



COLLECTION WORKSHOP

WEDNESDAY, AUGUST 21, 2024



WELCOME!

**JULIE KENNEDY – PRESIDENT
GUY SAVAGE – GENERAL MANAGER**



AGENDA AND GOALS FOR THIS EVENING

- Share Information About Potential Collection Solutions
- Answer Questions and Understand Issues
- Get Input from Property Owners
- Discuss Next Steps

- Input will be used by the Board to craft a specific solution or solutions that will ultimately go to a property owner vote for approval



SAFETY MINUTE



PUBLIC COMMENT

- Items on the agenda
- Items not on the agenda



JANUARY 2023
WHAT CONSIDERATIONS ARE MOST
IMPORTANT TO YOU?

- Cost (capital / operations & maintenance)
- Location
- Ownership / maintenance responsibility
- Potential for growth inducement
- Treatment plant footprint / size
- Potential for odor
- Viewshed impacts
- Innovation (newer versus proven tech)



WASTEWATER PROCESS SIMPLIFIED

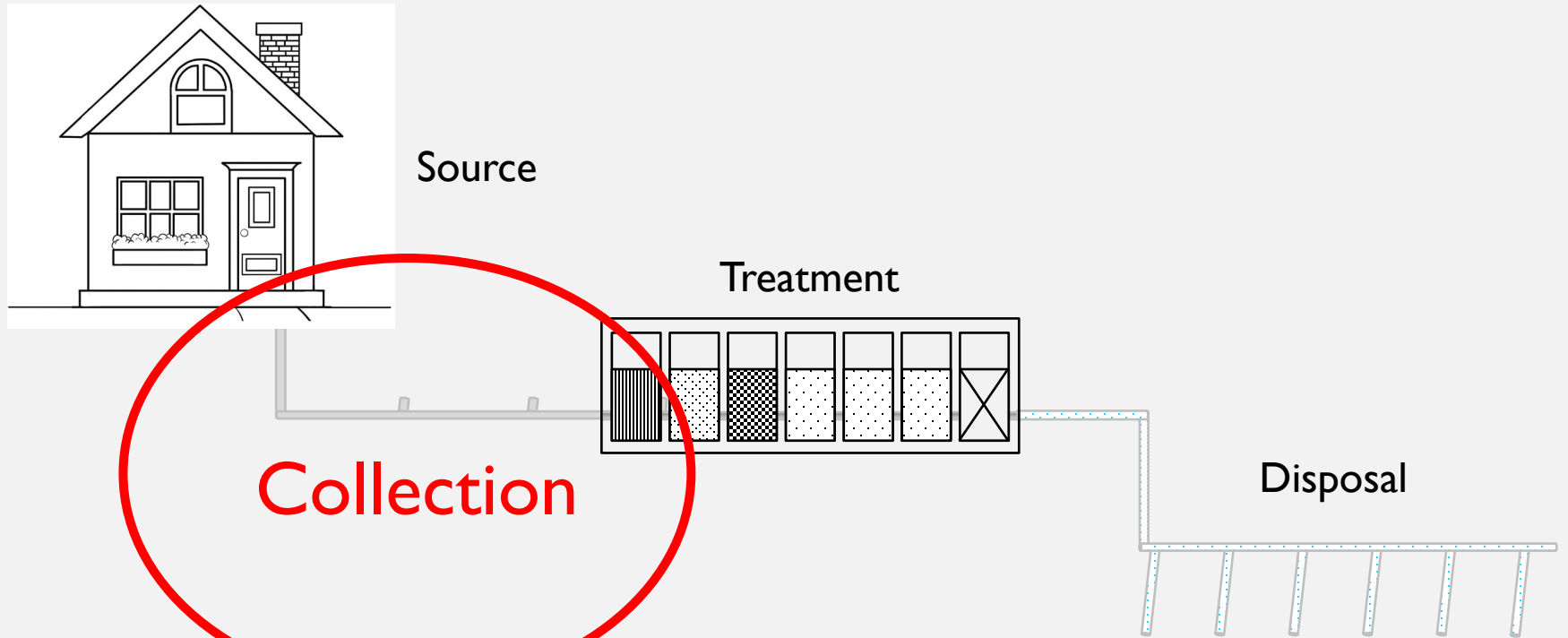
Collection – takes effluent from your home and moves it to where it will be treated

Treatment – a series of physical and biological processes to separate contaminants in the waste stream

Disposal – reintroduces treated effluent into water cycle (injection, percolation, purple pipe reuse, other uses)



WASTEWATER PROCESS SIMPLIFIED



Collection

Tonight's Focus



NOT ON TONIGHT'S AGENDA

- Treatment
- Disposal
- Testing



FACILITATOR

GEOFF GREEN

COLLECTION SYSTEM EXPERTS

TRISTIAN BOUNDS - REGEN
CARRIE POYTRESS - STANTEC

OTHERS

CLOACINA – JAKE LINCOLN
BIOSOLUTIONS – STEVE BRABAND



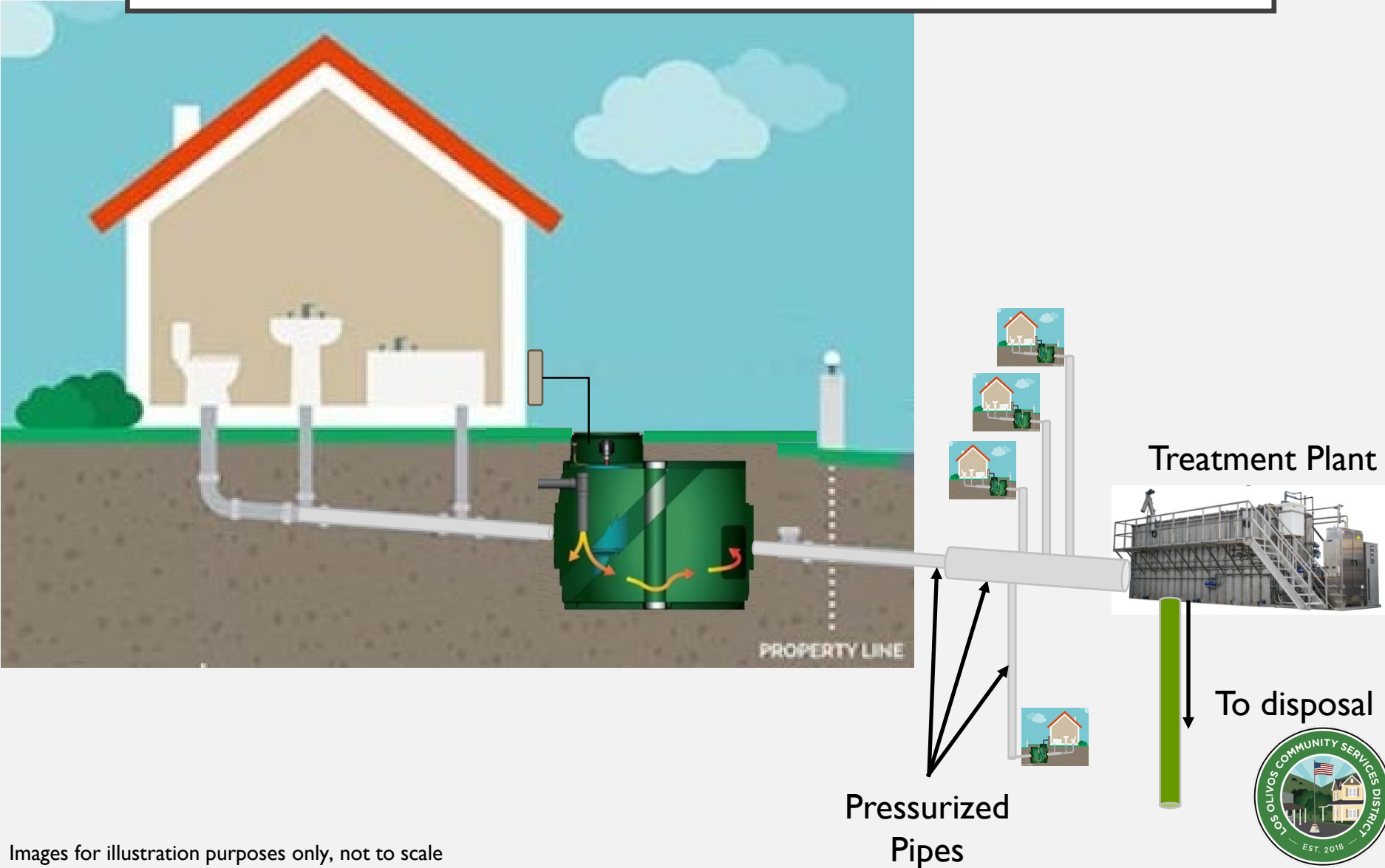
GROUND RULES



TRISTIAN BOUNDS

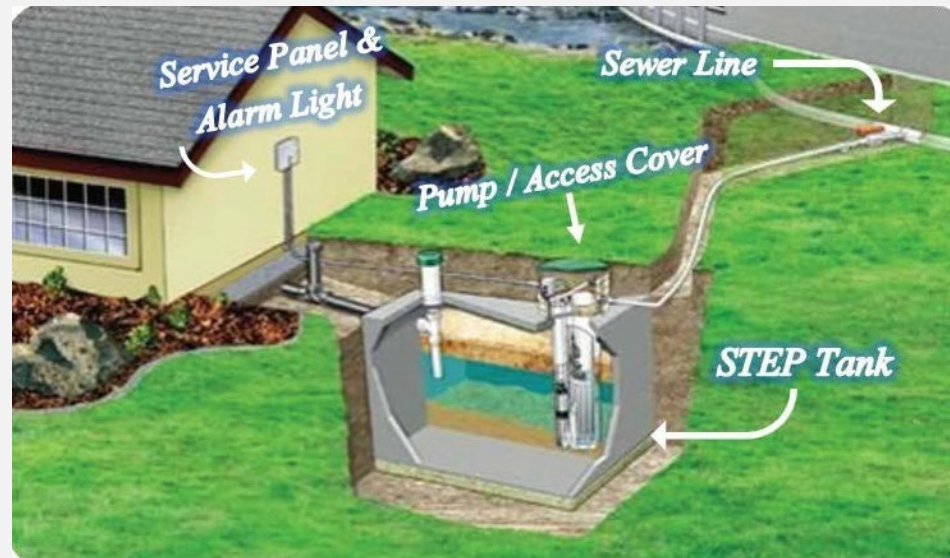


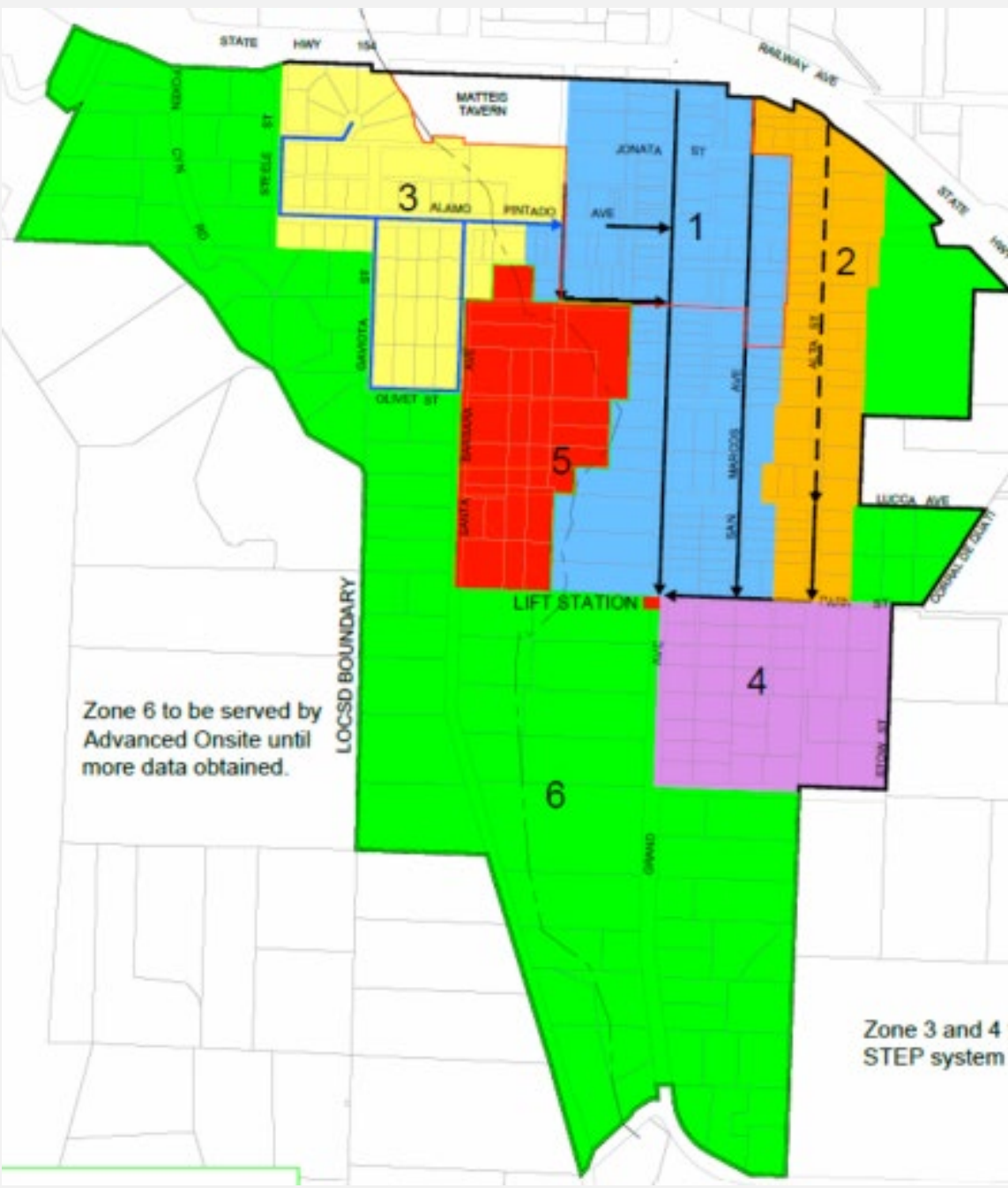
EFFLUENT COLLECTION



Images for illustration purposes only, not to scale

EFFLUENT SYSTEM COMPONENTS - DETAIL



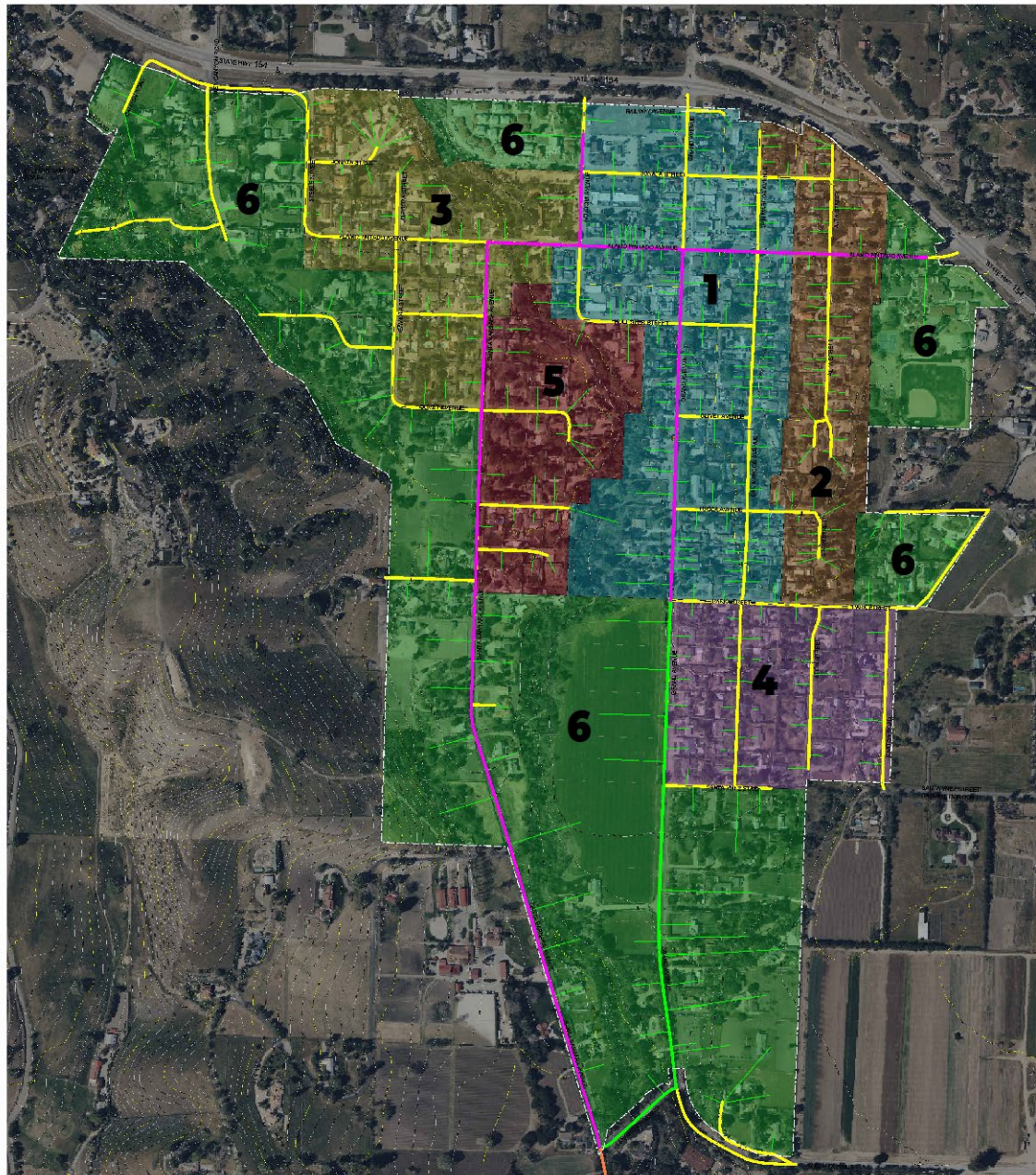


ZONES

Zone	Parcels	Equivalent Dwelling Units	Population Equivalent
		(EDU's)	(2.5/EDU)
1	149	249	623
2	58	58	145
3	46	46	115
4	43	43	108
5	26	26	65
6	74	74	185
Total	396	496	1240

EDU – Equivalent Dwelling Units





OVERALL LEGEND

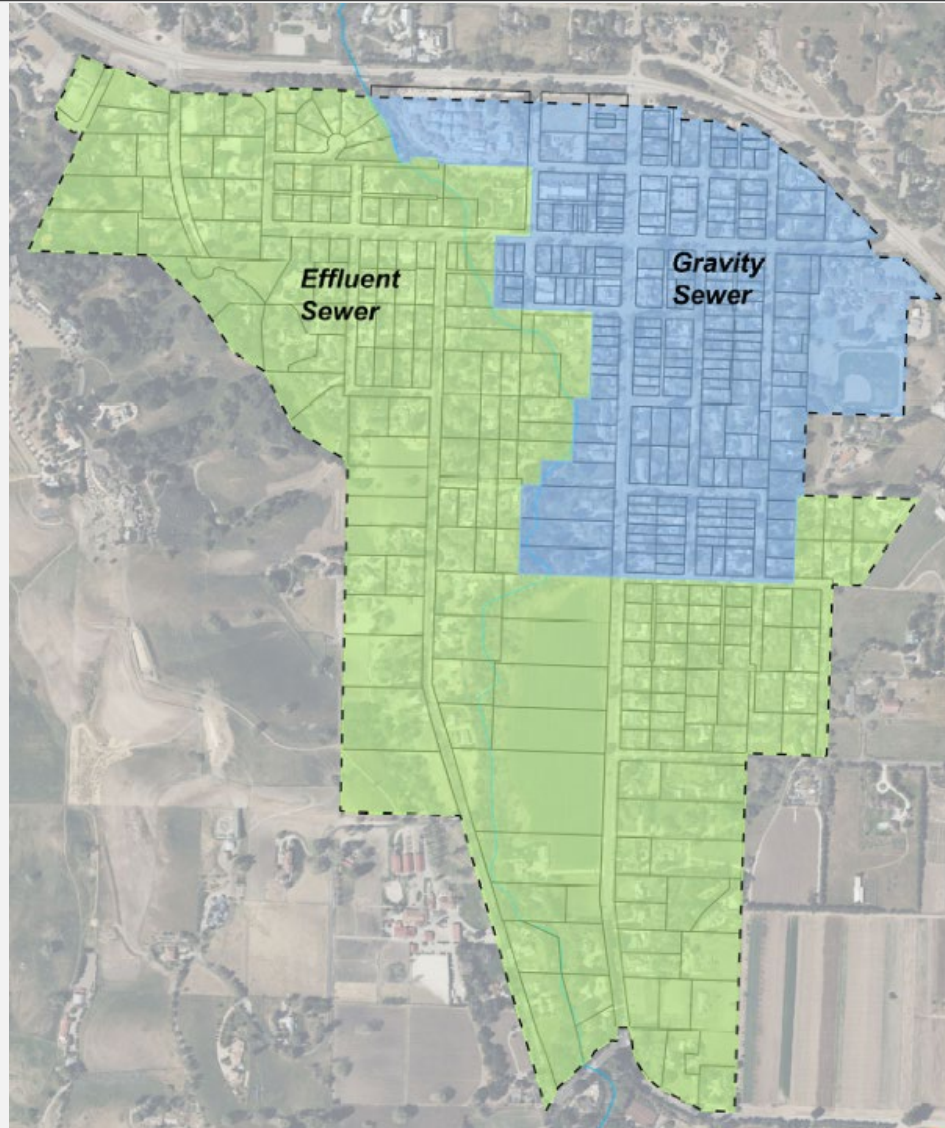
- 2" PIPE
- 3" PIPE
- 4" PIPE
- 6" PIPE
- ZONE 1
- ZONE 2
- ZONE 3
- ZONE 4
- ZONE 5
- ZONE 6

ZONES

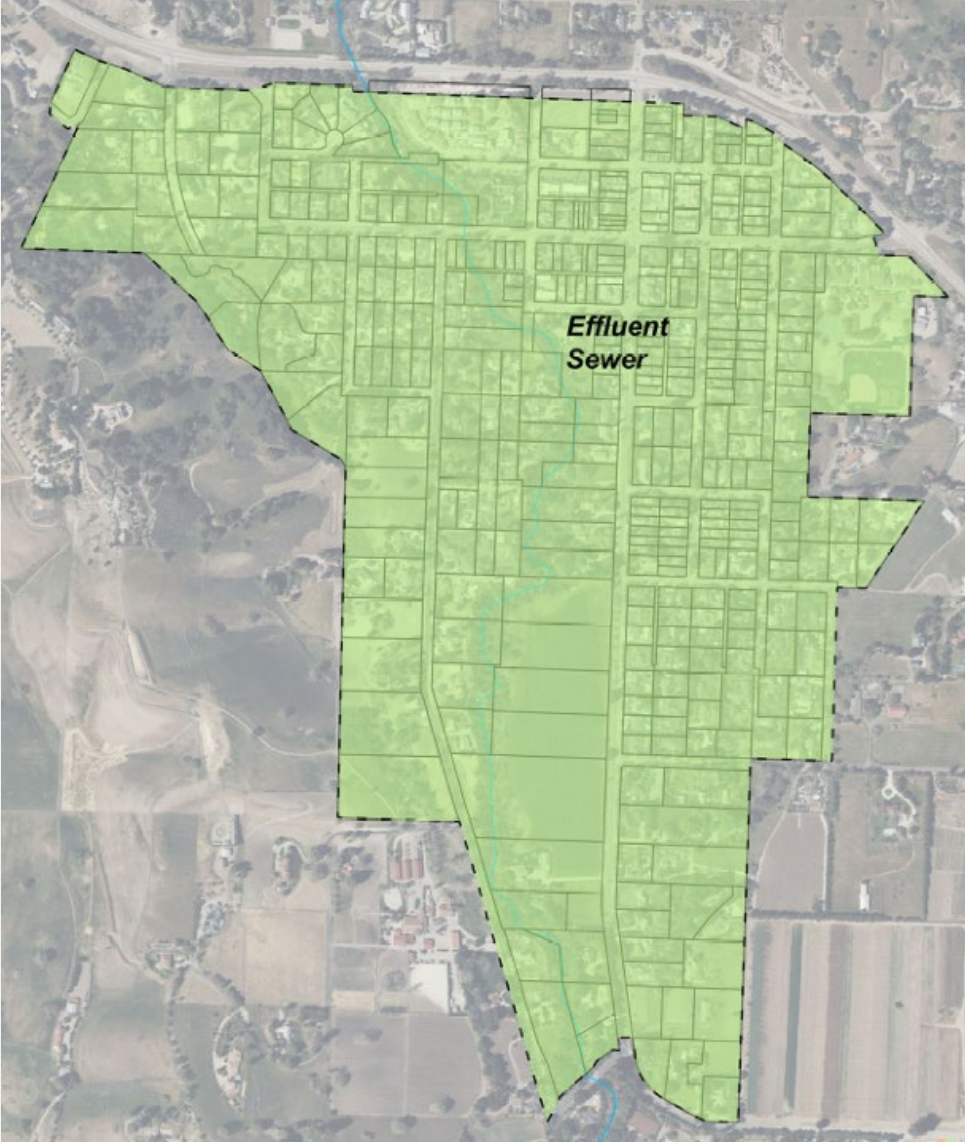
1 OVERALL SITE PLAN



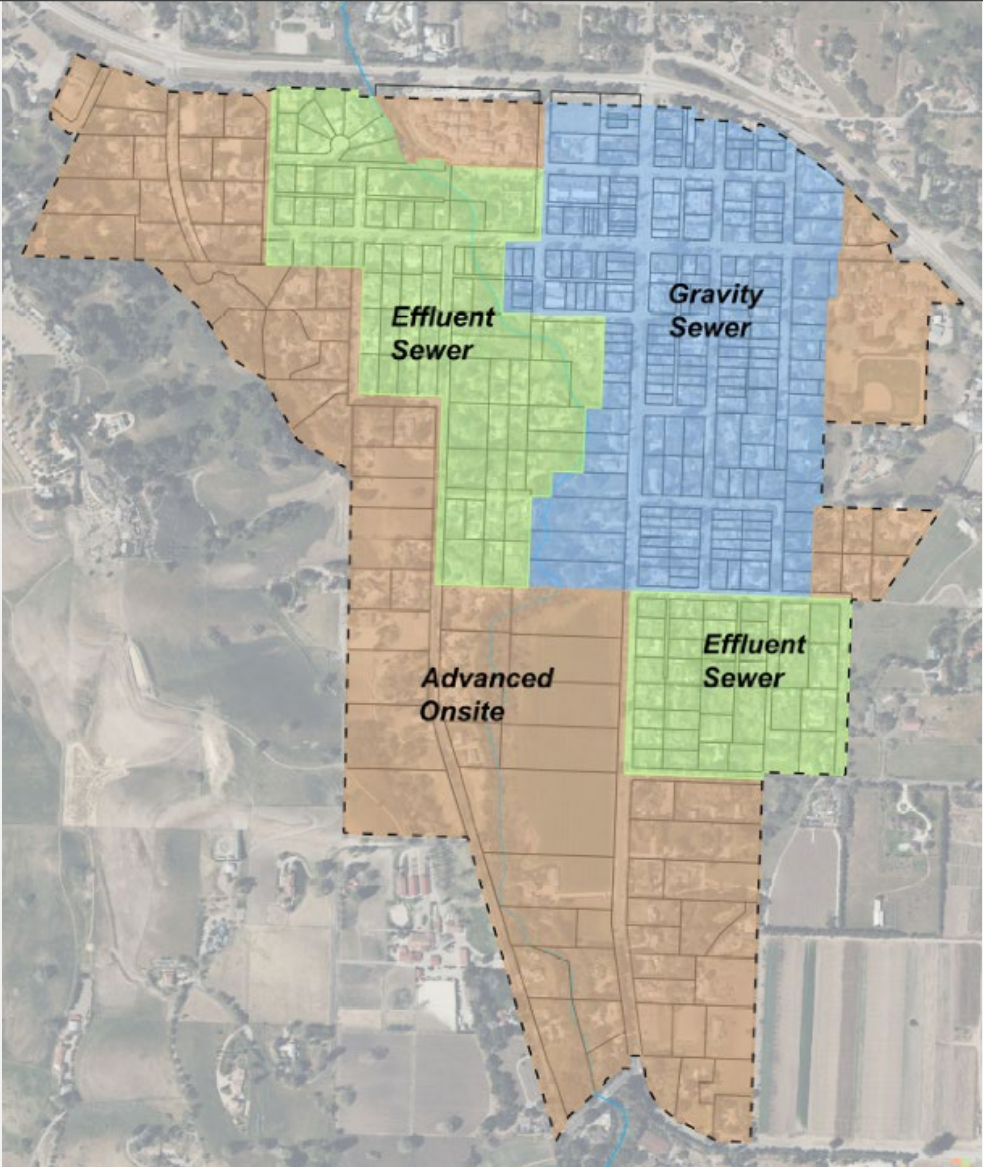
OPTION A – GRAVITY AND EFFLUENT



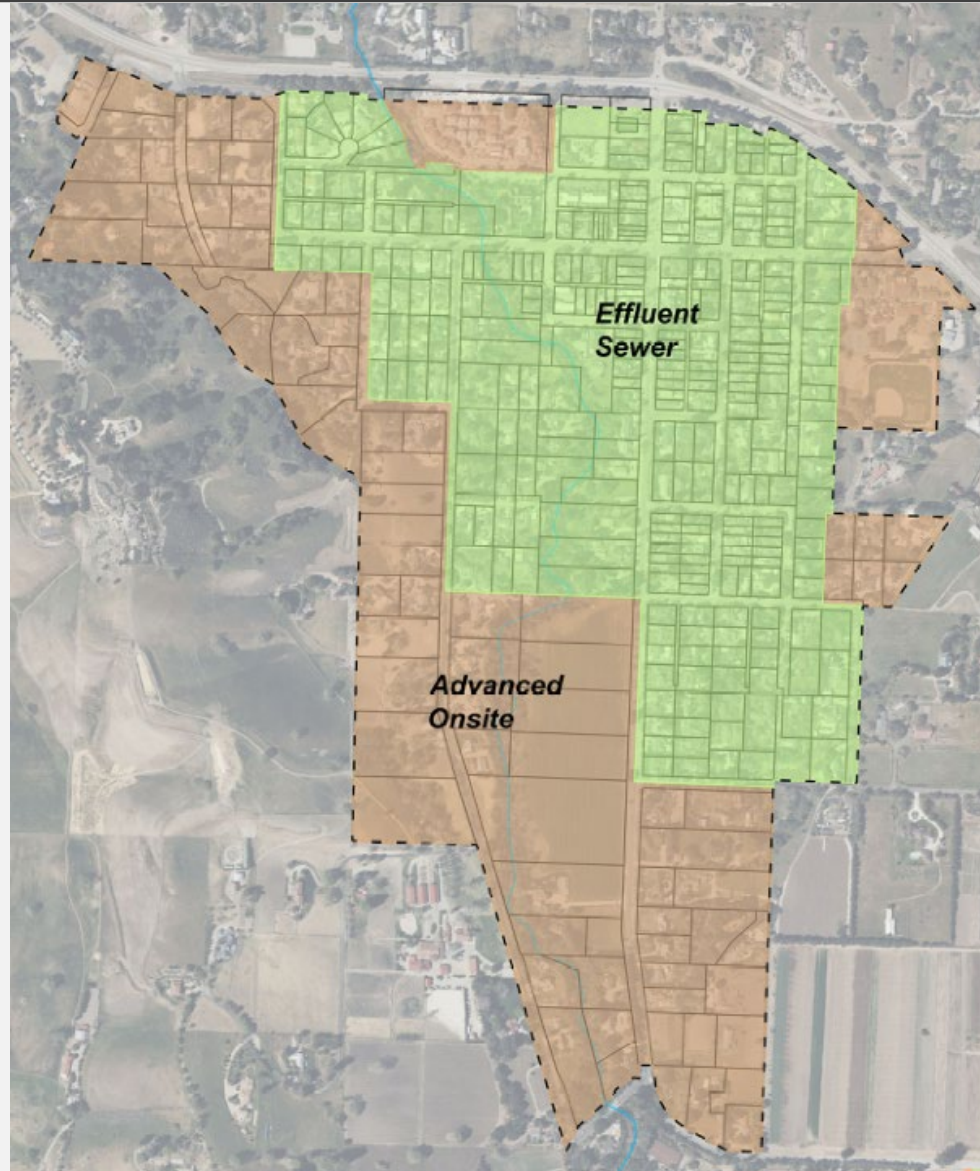
OPTION B - EFFLUENT ONLY COLLECTION



OPTION C – GRAVITY, EFFLUENT, AND ADVANCED ONSITE



OPTION D – EFFLUENT AND ADVANCED ONSITE



EFFLUENT COLLECTION COSTS*

Option	Collection System Subtotal	Advanced Onsite Subtotal	Total
A – Gravity / Effluent	\$25,530,016	\$0	\$25,530,016
B – Effluent Only	\$21,637,492	\$0	\$21,637,095
C – Hybrid (Gravity, Effluent, Advanced Onsite)	\$21,637,492	\$6,734,000	\$29,798,728
D – Effluent / Advanced Onsite	\$18,669,808	\$6,734,000	\$25,403,808

*Includes costs for laterals from each parcel
Does not include costs for treatment or disposal



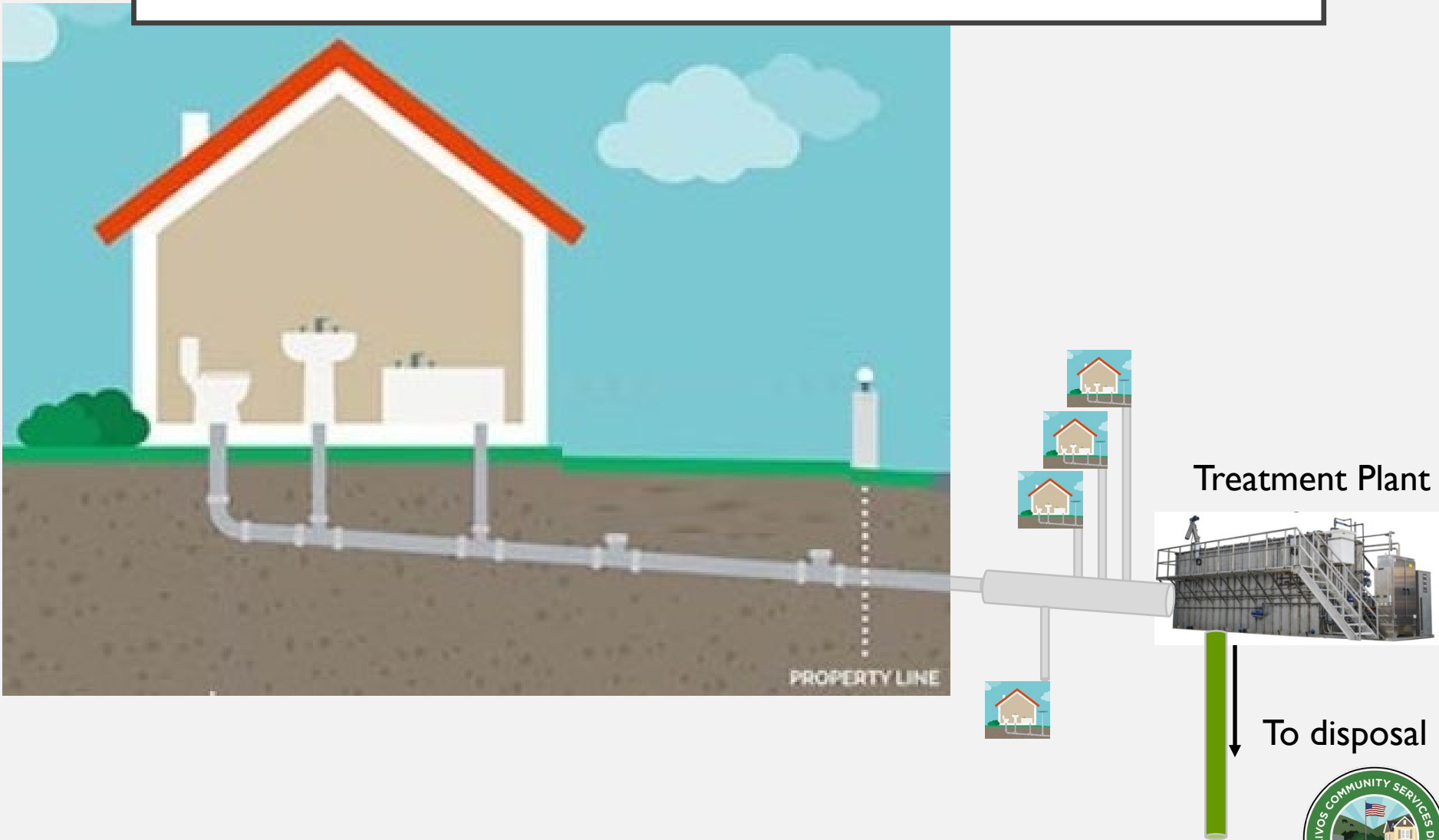
PROS / CONS – EFFLUENT COLLECTION VS GRAVITY

	Gravity		Effluent	
	Pro	Con	Pro	Con
Installation Costs		Higher capital costs range- \$27,938,000 to \$29,224,000	Lower capital costs range- \$21,637,095	
Parcel Impact	Septic tank removed/ demolished			Septic tank remains or replaced
Responsibility Tradeoff	No responsibility			Access annually to on lot components for pump cleaning (1 hr/year/lot)
Management Complexity		Vac truck line cleanings and more complex lift station maintenance	Simple annual on lot maintenance of components	
Construction Disruption		Deeper mains more disruptive	Shallower mains less disruptive	

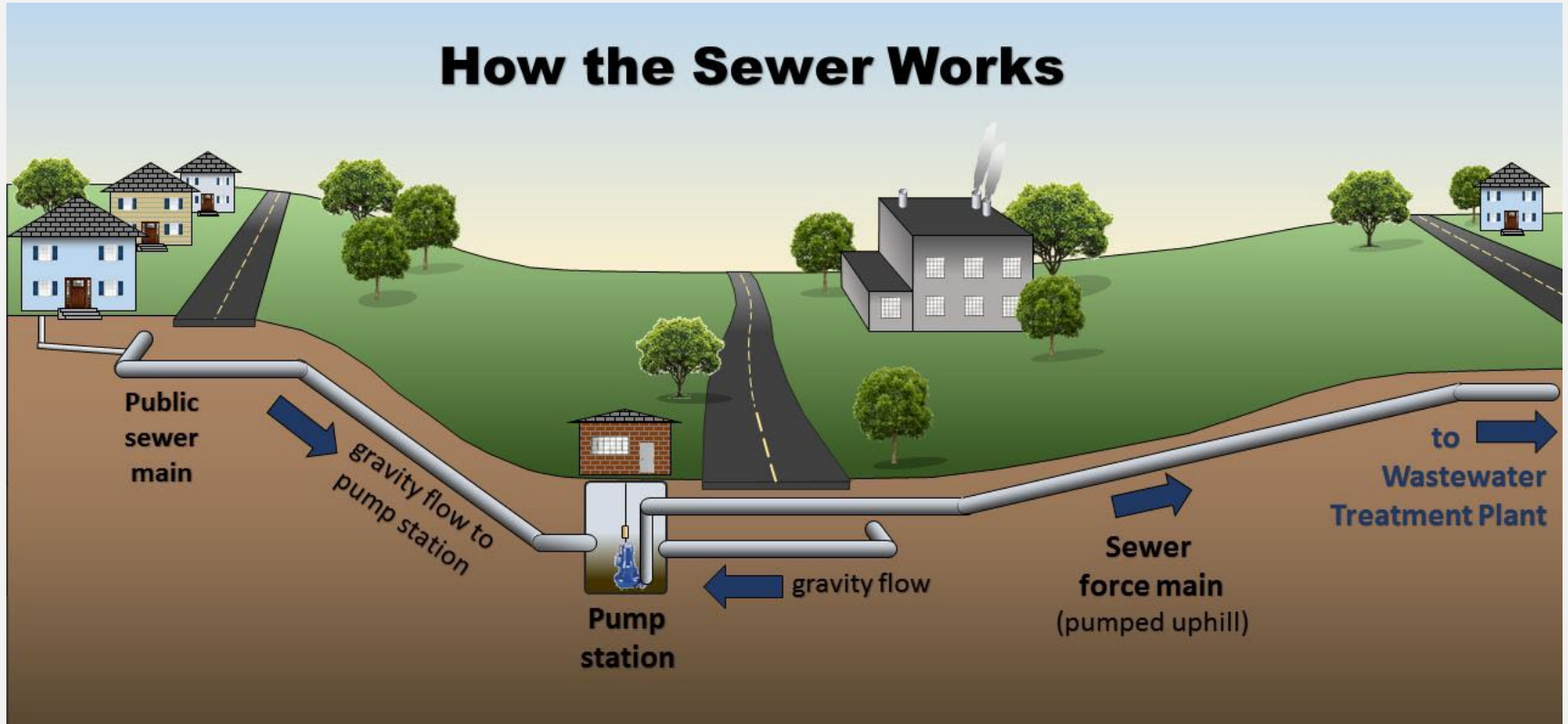
CARRIE POYTRESS



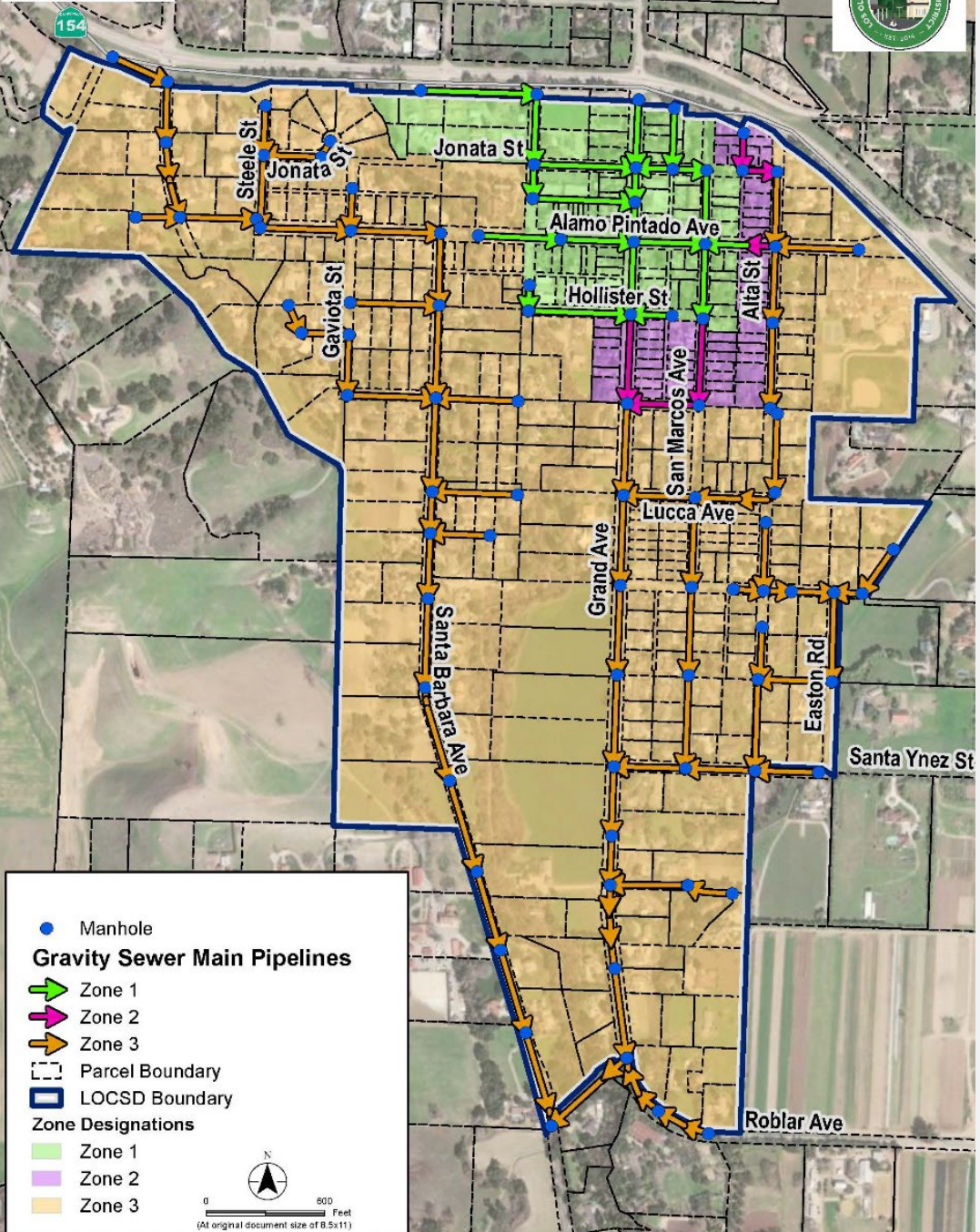
GRAVITY FED COLLECTION



GRAVITY FED COMPONENTS - DETAIL



ZONES AND LAYOUT



Zone	Description	Lots
1	Downtown commercial lots with a few neighboring residential properties	77
2	Residential lots	50
3	Remaining lots	264

GRAVITY COLLECTION COSTS*

	North Option	South Option
Zone 1	\$12,199,000	\$10,913,000
Zone 2	\$ 2,318,000	\$ 2,318,000
Zone 3	\$14,707,000	\$14,707,000
Total	\$29,224,000	\$27,938,000

*Costs include costs for laterals from each parcel.

June 2022 costs escalated to July 2024 using CCI 7.21% increase



PROS / CONS – GRAVITY VS EFFLUENT COLLECTION

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	Pro	Con	Pro	Con
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Parcel Impact	Septic tank removed/ demolished			Septic tank remains or replaced
Responsibility Tradeoff	No responsibility for treatment or disposal			Septic tank pumping every 3-5 years and sump pump maintenance
Management Complexity	More efficient O&M			More complex O&M due to individual pumps
Construction Disruption		Deeper mains more disruptive	Shallower mains less disruptive	

DISTRICT OWNERSHIP DISTRICT VIEW

PROS	CONS
Consistent design/construction per standard with good mapping and asset management	Title / deed easement and user agreements can be tricky and expensive, base agreement isn't for everyone
Consistent maintenance of systems – could be done with annual review	Property access requires coordination and is time consuming (animals, kids, renters, nobody home)
User agreements generally providing adequate and clear authority	Instances of customers burying tank lids, building decks over lids and access
One point of contact for customers to address problems (alarms, etc.) – not reliant on contractors who may not have experience with equipment	Customer contractors and vendors have caused problems – digging through service pipes, turning off dedicated breaker, dumping paint and other materials into system
Periodic inspections can provide early identification of problems	Emergency callouts are taxing for District staff and incur overtime costs, prevailing wage for contractors
District prepared to respond to spills – cleanup, reporting, etc.	Actual maintenance requirements exceed what was expected based on vendor representations
District staff trained on use of systems, maintenance, regular failure scenarios	Budgeting for replacements can be uncertain and costs fluctuate each year
Clear delineation of responsibility	Non-owner occupied properties can result in uninformed users or unintentional misuse
	Equipment is liability for District, added liability for some failures (restaurants, businesses), results in higher costs



FACILITATED Q&A

FACILITATOR
GEOFF GREEN

PUT YOUR QUESTIONS
ON A CARD
AND HAND IT IN

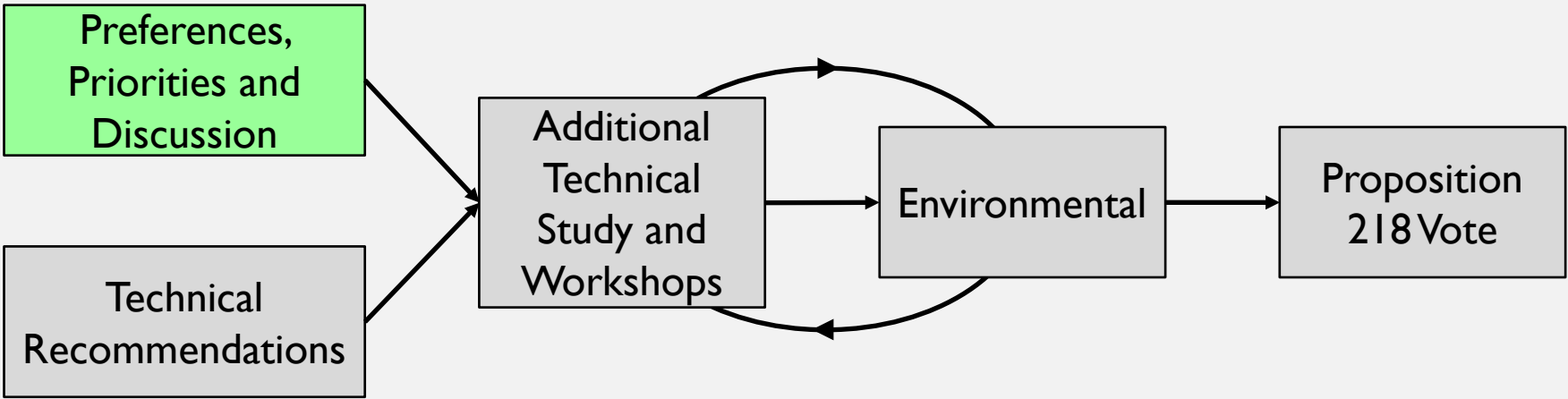


CLOSING

JULIE KENNEDY – PRESIDENT
GUY SAVAGE – GENERAL MANAGER



TIMELINE



Presentation of findings, discussion, search for funding

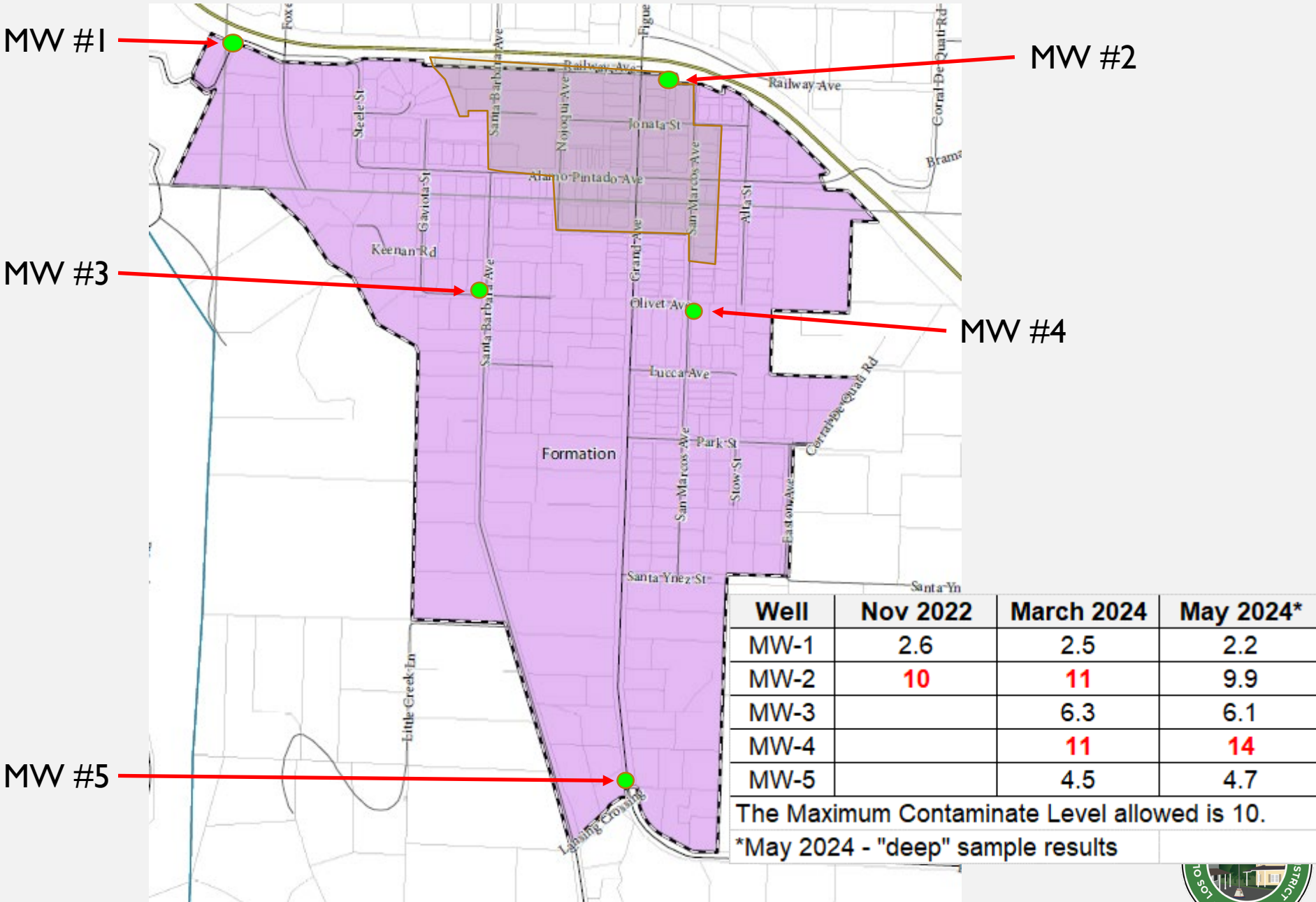


WANT MORE???

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Test Results



Well	Nov 2022	March 2024	May 2024*
MW-1	2.6	2.5	2.2
MW-2	10	11	9.9
MW-3		6.3	6.1
MW-4		11	14
MW-5		4.5	4.7

The Maximum Contaminate Level allowed is 10.
 *May 2024 - "deep" sample results



ADVANCED ON-SITE SYSTEM (EVERYTHING ON-SITE)

