

Non-PRASA Community Drinking Water Systems: Data Overview for Emergency Preparedness

Cristina I. Maldonado-Morales, Ph.D.
Environmental Scientist
Caribbean Environmental Protection Division
Region 2 | U.S. Environmental Protection Agency

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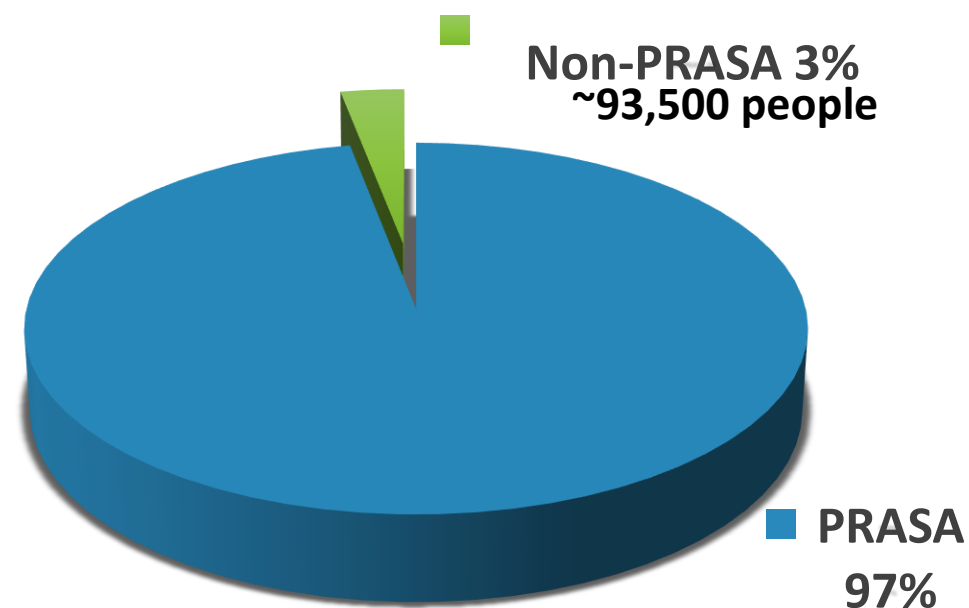
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Drinking Water Service in Puerto Rico

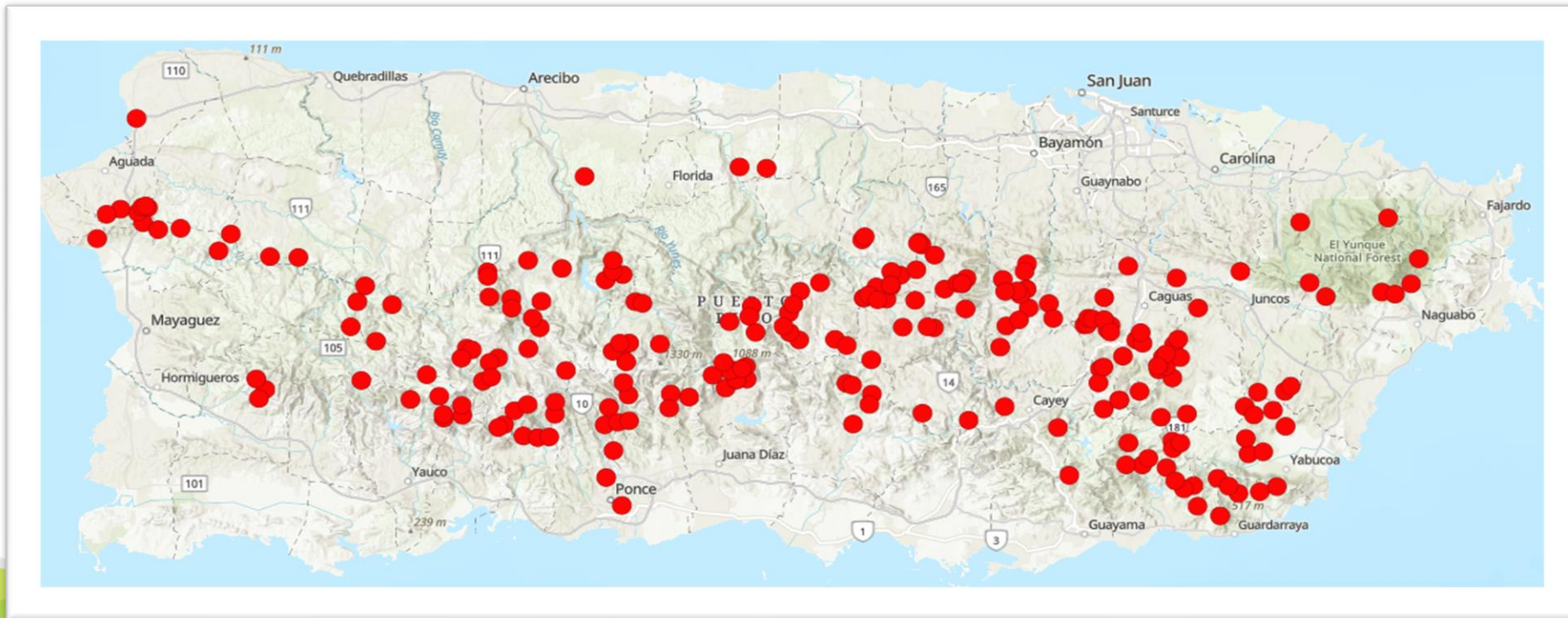
Non-PRASA

- Non-Puerto Rico Aqueduct and Sewer Authority
- Privately-owned
- A total of 297 drinking water systems divided into:
 - Community: 241 systems
 - Non-Community: 56 systems

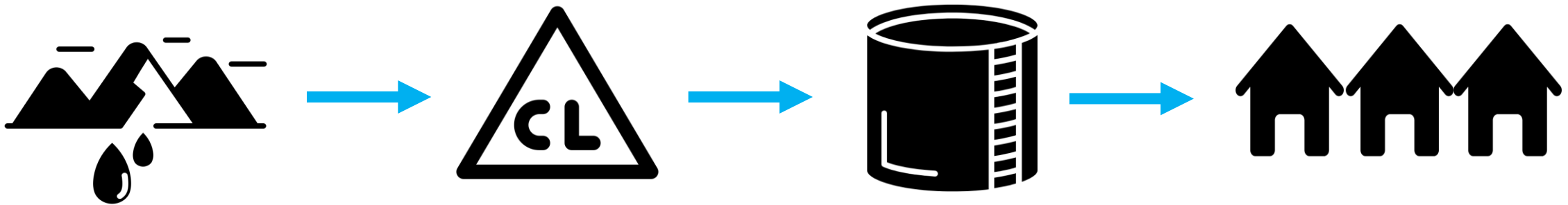


Where are Non-PRASA Community Systems?

- Primarily located in the mountainous interior, where rough topography and remote access make PRASA service infeasible.



Non-PRASA Community Drinking Water System Layout



Water Source

Water is collected from a **natural source**, such as surface water or groundwater.

Treatment

The water undergoes **disinfection** to remove microbial contaminants.

Storage Tank

Treated water is stored in a **distribution tank**, regulating flow and maintaining supply.

Community Distribution

Water is delivered through a **pipe network** to households for daily use.











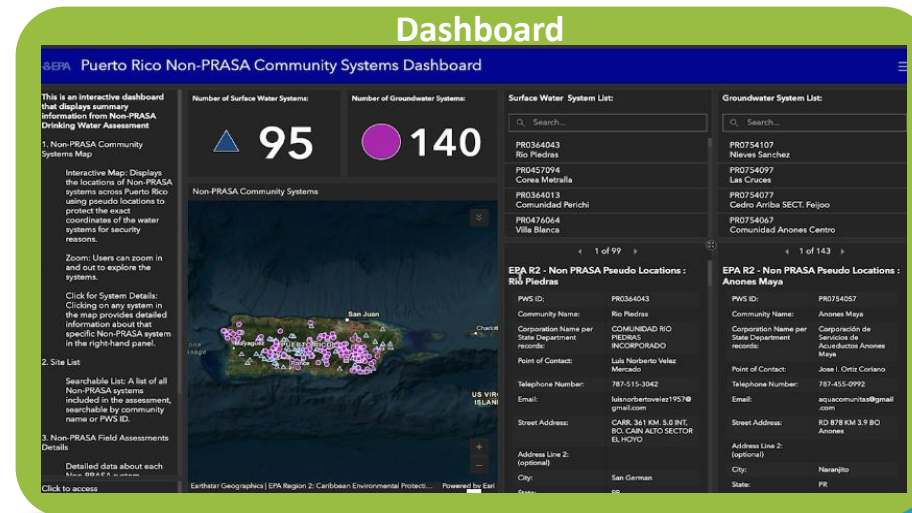
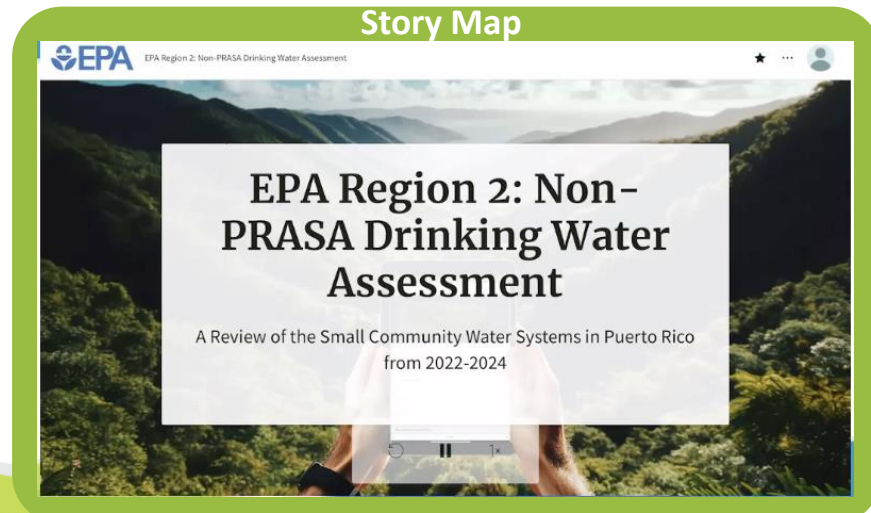
Non-PRASA Systems Database | Year 2022–2024

Non-PRASA Community Drinking Water Systems Database

- Lack of accurate/readily available Non-PRASA systems information made emergency response/recovery efforts very difficult.
- Unable to identify community needs and to provide rapid and effective assistance.
- Call for an up to date, comprehensive and centralized Non-PRASA database.

Non-PRASA Community Drinking Water Systems Database

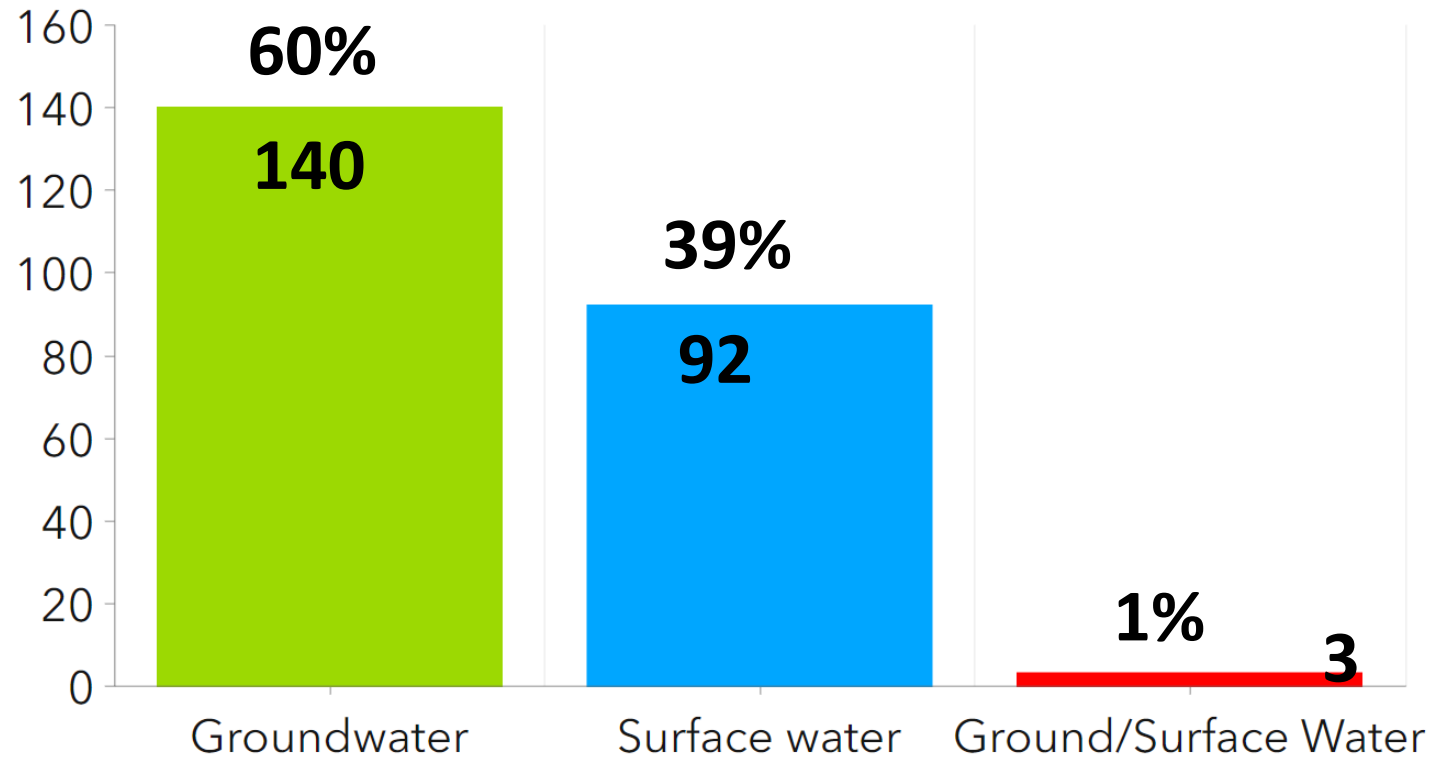
- Completed 235 (100%) Non-PRASA system assessments.
 - From November 2022 to February 2024.
- Created a database + visual tools (StoryMap/Dashboard).



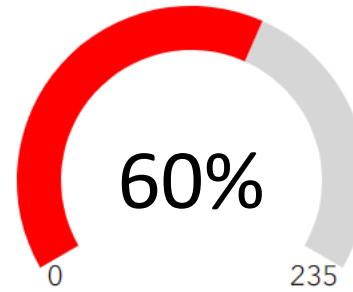
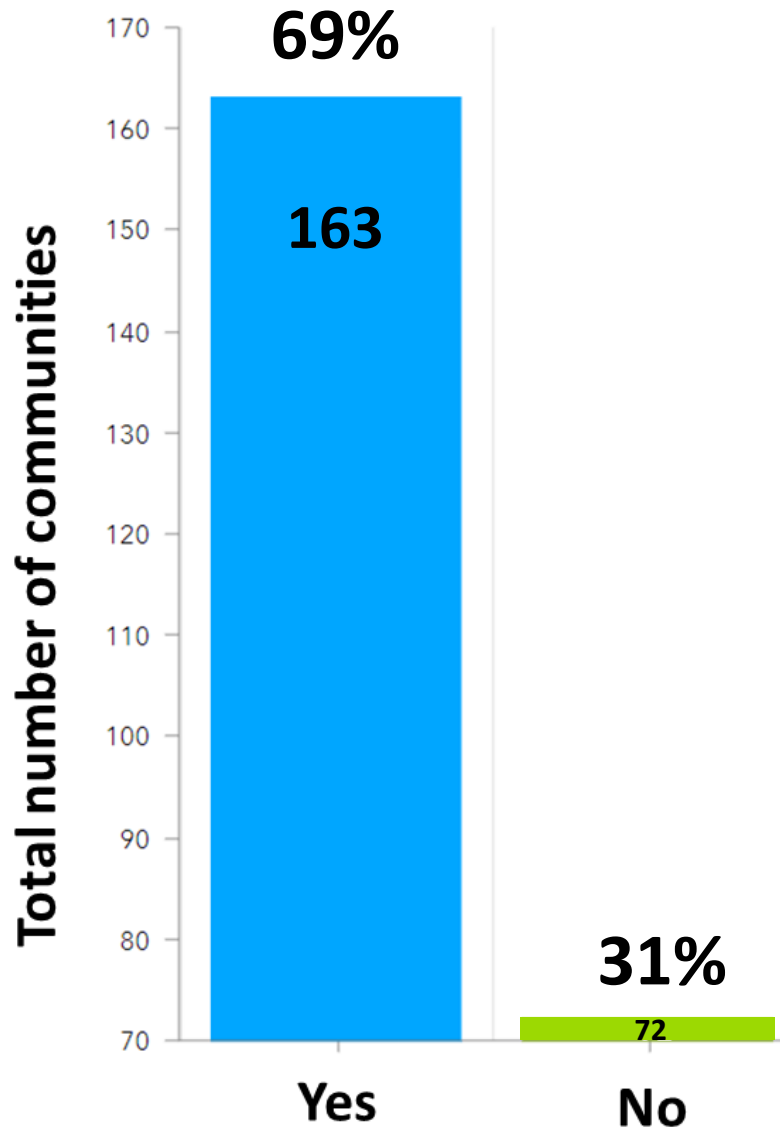
Non-PRASA Systems Database | Year 2022–2024

Relevant Findings for Emergency Preparedness

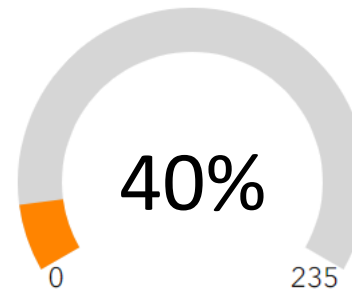
Water Source Types



Disinfection Equipment (Chlorine)

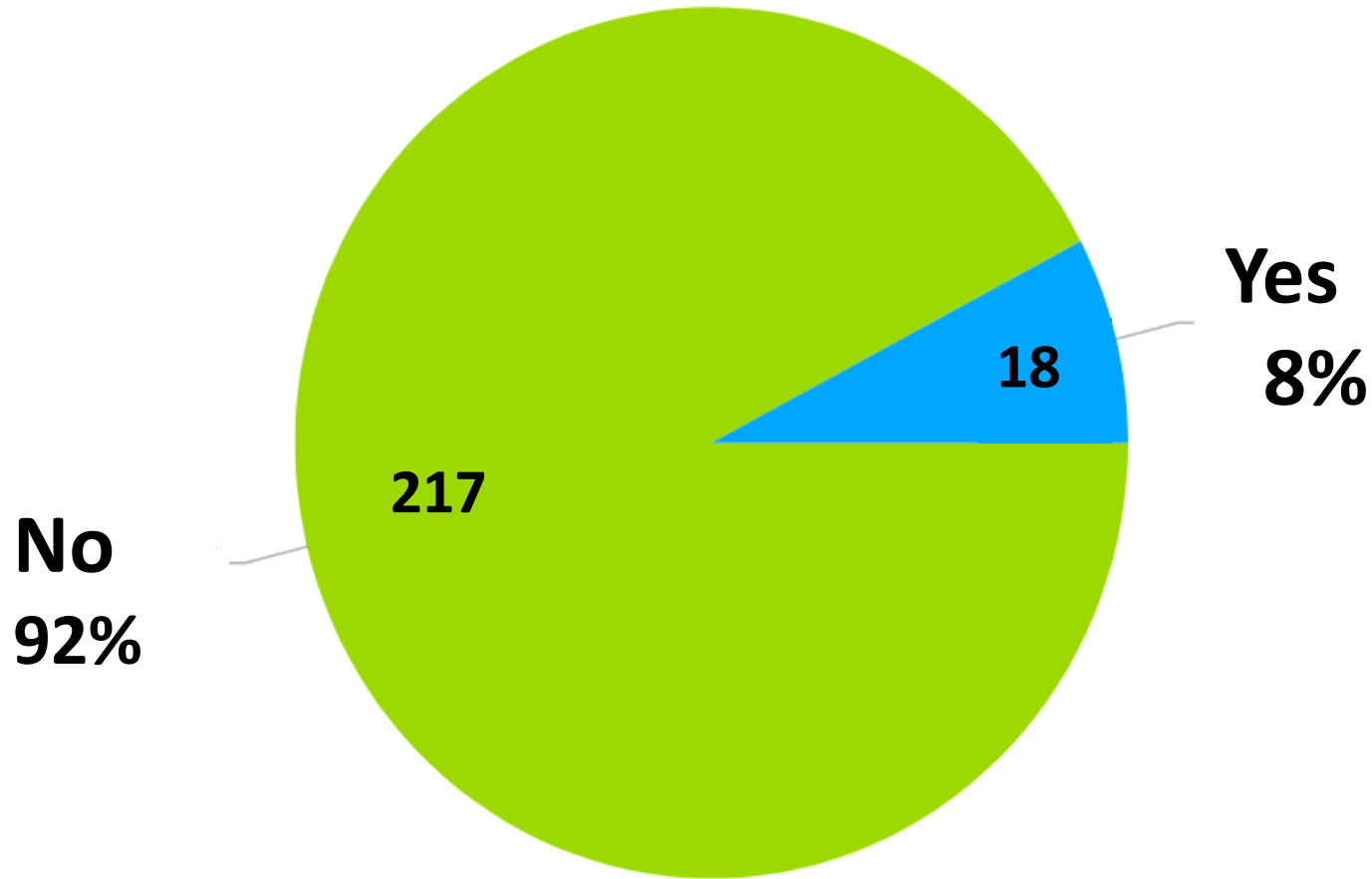


Tablet Chlorinator: 142

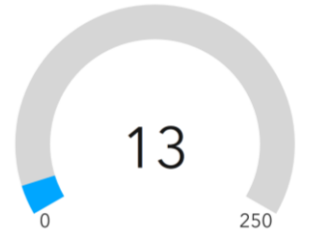


Liquid Chlorinator: 21

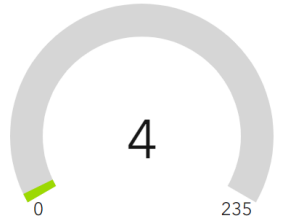
Filtration Equipment



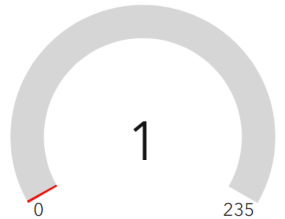
Surface Water:



Ground Water

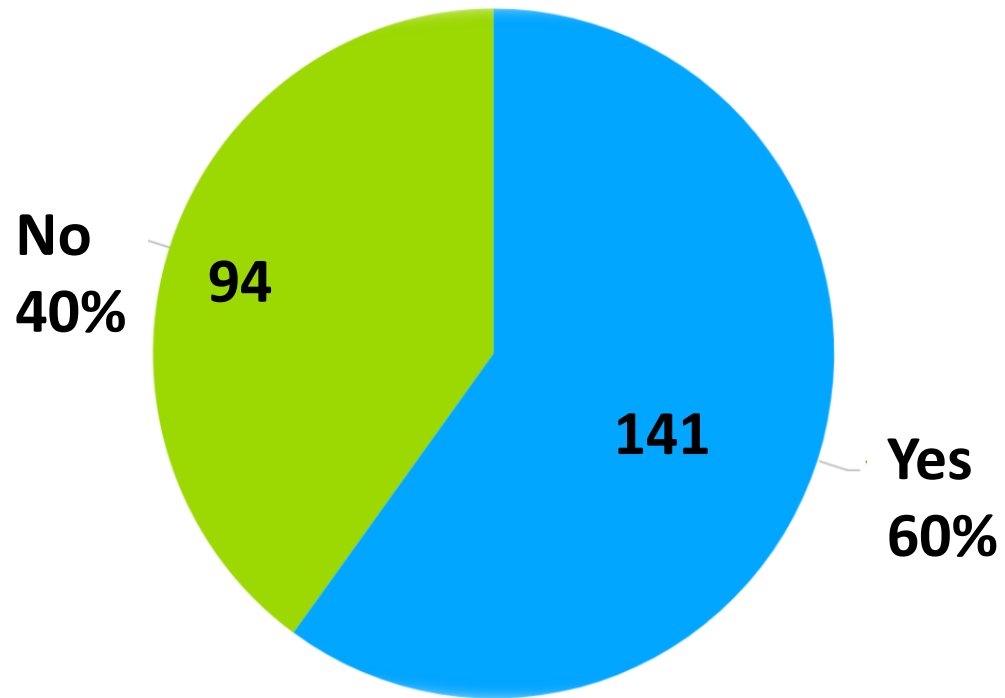


Ground and
Surface Water:

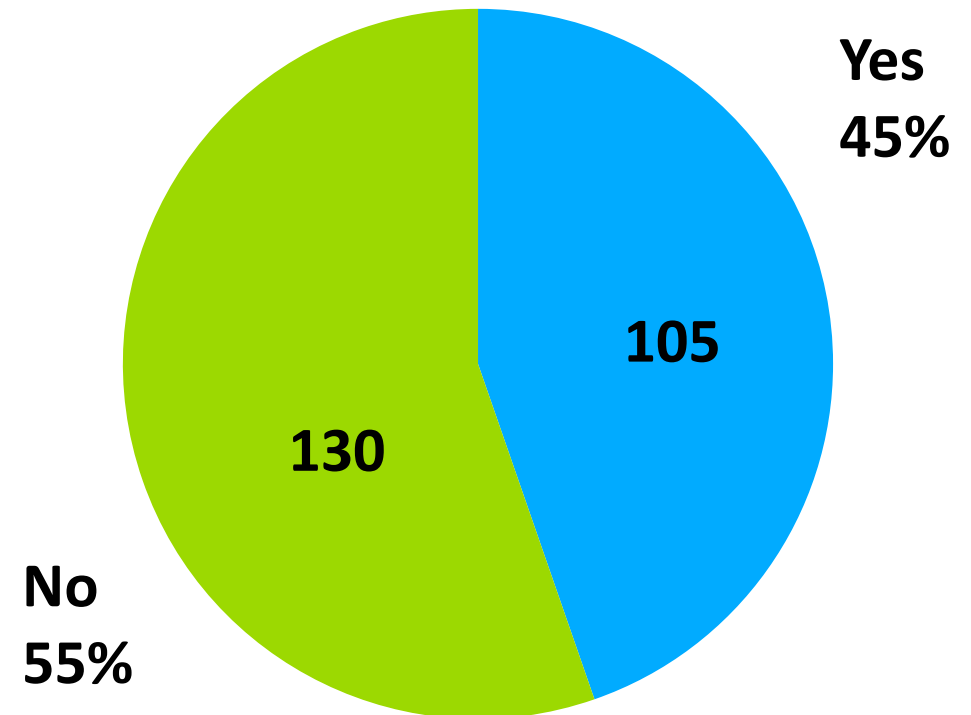


Water Quality Monitoring

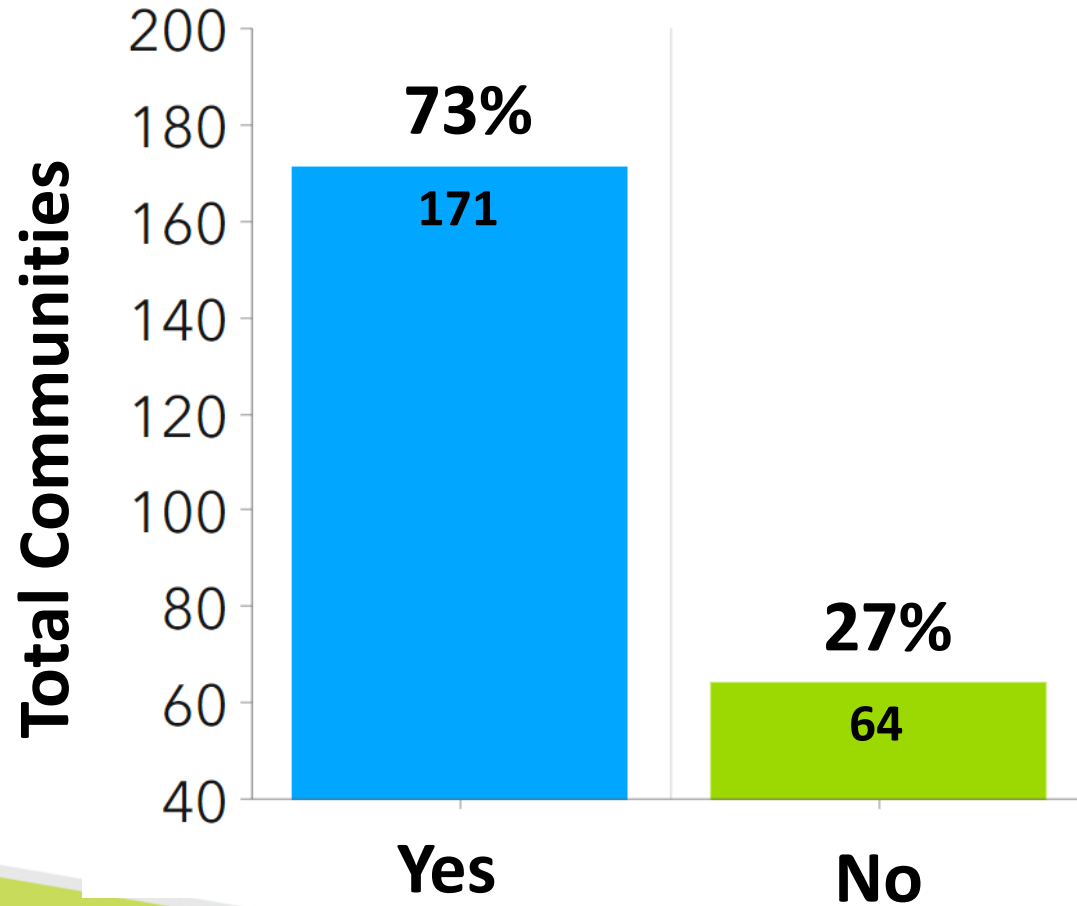
Bacteriology



Chemicals



Pay Monthly Fees



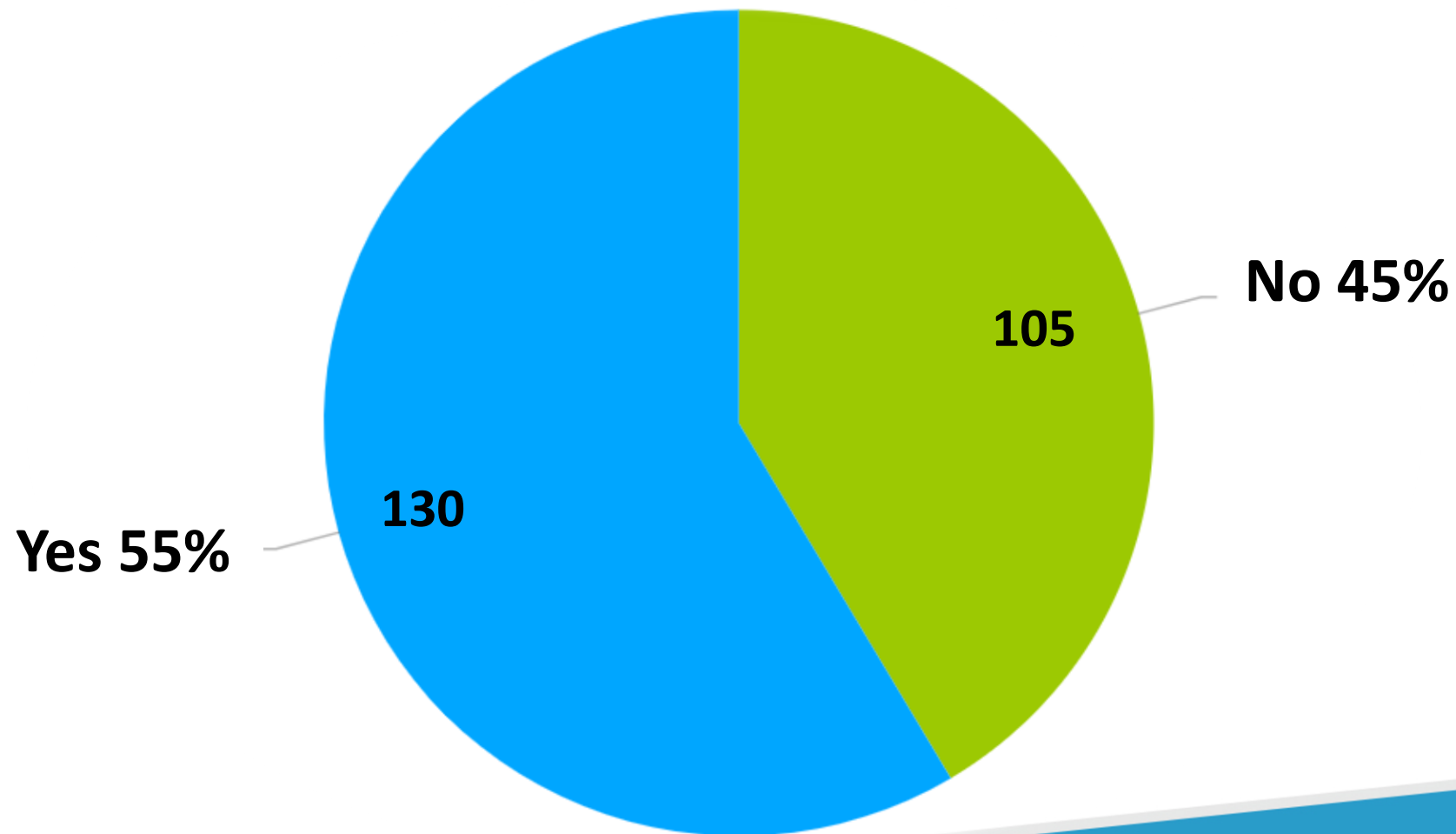
\$12.28

AVERAGE MONTHLY FEE

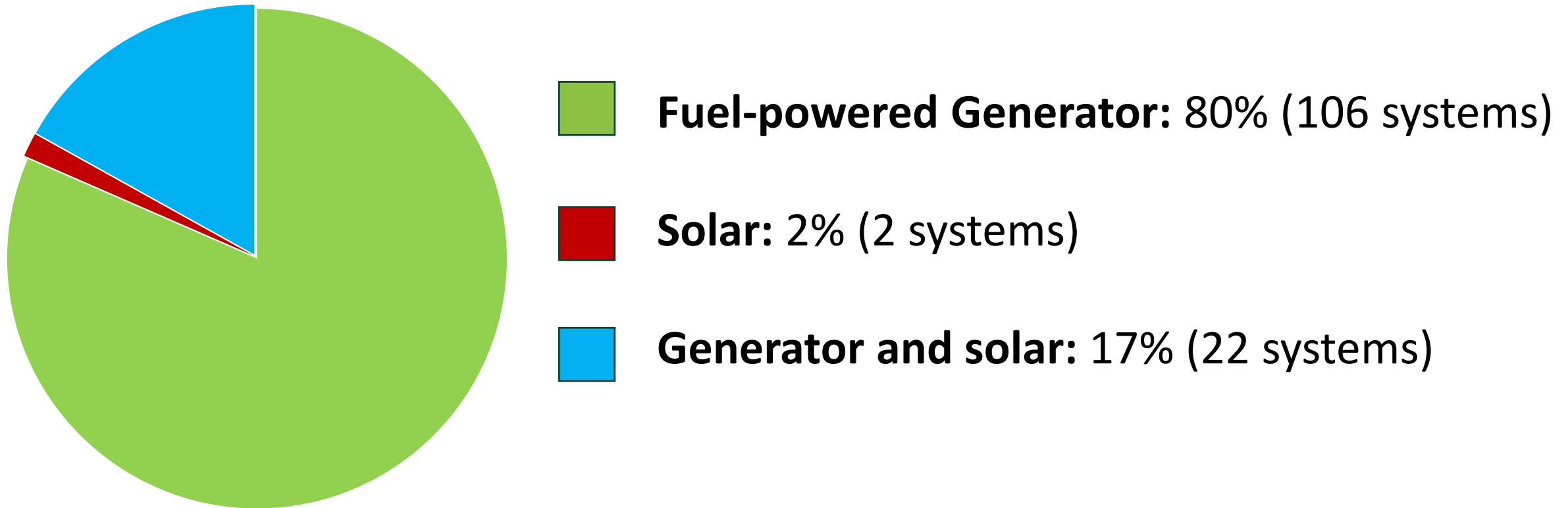
\$5 minimum monthly fee

\$60 maximum monthly fee

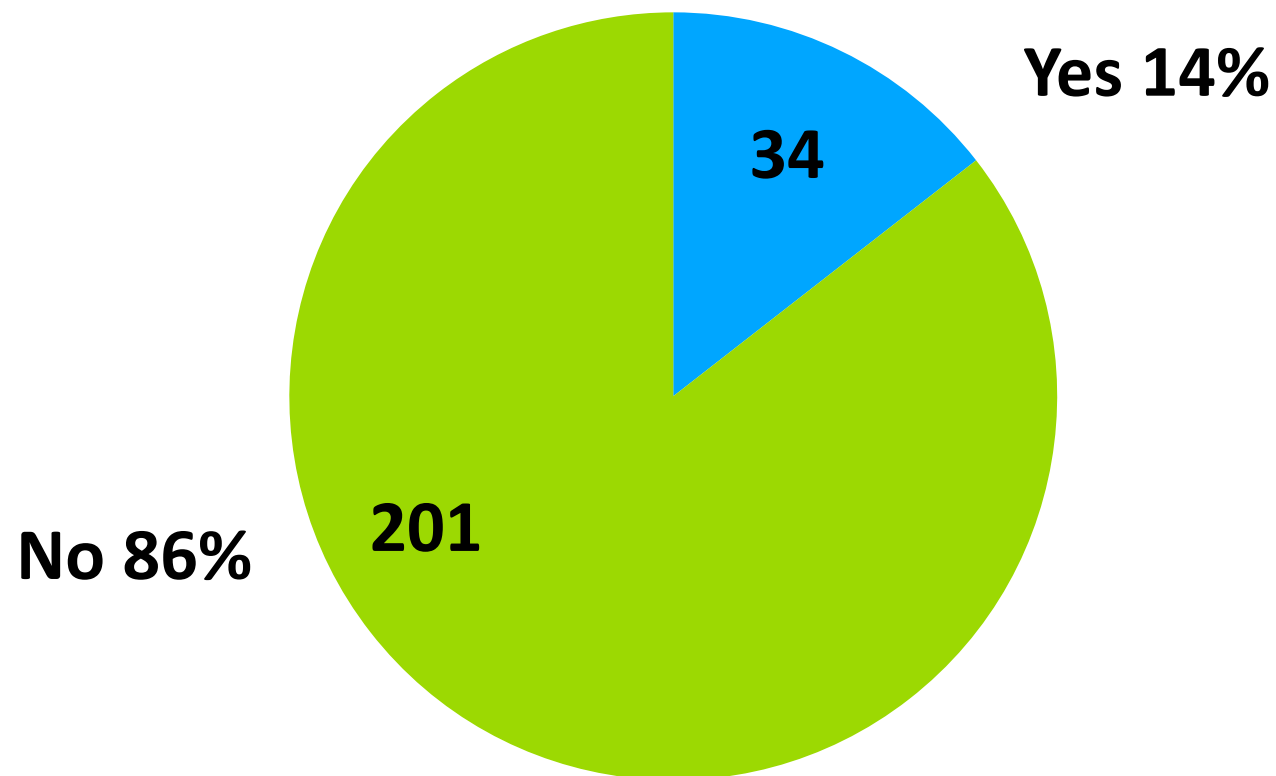
Backup Power Supply



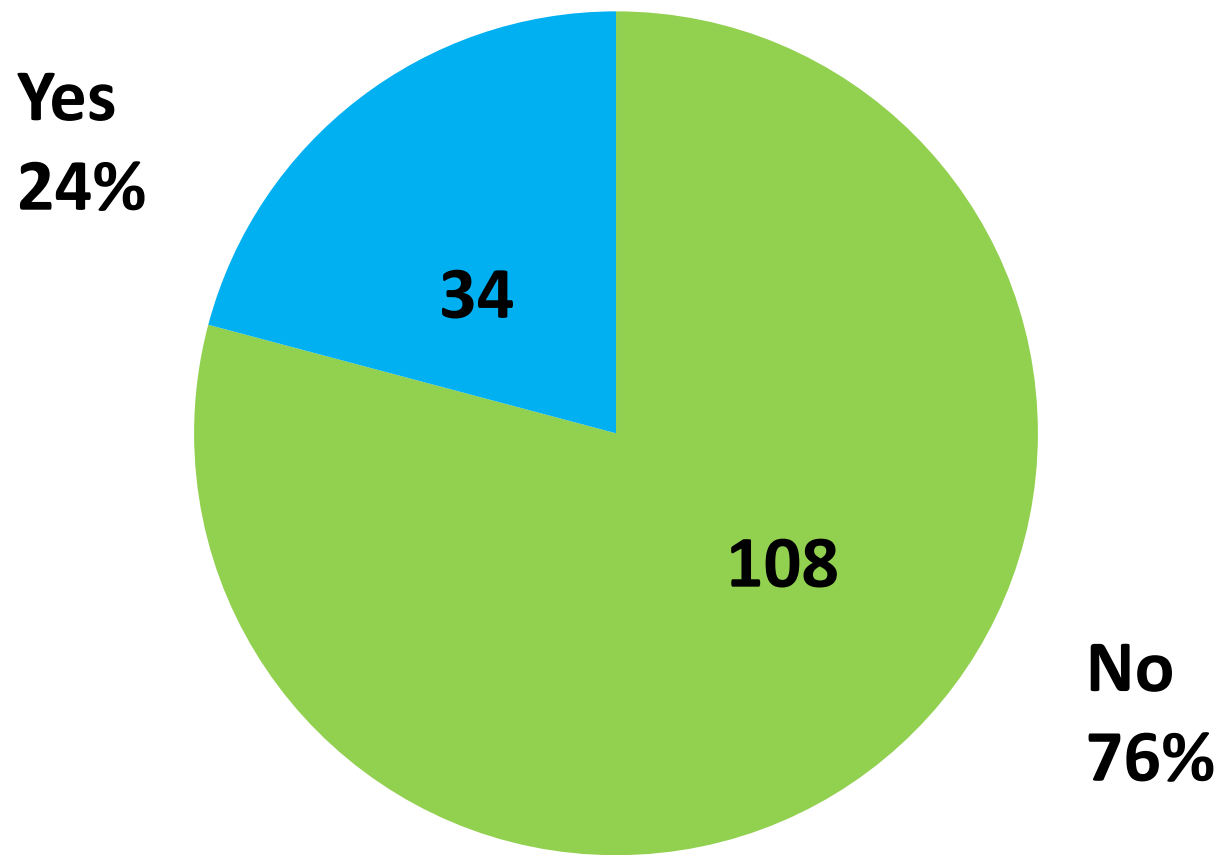
Backup Power Supply Sources



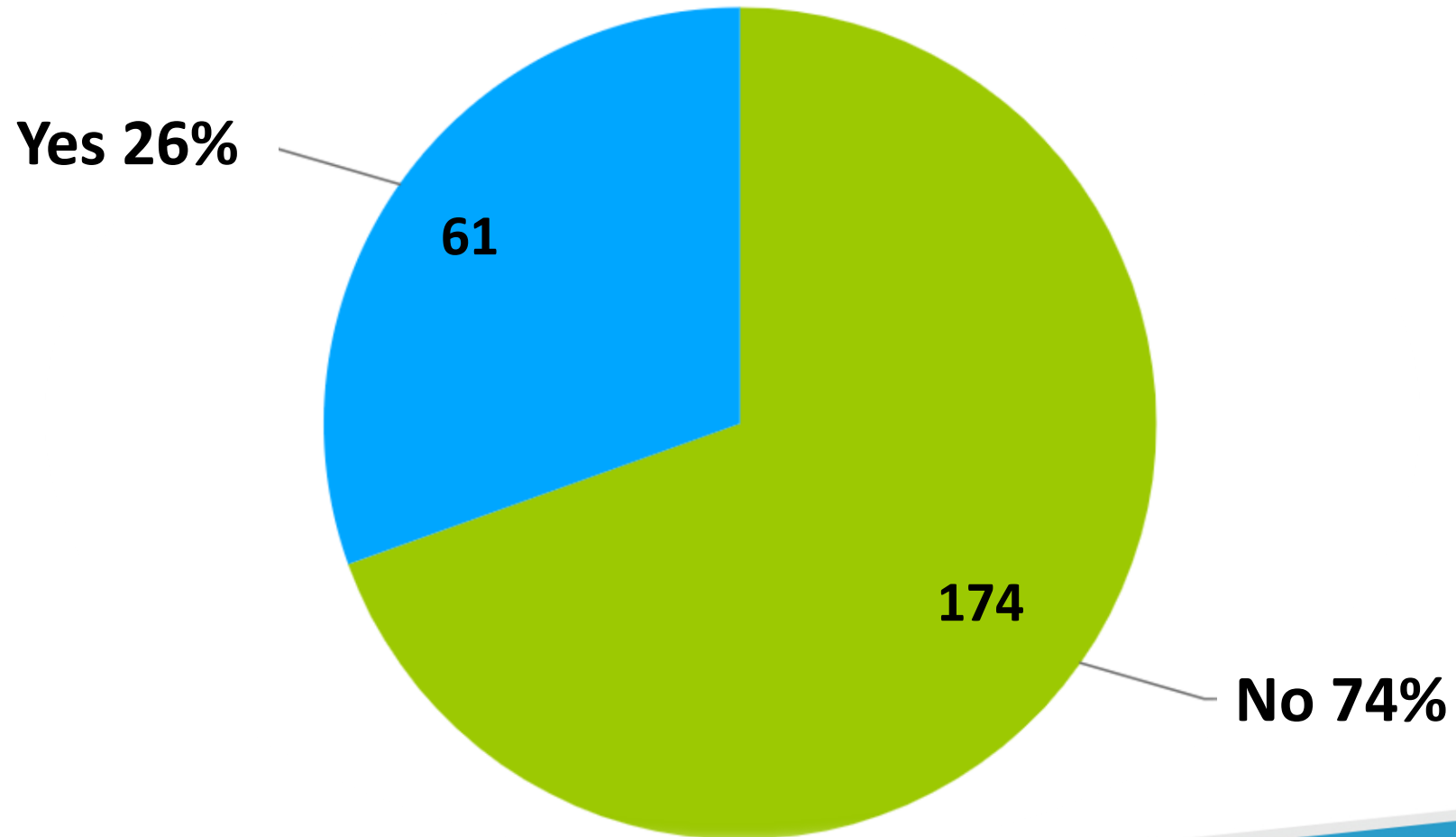
Backup Equipment



Backup Supply of Chlorine Tablets

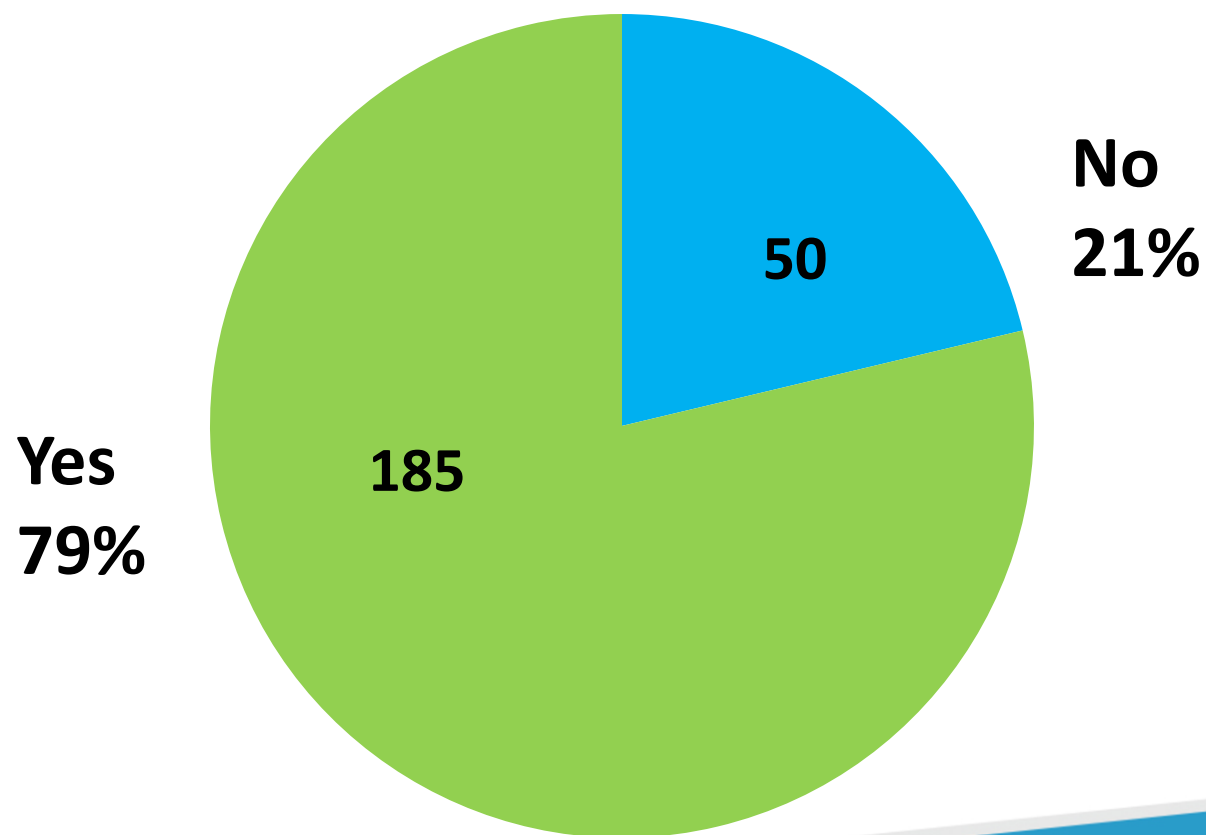


Emergency Response Manual

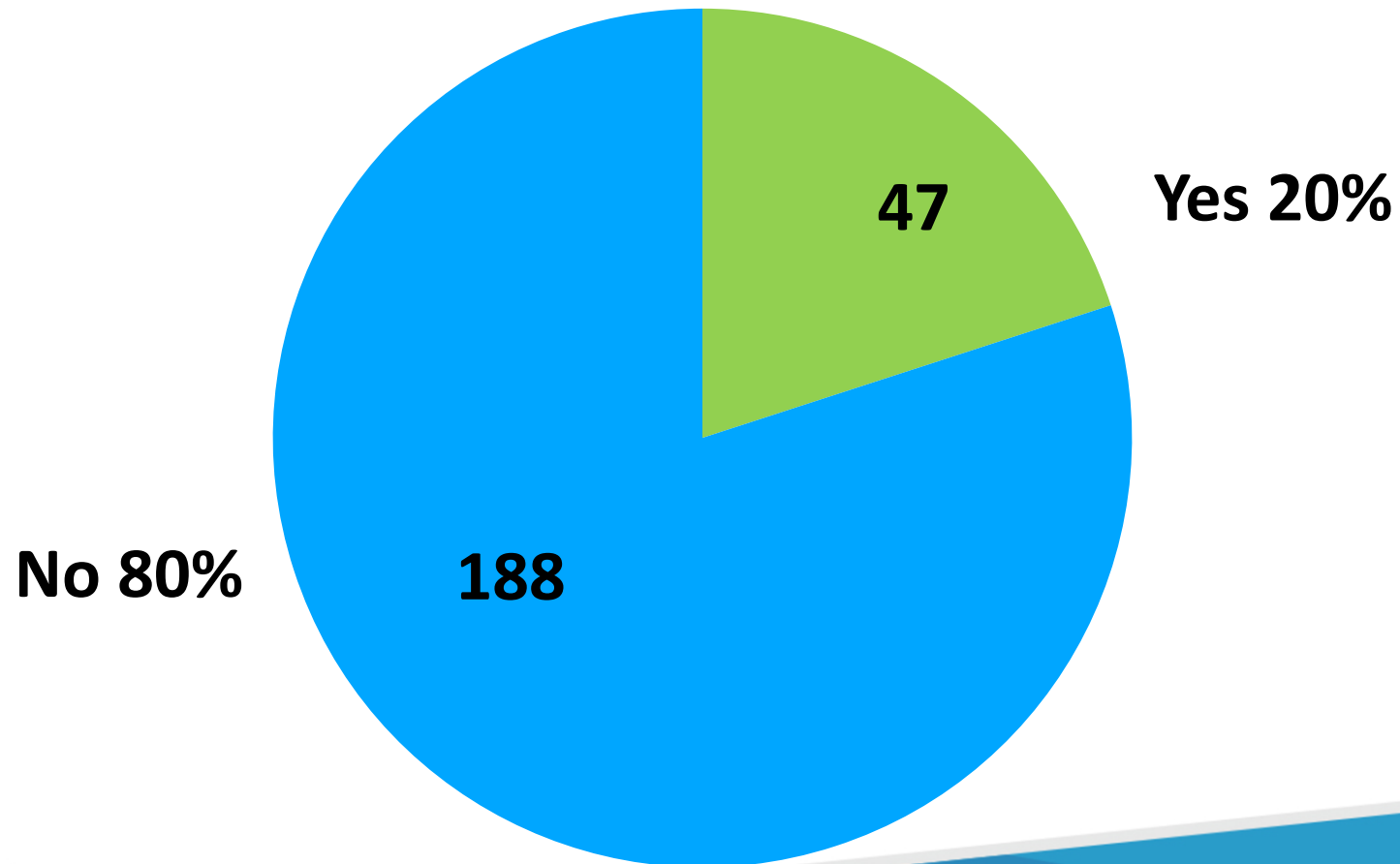


Federal Assistance Eligibility

Puerto Rico Department of State Registration

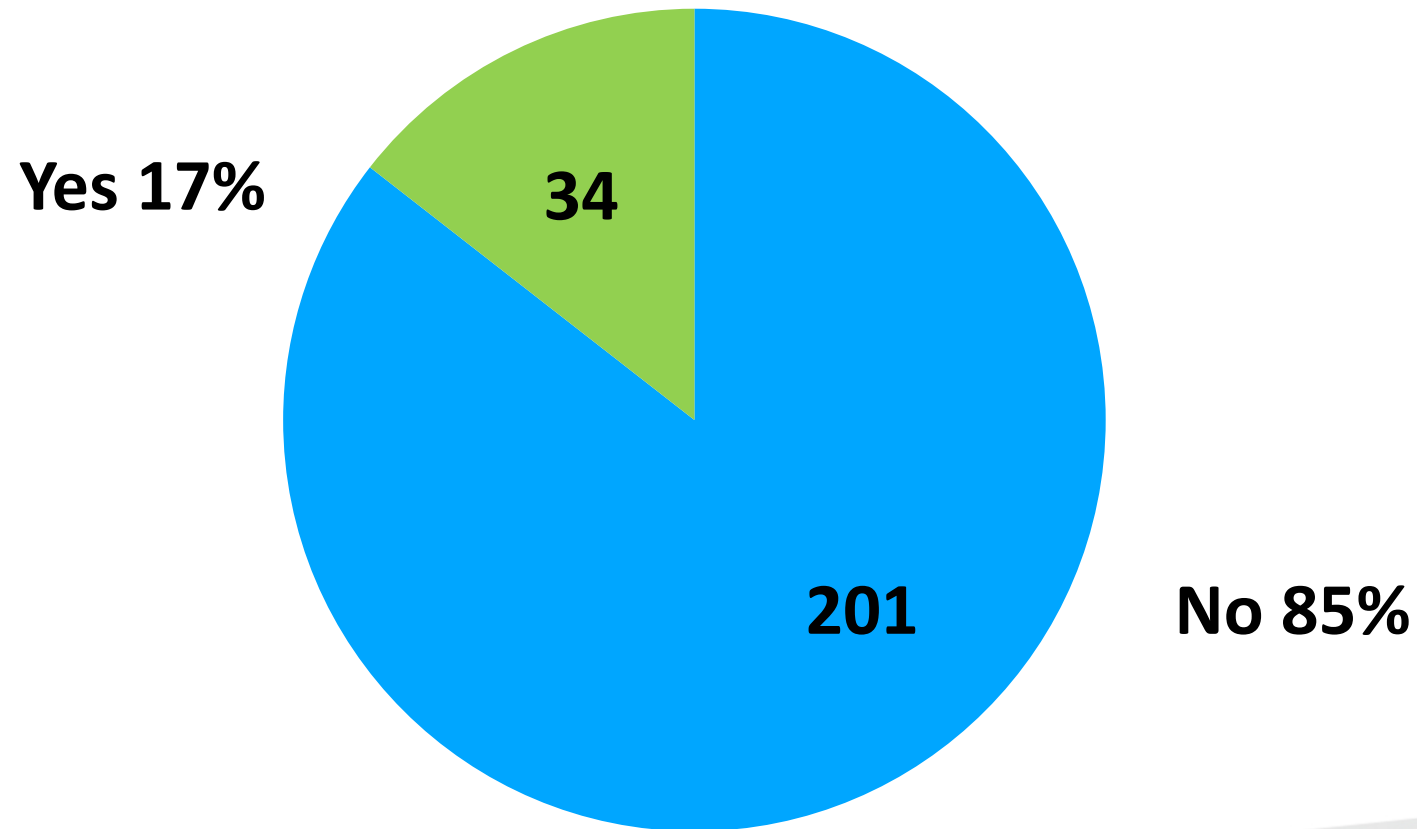


System for Award Management (SAM) Registration



Employer Identification Number

Internal Revenue Service - U.S. Department of Treasury



Additional Information Available

The Non-PRASA database also includes:

- Points of contact
- Service connections, population size
- Systems components:
 - Characteristics of pipes, tanks and water sources (material, conditions, dimensions)
 - Access conditions (road accessibility, terrain difficulty)
 - Geocoordinates

Emergency Vulnerabilities

Key Weaknesses Identified:

- **Power outages → system failure**
 - Many systems stop operating without electricity for pumps or disinfection.
- **Limited access post-disaster**
 - Remote locations make it difficult to reach systems after storms.
- **No backup equipment or mobile support**
 - Most lack redundancy (e.g., second pump) or access to emergency equipment.





Thank you!



Cristina I. Maldonado-Morales, Ph.D.
Environmental Scientist
Caribbean Environmental Protection Division
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787-977-5835

maldonado.cristina@epa.gov