

# **DPU ANNUAL REPORT: WASTEWATER**

**CLAY MOSELEY**  
DEPUTY UTILITY MANAGER,  
GWS OPERATIONS

## **AT A GLANCE**

- TOTAL SEWER MAIN 120 MILES
- OLDER VCP (CLAY PIPE) 60 MILES (51%)
- LIFT STATIONS (LS) 26
- CALLOUTS 50
- SYSTEM OVERFLOWS 5 (LS & MAIN LINE)
- MAIN LINE BLOCKAGES 11
- DELIVERY LINE BLOCKAGES 28
- LIFT STATION MALFUNCTIONS 8





# ACCOMPLISHMENTS & SYSTEM IMPROVEMENTS (PT 1)

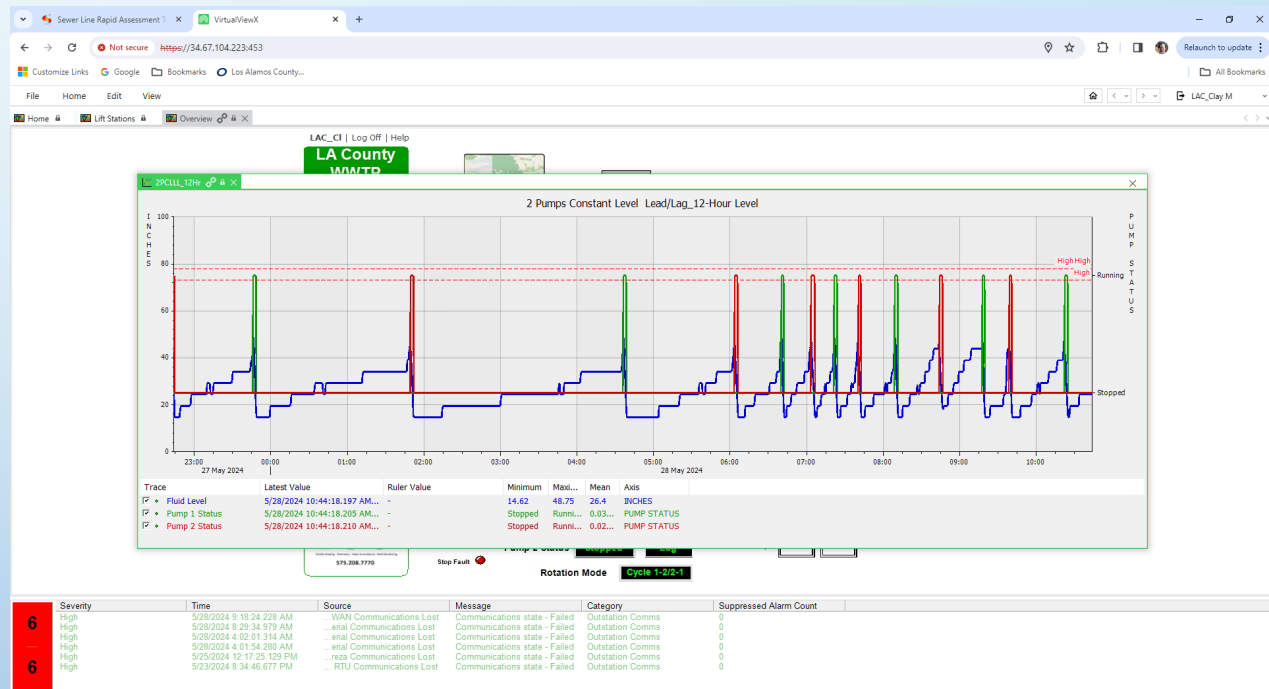
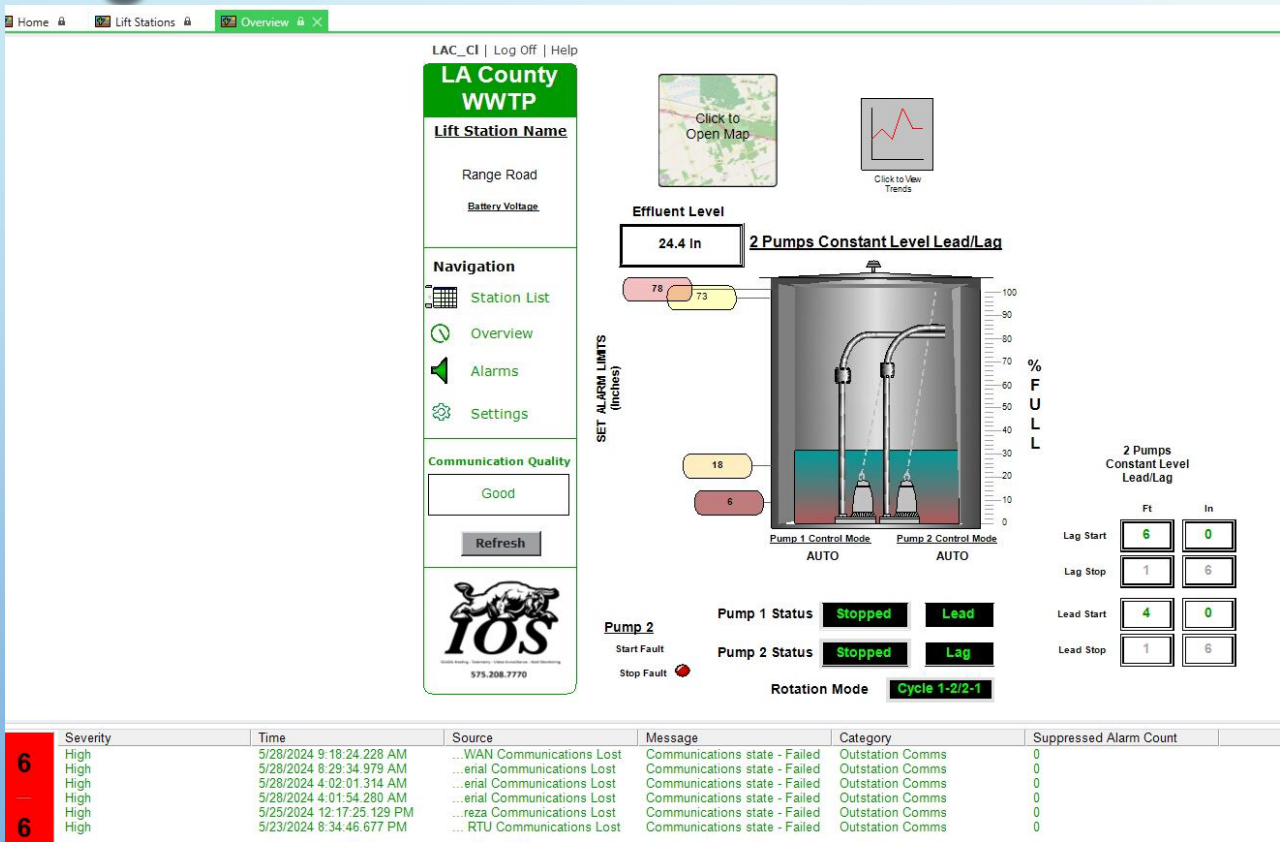
- WHITE ROCK WATER RESOURCE RECLAMATION FACILITY (WR WRRF) PUT INTO SERVICE ON MAY 14, 2024 – IS NOW FULLY FUNCTIONAL
- MET DISCHARGE PERMIT PARAMETERS WITHIN A WEEK OF OPERATION, WITH CONTINUOUS IMPROVEMENT OVER THE SUMMER OF 2024. NOW MEETING THE NEW PERMIT PARAMETERS QUITE EASILY
- COMPLETION OF LOS ALAMOS WASTEWATER TREATMENT PLANT (LA WWTP) FILTRATION SYSTEM – VERY SUCCESSFUL REMOVAL OF TOTAL SUSPENDED SOLIDS
- IN-HOUSE REHABILITATION OF MOTOR CONTROL CENTER “BUCKET” UNITS
- REPLACED OLD, UNRELIABLE COMPOST LOADER WITH A NEW, MUCH MORE EFFICIENT LOADER
- BACKUP POWER CONNECTION (WP GENERATOR) AT THE BLOWER ROOM TO KEEP THE AERATION BASINS ONLINE DURING POWER OUTAGES – DEVELOPING LOAD TESTING PROTOCOL AND UPGRADES
- CONTINUED TO KEEP THE OLD BELT PRESS IN OPERATION, WITH NUMEROUS REPAIRS – WILL BE REPLACED WITH NEW DEWATERING UNITS THIS COMING FALL
- REPLACED THE BAYO/PUEBLO LIFT STATION WITH A GRAVITY SEWER MAIN TO THE LA WWTP

# ACCOMPLISHMENTS & SYSTEM IMPROVEMENTS (PT 2)

- LIFT STATION UPGRADE PROJECT – COMPLETED THE TOTAL REHABILITATION OF EL GANCHO AND PASEO PENASCO LIFT STATIONS. INITIATED UPGRADES TO NORTH ROAD AND LOS ARBOLES LIFT STATIONS
- CREWS ACCOMPLISHED MAINLINE MAINTENANCE FLUSHING SCHEDULE, FINDING AND MITIGATING MANY ISSUES
- TWO DIFFERENT SECTIONS OF FAILING/LEAKING SEWER MAIN, CROSSING SMALL CANYONS, WERE REPLACED
- REPLACED A VERY DIFFICULT-TO-REACH, FAILED STEEL PIPE SEWER DROP OFF BARRANCA MESA
- TRANSITION TO SOLID-STATE CONTROLS AND SCADA MONITORING ON 23 LIFT STATIONS (SEE GRAPHIC)
- CONTROLS UPGRADES AT LA WWTP - TRANSITION TO IGNITION CONTROLS SOFTWARE AT LA WWTP, FOLLOWING THE INTEGRATION PROCESS AT THE WR WRRF. REQUIRED NEW SERVER UPGRADES AND REBUILDING THE CONTROL OPERATIONS. STILL IN PROGRESS BUT IS SUCCESSFUL SO FAR.
- NEW STAFF – TRAINING AND CERTIFICATIONS HAVE BEEN VERY SUCCESSFUL. STAFF IS HIGHLY MOTIVATED AND HAS MADE HUGE PROGRESS TOWARD ACHIEVING “OPERATOR” STATUS. WE WERE ALSO SUCCESSFUL IN RECRUITING A VERY GOOD LEVEL IV OPERATOR WITH A LOT OF EXPERIENCE FROM THE CITY OF BERNALILLO.
- DEVELOPED NEW CHEMICAL TREATMENT SOP FOR LIFT STATIONS AND PROBLEM AREA MANHOLES AND PIPES. THIS REQUIRED A LOT OF RESEARCH AND EVALUATION FOR THIS NEW TYPE OF CHEMICAL TREATMENT TO BREAK DOWN GREASE AND SEPTIC DEPOSITS
- CONSTRUCTED TWO “SANITARY DISPOSAL” SITES – IT HAS ALWAYS BEEN A PROBLEM TO DISPOSE OF SEWAGE FROM VACTOR SEPTAGE OPERATIONS
- PROCURED NEW HIGH-DEFINITION “PUSH CAMERA” FOR MUCH IMPROVED VIDEO CAMERA INSPECTIONS IN A WIDE VARIETY OF PIPE SIZES AND TYPES

# LIFT STATION SCADA

## RANGE ROAD LIFT STATION EXAMPLE





# CHALLENGES & STAFF IMPACTS

- VACTOR TRUCKS – GWS HAS TWO, BUT THEY ARE SO HEAVILY USED, CAUSING ONE OR BOTH TO ALMOST CONTINUALLY BE OUT OF COMMISSION
- RESIDENTIAL DISCHARGE OF GREASE (F-O-G) AND NON-DISSOLVABLE MATERIALS
- FIBERED WIPES – SOME REPORT AS “FLUSHABLE,” BUT THEY DO NOT DISSOLVE IN THE SEWER SYSTEM. PROLIFERATION OF THESE MATERIALS ARE A PRIMARY SOURCE OF CLOGS AND BACKUPS
- PUBLIC OUTREACH – THIS IS AN INCREASINGLY IMPORTANT PART OF THE WASTEWATER COLLECTION O&M PROCESS
- STAFFING – THE SEWER CREW CONSISTS OF ONLY 4 DEDICATED CREW MEMBERS. ALMOST ALL THE WORK IS LABOR INTENSIVE, TEDIOUS, AND TIME CONSUMING
- AGING INFRASTRUCTURE – CLAY PIPES THAT ALLOW ROOT INTRUSION AND ARE PRONE TO SHIFTING.
- PROBLEMATIC INFRASTRUCTURE – OLDER NON-STANDARD INSTALLATIONS IN BACKYARDS, ETC.
- LIFT STATION MAINTENANCE AND COMPONENT GLITCHES AND FAILURES – DIFFICULT TO IMPOSSIBLE TO PREDICT
- NEW TECHNOLOGY AND CHANGES IN OPERATING PROCEDURES
- TRAINING
- SAFETY

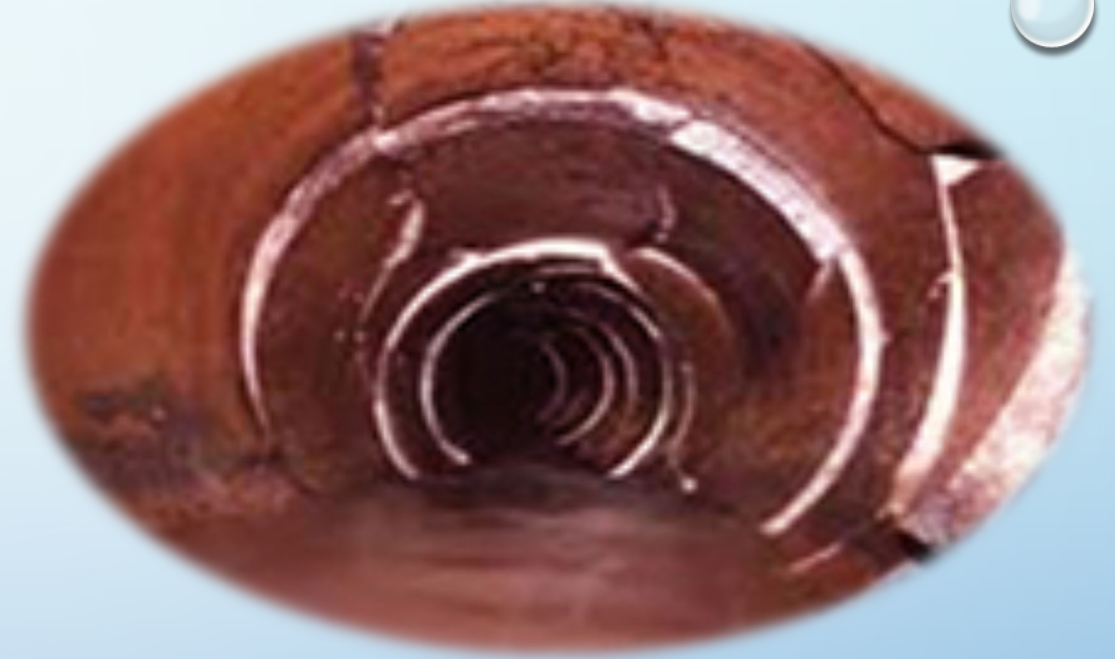


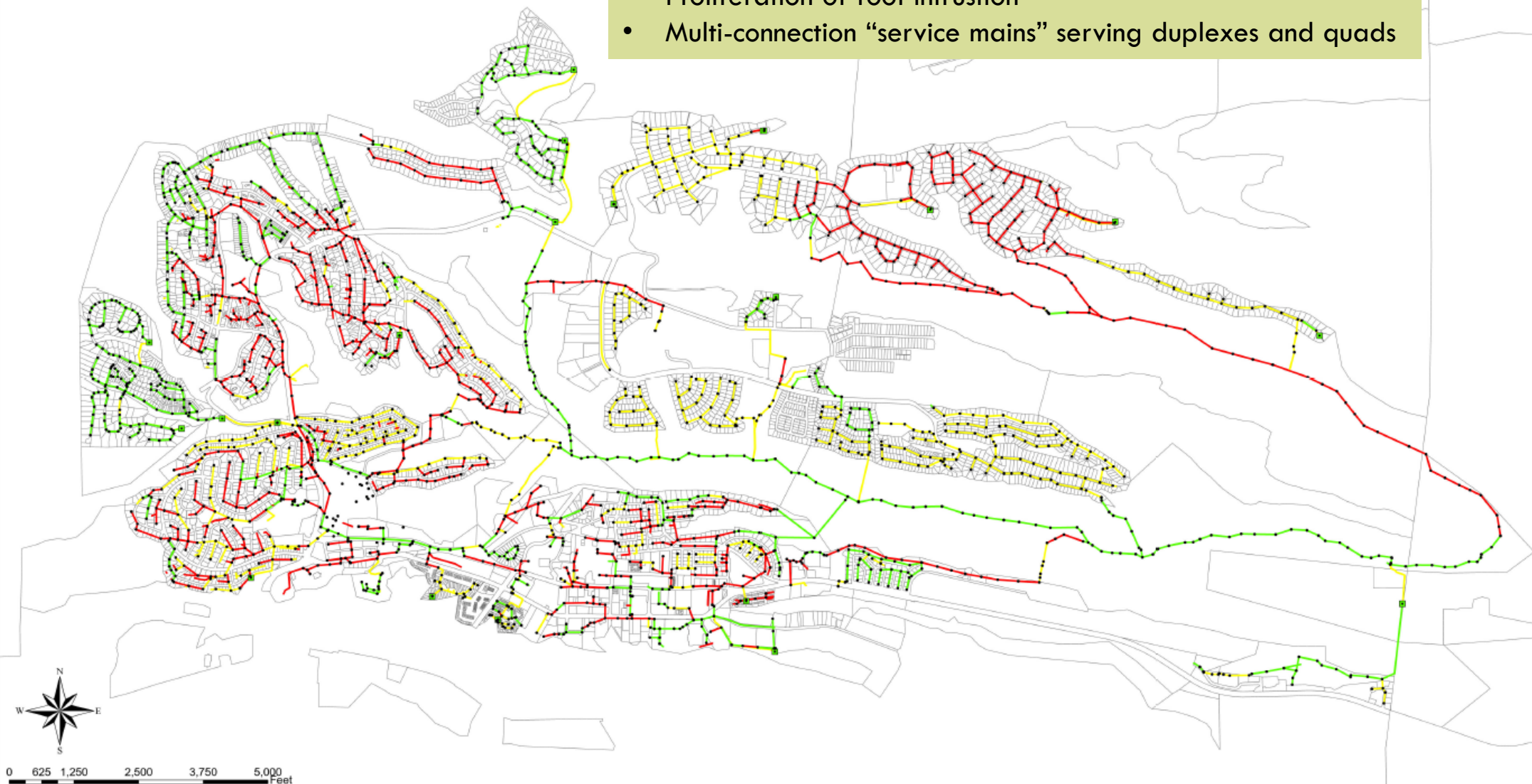
Figure 1. Roots in: a) modern PVC pipe [17]; b) old terracotta pipe – plugged pipe [18]

## Los Alamos County Utilities Sewer System Assessment - Townsite

- Older system
- Large areas with old clay pipe (red on the map)
- Shifting soils
- Residential additions constructed over pipes
- Backyard lines – difficult to access
- Proliferation of root intrusion
- Multi-connection “service mains” serving duplexes and quads

Legend

- Manhole
- Lift Station
- Condition
- Fair
- Good
- Poor

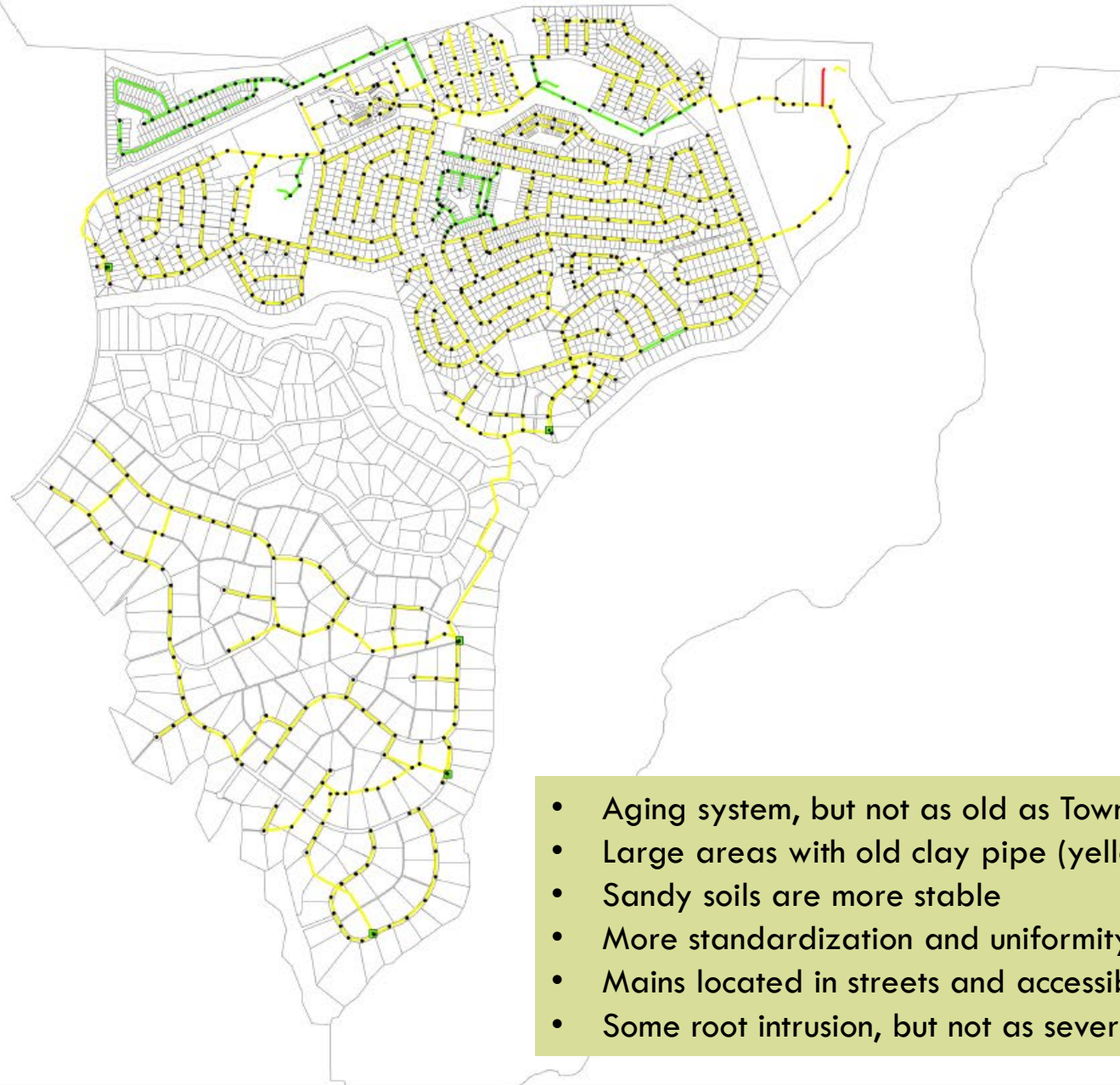




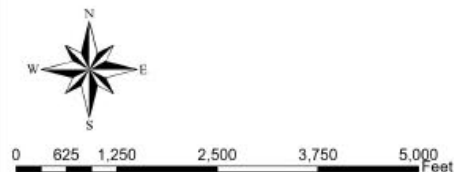
# Los Alamos County Utilities Sewer System Assessment - White Rock

Legend

- Manhole
- Lift Station
- Condition
- Fair
- Good
- Poor



- Aging system, but not as old as Townsite
- Large areas with old clay pipe (yellow on the map)
- Sandy soils are more stable
- More standardization and uniformity in construction
- Mains located in streets and accessible easements
- Some root intrusion, but not as severe



# WW FUND BUDGET

## Los Alamos County Utilities Department Fiscal Year 2025 Budgets Wastewater Treatment - Collection

	FY 2023 Actual	FY2024 Actual	FY2025 Original Budget	FY2025 Revised Budget	FY2025 Actual (Unaudited)	Encumbrances	FY2025 Remaining	Remaining Percentage
<b>REVENUE</b>								
Thousand of Gallons Processed	375,378	369,475	400,000	400,000	280,116		119,884	30%
							0	
Sales Revenue	6,184,880	6,421,297	6,775,858	6,775,858	5,608,384		1,167,474	17%
Interest on Utility Reserves	198,827	174,469	480,090	480,090	-		480,090	100%
Revenue on Recoverable Work	860	19,615	10,000	10,000	(17,395)		27,395.00	274%
<b>TOTAL REVENUE</b>	<b>\$ 6,384,566</b>	<b>\$ 6,615,381</b>	<b>\$ 7,265,948</b>	<b>\$ 7,265,948</b>	<b>\$ 5,590,989</b>		<b>\$ 1,674,959</b>	<b>23%</b>
<b>OPERATING EXPENSES</b>								
Operations Staffing Related - Collections	689,545	781,795	944,908	947,054	613,473	146	333,435	35%
Operations Staffing Related - Treatments	1,022,867	1,018,345	1,251,074	1,251,074	772,257		478,817	38%
Wastewater Collection	124,092	97,409	262,800	282,979	367,810	42,211	(127,043)	-45%
Lift Stations	124,994	117,120	96,200	170,649	62,903	49,456	58,290	34%
Wastewater Treatment	606,244	629,921	854,680	904,504	621,686	(257,607)	540,425	60%
Interdepartmental Charges	718,681	1,094,160	1,144,038	1,144,038	1,000,216		143,822	13%
Eng. Cust Svc. MR and Admin	928,136	1,090,454	731,583	731,583	475,673		255,910	35%
Debt Service	840,784	870,247	851,887	851,887	643,764		208,123	24%
<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 5,055,344</b>	<b>\$ 5,699,449</b>	<b>\$ 6,137,170</b>	<b>\$ 6,283,768</b>	<b>\$ 4,557,782</b>	<b>\$ (165,793)</b>	<b>\$ 1,891,779</b>	<b>30%</b>
<b>OPERATING INCOME (LOSS)</b>	<b>\$ 1,329,223</b>	<b>\$ 915,932</b>	<b>\$ 1,128,778</b>	<b>\$ 982,180</b>	<b>\$ 1,033,206</b>		<b>\$ (216,820)</b>	<b>-22%</b>
<b>CAPITAL EXPENDITURES</b>								
Capital Expenditures	16,174,709	12,304,019	1,973,000	9,889,022	4,563,260	3,561,052	1,764,710	18%
<b>OTHER FINANCING</b>								
Grant/Loan Proceeds	15,200,000	10,455,896	1,500,000	6,737,230	5,086,761		1,650,469	24%
Revenue Transfer Council Redirect	-	261,918	-	-	0			
<b>NET INCOME (LOSS)</b>	<b>\$ 354,514</b>	<b>\$ (670,274)</b>	<b>\$ 655,778</b>	<b>\$ (2,169,613)</b>	<b>\$ 1,556,707</b>		<b>\$ (331,061)</b>	
<b>Expenditures by Type:</b>								
Salaries	1,196,329	1,251,037	1,452,106	1,452,106	1,043,922		408,184	28%
Benefits	418,158	474,601	694,776	694,776	401,531		293,245	42%
Professional/Contractual Services	16,561,119	12,622,779	2,672,600	10,714,777	5,108,957	3,689,511	1,916,310	18%
Materials/Supplies	250,975	352,442	347,773	348,038	261,920	(305,777)	391,894	113%
Interfund Charges	1,919,364	2,101,751	2,091,028	2,091,028	1,554,046		536,982	26%
Capital Outlay	43,324	330,039	-	20,179	106,903	11,525	(98,249)	-487%
Fiscal Charges	840,784	870,820	851,887	851,887	643,764	-	208,123	24%
<b>Total</b>	<b>\$ 21,230,053</b>	<b>\$ 18,003,469</b>	<b>\$ 8,110,170</b>	<b>\$ 16,172,791</b>	<b>\$ 9,121,042</b>	<b>\$ 3,395,259</b>	<b>\$ 3,656,489</b>	<b>23%</b>



# STRATEGIC PLANNING

- CONTINUE TO INVEST IN WORKFORCE - GWS AND WWT STAFF
- ENGAGED AND WELL-TRAINED WORKFORCE IS CRITICAL TO THE WW COLLECTIONS (GWS) AND TREATMENT (WWT) DIVISIONS
- CRITICAL WWC ISSUES MAY REQUIRE MORE MAINTENANCE STAFF SOON. WILL LIKELY NEED TO HIRE SEASONAL/TEMP LABOR EMPLOYEES TO ASSIST THE DPU CREWS WITH BACKYARD ROOT CUTTING AND FLUSHING OPERATIONS – WILL TRY TO PLAN AND BUDGET FOR THIS NEXT FISCAL YEAR.
- DEVELOP & UPDATE WORKFLOW SOP TO ALWAYS HAVE AN ACHIEVEMENT BENCHMARK
- CROSS-TRAIN STAFF ON ALL WORKFLOWS
- WW COLLECTIONS IS VERY EQUIPMENT INTENSIVE – ENSURE EQUIPMENT IS WELL-MAINTAINED AND ROTATED/REPLACED BEFORE CRITICAL FAILURES OCCUR, I.E. THE VACTOR EQUIPMENT
- LIFT STATIONS NEED CONSTANT ATTENTION AND OVERSIGHT. MONTHLY REVIEW OF INSPECTION LOGS AND MEETINGS WITH THE WWC CREWS IS IMPORTANT
- DEVELOP LONG-RANGE PLAN TO REPLACE OLD VCP MAINS & MULTI-SERVICE LINES, FROM MOST CRITICAL TO LEAST CRITICAL
- CONTINUE ASSET MANAGEMENT PROGRAM – VERY IMPORTANT PROCESS

## FYI: SEWER BACKUPS OCCUR TOO FREQUENTLY IN THIS NEIGHBORHOOD!

This is a friendly reminder to you and all your neighbors to be mindful of what goes down the drain. NO wipes, NO cooking grease, NO melted cheese or oily sauces, NO tampons, NO condoms.

If it's not one of the 3 P's  
(Pee, Poop, toilet Paper),  
it belongs in the trash, not your pipes!

### What is in your sewer pipes?



**LOS ALAMOS**  
Department of Public Utilities  
505-662-8333 | CustomerCare@lacnm.us

## PUBLIC OUTREACH AND EDUCATIONAL PROGRAMS



Los Alamos Dept. of Public Utilities

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A friendly reminder from DPU: even though some wipes say "flushable" right on the label, they don't degrade quickly enough in sewer pipes to get past tree roots and oth... See more

## WIPES CLOG PIPES!

**Put in Trash, NOT in Toilet:**

Disinfecting Wipes

Paper Towels

Baby Wipes

Towelettes

Mop Refills



**LOS ALAMOS**  
Department of Public Utilities

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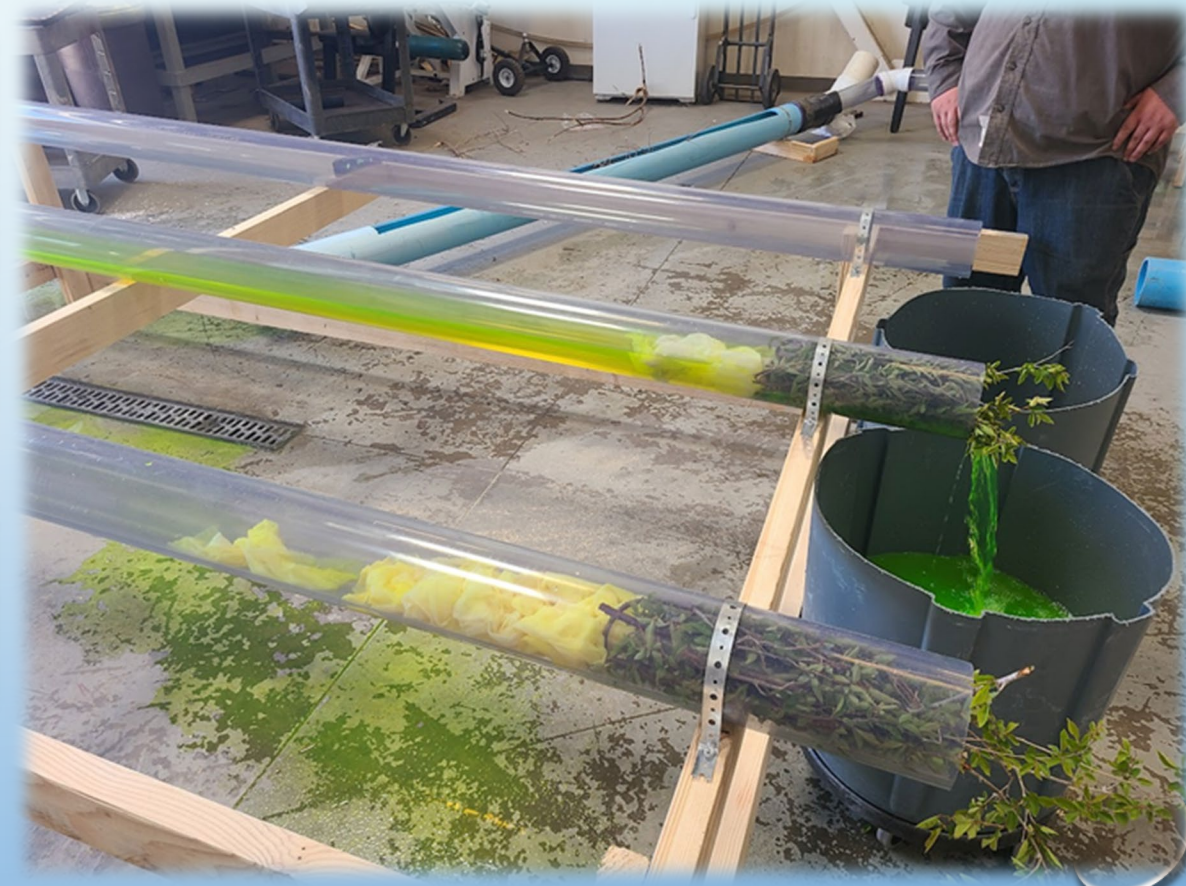
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# NEW WASTEWATER COLLECTIONS SYSTEM DEMONSTRATION





QUESTIONS OR COMMENTS?

