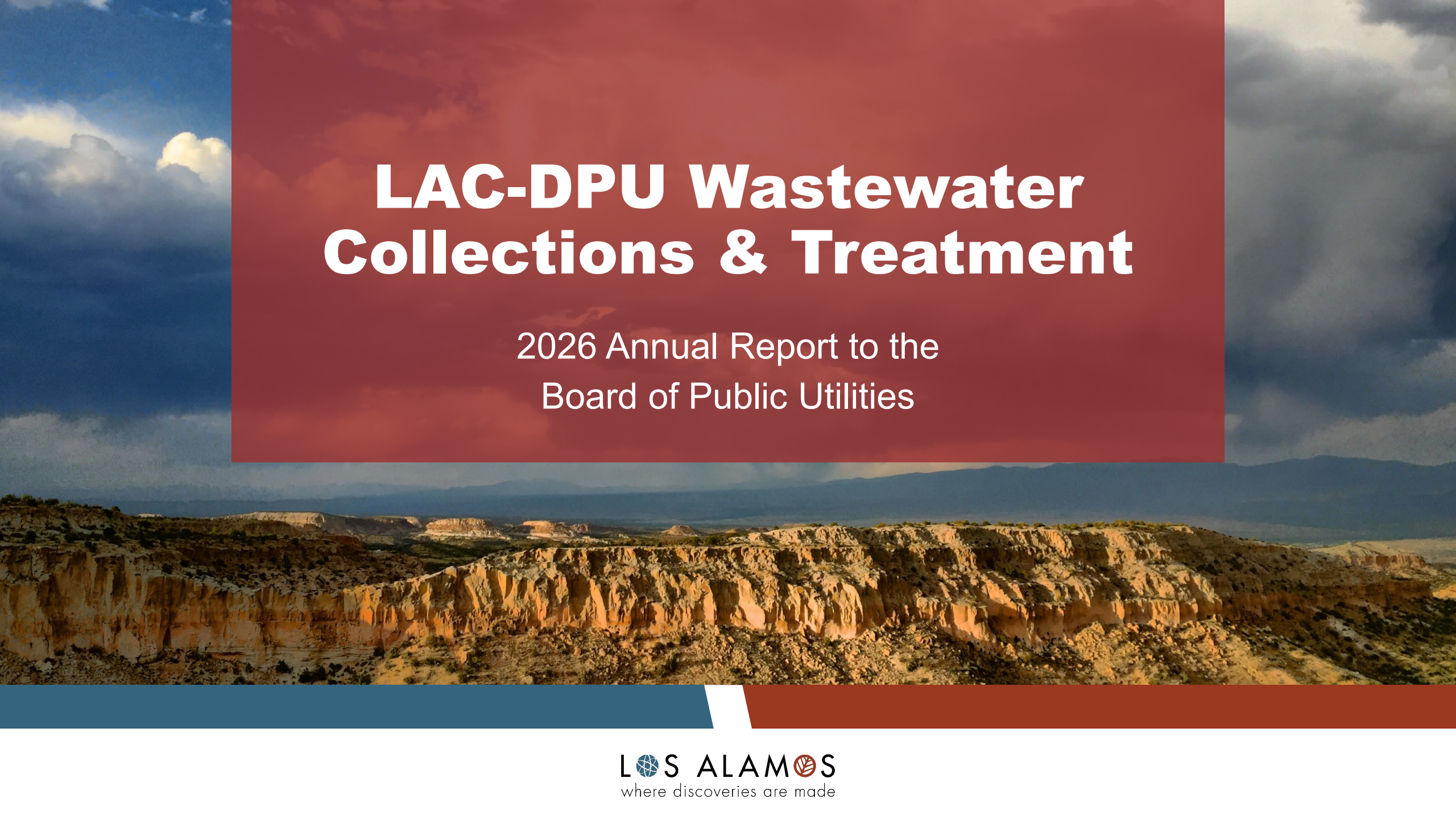




LAC-DPU Wastewater Collections & Treatment

2026 Annual Report to the
Board of Public Utilities

Purpose of Presentation

2



Provide a summary of the operational status of both the wastewater collections system (sewer) and the two LAC wastewater/water reclamation plants



Describe the challenges of operating and maintaining both systems and programs



Analyze the physical condition of the assets



Provide an overview of the future operational needs and capital project plans

Wastewater Collections – a tale of two systems

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- The LAC wastewater collections system is complex
- Terrain and topography
- Challenges posed by original construction layout – i.e. backyard sewer mains, mains running through drainages, off the mesa cliffs, etc.
- Maintenance access is extremely challenging in many areas
- Abundance of vitrified clay pipe – approximately 32,000 ft. between TS and WR
- 25 sewer pump/lift stations – a mix of old and new; any lift station installed before 2000 has seen at least one rebuild or upgrade. Even the original Quemazon-1 lift station is scheduled for a complete rebuild this year.
- New sewer systems present very few problems – i.e. PVC and PE pipe, proper grading, layout in streets for better access, updated rules & regulations
- Implementation of modern technology in lift stations
- O&M of the WC system requires a very experienced team utilizing a heuristic approach

Older Infrastructure = O&M Challenges

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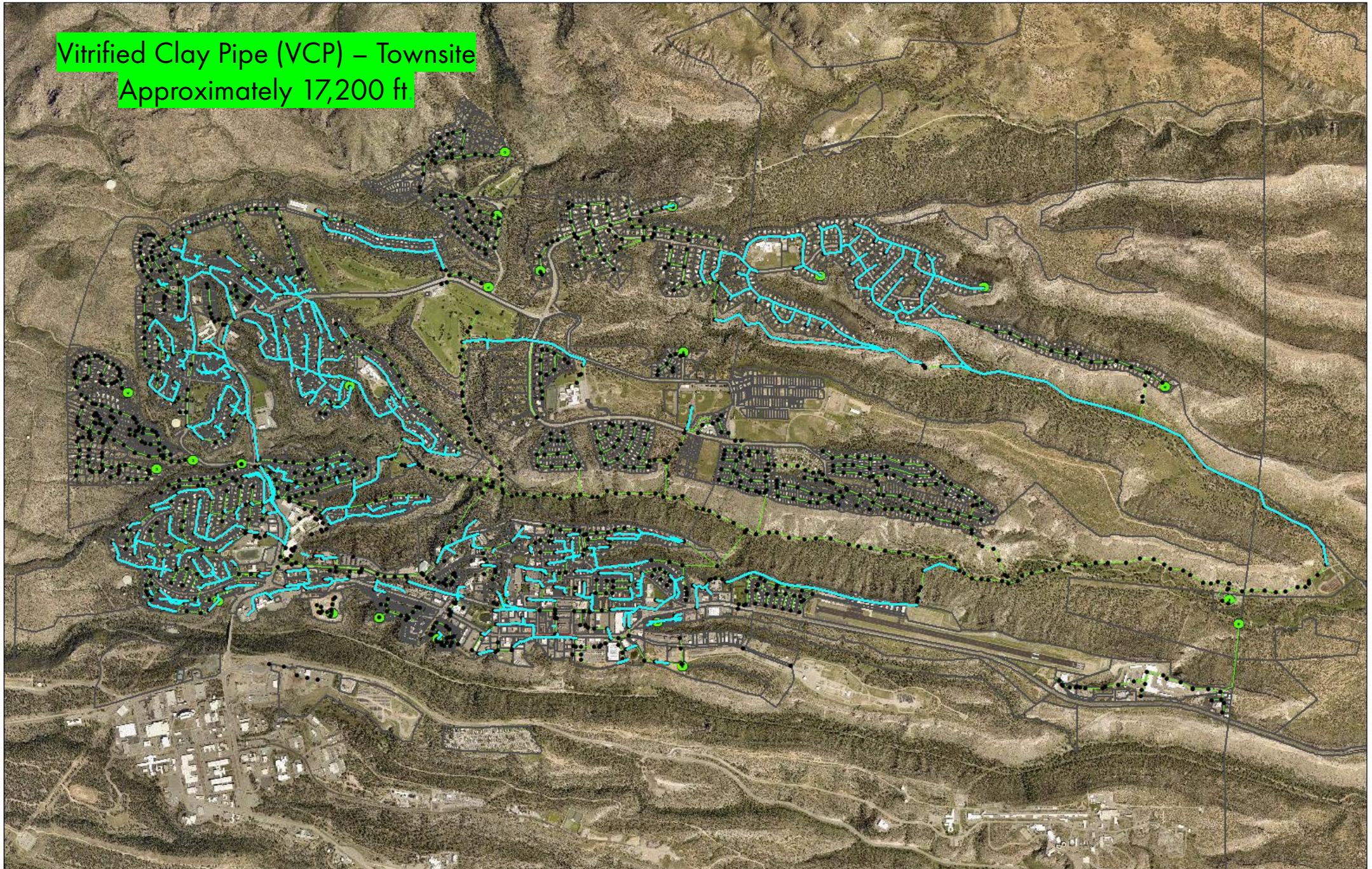


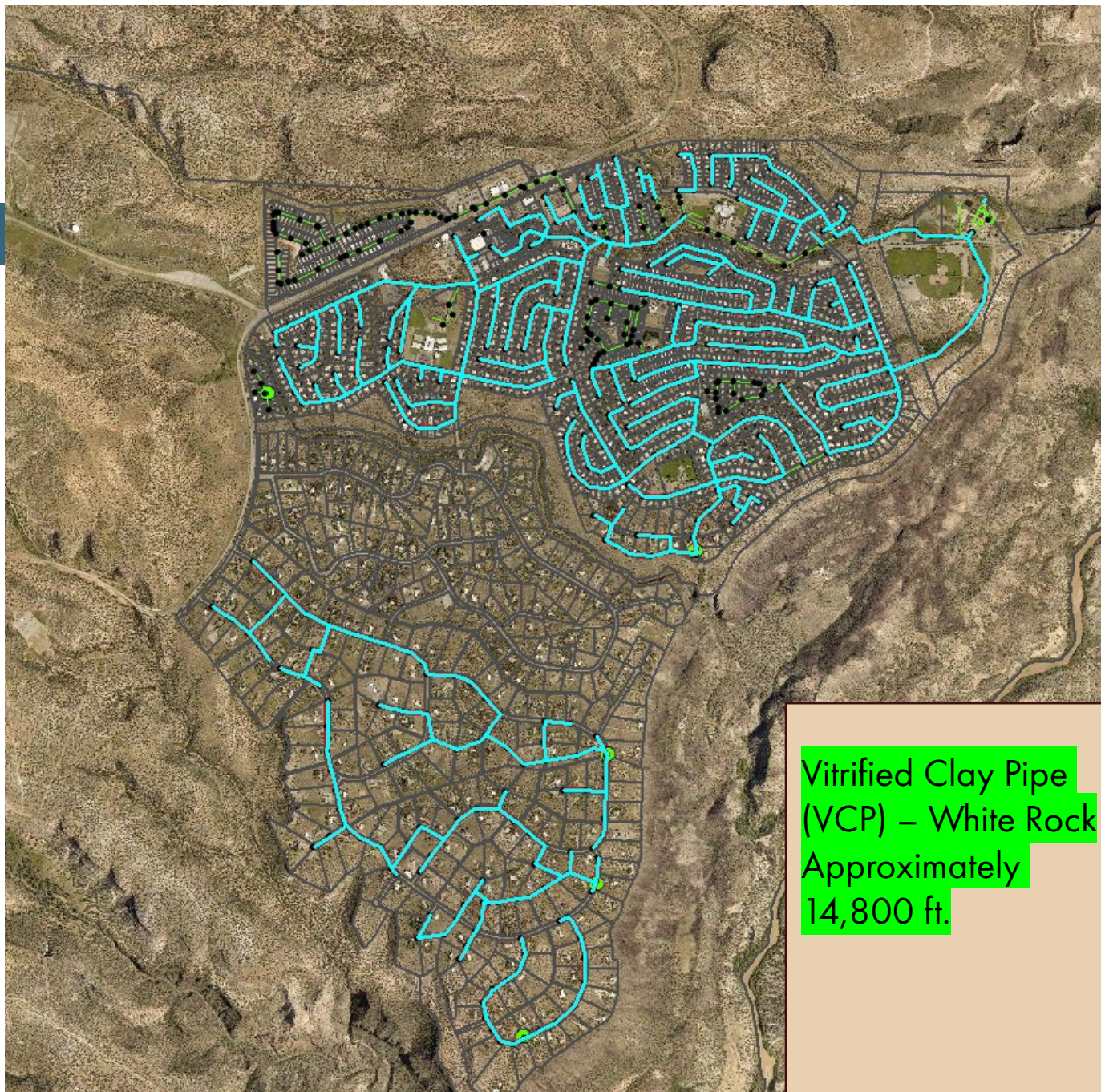
O&M Challenges

5

- Unpredictable nature of sewer blockages
- Bad consumer habits – discharges of:
 - Non-dissolvable wipes (only toilet paper can be flushed)
 - Fats, oils, grease – large residential discharges create problems in lift stations and in the sewer network pipes
 - Rags, mops, other large items – crews find these items very frequently
- Sheer magnitude of network mileage to maintain with only four crew members (on average)
- Roots – very prevalent in older areas with VCP
- Grade problems – shifting soils move VCP pipe joints, creating flow problems
- Infiltration of stormwater – storm water carries soil/sediments that settle out and create earth dams inside pipes and manholes
- Sewer mains running under homes
- Non-permitted residential taps – home additions that created a 2nd service line without inspections or permits
- Numerous original above-ground steel cliff-drop sewer lines – e.g. North Mesa

Vitrified Clay Pipe (VCP) – Townsite
Approximately 17,200 ft





FY27 CIP

WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL

2,185,000

SEWER COLLECTION	1,885,000
Denver Steels Phase III (Public Works Road Project)	150,000
Sewer Line Rehabilitation (RIP Loan)	
Fairway Street	800,000
Sycamore Street	600,000
North Community/Western Area Sewer Mains & Services R&R - Phase 2	300,000
DP Road Staging Area	35,000
WASTEWATER TREATMENT	300,000
Convert Effluent Washwater to Gravity System (RIP Loan)	300,000

FY28 CIP

WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL

4,150,000

SEWER COLLECTION

4,150,000

Old Pueblo Plant Canyon Drop Replacement (WTB \$640 / CIP \$160k)

800,000

Cooper Road Sewer Canyon Drop Repl. (WTB \$1,080,000 /CIP \$270k)

1,350,000

Sewer Line Rehabilitation (RIP Loan)

Refurbish or Eliminate Pueblo Canyon Pipe Bridge

1,100,000

Aspen School Area Pipeline - Phase 2 (Public Works Project)

200,000

Sandia Drive

700,000

WASTEWATER TREATMENT

0

FY29 CIP

WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL

1,700,000

SEWER COLLECTION

1,700,000

Sewer Line Rehabilitation (RIP Loan)

Eastern Area Phase 1 Renewal & Replacement

1,000,000

Aspen School Area Pipeline - Phase 3 (Public Works Project)

300,000

Kimberly Sewer Lift Station & Wet Well

400,000

WASTEWATER TREATMENT

0

FY30 CIP

WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL

2,000,000

SEWER COLLECTION

2,000,000

Sewer Line Rehabilitation (RIP Loan)

Airport Canyon Sewer Drop Replacement

1,000,000

Eastern Area Phase 2 Renewal & Replacement

750,000

Orange and Nickel Streets (Public Works Project)

250,000

WASTEWATER TREATMENT

0

FY31 CIP

2,000,000

SEWER COLLECTION

2,000,000

Sewer Line Rehabilitation (RIP Loan)

Laguna Sewer Canyon Drop Replacement

1,400,000

Range Road Lift Station Refurbishment

350,000

40th, 41st & 42nd South of Urban (Public Works Project)

250,000

WASTEWATER TREATMENT

0

Focal Points for the Future

13



Aggressive capital project plan to modernize infrastructure – i.e. replace VCP with PVC according to modern standards, upgrade lift stations



Analyze & respond to operational needs to improve efficiency – i.e. purchase of new/modern vector unit to expedite maintenance workflows



Maintain highly engaged and expert staff through apprentice program



Analyze crew workflows and equipment allocation to maximize O&M progress

Wastewater Collections - Staff Recommendations

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- Maintain and build a strong GWS apprentice program to ensure O&M workflows keep pace with needs; consider staff additions as work volume increases
- Continuously analyze needs toward acquisition and maintenance of the tools and equipment necessary to run an efficient operation
- Constantly evaluate problem areas that require additional maintenance work throughout the year
- Prioritize asset management team collaboration between Engineering and GWS Operations to develop near- and long-term CIP plans to replace aging/failing infrastructure
- Factor in the need to be flexible with projects and respond to newly developing situations as they arise
- Emphasize public engagement – sewer discharges are a consumer issue that have health and economic impacts

Wastewater Treatment & Reclamation

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- DPU owns and operates two treatment plants for Los Alamos & White Rock
- Both plants produce Class 1 A effluent water suitable for reclamation and reuse
- Los Alamos Plant (2007):
 - Designed for 1.5 MGD, processes on average ~0.8 MGD
 - BNR (biological nutrient removal) process utilizing aerated biological reactor basins with forced air
 - LA WWTP is now seeing age/condition related replacements and upgrades
- White Rock WRRF (2024):
 - Designed for 0.5 to 0.7 MGD, processes on average ~0.28 MGD
 - BNR process utilizing an aerated oxidation ditch through mixing
 - The WR WRRF is still seeing some “new facility” start-up troubleshooting issues, but is generally a very good plant to own and operate

Los Alamos WWTP

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- Originally constructed and in operation since 2007, much of the plant process equipment is now seeing its “end of life” need for replacement or complete overhaul
- Fine filtration process added in 2025 – promoted effluent/reclaim water quality to Class-1A
- Upgrades/Replacements completed as of 2026:
 - Replaced 2 older “Hoffman” blowers with modern VFD Aerzen blowers
 - Replaced original outmoded plant SCADA from proprietary Allen Bradley “FactoryTalk” to open source “Ignition” system – CIP and SCADA staff project
 - Replacement of dewatering process belt press with more modern screw press - CIP
 - Replaced original reuse water system pumps with improved pumps more suited to the application – WT staff project
 - Replaced VFDs on reuse water pumps – WT staff project
 - Replaced 50% of RAS/WAS pumps – WT staff project
 - Rebuilt 50% of the process MCC buckets (motor starters) – WT/Electric staff project
 - Fabricated and installed grit chamber decking to protect headworks HVAC – WT staff project
 - Complete rebuild and overhaul of the headworks fine screen – WT staff project

Los Alamos WWTP (continued)

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Pending replacement/upgrade projects:

- Replacement of UV disinfection system – WT/Electric staff project
- Blower room heat dissipation & HVAC – planned CIP
- Repair and waterproofing of aeration basin walls – planned CIP
- Elimination of onsite reuse water pumping system – planned CIP
- Replacement of sodium & mercury ballast lighting – in process by WT/Electrical staff
- Continue MCC bucket rebuilds – in process by WT/Electrical staff

In-House Overhaul of the Fine Screen

A cost savings of \$200k to \$400k!







White Rock WRRF

- New facility – very popular for public tours! Produces very clean effluent
- Very modern technology that the operators enjoy
- Has had a few startup problems requiring warranty work from both the Engineer and Contractor (BHI & RMCI):
 - Grit chamber vortex system
 - RAS/WAS pumps
 - Chlorinator and sensors
 - Several minor SCADA/controls issues
 - Sludge basin mixing pumps – unresolved major corrosion problem

White Rock Effluent Discharge Permit

Operating Conditions

#	Terms and Conditions																		
6.	The Permittee shall ensure that Class 1A reclaimed domestic wastewater discharged from the reuse storage impoundment to the reuse areas does not exceed the following discharge limits. <table><tr><th>Test</th><th>30-day Average</th><th>Maximum</th></tr><tr><td>Total Nitrogen</td><td>N/A</td><td>10 mg/L</td></tr><tr><td>E. coli bacteria</td><td>3 MPN/100 mL</td><td>15 MPN/100 mL</td></tr><tr><td>BOD₅</td><td>10 mg/L</td><td>15 mg/L</td></tr><tr><td>Turbidity</td><td>3 NTU</td><td>5 NTU</td></tr><tr><td>TRC or UV Transmissivity</td><td>Monitor Only</td><td>Monitor Only</td></tr></table> [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]	Test	30-day Average	Maximum	Total Nitrogen	N/A	10 mg/L	E. coli bacteria	3 MPN/100 mL	15 MPN/100 mL	BOD ₅	10 mg/L	15 mg/L	Turbidity	3 NTU	5 NTU	TRC or UV Transmissivity	Monitor Only	Monitor Only
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7.	The Permittee shall ensure adherence to the following general requirements for above-ground use of reclaimed domestic wastewater. a) The Permittee shall install and maintain signs in English and Spanish at all reuse areas such that they are visible and legible for the term of this Discharge Permit. The Permittee shall post signs at the entrance to the reuse areas and at other locations where public exposure to reclaimed domestic wastewater may occur. The signs shall state: NOTICE: THIS AREA IS IRRIGATED WITH RECLAIMED WASTEWATER - DO NOT DRINK. AVISO: ESTA ÁREA ESTÁ REGADA CON AGUAS NEGRAS RECOBRADAS - NO TOMAR. The Permittee may submit alternate wording and/or graphics to NMED for approval. b) Reclaimed domestic wastewater systems shall have no direct or indirect cross connections with public water systems or irrigation wells pursuant to the latest revision of the New Mexico Plumbing Code (14.8.2 NMAC) and New Mexico Mechanical Code (14.9.2 NMAC). c) Above-ground use of reclaimed domestic wastewater shall not result in excessive ponding of wastewater and shall not exceed the water consumptive needs of the																		



Huge improvement!

WT & WP CIP plans include covering the old WR plant secondary clarifiers through a grant for protecting the quality of the effluent water and increasing storage capacity

Focal Points for the Future

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Maintain current level and mix of CIP and WT staff-run projects developed by asset management team program



Analyze & respond to operational needs to improve efficiency



Maintain highly engaged and expert staff through apprentice & training program



Current WT staff level is sufficient

Thank you!

Questions?

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