

Los Alamos County Department of Public Utilities  
Fiscal Years 2021-2030  
10-Year Capital Plan

FY21 (1 July 2020 - 30 June 2021)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>800,000</b>
El Vado Transformer Replacement		400,000
Abiquiu Office Replacement		150,000
El Vado Penstock Evaluation		100,000
Re-design & Install El Vado Shaft Seal		150,000
<b>ELECTRIC DISTRIBUTION</b>		<b>750,000</b>
Replace Switches (SC1305A, SC1309, SC1309A, SC1401A2, SC1803) w/ new conductors		200,000
Replace primary conductors - Cheryl Ct., Connie Ave.		200,000
White Rock GWS & ED Facility		50,000
Overhead System Replacement (polex, xarms, transformers)		300,000
Replace Poles and Crossarms - 6152, 6154, 6137, 6138, 6143, 6144, 6034, 6011, 6002, 6037		
Remove Open Secondary - Bandelier, Carlsbad, Agate, Aztec, Beryl, Sherwood, Barisa Del Sol		
<b>GAS DISTRIBUTION</b>		<b>350,000</b>
GWS/GA Facilities at WR WWTP		50,000
Border Stations Metering/Overpressure Control/SCADA		300,000
<b>WATER DISTRIBUTION</b>		<b>150,000</b>
GWS/DW Facilities at WR WWTP		50,000
Barranca Mesa Area PRV Station		100,000
<b>WATER PRODUCTION</b>		<b>9,656,926</b>
Risk Assess/ Emergency Response Plan		120,000
Camp May Waterline (\$2M County / \$2M Other)		4,000,000
Otowi Well #2 bldg./Equipment & Pajarito Well #4 MCC		1,900,000
WP Facilities at WR WWTP		50,000
Tank Piping Upgrades		300,000
Bayo Booster Station Tank (NP-WTB)		1,080,000
LA Reservoir Road Stabilization Project (NP - FEMA)		2,206,926
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>14,850,856</b>
<b>SEWER COLLECTION</b>		<b>50,000</b>
GWS/WC Facilities at WR WWTP		50,000
<b>WASTEWATER TREATMENT</b>		<b>14,800,856</b>
WR WWTP Replacement Project - Construction		14,800,856

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FY22 (1 July 2021 - 30 June 2022)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>980,000</b>
El Vado Controls Upgrade		440,000
El Vado Ultrasonic Flow Meter		90,000
Fiber Optic Line Spills Substation to Hydroelectric Plant		350,000
Abiquiu Transformer Replacement		100,000
<b>ELECTRIC DISTRIBUTION</b>		<b>700,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		200,000
White Rock URD Replacement (cables, jboxes, pedestals)		200,000
Overhead System Replacement (polex, xarms, transformers)		300,000
Townsite Circuit 16, 3 PHASE		
White Rock Circuit1, 1 PHASE		
<b>GAS DISTRIBUTION</b>		<b>816,000</b>
White Rock Key Steel Valve Project Phase 1		281,000
Alamo & Capulin (PW Road Project)		535,000
<b>WATER DISTRIBUTION</b>		<b>732,000</b>
Alamo & Capulin (PW Road Project)		732,000
<b>WATER PRODUCTION</b>		<b>1,575,000</b>
2nd Group 12 Tank (NP - WTB)		900,000
Repaint Barranca Mesa Tank 2		675000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>550,000</b>
<b>SEWER COLLECTION</b>		<b>550,000</b>
Bayo Canyon Sewer Lift Station Elimination Pipeline		550000
<b>WASTEWATER TREATMENT</b>		<b>0</b>

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FY23 (1 July 2022 - 30 June 2023)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>400,000</b>
	Abiquiu Runner Repair /Rplacement	400,000
<b>ELECTRIC DISTRIBUTION</b>		<b>700,000</b>
	Los Alamos URD Replacement (cables, jboxes, pedestals)	200,000
	White Rock URD Replacement (cables, jboxes, pedestals)	200,000
	Overhead System Replacement (polex, xarms, transformers)	300,000
	Townsite Ski Hill Circuit, 3 PHASE	
	White Rock Circuit2, 1 PHASE	
<b>GAS DISTRIBUTION</b>		<b>290,000</b>
	White Rock Key Steel Valve Project Phase 2	290,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
	North Mesa Distribution Upgrades - Phase 1	
<b>WATER PRODUCTION</b>		<b>5,490,000</b>
	Abandon Guaje Well 1A & Drill New Guaje Well 1B	4,500,000
	Guaje Pines, North Mesa, Diamond Connections (NP - WTB)	990,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>479,000</b>
<b>SEWER COLLECTION</b>		<b>179,000</b>
	Arkansas Area Backyard Sewer Mains & Services R&R	179,000
<b>WASTEWATER TREATMENT</b>		<b>300,000</b>
	Equipment/Vehicle Replacement	300,000

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FY24 (1 July 2023 - 30 June 2024)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,766,667</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 15, 1 PHASE		
White Rock Circuit 1, Wire 3 PHASE		
EA-4 Power Line Replacement		1,666,667
<b>GAS DISTRIBUTION</b>		<b>299,000</b>
White Rock Key Steel Valve Project Phase 2		299,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
North Mesa Distribution Upgrades - Phase 2		
<b>WATER PRODUCTION</b>		<b>2,070,000</b>
Repaint Western Area Tank		350,000
Repaint Guaje Booster Station 1 Tanks 1 & 2		550,000
Repaint Guaje Booster Station 2 Tanks 1 & 2		450,000
LA WWTP NP Feed Pipeline (NP - WTB)		720,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>2,800,000</b>
<b>SEWER COLLECTION</b>		<b>0</b>
Laguna Sewer Canyon Drop Replacement		
<b>WASTEWATER TREATMENT</b>		<b>2,800,000</b>
LA WWTP Filtration Upgrade		2,500,000
Equipment/Vehicle Replacement		300,000

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FY25 (1 July 2024 - 30 June 2025)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,766,667</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 13, 1 PHASE		
White Rock Circuit2, Wire 3 PHASE		
EA-4 Power Line Replacement		1,666,667
<b>GAS DISTRIBUTION</b>		<b>307,000</b>
Pipeline Repair & Replacement / Equipment		307,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
Aspen School Area Pipeline Phase 1		
<b>WATER PRODUCTION</b>		<b>2,102,000</b>
Townsite 14" Pipeline R&R - Phase 1		922,000
Repaint Guaje Booster Station 3 Tank 1 & 2		700,000
Bayo Booster Station Upgrades (NP - WTB)		480,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>176,000</b>
<b>SEWER COLLECTION</b>		<b>176,000</b>
Aspen School Area Sewerline R&R - Phase 1		
North Community Backyard Sewer Mains & Services R&R - Phase 1		176,000
<b>WASTEWATER TREATMENT</b>		<b>0</b>

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FY26 (1 July 2025 - 30 June 2026)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,766,667</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
EA-4 Power Line Replacement		1,666,667
<b>GAS DISTRIBUTION</b>		<b>317,000</b>
Pipeline Repair & Replacement / Equipment		317,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
Aspen School Area Pipeline Phase 2		
<b>WATER PRODUCTION</b>		<b>2,754,000</b>
Townsite 14" Pipeline R&R - Phase 2		950,000
Barranca Mesa NP Pipeline Connections (NP-WTB/\$402k Grant/\$268k Loan/\$134k DPU Match)		804,000
Repaint Pajarito Tank 4A		1,000,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>498,000</b>
<b>SEWER COLLECTION</b>		<b>181,000</b>
North Community Backyard Sewer Mains & Services R&R - Phase 2		181,000
<b>WASTEWATER TREATMENT</b>		<b>317,000</b>
Equipment / Vehicle		317,000

Los Alamos County Department of Public Utilities  
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FY27 (1 July 2026 - 30 June 2027)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,100,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
East Gate Substation		1,000,000
<b>GAS DISTRIBUTION</b>		<b>326,000</b>
Pipeline Repair & Replacement / Equipment		326,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
Aspen School Area Pipeline - Phase 3		
<b>WATER PRODUCTION</b>		<b>2,359,000</b>
Townsite 14" Pipeline R&R - Phase 3		979,000
Repaint North Mesa Tank		600,000
Chamisa School Pipeline / Connections (NP-WTB/\$390k Grant/\$260k Loan/\$130k DPU Match)		780,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>505,000</b>
<b>SEWER COLLECTION</b>		<b>505,000</b>
Old Pueblo Sewer Canyon Drop Replacement		400,000
41st/45th/46th/47th Sewerline R&R {PW-WA 7}		105,000
Aspen School Area Sewerline R&R Phase 3		
<b>WASTEWATER TREATMENT</b>		<b>0</b>

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FY28 (1 July 2027 - 30 June 2028)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,100,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
East Gate Substation		1,000,000
<b>GAS DISTRIBUTION</b>		<b>336,000</b>
Pipeline Repair & Replacement / Equipment		336,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
Aspen School Area Pipeline - Phase 4		
<b>WATER PRODUCTION</b>		<b>6,653,000</b>
Townsite 14" Pipeline R&R - Phase 4		1,008,000
Repaint Otowi Booster Station 1 Tank 2		325,000
Otowi Booster Station 1 & Pipeline Replacement		4,000,000
Rover & Pinon Park Pipeline / Connections (NP-WTB/\$660k Grant/\$440k Loan/\$220k DPU Match)		1,320,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>0</b>
<b>SEWER COLLECTION</b>		<b>0</b>
Aspen School Area R&R - Phase 4		
<b>WASTEWATER TREATMENT</b>		<b>0</b>



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FY29 (1 July 2028 - 30 June 2029)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>2,100,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
East Gate Substation		1,000,000
<b>GAS DISTRIBUTION</b>		<b>345,000</b>
Pipeline Repair & Replacement / Equipment		345,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
		0
<b>WATER PRODUCTION</b>		<b>1,806,000</b>
Otowi Well No. 4 Tank (Anniversary) Construct Second Tank		1,386,000
SCADA Upgrades (NP-WTB/\$210k Grant/\$140k Loan/\$70k DPU Match)		420,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>1,147,000</b>
<b>SEWER COLLECTION</b>		<b>800,000</b>
Airport Canyon Sewer Canyon Drop Replacement		800,000
<b>WASTEWATER TREATMENT</b>		<b>347,000</b>
Equipment/Vehicle Replacement		347,000

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FY30 (1 July 2029 - 30 June 2030)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>1,100,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (poles, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
<b>GAS DISTRIBUTION</b>		<b>355,000</b>
Pipeline Repair & Replacement / Equipment		355,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
<b>WATER PRODUCTION</b>		<b>420,000</b>
Camp May Tank SCADA/Freeze Protect (NP-WTB/\$210k Grant/\$140k Loan/\$70k DPU Match)		420,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>595,000</b>
<b>SEWER COLLECTION</b>		<b>595,000</b>
Copper Road Sewer Canyon Drop Replacement		595,000
<b>WASTEWATER TREATMENT</b>		<b>0</b>

Los Alamos County Department of Public Utilities  
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FY31 (1 July 2030 - 30 June 2031)		Budget
<b>ELECTRIC PRODUCTION</b>		<b>0</b>
<b>ELECTRIC DISTRIBUTION</b>		<b>1,100,000</b>
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		500,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
<b>GAS DISTRIBUTION</b>		<b>365,000</b>
Pipeline Repair & Replacement / Equipment		365,000
<b>WATER DISTRIBUTION</b>		<b>0</b>
<b>WATER PRODUCTION</b>		<b>1,360,000</b>
West Pajarito Road Pipeline R&R - Phase 2		1,150,000
Pipeline Repair & Replacement / Equipment (NP - WTB)		210,000
<b>WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL</b>		<b>6,815,000</b>
<b>SEWER COLLECTION</b>		<b>515,000</b>
Camino Cereza Sewer Canyon Drop Replacement		515,000
<b>WASTEWATER TREATMENT</b>		<b>6,300,000</b>
WR WWTP 10-Year Upgrade		2,100,000
LA WWTP 23-Year Upgrade		4,200,000

# ELECTRIC PRODUCTION

## FY21: El Vado Transformer Replacement

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**Project Scope:** The transformer at the El Vado Hydroelectric Plant is in need of replacement. The transformer oil is tested every year and has been showing signs of degradation in recent years. The transformer has been in service since 1987.

**Budget:** \$400,000

**Schedule:** Fall/Winter 2020

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# ELECTRIC PRODUCTION

## FY21: Abiquiu Hydroelectric Plant Office Replacement

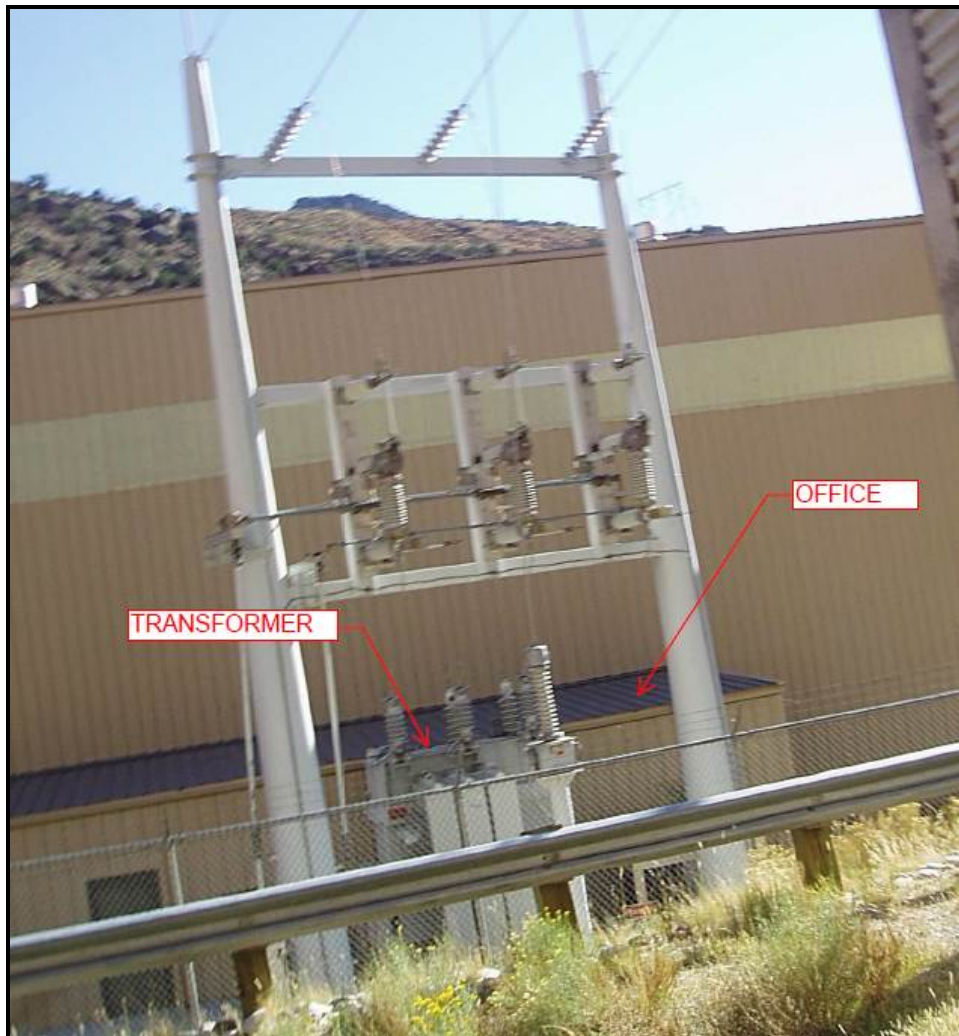
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**Project Scope:** A recent inspection by our insurance company representative raised a safety concern of personnel in the existing office are at risk due to the plant transformer being located adjacent to the office. In addition, the plant transformer is scheduled for replacement in FY 2021 and is nearly inaccessible. Removing the existing office may provide an opportunity to easily access the transformer for replacement.

**Budget:** \$150,000

**Schedule:** Fall/Winter 2020

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# ELECTRIC PRODUCTION

## FY21: El Vado Penstock Valve Evaluation

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**Project Scope:** The existing penstock valve is located beneath the lake in the plant's penstock tunnel. The condition and a plan to replace or recondition the valve will be developed. This work is planned prior to the scheduled El Vado Dam refurbishment which will present an opportunity to replace or refurbish the penstock valve while the lake level is lowered significantly.

**Budget:** \$100,000

**Schedule:** Fall 2020

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# ELECTRIC PRODUCTION

## FY21: El Vado Shaft Seal Re-Design

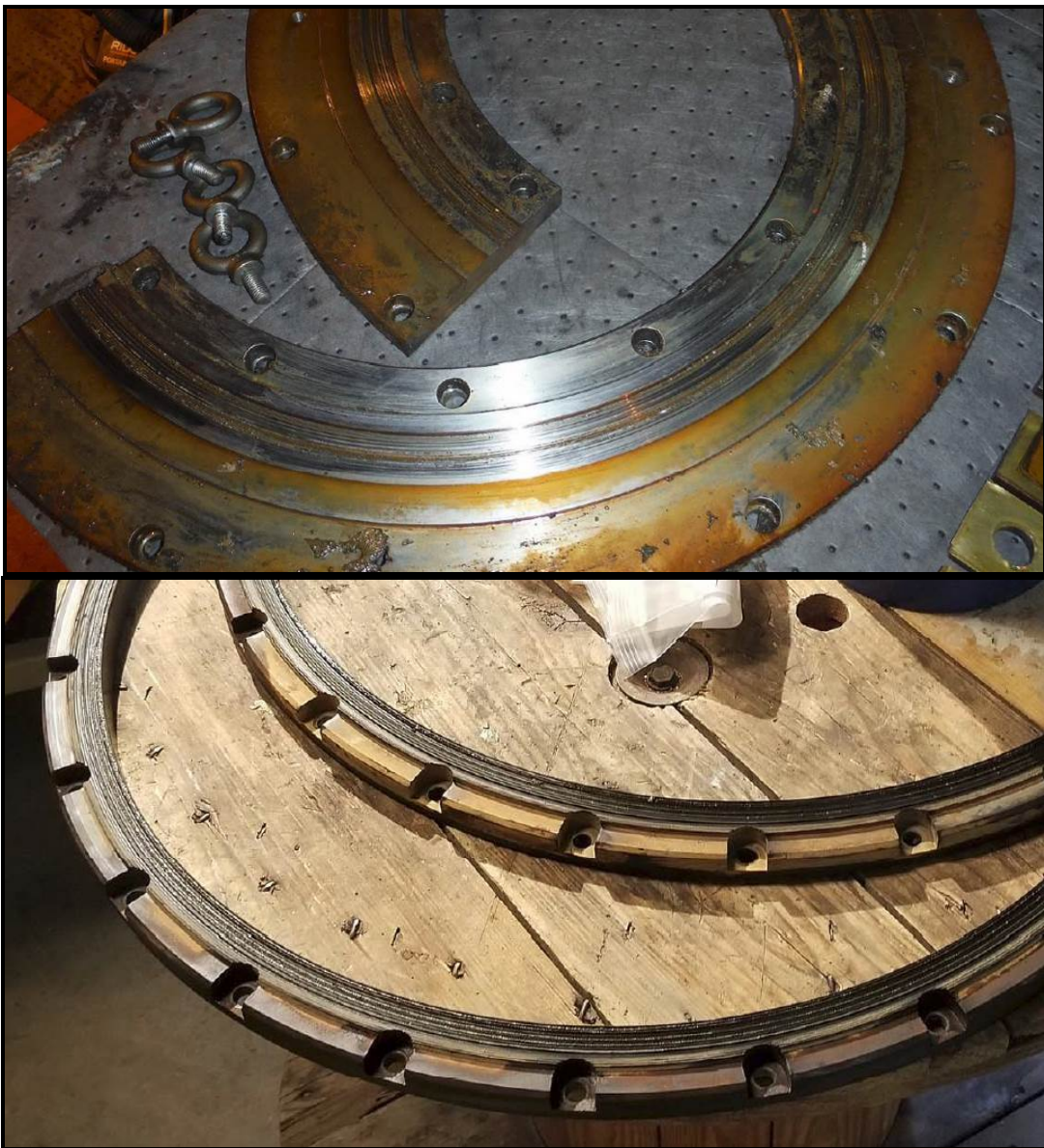
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**Project Scope:** After refurbishment of the turbine and generator in 2018 the shaft seal has been wearing prematurely. This was also a complication during the commissioning of the refurbished turbine/generator. A new design which is self-lubricating is planned to ensure a long lasting operation.

**Budget:** \$150,000

**Schedule:** Winter 2020/20021

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# ELECTRIC DISTRIBUTION

## FY21: Overhead System Replacement

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**Project Scope:** Many components of the utilities' overhead infrastructure operate near or past their useful plant life; greater than 50 years. The department's Asset Management Program (AMP) prioritizes O&M projects on (a) root cause analysis after power outages, (b) quarterly line patrols, and (c) year-end assessments. The O&M program includes: replacement of power poles, cross-arms, and revamps (wire & transformer upgrades). Priority is placed on the three phase backbone and areas affecting the highest number of consumers.

- |                            |            |
|----------------------------|------------|
| 1. White Rock service area | \$150,000. |
| 2. Los Alamos service area | \$150,000. |

**Budget:** \$ 300,000  
**Schedule:** Year round design and construction

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# ELECTRIC DISTRIBUTION

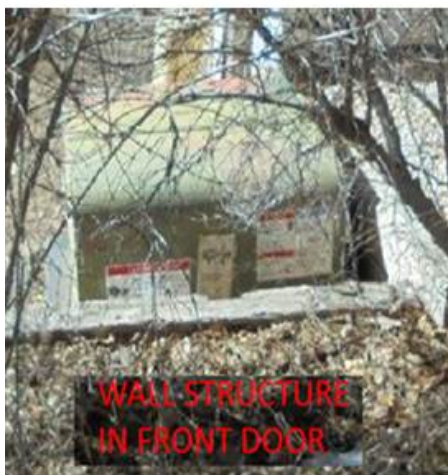
## FY21: URD (UG residential distribution) Replacements

Project Scope: The underground system contains 1970s infrastructure which was direct-buried and in direct contact with the earth. Portions or segments of the underground system which have experienced 3 or more failures are targeted for replacement because they will fail again. Old and obsolete live-front transformers are routinely replaced due to safety and arc-flash concerns. New loop segments are designed for radial power lines which serve large amounts of customers.

1. Los Alamos town site area after three failure replacements \$200,000.
2. White Rock area after three failure replacements \$200,000.

Budget: \$ 400,000

Schedule: Year round design and construction



# GAS DISTRIBUTION / WATER DISTRIBUTION / ELECTRIC DISTRIBUTION / WATER DISTRIBUTION

## FY21: White Rock Maintenance Facility

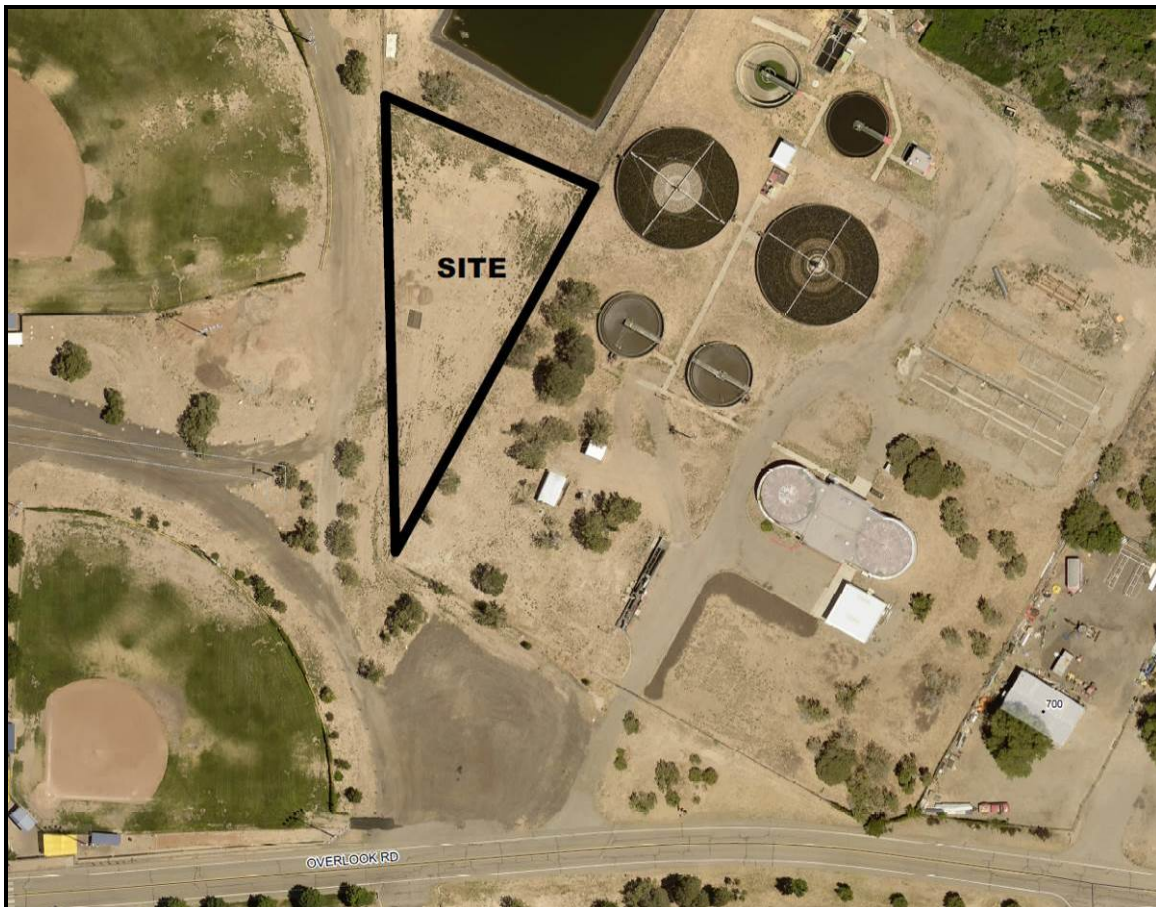
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**Project Scope:** Currently there are no facilities in White Rock where our operations staff can store materials or work on equipment. A lot of time is spent driving from Los Alamos to White Rock for materials and to use shop tools. The new maintenance facility will facilitate daily activities and provide efficiencies to operational tasks. The facility will be located at Overlook Park.

Budget:	Electric Distribution	\$ 50,000
	Gas Distribution	\$ 50,000
	Water Distribution	\$ 50,000
	Water Production	\$ 50,000
	<b>Total</b>	<b>\$200,000</b>

**Schedule:** Spring 2021

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# GAS DISTRIBUTION

## FY21: Border Stations Metering / Over-pressure Protection / SCADA

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Project Scope: Improvements to two border stations in Los Alamos and one in White Rock will be made. The border stations are the locations where New Mexico Gas Company delivers gas to the County. These improvements will provide over pressure protection, metering and SCADA functions that will allow DPU to monitor and trend the flows and pressures at these critical points in the gas distribution system.

Budget: \$300,000

Schedule: Spring 2021

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# WATER DISTRIBUTION

## FY21: Barranca Mesa PRV Replacement

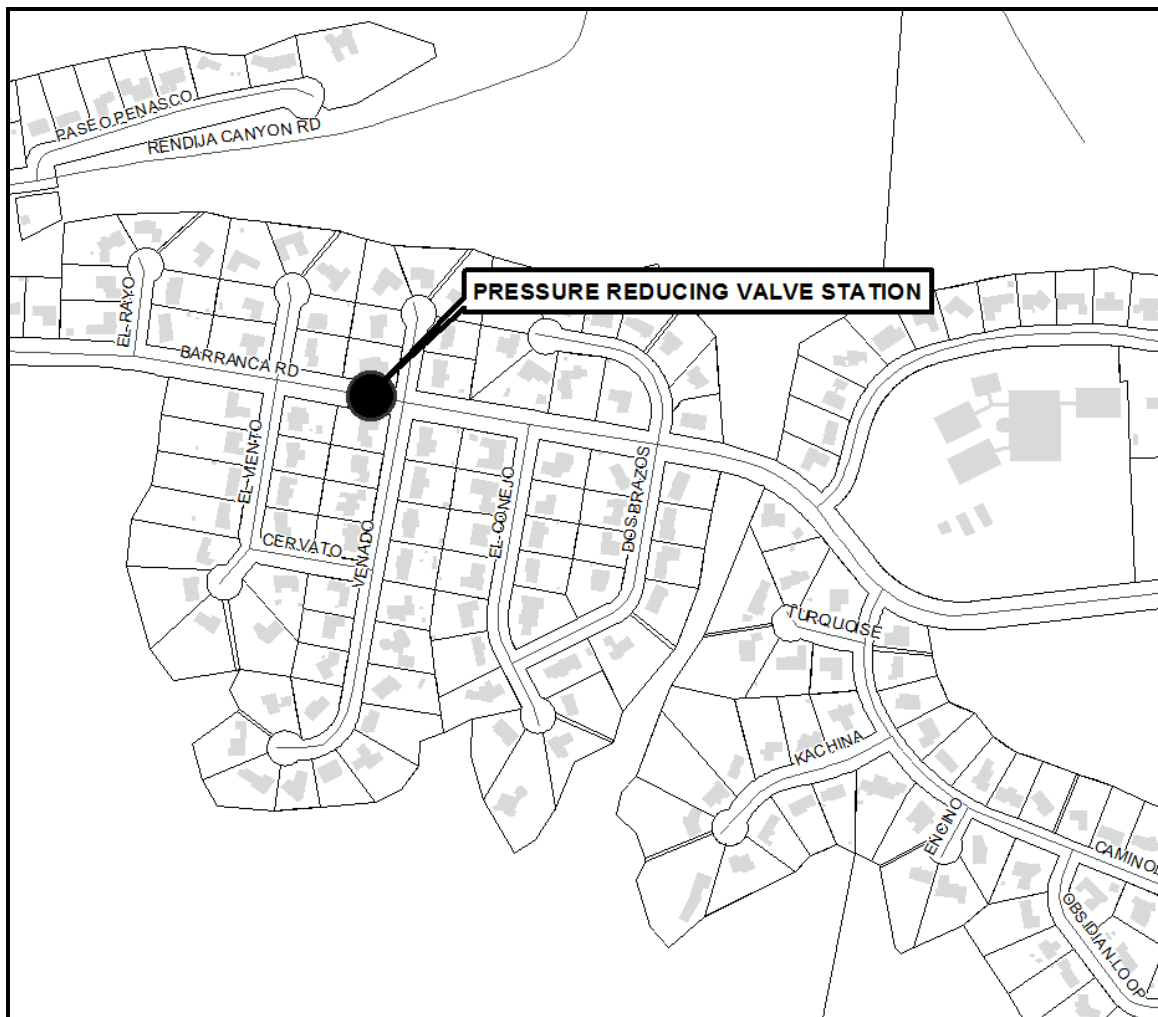
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**Project Scope:** In preparation for painting Barranca Mesa Tank #2 in FY2022, a new pressure reducing valve station will be installed to serve the Barranca Mesa Tank #2 service area while the tank is taken offline to paint.

**Budget:** \$100,000

**Schedule:** Spring 2021

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# WATER PRODUCTION

## FY21: Risk Assessment / Emergency Response Plan

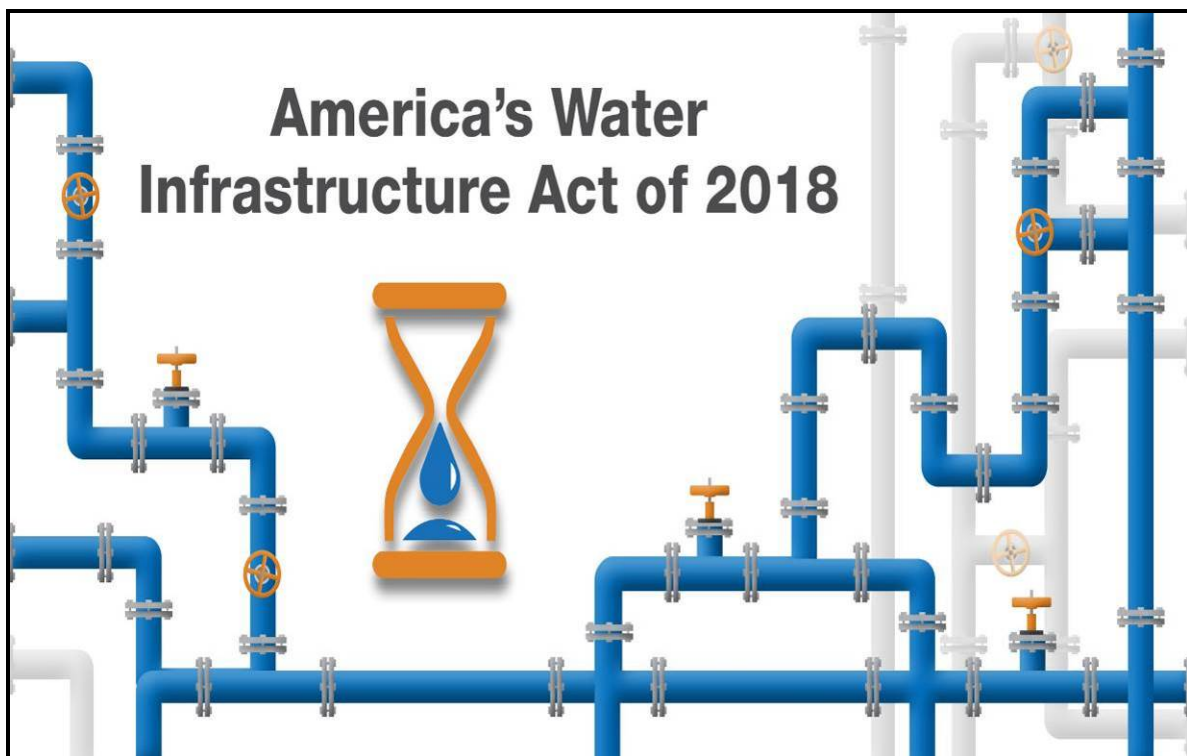
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Project Scope: The America's Water Infrastructure Act of 2018 requires utilities serving more than 3,000 people to prepare a Risk and Resilience Assessment and prepare an Emergency response Plan. The Risk and Resilience Assessment is required to be complete by June 30, 2021. The Emergency Response Plan must be completed by December 31, 2021. Utilities must certify to the Environmental Protection Agency completion of each.

Budget: \$ 120,000

Schedule: Complete by June 30, 2021

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# WATER PRODUCTION

## FY21: Camp May Waterline

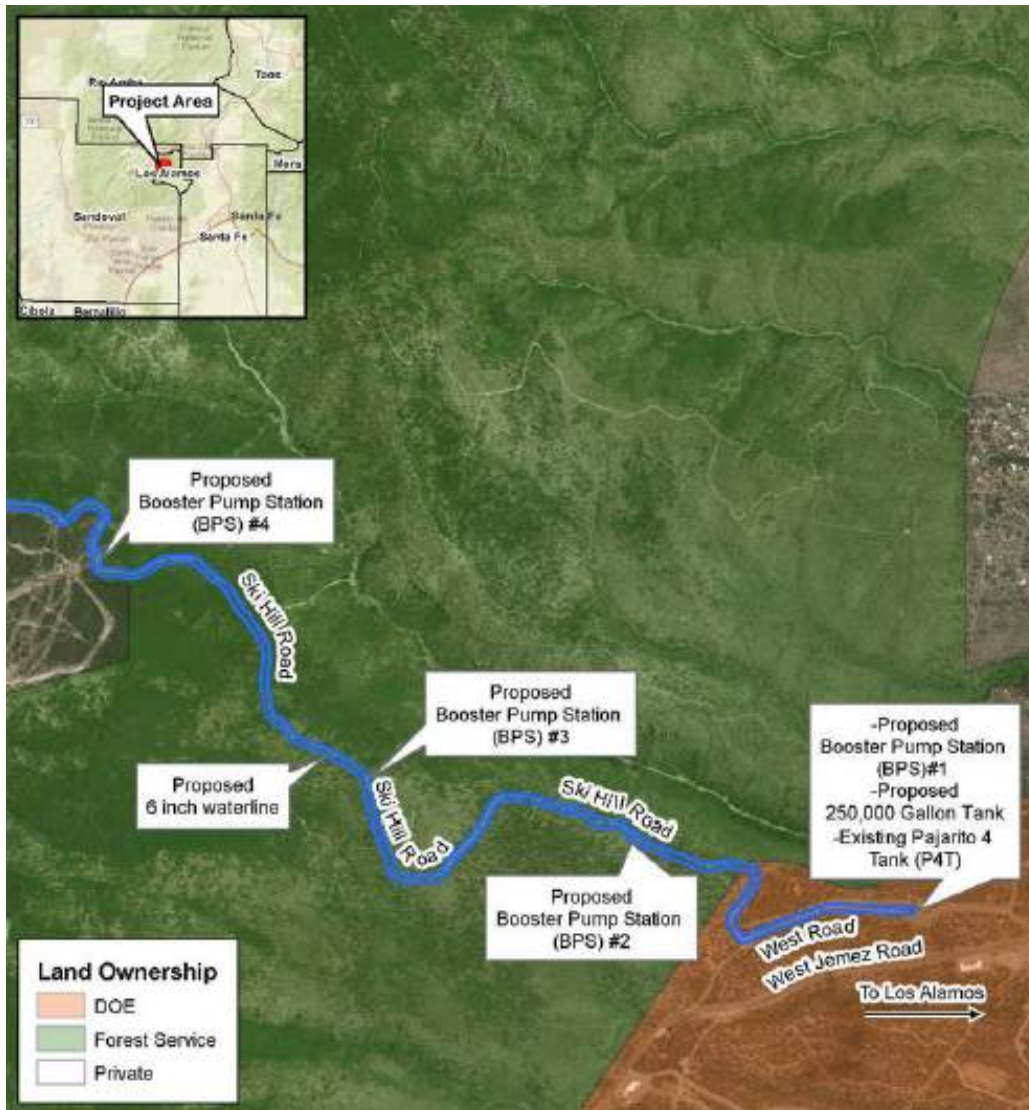
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**Project Scope:** The project will convey water from the existing potable water system in Los Alamos to the ski lodge, Camp May campground and provide a reliable water supply for regional fire protection. Four booster stations and 23,000 feet of waterline will be constructed along Camp May Road. The design has been completed with funding from a capital outlay grant and environmental documents are being finalized for submission to the U.S. Forest Service.

**Budget:**       \$ 2,000,000   Los Alamos County (No DPU Funds)  
                  \$ 2,000,000   Ski Hill Operator

**Schedule:**   Construction Pending Environmental Clearance

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## WATER PRODUCTION

### FY21: Otowi Well No. 2 Well House & Equipment Otowi Well #4 Motor Control Replacement

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Project Scope: Otowi Well #2 was drilled in 2018/2019. An engineer has been contracted to design the well house, pumps and associated equipment. Otowi Well #4 which is located in the same vicinity has a motor control center which needs replacement. The design contract also includes the design of the new motor control center for this well. The funding in FY 2021 is for the construction of both projects.

Budget:	Otowi Well #4 MCC	\$ 400,000
	<u>Otowi Well #2 Well House &amp; Equipment</u>	<u>\$ 1,500,000</u>
	<b>Total</b>	<b>\$ 1,900,000</b>

Schedule: Bid for construction Fall 2020  
Construction complete Summer 2021

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# WATER PRODUCTION

## FY21: Tank Piping Upgrades

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Project Scope: Miscellaneous valves throughout the water production system require replacement after decades of being in service. The valves will be replaced by water production staff and supported by contractors as needed depending on the complexity of the work. These improvements will add to the reliability of the system.

Budget: \$300,000

Schedule: Throughout Year

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# WATER PRODUCTION

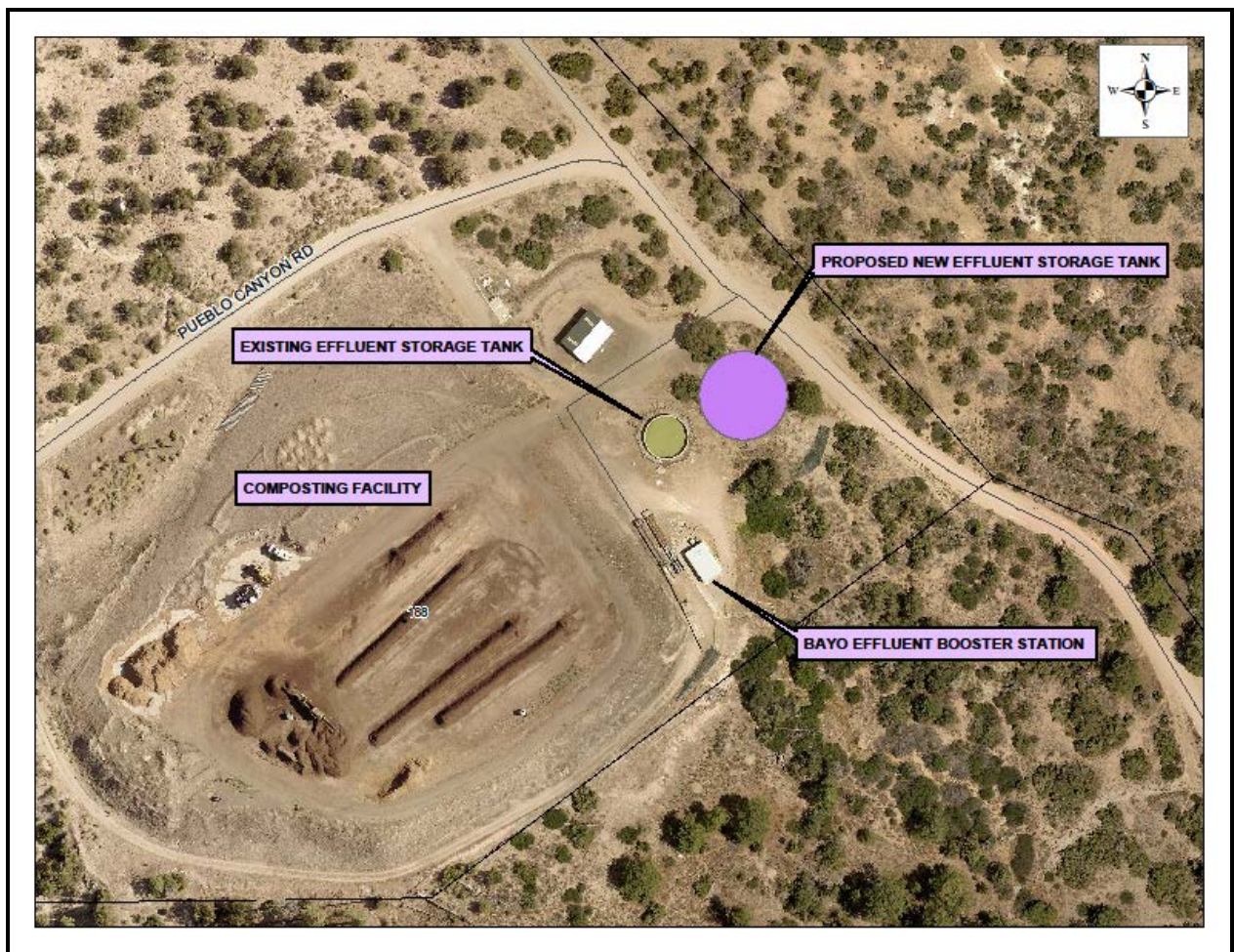
## FY21: Non-Potable New Tank at Bayo Booster

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**Project Scope:** Install a new 1 million-gallon effluent storage tank at the bayo booster station adjacent to the composting operation. The Los Alamos effluent system is limited to the amount of effluent water that can be used in the community due to limited storage. The new tank will allow effluent water to be captured during peak times that is normally discharge to the environment, making it available to pump to the Golf Course, North Mesa Ball Fields and other locations. The Water Trust Board has awarded the County \$900,000 for the project.

**Budget:** \$1,080,000 (\$360,000 Loan / \$540,000 Grant / \$180,000 Match)  
**Schedule:** Spring/Summer 2021

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# WATER PRODUCTION

## FY21: L.A. Reservoir Road Stabilization Project

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**Project Scope:** The DPU applied for a FEMA mitigation grant to stabilize the road to the Los Alamos Reservoir to protect the road and utilities from damage from flooding. Phase I of the grant has been completed which is the design and environmental documents. Environmental approvals have been secured and we are awaiting funds to be authorized for Phase II for construction of the project.

**Budget:**

County	\$ 275,866
DPU	\$ 275,866
<u>FEMA (75%)</u>	<u>\$ 1,655,194</u>
<b>Total</b>	<b>\$ 2,206,926</b>

**Schedule:** Construction is Pending FEMA Authorization of Grant Funds

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# WASTEWATER TREATMENT

## FY21: White Rock Wastewater Treatment Plant

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**Project Scope:** Design is ongoing for the new White Rock wastewater treatment plant. The project will be funded by a Clean Water State Revolving Loan administered by the New Mexico Environment Department. The value engineering and preliminary design report have been completed and the detailed engineering design is in progress. The funds in this budget are for construction.

**Budget:** \$ 14,800,856

**Schedule:** Bid Construction October 2020 / In Service June 2022.

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# ELECTRIC PRODUCTION

## FY22: El Vado Controls Upgrade

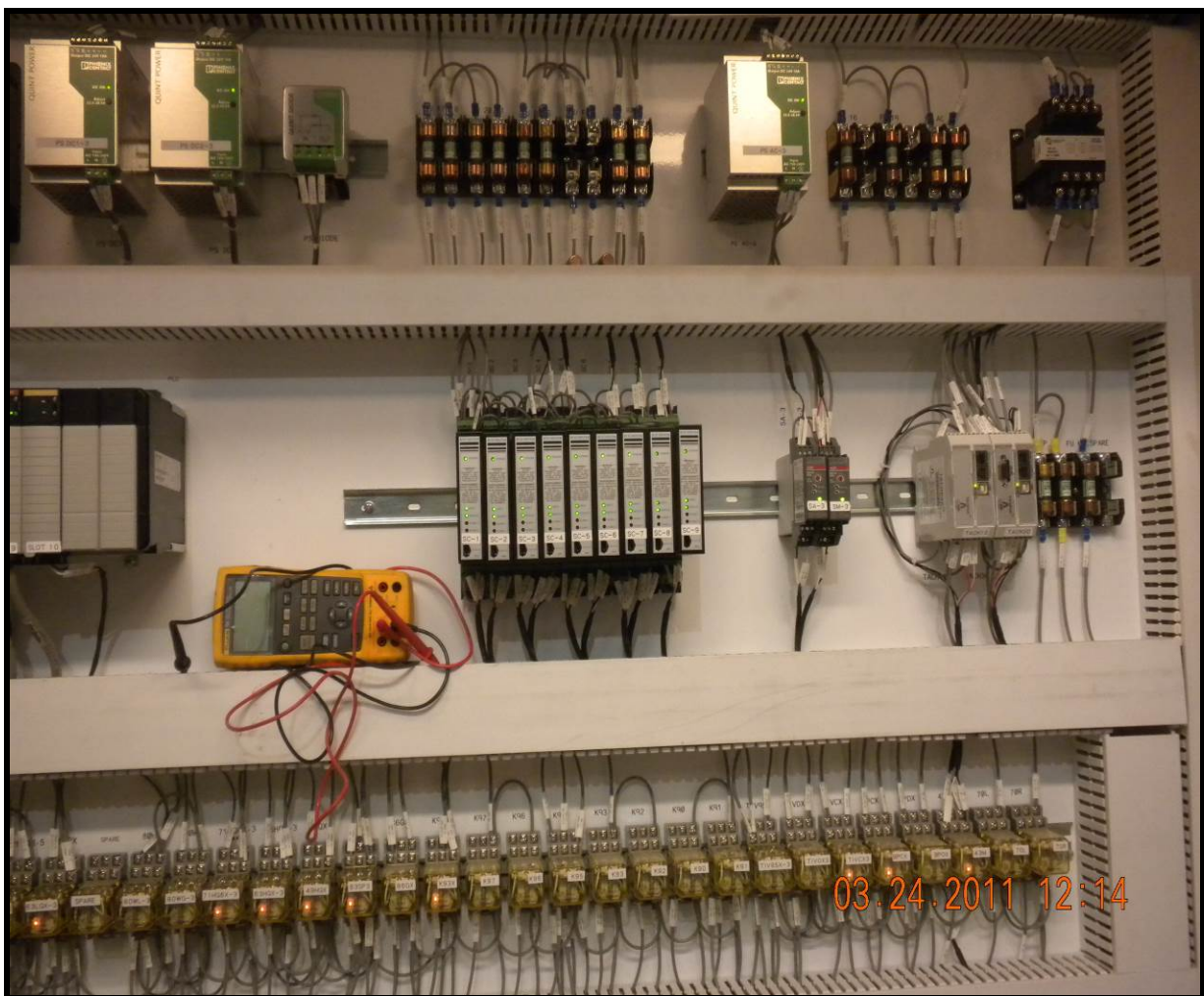
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**Project Scope:** The controls at the El Vado hydroelectric plant were last upgraded in 2006. Industry practice is to upgrade the control system every 10-15 years. The upgrade is needed to replace outdated hardware, update software and programming which is no longer supported and to integrate new functions associated with recent improvements to the plant. The controls upgrade will ensure safe and reliable operation of the plant.

**Budget:** \$440,000

**Schedule:** Fall/Winter 2021-2022

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## ELECTRIC PRODUCTION

### FY22: El Vado Ultrasonic Flow Meter

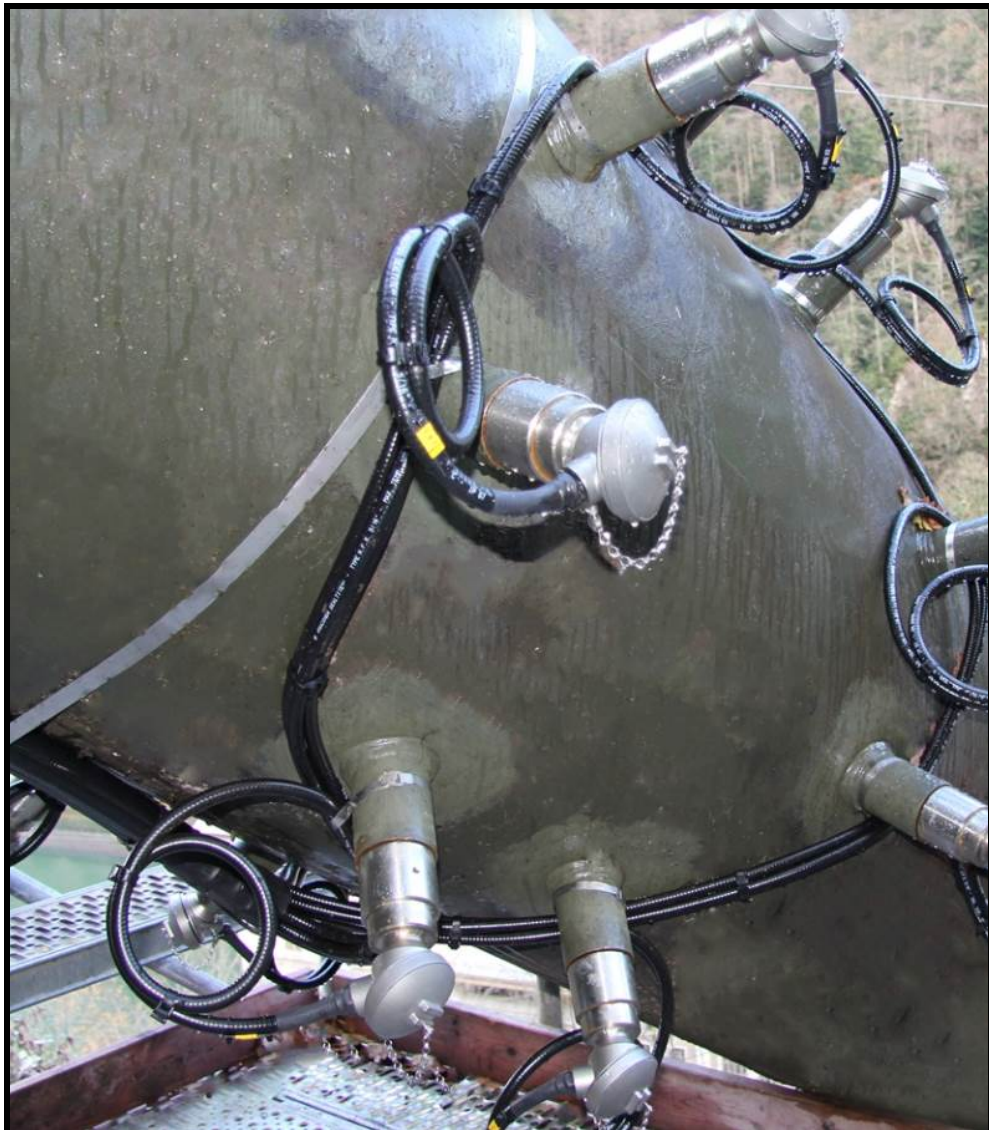
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**Project Scope:** Currently the only flow measurement for the hydroelectric plant and dam releases is from a USGS gauging station located a mile downstream of the dam. The USGS measurement is not very accurate and readings are delayed since the river must stabilize with each flow change. The new ultrasonic meter will be located on the plant penstock and will provide accurate and immediate measurement of flows.

**Budget:** \$ 90,000

**Schedule:** Fall/Winter 2021-2022

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# ELECTRIC PRODUCTION

## FY22: Fiber Optic Line to El Vado

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**Project Scope:** Currently the El Vado hydroelectric plant communicates from the plant to the receiving substation through a microwave system which encompasses three radio sites and five repeaters. One radio & repeater is located in a remote location which is not accessible in the winter. The microwave radio system is antiquated and in need of replacement. This project will eliminate the microwave radio system and replace it with a direct fiber optic link between the plant and substation.

**Budget:** \$ 350,000

**Schedule:** Fall / Winter 2021-2022

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# ELECTRIC PRODUCTION

## FY22: Abiquiu Transformer Replacement

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**Project Scope:** The transformer at the Abiquiu Hydroelectric Plant is in need of replacement. The existing transformer is the original installed in 1988 and is in need of some repairs. A spare transformer was purchased with a grant in 2010 and has been stored onsite since. This project will install the new transformer and salvage the old transformer.

**Budget:** \$100,000

**Schedule:** Fall/Winter 2021- 2022

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# ELECTRIC DISTRIBUTION

## FY22: Overhead System Replacement

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Project Scope: Many components of the utilities' overhead infrastructure operate near or past their useful plant life; greater than 50 years. The department's Asset Management Program (AMP) prioritizes O&M projects on (a) root cause analysis after power outages, (b) quarterly line patrols, and (c) year-end assessments. The O&M program includes: replacement of power poles, cross-arms, and revamps (wire & transformer upgrades). Priority is placed on the three phase backbone and areas affecting the highest number of consumers.

- |                            |            |
|----------------------------|------------|
| 3. White Rock service area | \$150,000. |
| 4. Los Alamos service area | \$150,000. |

Budget: \$ 300,000  
Schedule: Year round design and construction

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# ELECTRIC DISTRIBUTION

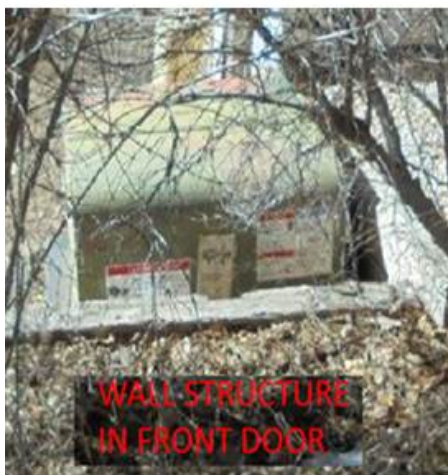
## FY22: URD (UG residential distribution) Replacements

Project Scope: The underground system contains 1970s infrastructure which was direct-buried and in direct contact with the earth. Portions or segments of the underground system which have experienced 3 or more failures are targeted for replacement because they will fail again. Old and obsolete live-front transformers are routinely replaced due to safety and arc-flash concerns. New loop segments are designed for radial power lines which serve large amounts of customers.

- |                                                               |            |
|---------------------------------------------------------------|------------|
| 3. Los Alamos town site area after three failure replacements | \$200,000. |
| 4. White Rock area after three failure replacements           | \$200,000. |

Budget: \$ 400,000

Schedule: Year round design and construction



# GAS DISTRIBUTION

## FY22: White Rock Key Valve Project Phase I

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**Project Scope:** The White Rock gas distribution system is comprised of primarily of steel pipelines. The distribution system has very few valves which limit the ability of isolating segments without disrupting service to many customers. New gas valves will be installed in strategic locations to minimize outages and provide operational flexibility. Welding steel gas lines is a specialty craft which must be performed by outside contractors.

**Budget:** \$281,000

**Schedule:** Through-out the year

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## GAS DISTRIBUTION / WATER DISTRIBUTION

### FY22: Alamo & Capulin Gas & Water Replacement

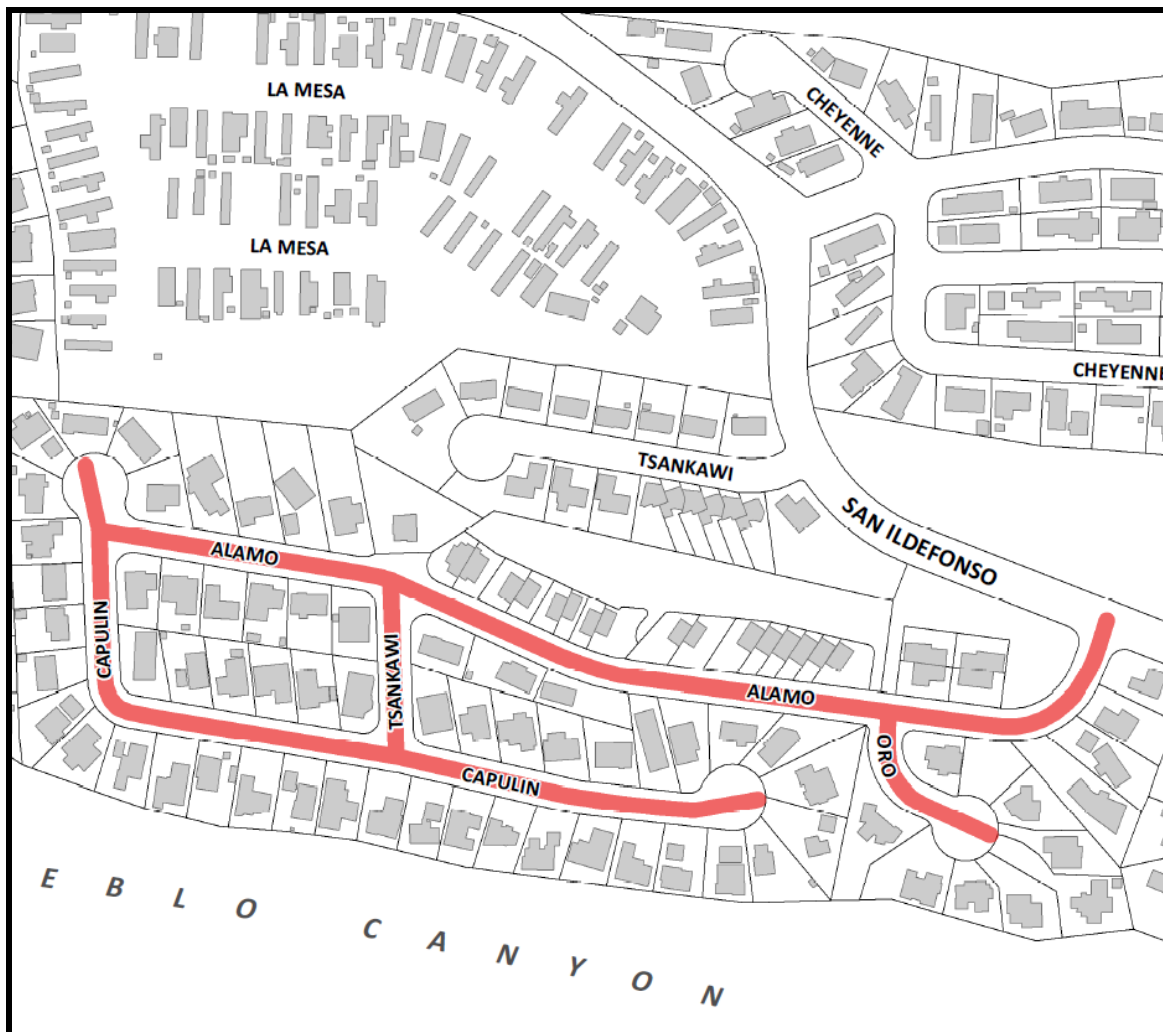
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**Project Scope:** The Public Works Department will be repaving the roads in the Alamo & Capulin neighborhoods on North Mesa. The water and gas distribution systems are in need of replacement and will be incorporated into the road project.

Budget:	Gas	\$535,000
	Water	\$732,000

**Schedule:** Summer 2021

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# WATER PRODUCTION

## FY22: 2<sup>nd</sup> Group 12 Non-Potable Water Tank

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**Project Scope:** The non-potable water system serving Los Alamos is limited by the amount of storage in the system. Currently a single 750,000 gallon tank serves the golf course and North Mesa ballparks. Additional storage is needed to maximize the available effluent water in Los Alamos to expand service to other areas in the community. Funding for this second 750,000 gallon tank will be applied for from the Water Trust Board in the 2021 funding cycle.

**Budget:** \$ 900,000

**Schedule:** Spring/Summer 2022

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# WATER PRODUCTION

## FY22: Paint Barranca Mesa Water Tank

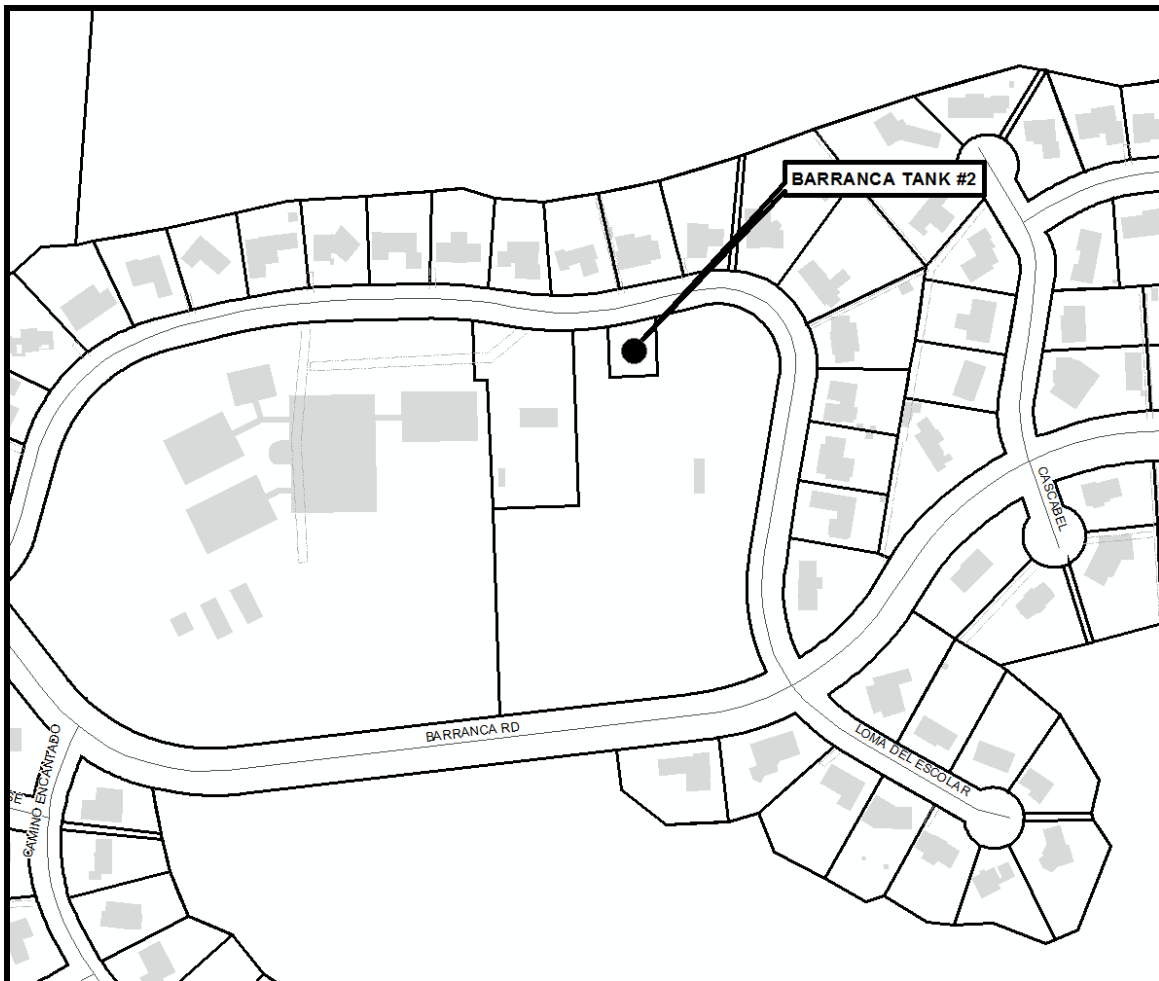
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**Project Scope:** The Barranca Mesa Tank #2 is an elevated steel water tank located adjacent to Barranca elementary school. The tank coating has deteriorated through the years and the tank is in need of repainting. The tank interior and exterior will be re-painted. The new paint will protect the tank for the next thirty years.

**Budget:** \$675,000

**Schedule:** Spring/Summer 2022

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# WASTEWATER TREATMENT

## FY22: Bayo Lift Station Elimination Pipeline

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**Project Scope:** The Bayo Lift Station pumps sewage from all of Barranca Mesa to the Los Alamos Wastewater Treatment Plant. This represents approximately 20% of the sewage treated at the Los Alamos Wastewater Treatment Plant. The lift station is due for some major upgrades and rather than reinvest in the lift station, funds will be used to build a gravity sewer line to replace the lift station and eliminate the cost and risk associated with pumping the sewage.

**Budget:** \$550,000

**Schedule:** Summer/Fall 2021

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