATE EXISTING CONDITIONS																	
T6 - ALTERNATIVE ANALYSIS																	
T7 - COMMUNITY ENGAGEMENT AND OUTREACH (PLUMAS COUNTY)																	
T8 - FEASIBILITY ASSESSMENT																	
T9 - ENVIRONMENTAL AND HISTORIC PRESERVATION (EHP) / CEQA & PERMITTING																	
T10 - DEVELOP HAZARD MITIGATION ASSISTANCE (HMA) FEMA SUBAPPLICATION																	
T11 PROJECT CLOSEOUT															1		

# **CONSULTANT SCHEDULE**

TASK	DURATION
Task 2 – Project Management	October 2025 – March 26, 2027
Task 5 – Evaluate Existing Conditions	November 2025 – March 2026
Task 6 – Alternatives Analysis	December 2025 – June 2026
Task 8 – Feasibility Assessment	July 2026 - December 2026
Task 9 – Environmental and Historic Preservation (EHP) / CEQA & Permitting	July 2026 - December 2026
Task 10 – Develop Hazard Mitigation Assistance (HMA) FEMA Subapplication	September 2026 – December 2026
Task 11 – Project Closeout	January 1, 2027 – March 26, 2027

#### TASK 5 - EVALUATE EXISTING CONDITIONS

- Evaluation of existing conditions inventory of critical assets + vulnerabilities
- Establish future conditions (land use, climate change, population growth, impervious cover, storm events/surface water flow)
- Risk and vulnerability assessment
- Identify + summarize appropriate level of protection and type of intervention

#### **TASK 6 - ALTERNATIVE ANALYSIS**

- Scenario development and alternatives analysis no action and at least 2 alts.
- Mitigation action selection rubric
- Investigate multiple scenarios
- Conduct supplementary tests and studies
- Project prioritization protection vs. cost
- Develop a conceptual level design of the selected alternative

	20	25	2026													20	)27
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T11 PROJECT CLOSEOUT															100		

#### Task 8 - FEASIBILITY ASSESSMENT

- Feasibility assessment of the preferred mitigation alternative
- GIS screening level debris flow analysis
- Technical memorandum & documentation

## Task 9 - ENVIRONMENTAL & HISTORIC PRESERVATION (EHP) / CEQA & PERMITTING

- NEPA and CEQA documentation
- Assessment of environmental review and other permitting requirements
- Regulatory compliance management plan

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T11 PROJECT CLOSEOUT															2		

## Task 10 - DEVELOP HAZARD MITIGATION ASSISTANCE (HMA) FEMA SUBAPPLICATION

- Develop a scope, schedule, and budget for a Benefit Cost Analysis
- Develop HMA subapplication or explore other grant funding opportunities

#### Task 11 - PROJECT CLOSEOUT

- Final task reports
- Grant management close out reports

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QUESTIONS & ANSWERS