Informational Presentation to County of El Dorado Board of Supervisors

Investments in Water, Wastewater and Stormwater Infrastructure

Under the State and Local Fiscal Recovery Funds Established by the American Rescue Plan Act of 2021

November 2, 2021

El Dorado Water Agency

A Broad Range of Projects Considered

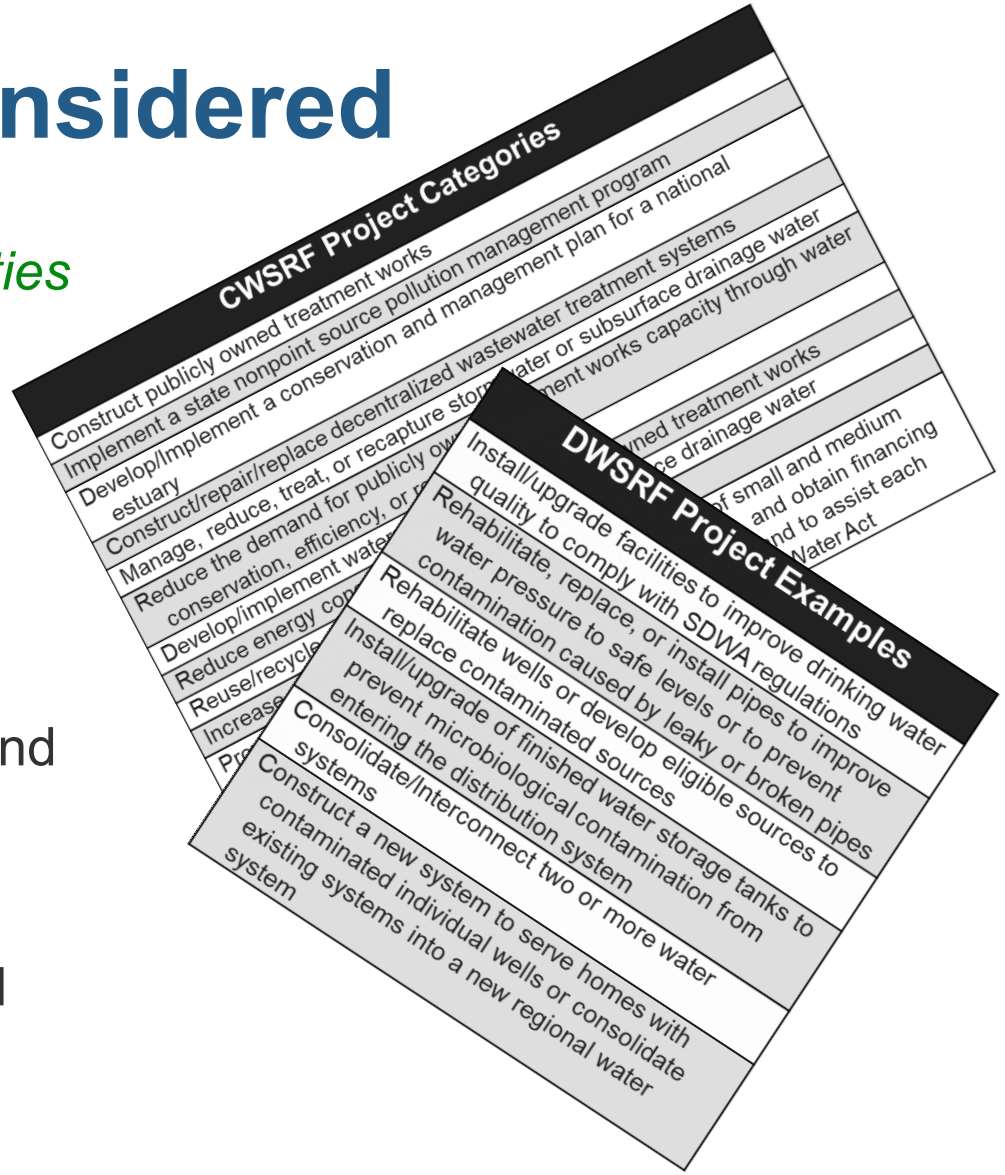
Congress recognizes the broad range of need for communities

Must be eligible under either the:

- Clean Water State Revolving Fund
- Drinking Water State Revolving Fund

May include projects on privately-owned infrastructure and cybersecurity

May include planning and design for capital projects and water quality planning likely to result in a capital project



U.S. Treasury highlights eligibility for certain projects

1. Lead service line replacement programs
2. Cybersecurity needs to protect water or sewer infrastructure
   - Developing effective cybersecurity practices and measures at drinking water systems and publicly owned treatment works;
3. Green infrastructure investments and projects that address the impacts of climate change or improve resilience to climate change
   - Rain gardens
   - Measures to conserve and reuse water
   - Reduce the energy consumption of public water treatment facilities
4. Projects that assist systems most in need on a per household basis
   - Benefit the most vulnerable populations
   - Providing safe drinking water that is critical to their health and their ability to work and learn in accordance with state affordability criteria and prioritization developed under the Safe Drinking Water Act.

Necessary Investments

"Necessary investments include projects that are required to maintain a level of service that, at least, meets applicable health-based standards, taking into account resilience to climate change"

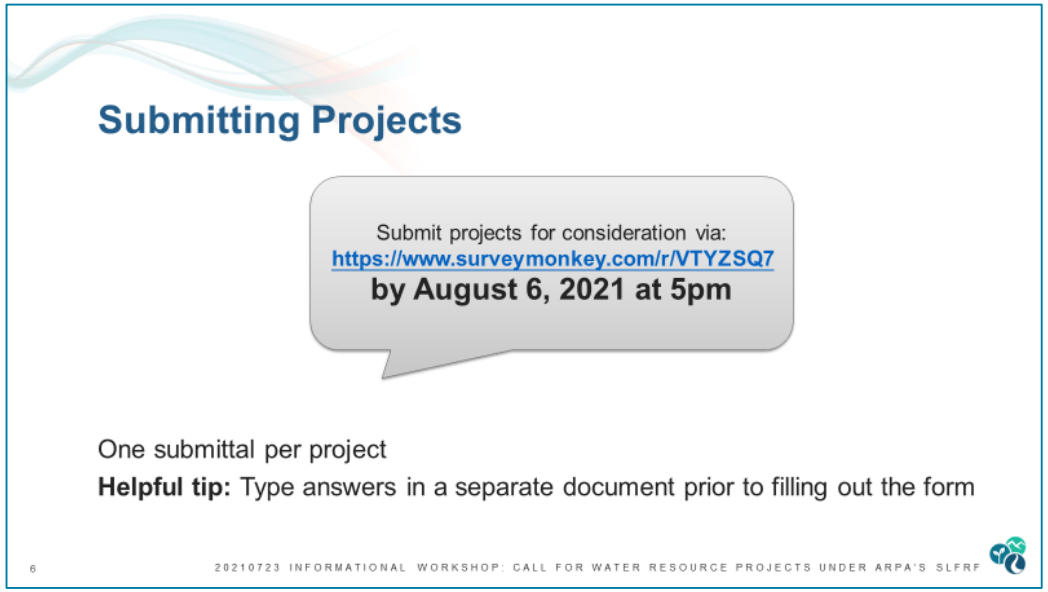
- Total Budget/ Amount Requested
- Regional benefits
  - Partnerships
  - Other County Area benefits
- Status of Project
  - "Shovel Ready"
  - Construction
  - Planning (Long-term)
  - Addressing recurring problems
- Meet requirements of ARPA

- Funding Status
  - Alternative sources of funding
  - Competition with other for General Fund needs
  - O&M needs addressed
  - Regional Economic benefits
  - Supplemental to Local dollars for rural areas

Call for Water Resources Projects

- **Applies to <u>County</u>'s SLFRF allocation only**
  Excluded City of Placerville & City of South Lake Tahoe
- **Water resource infrastructure** projects (water, sewer (i.e., wastewater), and stormwater infrastructure)
- Submitting a project **does not guarantee funding** in full or in part
- Submitted projects are **subject to further evaluation and prioritization** by the County in collaboration with the Agency
- Referencing projects identified in the **Water Resources Development and Management Plan, West Slope Stormwater Resources Plan,** or **other planning documents**

- Allowed to submit multiple projects, but funds are meant to be used to meet the **community's highest needs**
- The **Treasury has yet to publish the Final Rule** which may include changes or issue additional guidance or requirements for implementation



PROJECT	AGENCY	TOTAL PROJECT BUDGET	ARPA Funding Request	Other Funding			
				Federal	State	Local	Local Funding Source
El Dorado County Fairgrounds Water Quality and Drainage Improvements Project	El Dorado County Planning & Building Department	1,733,000	400,000	N	N	47,050	Gen Fund; Property Tax
Rubicon Tank 1 Water Feed Line Replacement	Tahoe City Public Utility District	220,500	75,000	N	N	43,500	Rate; Property Tax
Lower Meeks Bay Pressure Reducing Station	Tahoe City Public Utility District	470,342	200,000	N	N	72,626	Rate; Property Tax
Sly Park Intertie Improvement	El Dorado Irrigation District	26,000,000	750,000	N	N	1,100,000	CIP
Outingdale Dam Rehabilitation	El Dorado Irrigation District	440,000	440,000	N	N	440,000	CIP; Rates
South Upper Truckee Erosion Control Project	ED-DOT	605,000	575,000	N	N	30,000	TRPA Mit. Funds
Clearwell and Booster Pump Station Reliabiity Improvements	GFCSD	3,000,000	2,530,000	N	N	TBD	Rates
Reservoir Lining Rehabilitation	GFCSD	345,000	300,000	N	N	TBD	Rates
	Tier 1 Sub-Total		**$ 5,270,000**				

PROJECT	AGENCY	TOTAL PROJECT BUDGET	ARPA Funding Request	Other Funding			
				Federal	State	Local	Local Funding Source
Rubicon Wells 2&3 Backup Power Project	Tahoe City Public Utility District	736,181	200,000	N	N	118,219	-
West Lake Tahoe Regional Water Treatment Plant	Tahoe City Public Utility District	24,548,133	500,000	N	Y	24,548,133	Rates; Property tax
Water System Conditions Assessment and Water System Reliability Study Update	Georgetown Divide Public Utility District	250,000	50,000	N	N	250,000	Rates
	Tier 2 Sub-Total		**750,000**				
	Tiers 1 & 2 Sub-Total		**$ 6,020,000**				
Pioneer Trail Rehabilitation Project	ED-DOT	1,700,000	1,600,000	N	N	-	-
	Tier 3 Sub-Total		**1,600,000**				
	Tiers 1, 2 &3 Sub-Total		**$ 7,620,000**				
Tahoe Cedars Distribution Improvements	Tahoe City PUD	25,500,000	2,000,000	N	N	2,900,000	Rate; Property Tax
	Tier 4 Sub-Total		**2,000,000**				
	Tiers 1-4 Sub-Total		**$ 9,620,000**				

PROJECT	AGENCY	TOTAL PROJECT BUDGET	ARPA Funding Request	Other Funding			
				Federal	State	Local	Local Funding Source
Expansion of Raw Water Storage Capacity	GDPUD	250,000	250,000	N	N	-	-
Camino Heights Disposal Upgrades	El Dorado Irrigation Distrct	500,000	200,000	N	N	200,000	WW Rates
	Tier 5 Sub-Total		**450,000**				
	Tiers 1-5 Sub-Total		**$ 10,070,000**				
Reservoir 1 Tank Upgrade	El Dorado Irrigation District	7,500,000	5,600,000	N	N	7,550,000	CIP
Pollock Pines Waterline Replacements	El Dorado Irrigation District	15,150,000	5,000,000	N	N	15,150,000	CIP
	Tier 6 Sub-Total		**10,600,000**				
	Tiers 1-6 Sub-Total		**$ 20,670,000**				
Pioneer Trail / US Highway 50 Intersection Safety Improvement Project	ED-DOT	7,532,000	3,000,000	$2,933,000 $1,096,000 $ 324,000	N	204,000	TRPA Mit. Funds
	Tier 7 Sub-Total		**3,000,000**				
	Tiers 1-7 Sub-Total		**$ 23,670,000**				

1. El Dorado County, El Dorado County Fairgrounds Water Quality and Drainage Improvements Project $ 400,000

- Fairgrounds is a regional project that hosts a variety of events open to the public
- The Project is a collaboration between:
  - County of El Dorado (County)
  - El Dorado Water Agency (Agency)
  - City of Placerville
- Experiences localized flooding
  - Topography and aging infrastructure
  - Limits its ability to reliably use the facilities year round
- Identified as one of the top priority projects.
  - County/Agency agreement for a feasibility study
  - Provide long-term water quality and drainage improvements
    - Drainage improvements
    - Development of a 9-acre-foot detention basin
    - Installation of green infrastructure features.
      - Opportunities for community benefits
      - Increased exposure to natural environment
      - Reduce exposure to pollutants
      - Educational opportunities.
    - Move project to "shovel ready' stage to prepare for grant funding opportunities

2. Tahoe City Public Utility District, Rubicon Tank 1 Water Feed Line Replacement Project $75,000

- Replace 275+/- feet of 6-inch water main with a 10-inch water main.
  - Serves as the common inlet/outlet from the Rubicon Tank No. 1
  - Pipeline is undersized to meet the higher flow demands of the Rubicon system.
  - Restricts flow and pressure under high demand conditions such as fire flow

Located on the west shore of Lake Tahoe in El Dorado County, south of Meeks Bay.

- Increase drinking water service reliability
- Enhanced water for fire flow capacity
- Critical to resolve issues of high/peak flow demands in the Rubicon water system on the west shore of Lake Tahoe.

3. Tahoe City Public Utility District
Lower Meeks Bay Pressure Reducing Station $ 200,000

Install 600+/- feet of 8-inch water main and a pressure reducing station (PRV)

- Currently fed from one PRV on the south end of the system.
  - Serves water along the length of Meeks Bay Avenue which is approximately 5,700 feet in length.
  - Excessive length and & pipe diameter restricts flows when fire flows are required on the northerly end of Meeks Bay Avenue
- Project benefits include
  - Increased drinking water service reliability
  - Enhanced water for fire flow capacity at all hydrants along the length of Meeks Bay Avenue
    - Critical to resolve issues for fire flows on the west shore of Lake Tahoe
    - Create a redundant connection in the event of a failure or maintenance of one PRV.

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4. El Dorado Irrigation District
Sly Park Intertie Improvement $ 750,000

- Replacement with a 24-inch pipeline.
  - Driven by the severely deteriorated condition of the pipeline
    - Lack of cathodic protection resulting in multiple leaks has forced the District to take the waterline out of service
  - 3.5 miles of 22-inch & 30-inch steel waterline
    - Connects the Reservoir 1 Water Treatment Plant WTP in Pollock Pines to the Reservoir A WTP near Sly Park Reservoir.
    - Built under emergency drought conditions in 1978, just after the 1976-77 drought, to alleviate water shortages.
  - Two major water supply sources (Project 184 Forebay and Sly Park Reservoirs)
    - Provide two thirds of the District's water supply
    - Customers stretch from Pollock Pines to El Dorado Hills
      - Includes Disadvantaged Community and Qualified Census Tract (CTR)
- Key infrastructure to thousands of people
  - When one or the other of the two water supplies have been unavailable
    - Drought, and landslides or wildfire destroying raw water conveyance flumes and canals along the steep canyons of the South Fork of the American River.
- Increasing wildfire and landslide threats to Project 184 raw water conveyance and decreasing water supply yield due to climate change make the need for the SPI more urgent.

5. El Dorado Irrigation District
Outingdale Dam Rehabilitation $ 440,000

- On the Middle Fork Cosumnes River, provides the only water source for the Outingdale community.
  - Water diverted at the Dam pool is pumped, then treated and distributed to District customers.
- During late July 2021, streamflow receded to the point that diversions were no longer possible.
  - Once streamflow receded to the point where water could no longer be diverted and most of the facility was in a dewatered state,
  - Inspection of the Dam.
    - Significant deterioration
    - Compromises the structural integrity and functionality of the Dam
    - Warrants immediate action to maintain water supply reliability.
- Restore facility to its original height where previously damaged by large debris carried during flood flows.
  - Increase resiliency of the Outingdale Dam
  - Resiliency to impacts from debris

6. El Dorado County
South Upper Truckee Erosion Control Project $ 575,000

- Tahoe Paradise Unit 60 subdivision was built in a historic Stream Environmental Zone.
  - Roads modified drainage patterns
  - Created a damming effect that ponds water on either side of South Upper Truckee Road.
  - Address chronic problems with discharge of sediment laden waters directly to the Upper Truckee River
  - Commingling of freshwater flows with stormwater flows generated from within the subdivision.
- Created a direct conduit to the Upper Truckee River for all stormwater flows generated from within the Tahoe Paradise Unit 60 subdivision
  - Ephemeral creek draining from Frog Pond near Echo Summit
    - Routed through the subdivision via a flood control dike and channel system.
  - Creates localized flooding and ponding.
- Addresses the need to separate fresh waters flows and stormwaters.
  - **Ensure stormwater flows can be treated using practices such as infiltration and detention.**

7. Grizzly Flats Community Services District
Clearwell and Booster Pump Station Improvements
$2,530,000

- Replace aged infrastructure for treatment, monitoring and distribution from the water treatment plant.

1. Clearwell: Existing 200,000 gallon Clearwell is a bolted galvanized storage tank
   - Provides operational, emergency and fire storage
   - Galvanized coating has failed despite corrosion protection system
   - Replace with a welded steel storage tank
     - Meet current standards
     - Coated with an industrial coating

2. Control system: Replace the automated control system and monitoring need to be replaced
   - Includes the replacement of the aged automated valves, chemical analyzers, and controls.
   - Allows remote access by GFCSD operations staff
     - ✓ Make changes during non business hours for the on-call operator or the Chief Plant Operator.

3. Booster pump station: Pressure zone to supply homes where gravity cannot sufficiently supply water.
   - Provide water pressure and flow to meet peak water demand periods and fire protection

8. Grizzly Flats Community Services District
Reservoir Lining Rehabilitation Project $ 300,000

The Reservoir stores raw water supplied from the two creek/watershed diversions

- Repairs to the liner and debris removal
  - Lined with a thick plastic liner to prevent leakage through the bottom of the reservoir.
  - Debris has accumulated since the installation approximately 9 years ago.
  - Noted that additional debris is expected to accumulate over the winter due to the soil erosion within the watershed due to the damage caused by the fire.
  - Damaged around the perimeter of the reservoir
  - Requires rehabilitation and repairs to restore it from the damage
- Increase reliability for water supply if/when the raw water diversion is taken out of service
  - Restore water storage

9 Tahoe City Public Utility District
Rubicon Wells 2&3 Backup Power Project **$ 200,000**

- West shore of Lake Tahoe in El Dorado County, south of Meeks Bay.
- Provide critical backup electrical power
  - Address Winter access issues & emergency response during power outages.
  - Design & construction of a building for the generator to ensure water service is maintained during power outages
  - Serve both of the District's Rubicon Wells, 2&3.
    - Increases drinking water service and reliability
  - Resolves issues related to foreseeable power outages

10. Tahoe City Public Utility District
West Lake Tahoe Regional Water Treatment Plant **$ 500,000**

Provide a new domestic water treatment plant using Lake Tahoe surface water
- TCPUD's McKinney-Quail Water Service Area
- Redundant water supply for other water systems in the west Lake Tahoe region
- Tahoe Cedars Water System in El Dorado County
- Replacing an existing Interim Surface Water Treatment Plant.
- Construction of the treatment facility building
- Installation of a raw water pipeline along SR 89 to connect to the Electrical/Chemical Feed Room at Chambers Landing Beach
- Replacement of the water intake pipeline that draws water from Lake Tahoe,
- Installation of submersible water intake pumps
- Installation of the water intake pump station near the lakeshore

Increases drinking water service and reliability
Increases redundant water supply and fire suppression capabilities
Resolves the patchwork of disconnected water systems along the west shore

11. Georgetown Divide Public Utility District
Water System Conditions Assessment & Water System Reliability Study Update **$ 50,000**

GDPUD's asset management goals
Focus on:
- Asset management planning
- Engineering analysis and evaluation of 25-30 miles of the raw water conveyance system, above the WTPs
  - Upcountry Ditch System and Main Ditch System
- Engineering analysis and evaluation of treated water system.

1) Prepare the water system asset management plan
   - Risk of failure assessments
2) Develop the 20-year prioritized capital improvement projects list

12. El Dorado County
Pioneer Trail Rehabilitation Project $1,600,000

Improvements to Pioneer Trail

- Includes improvements to existing drainage inlets, catch basins, and ac dike conveyance systems.

- Flows from stormwater runoff
  - Tributary to existing County maintained drainage facilities that take and infiltrate/treat runoff before leaving the system.
  - Poor quality roadways are a large source of fine sediment pollutant loads which are a detriment to water quality.

- Resurfacing of Pioneer Trail
  - From the El Dorado/City of South Lake Tahoe boundary to Glen Eagles Drive.
  - Existing roadside conveyance systems (AC Dike)
    - Upgraded to allow for more efficient capture and transport of surface runoff.

13. Tahoe City Public Utility District
Tahoe Cedars Distribution Improvements $2,000,000

Multi-phased project in the Tahoma community on the west shore of Lake Tahoe in El Dorado County.

- Address significant deficiencies in water reliability, water redundancy, and fire suppression capacity.
  - Replace/construct 79,300 linear feet of water mains
  - Install 97 linear feet of new hydrant laterals and fire hydrants
  - Replace 62,400 linear feet of water service laterals.

- Project benefits include
  - Increased drinking water service reliability and distribution
  - Enhanced water for fire flow capacity
  - Resolve issues associated with the aging and deficient water system infrastructure

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