

# Miner Lake Association Fall 2024 Meeting

*Aug 31, 2024*



# Agenda

- ◆ Approve Minutes from Spring Meeting
- ◆ Treasurer Report / Election of Officers
  - ◆ President and Assistant Sec/Treasurer
- ◆ Water Quality and Invasive Plant Treatment
- ◆ Feedback on 4th of July Activities
- ◆ Sewer Update



# Treasurer Report

<b>Balance 5/25/24</b>		<b>\$13,339.08</b>
<b>Deposits</b>		<b>\$645</b>
<b>Expense Detail</b>	<b>Postage</b>	<b>-\$132.50</b>
	<b>Water Quality</b>	<b>-\$345</b>
	<b>MI 503(b)</b>	<b>-\$20</b>
	<b>July 4th (Partial)</b>	<b>-\$60</b>
<b>Expense Total</b>		<b>-\$557.50</b>
<b>Balance 8/31/24</b>		<b>\$13,426.58</b>



# MLPOA Officers

- ◆ President: Sam Martin - **Fall 2024**
- ◆ VP: Dee Mitchell - Fall 2025
- ◆ Treasurer: Tom Slocum - Fall 2025
- ◆ Asst. Secretary/Treasurer: Joyce Merril - **Fall 2024**



# Election of Officers

- ◆ Positions requiring a vote
  - ◆ President - (Sam Martin)
  - ◆ Asst. Secretary/Treasurer - (Joyce Merrill)
- ◆ Call for nominations 2-year term Fall 2024 - 2026
- ◆ Vote



# Local Water Quality Monitoring 2024

- ◆ Contract with ProgressiveAE continues
- ◆ Volunteer collection by **Frank and Kim Shelanskey** for Cooperative Lakes Monitoring Program (CLMP)
  - 200+ Michigan lakes
  - Training for volunteers to monitor lakes
  - Testing supplies
  - Published results

<https://micorps.net/lake-monitoring/>

<https://www.micorps.net/wp-content/uploads/2024/04/CLMP-Miner-Allegan-030260.pdf>



# Local Water Quality Monitoring

- ◆ CLMP Year 1 (2023) included:
  - Secchi Disk Transparency (9+ times / summer)
  - Spring Phosphorus
  - Summer Phosphorus
- ◆ CLMP Year 2 (2024) inc Year 1 plus optional:
  - Chlorophyll
  - Dissolved Oxygen and Temperature
  - Exotic Plant Watch
  - Aquatic Plant Mapping
  - Shoreline Habitat Assessment






# 2024 Invasive Treatment

Treatment plan shifted to **Focused areas**  
Avoided generalized or widespread application

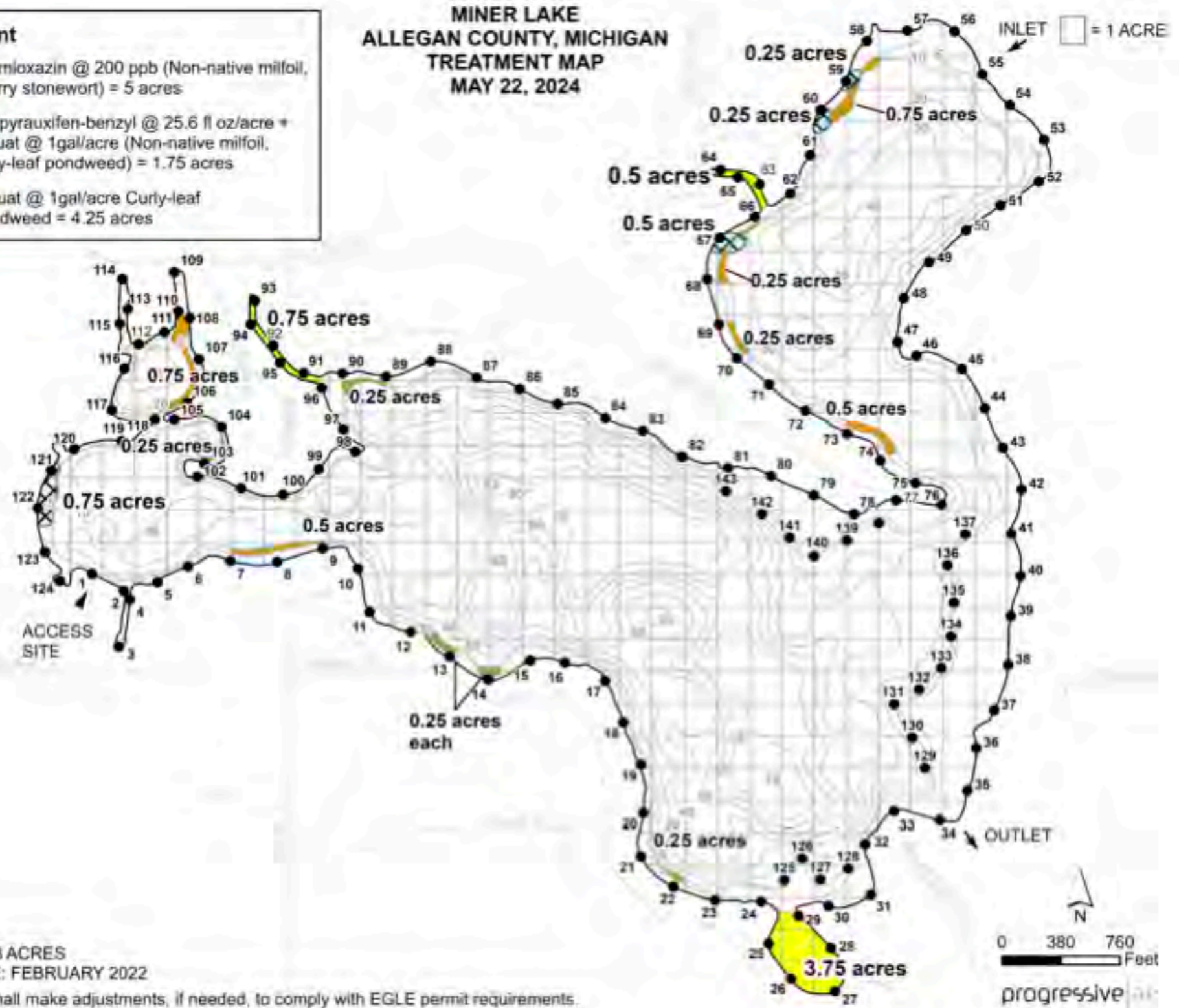
- ◆ **Early June** - Main treatment ~10 acres  
(still smaller than previous years)
- ◆ **Early July** - Follow up ~2.5 acres
- ◆ **Late July** - Horseshoe Cove focus ~7.5 acres  
mostly Starry Stonewort
- ◆ **Late August** - Follow up ~2.25 acres



# 2024 - Early June Treatment

Treatment	
	Flumioxazin @ 200 ppb (Non-native milfoil, starry stonewort) = 5 acres
	Florpyrauxifen-benzyl @ 25.6 fl oz/acre + Diquat @ 1gal/acre (Non-native milfoil, curly-leaf pondweed) = 1.75 acres
	Diquat @ 1gal/acre Curly-leaf pondweed = 4.25 acres

## MINER LAKE ALLEGAN COUNTY, MICHIGAN TREATMENT MAP MAY 22, 2024



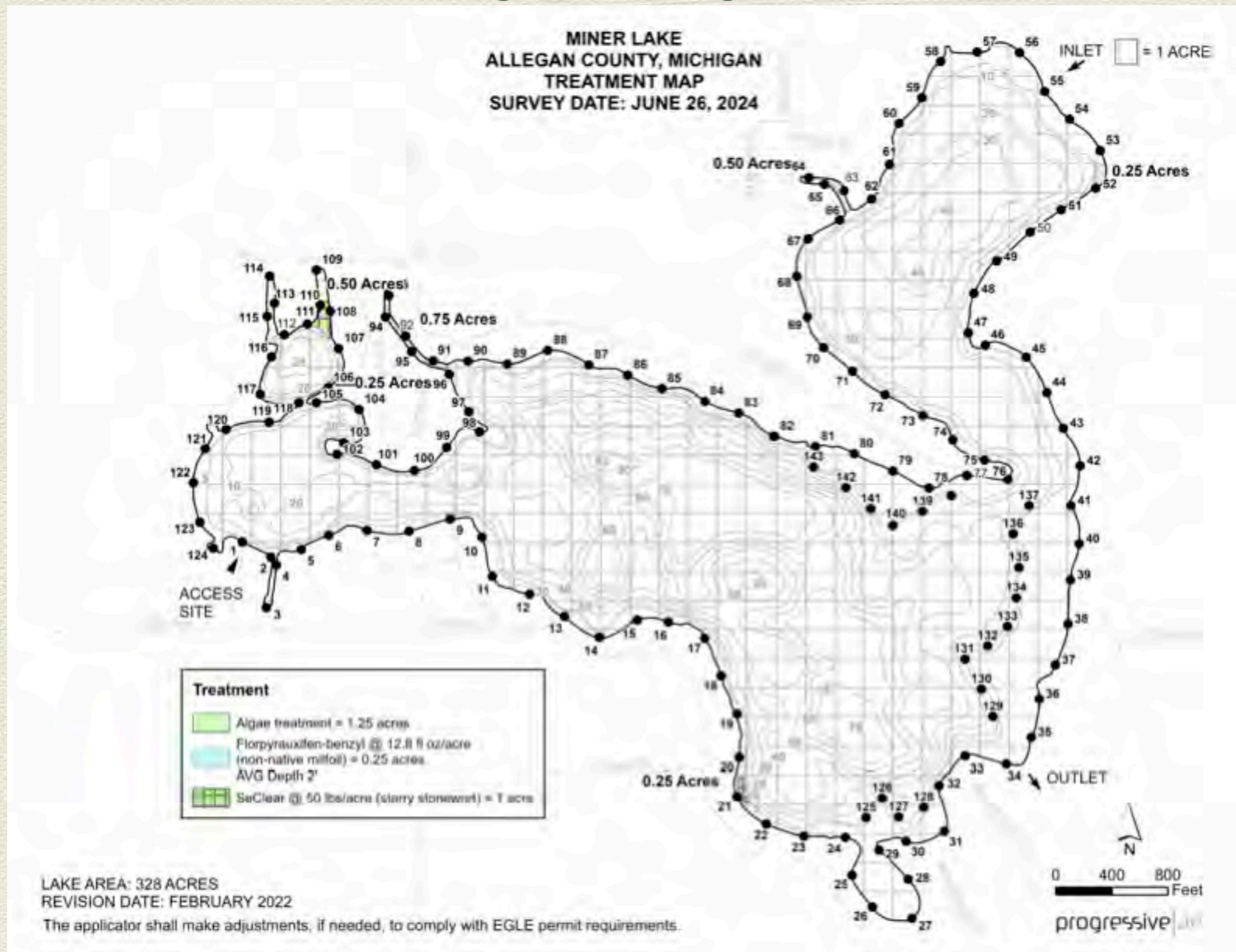
LAKE AREA: 328 ACRES  
REVISION DATE: FEBRUARY 2022

The applicator shall make adjustments, if needed, to comply with EGLE permit requirements.

0 380 760 Feet  
progressive

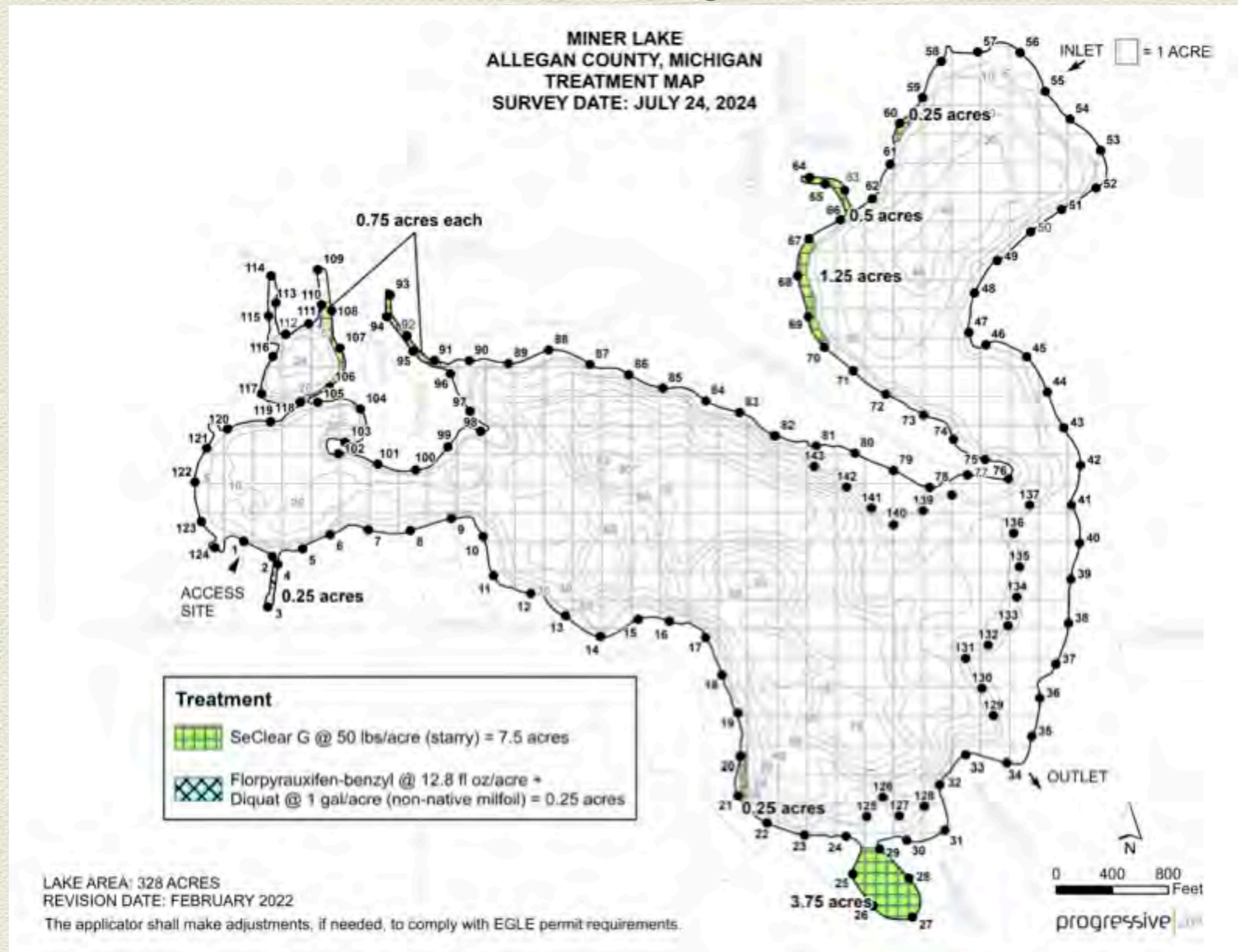


# 2024 - Early July Treatment



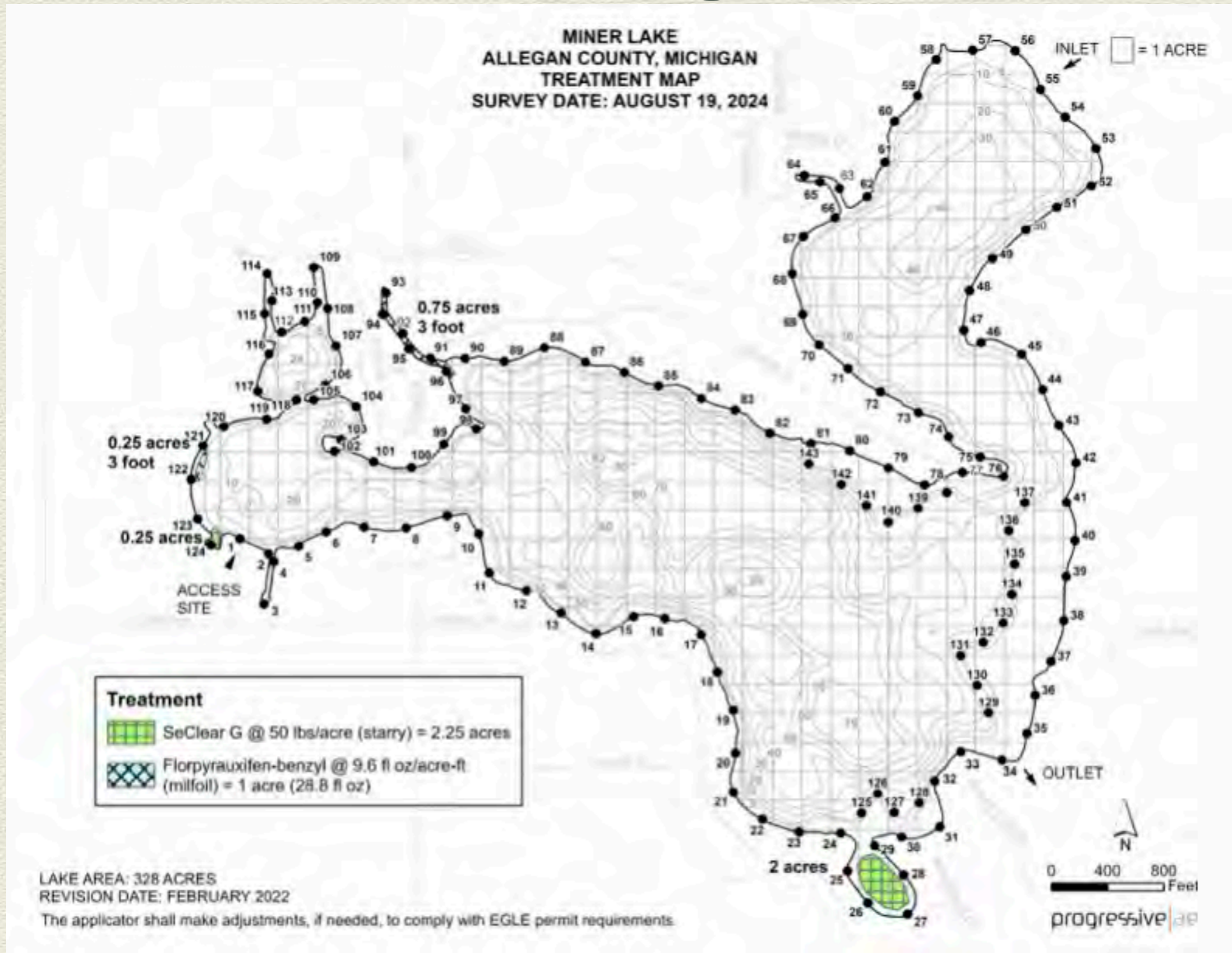


# 2024 - Late July Treatment





# 2024 - Late Aug Treatment





# Invasive Treatment Summary

Program has been very successful

- ◆ Decreased treatment acres each year
- ◆ Shift to targeted areas is encouraging
- ◆ Monitor gains late 2024 and early 2025
- ◆ Looking for a tool to allow residents to report problem areas or questions



# 4th of July Activities - Parade

- ◆ Pontoon Parade

- ◆ Great Participation 26 boats (16 last year)

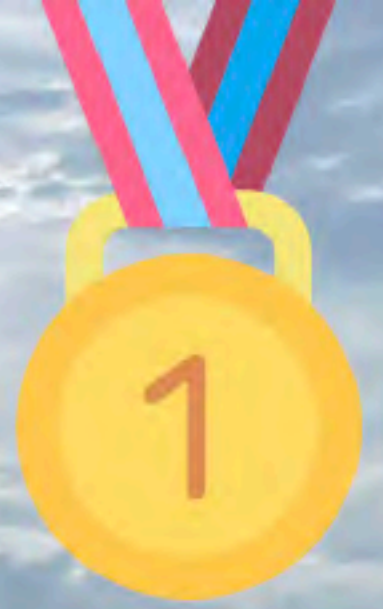
- ◆ Incredible Creativity

- ◆ Prizes!

First \$100, Second \$60, and Third \$40  
Plus a traveling trophy for 1st place

- ◆ Thoughts on the event and time of day?















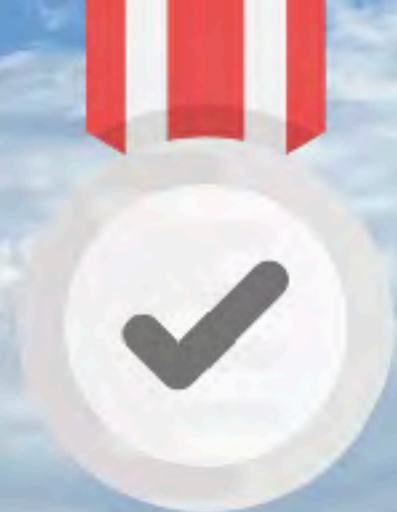


3 HOUR TOURS

S. S. MINNOW

WV 0679 6N









MERCURY

Bentley

1410 TP



# 4th of July Activities - Fireworks

- ◆ Fireworks

- ◆ Thanks to Keith Norman and Huizinga's
- ◆ Donations: Venmo to @Keith-Norman-29
- ◆ Thoughts on the location?
- ◆ Please limit boat lighting next year





# Sewer Update - Spring 2024

- ◆ 2020 Census - Allegan Township no longer qualifies for USDA Rural Development Program (no low interest rates or grants)
- ◆ Ongoing inflation and project / supply costs significantly impacted project estimates
- ◆ 3 Options Estimates (\$14M - \$17M+ project total)
- ◆ Requested time to explore additional treatment plans and funding options



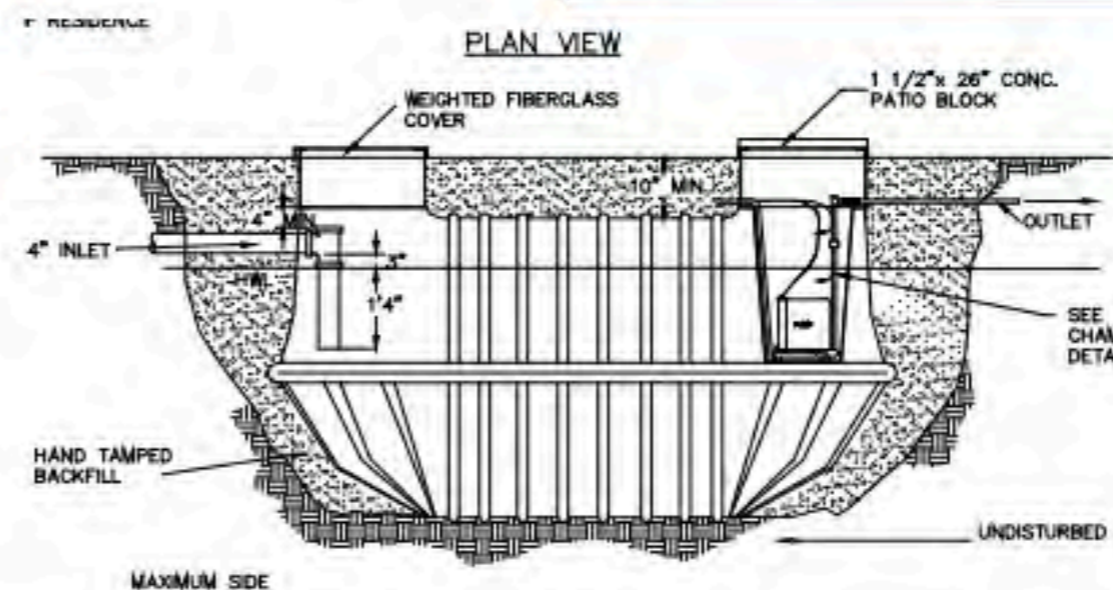
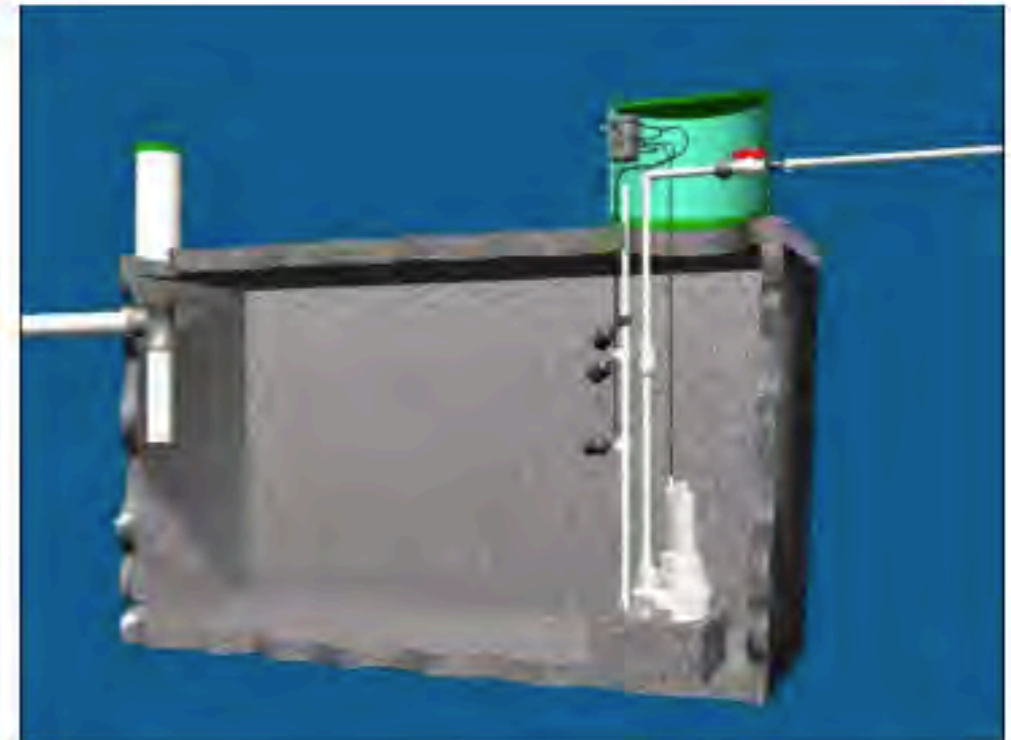
# Liquid-Only Sewer





# Early STEP Systems

- Poor quality, leaking tanks
- “Pump-on-a-block” configuration
- “Pump-on-a-shelf” configuration
- Undersized, unbaffled tanks
- Low-head effluent pumps
- Little or no filtering
- “Frankenstein systems”







1

*The Prelos Processor™ provides primary treatment, so only liquids are conveyed to the treatment facility*

2

*Our patented Biotube® Pump Vault filters out solids, and our pumps can last more than 25 years,<sup>3</sup> requiring minimal or no maintenance.*

3

*One-inch (25-mm) diameter service laterals can be easily installed with a trencher.*

4

*Small-diameter mainlines follow the contour of the ground, saving on excavation costs. No expensive manholes or lift stations are required.*

5

*Primary wastewater treatment provided by the Prelos Sewer can decrease the capital cost and operating cost of the wastewater treatment plant.<sup>4</sup>*



# Construction Costs



Prelos lowers the cost of making sewer available by up to 90%<sup>1</sup>



The cost of the Prelos Processor™ is deferred until it's connected

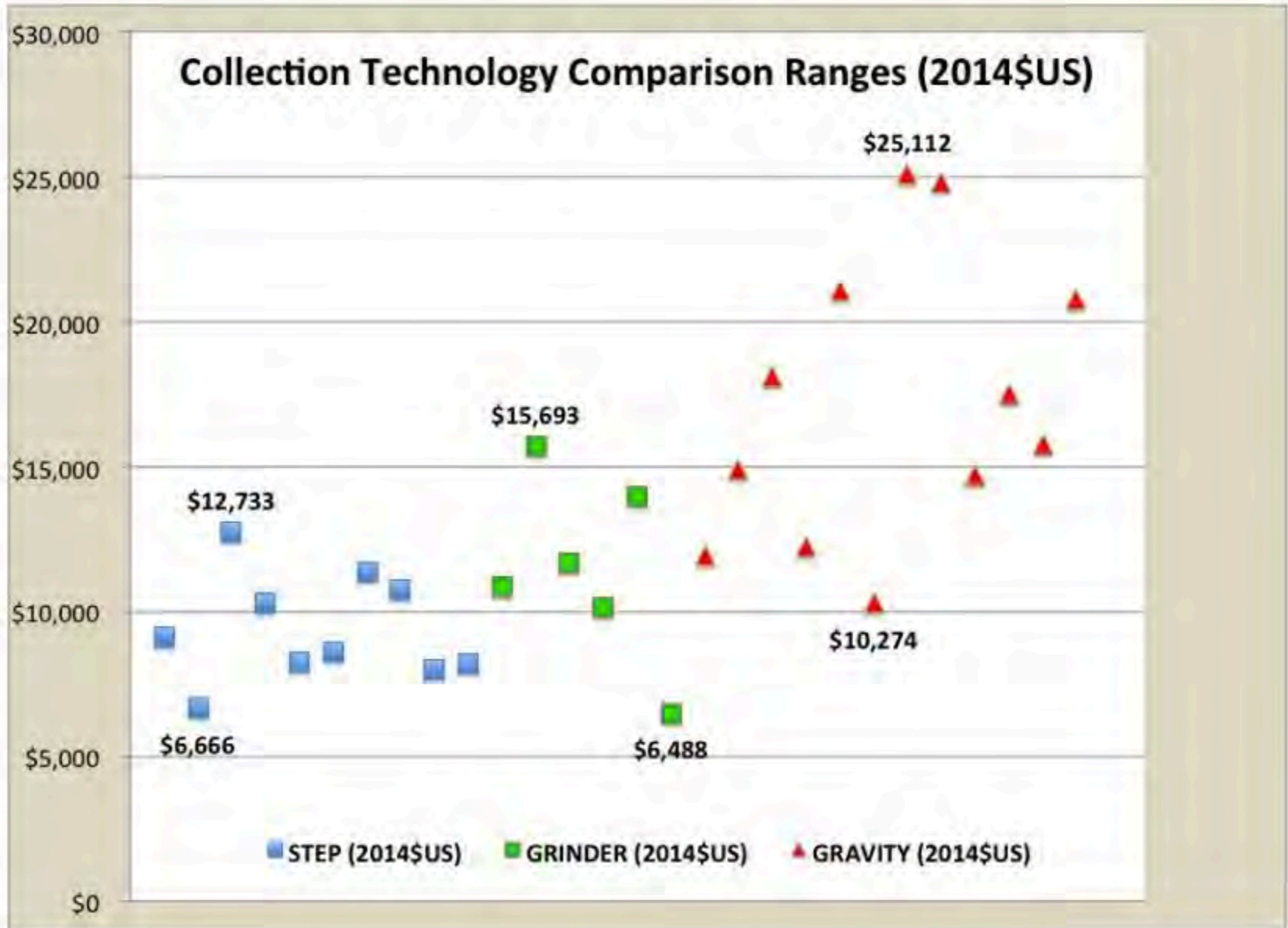


Prelos is cost effective in areas with low densities of existing homes



Collection mains can be surgically constructed when and where needed







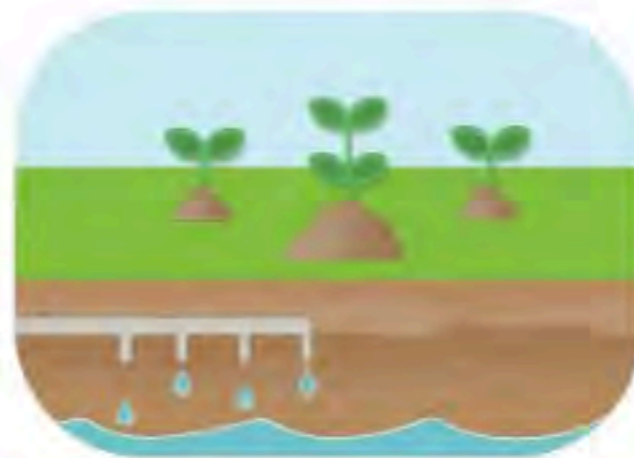
# Treatment



Provides primary wastewater treatment at the source



Reduces costs at the wastewater treatment plant<sup>1</sup>



Promotes decentralized treatment options with beneficial reuse



Retains sewer-clogging materials at the source



# Electrical Usage: Liquid-Only Sewer (LOS)

- All costs typically funded by homeowner

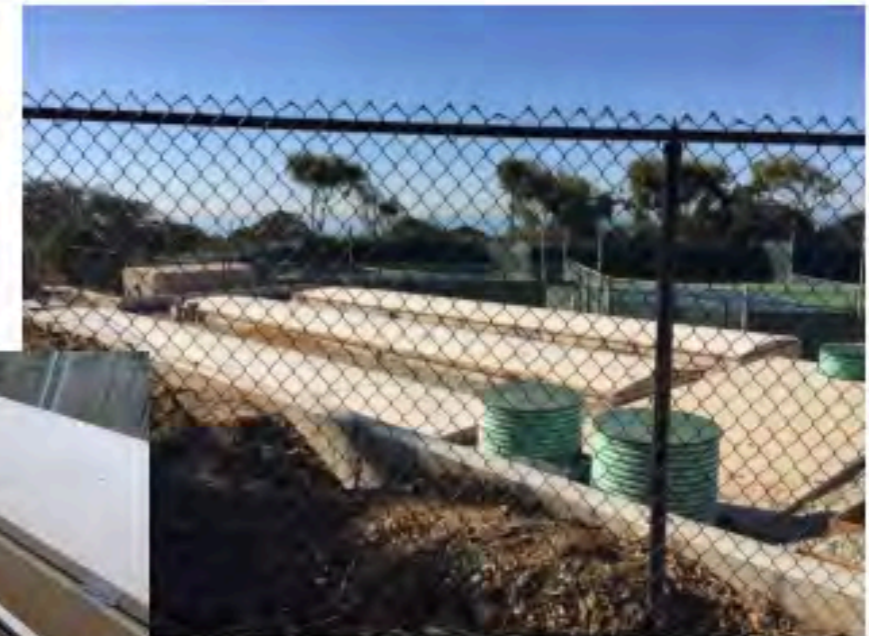
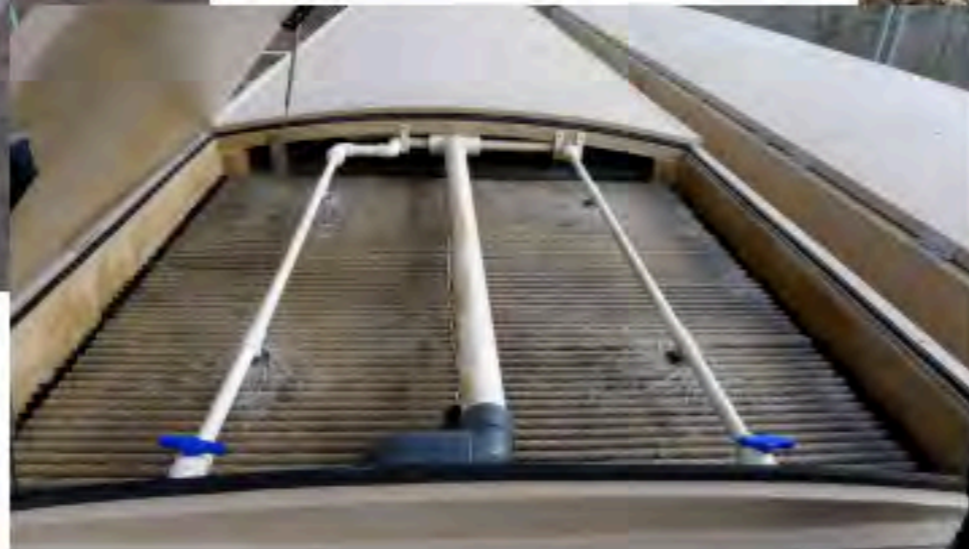
	<b>Pump</b>	<b>Pump Run Time</b>	<b>Power Cost</b>	<b>Equivalent Monthly Costs (\$/month/EDU)</b>
LOS or Orenco Effluent Sewer	0.5 Hp, 115 VAC, 12 amps	20 mins/day	\$0.10/kWh	<b>\$1.38</b>



# AX-Max

- Attached growth
- No open tanks
- Modular
- Low energy
- No headworks
- No clarifiers
- No aeration/no blowers

Treatment cost is typically 1/10 the cost of an activated-sludge plant





# Summary

- Liquid-only sewer has been in use for almost 50 years
- Liquid-only sewer provides primary treatment, collection and conveyance
- Solids retention results in more efficient pumping, less costly treatment, and lower O&M costs
- There are different configurations of liquid-only sewer
- Liquid-only sewer provides a sustainable O&M cost
- Liquid-only sewer reduces initial capital costs



# Next Steps

- ◆ Keep momentum going!!
- ◆ Reviewing recommended engineering firms
- ◆ Allegan Township to revisit plans and use funding
- ◆ Provide updates on [www.sewer.minerlake.com](http://www.sewer.minerlake.com)
- ◆ Questions?

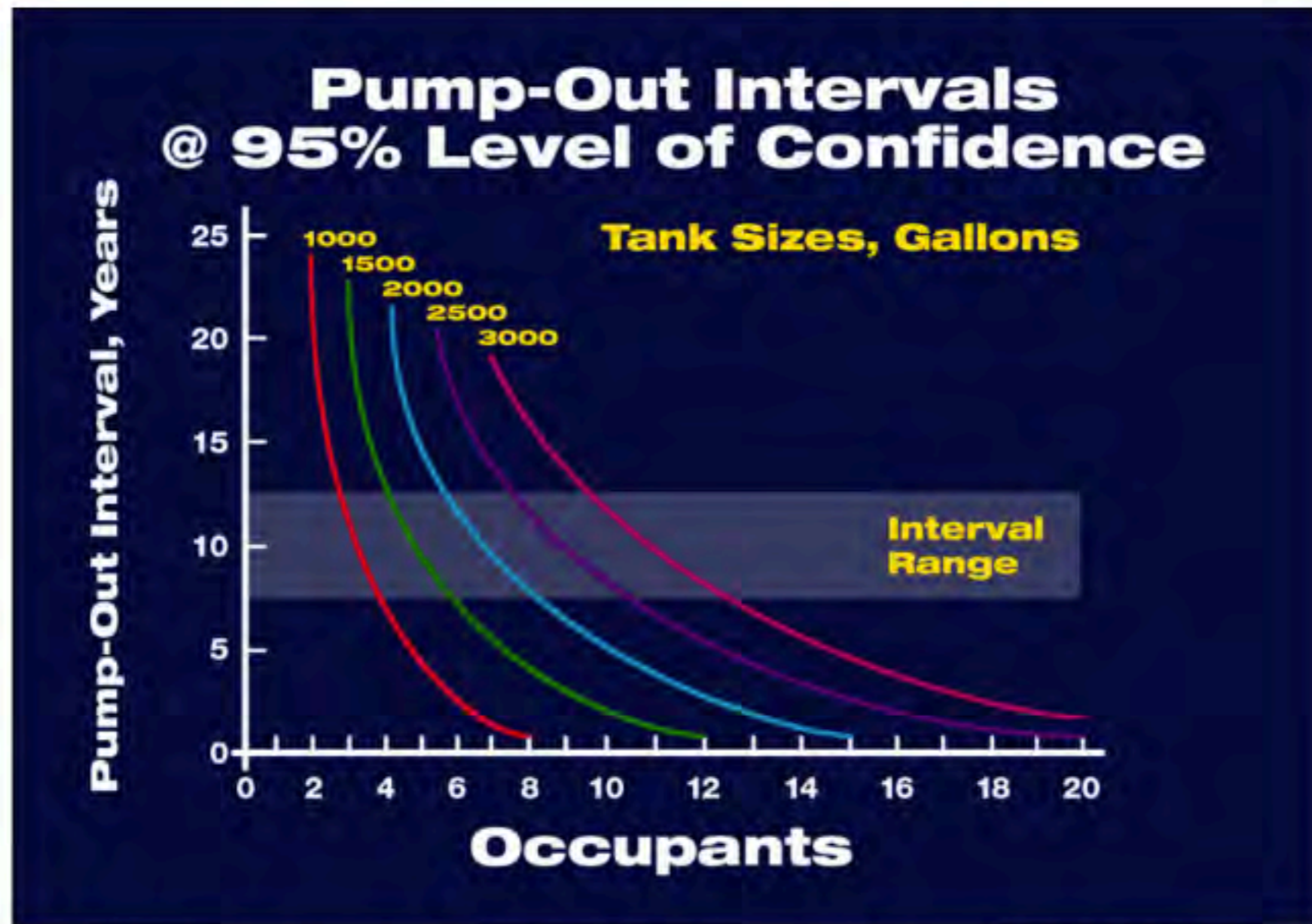


Thank You for Attending

Happy Labor Day!



# Pump-Out Intervals



*The pumping interval for properly sized and managed watertight tanks is about 12-20 years.*

Source: Bounds, T., PE. (1995). *Septic Tank Septage Pumping Intervals* [PDF]. Sutherlin, Oregon: Orenco Systems, Inc.



# Wastewater Strength

## Effluent Sewer System



<b>Waste Strength</b>	
<b>ADWF*</b>	
50 gpd/person (189 Lpd)	
BOD <sub>5</sub>	140 mg/L
TSS	30 mg/L
FOG	15 mg/L
* ADWF: Average Dry Weather Flow	

Data from tables 4-12 and 4-16, *Small and Decentralized Wastewater Management Systems*, Crites/Tchobanoglous.

## Grinder Sewer System



<b>Waste Strength</b>	
<b>ADWF*</b>	
50 gpd/person (189 Lpd)	
BOD <sub>5</sub>	450 mg/L
TSS	503 mg/L
FOG	164 mg/L
* ADWF: Average Dry Weather Flow	

Data from tables 4-12 and 4-16, *Small and Decentralized Wastewater Management Systems*, Crites/Tchobanoglous.



# Frequently Asked Questions

Liquid-only or "effluent" sewer systems have been in use for several decades. During that time, the technology has improved so dramatically that liquid-only sewers are highly recommended by the U.S. Environmental Protection Agency, as well as by engineers, academics, and public agencies.



## **Who takes care of the system?**

The community or a utility will own the system and provide centralized maintenance. Orenco's VeriComm™ Monitoring System can provide automated, round-the-clock, computerized supervision. Orenco provides training for system operators and engineers.

## **Will there be lots of service personnel on the property?**

Service time per home is minimal. Utility meter readers come by far more frequently.

## **Do pumps have to be repaired or replaced frequently?**

No. With normal maintenance and cleaning, our pumps can last more than 25 years.<sup>11</sup> Plus, the electricity to run them averages about \$1.50 per month.<sup>12</sup>

## **Will the system smell bad?**

No, not if properly designed and installed. Any wastewater collection system will smell if not properly designed and installed.

## **I've heard stories about these systems failing. Are they true?**

Orenco liquid-only sewers work well. Solid engineering, proper equipment, and attention to detail ensure that. With any type of sewer system, poor engineering, substandard equipment, or sloppy installation can cause problems. These sewers have a well-documented track record of success.

## **Is the underground tank hard to take care of?**

No. We require tanks that are designed to be watertight, and most need pumping only once every 10–12 years.<sup>13</sup> Otherwise, they're underground, out of sight, and out of mind.

## **What happens to the solids that accumulate in the tank?**

Accumulation of solids occurs slowly because of the digestion process that takes place in the tank (which is designed to be watertight). In fact, the tank digests more than 80% of the biosolids.<sup>14</sup> Remaining solids are easily managed through planned pumping schedules.

## **What if something goes wrong with my tank?**

Each property has a control panel with an alarm function. Your system's operator will be automatically notified of any alarms. And the 24-hour reserve space in your tank gives the operator time to have a problem checked.

## **If I have more questions, who can I call?**

Call Orenco at 541-459-4449 or toll-free at 800-348-9843.



# Centralized vs Decentralized

