



# Florida Water Loss Program

## Florida Doubles Down on Water Loss Training and Technical Assistance

*Jessica Jagdeo, E. Source*

*Ashlee Hollifield, P.E., Cavanaugh & Associates P.A.*





# FLORIDA WATER LOSS PROGRAM

*Saving Water – Reducing Costs – Being Proactive*



American Water Works Association



*The Florida Water Loss Program is made possible through a grant agreement with the Florida Department of Environmental Protection. A special thanks to FDEP for bringing this opportunity to water utilities across the state!*



## *Your Program Management Team*



**Drew Blackwell**  
Program Manager



**Jessica Jagdeo**  
Technical Manager



**Isabel Szendrey**



**Maher Lugo**



**Ashlee Hollifield**



**Tory Wagoner**



**Larry Lewison**



**Chris Penwell**



**Anne Saylor**



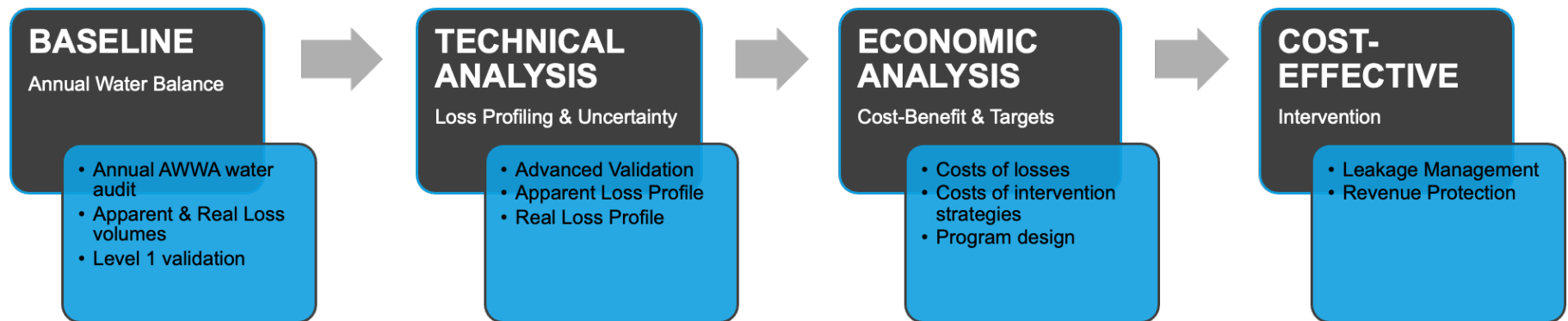
**Donna Metherall**



**Marci Bruno**

# The Big Picture

- 💧 **Every** water system experiences water loss.
- 💧 Establishing a baseline of validated water audit data is the anchor of a **successful** water loss strategy.
- 💧 The IWA/AWWA methodology provides a path to building and progressing your **water loss program**.

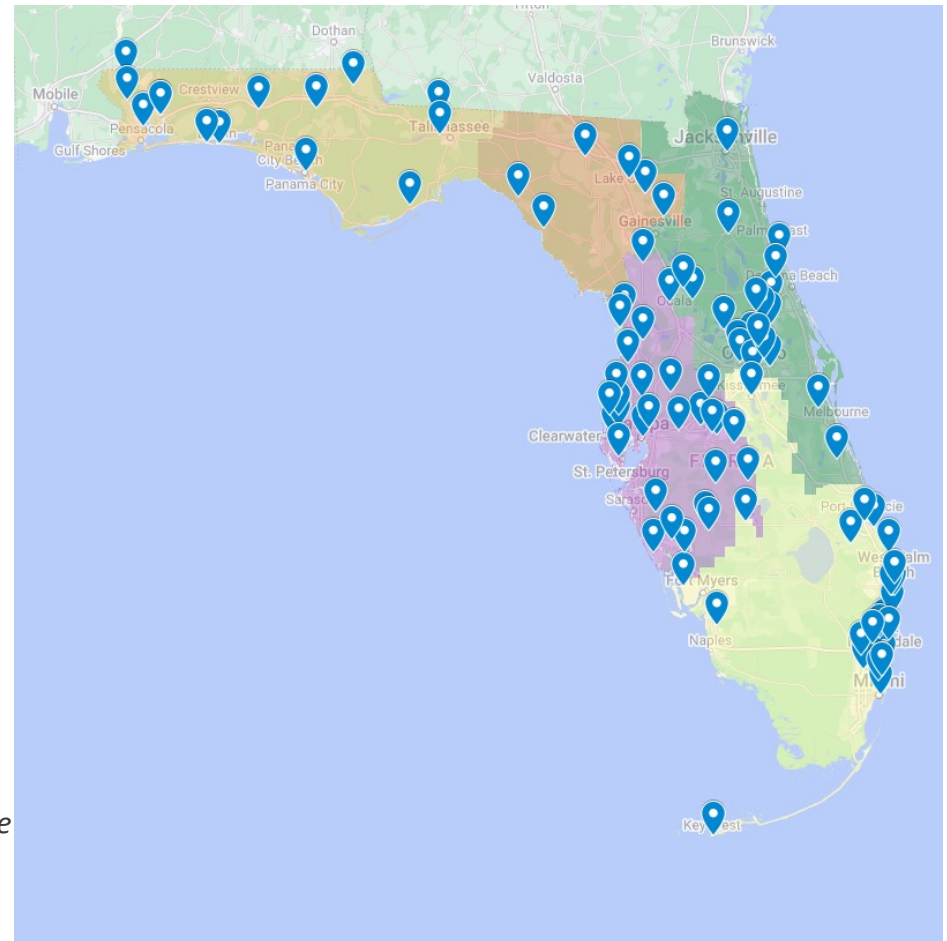




# Establishing the Florida Water Loss Program



*The Florida Water Loss Program is made possible through a grant agreement with the Florida Department of Environmental Protection*



# Benefits of Water Auditing & Loss Programs



Estimate water losses



Identify areas for improvement

- Data management and accuracy
- Water loss control activities



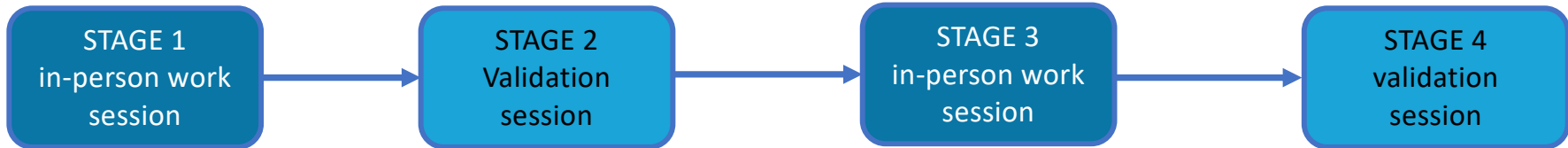
Pinpoint potential revenue recovery opportunities

# Phase 1 (2022 – 2024)

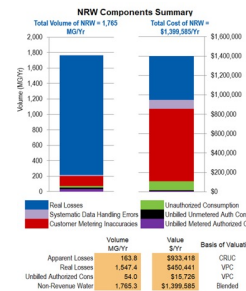
- Water Balance
- AWWA Free Water Audit Software
- Data Validity
- Common Exercises



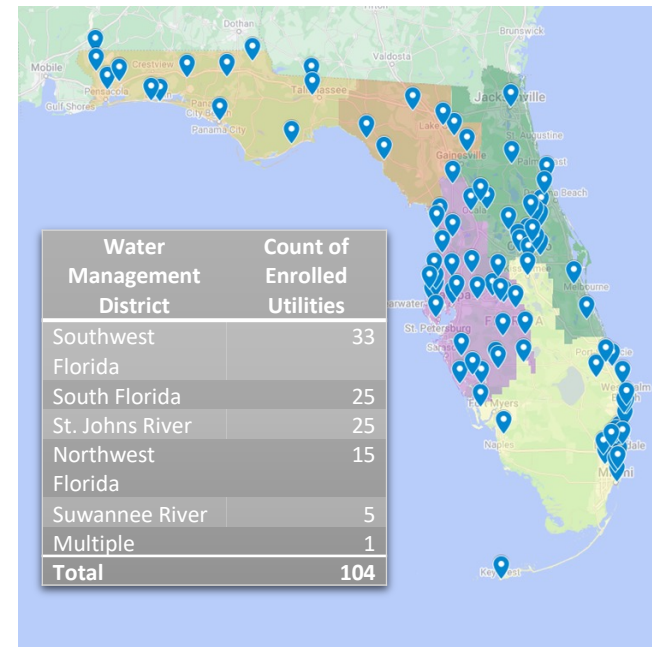
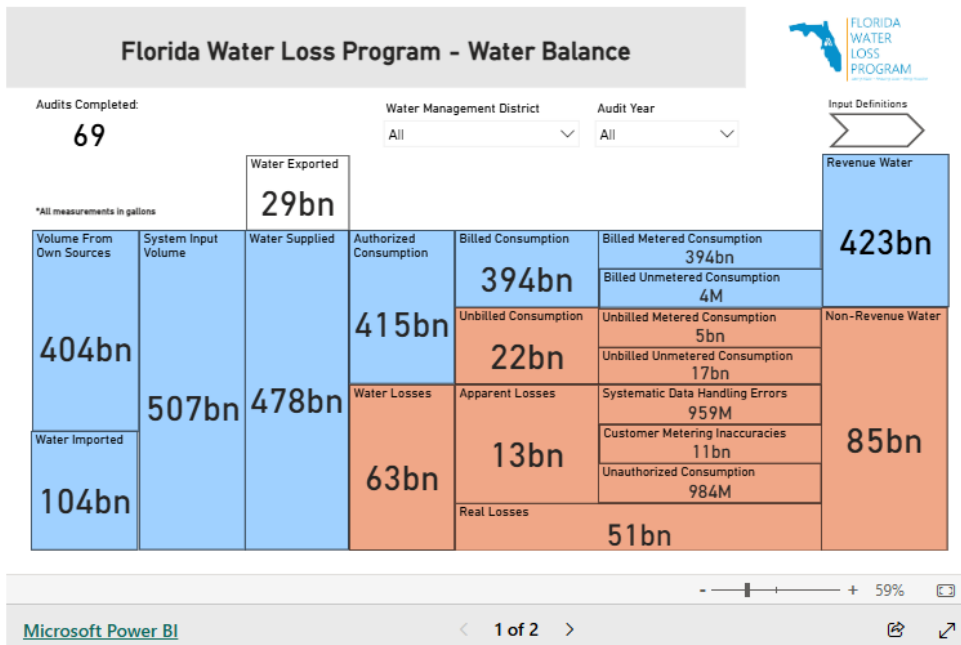
- Interpret Water Audit Results
- Identify Common Next Steps



- One-on-one with utility team
- Utility-specific data (CY2022)
- Confirm AWWA M36 water audit methodology applied correctly
- Evaluate practices and policies through data grading



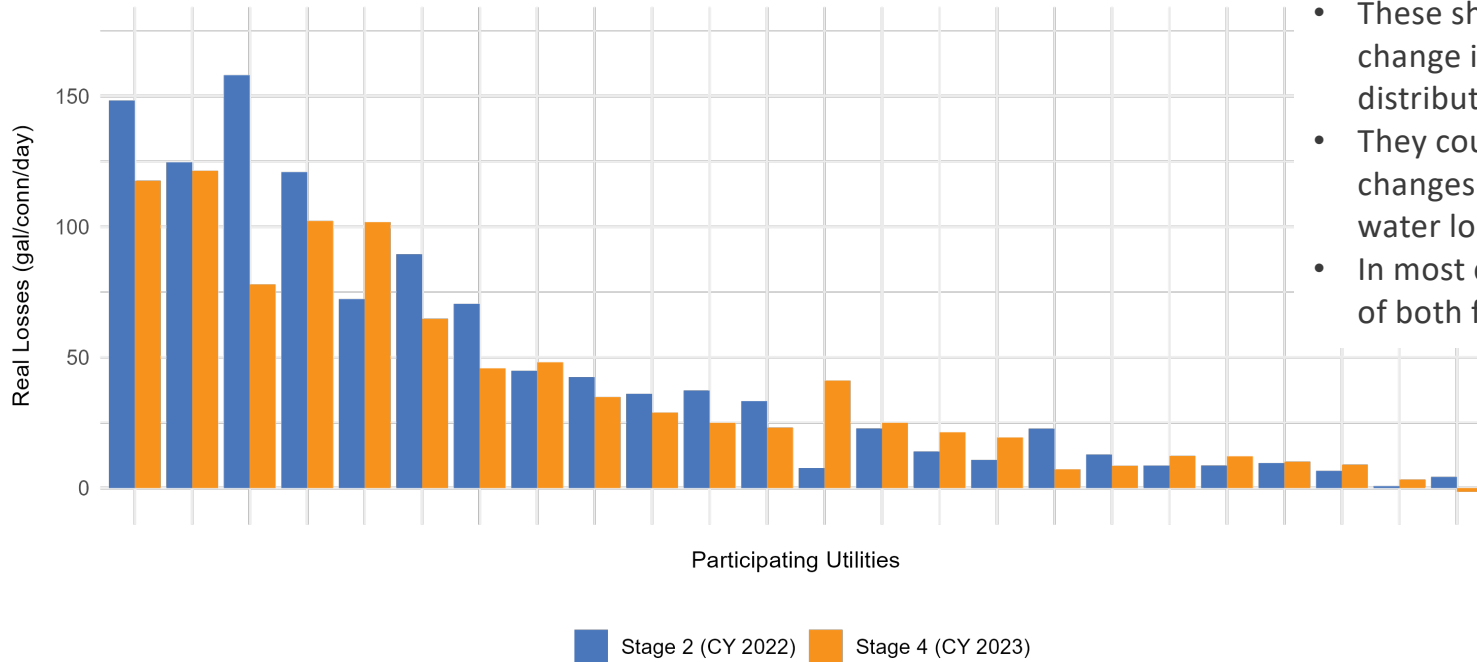
# Phase 1 Results (2022– 2024)



<https://www.floridawaterloss.org/copy-of-about-the-program>

# Phase 1 Results (2022– 2024)

Stages 2 & 4 Post-Validation Real Loss Comparisons



### Observed Shifts in Real Losses

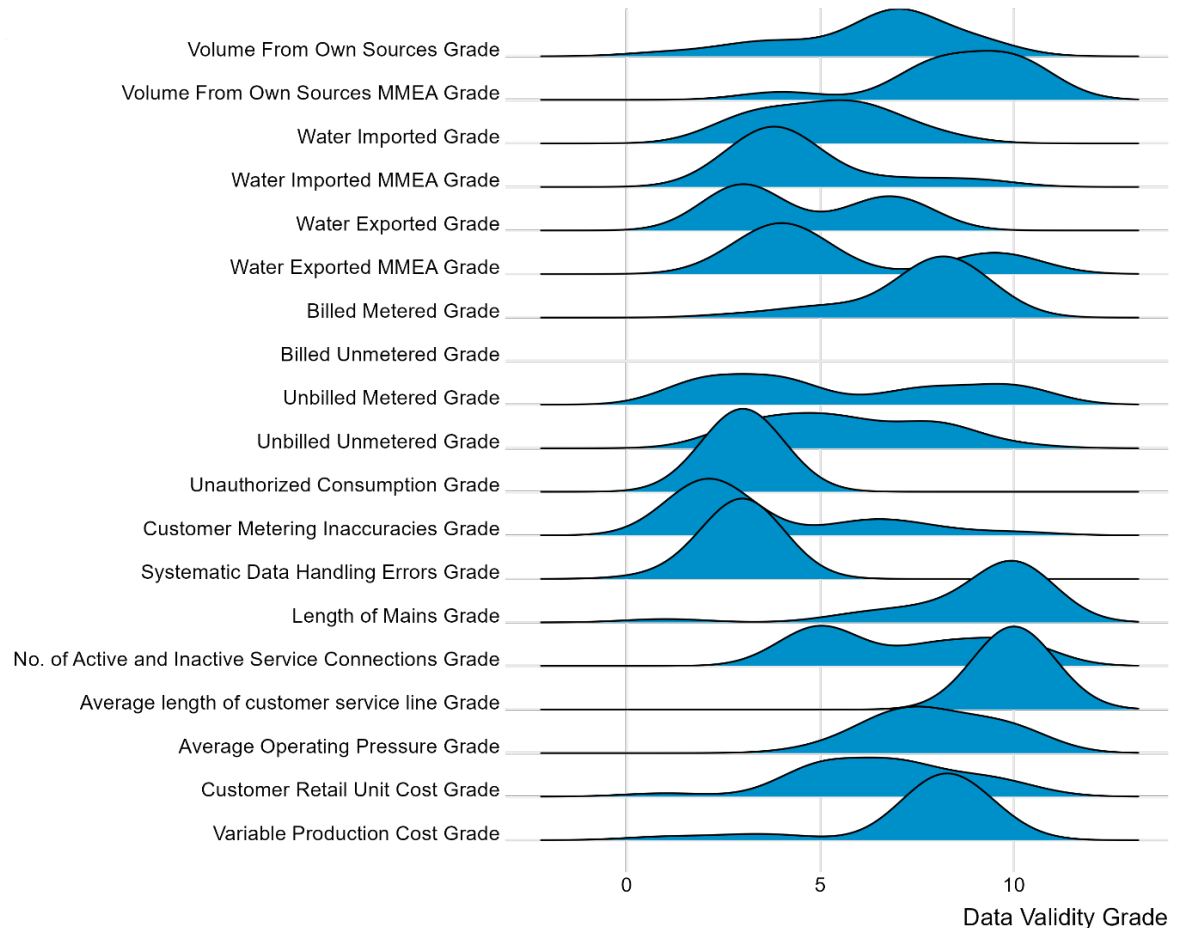
- These shifts may represent a true change in leakage within the distribution system.
- They could also be due to changes in the data used for the water loss audits.
- In most cases, it is a combination of both factors.

# Phase 1 Results (2022–2024)

## Data Grading Process

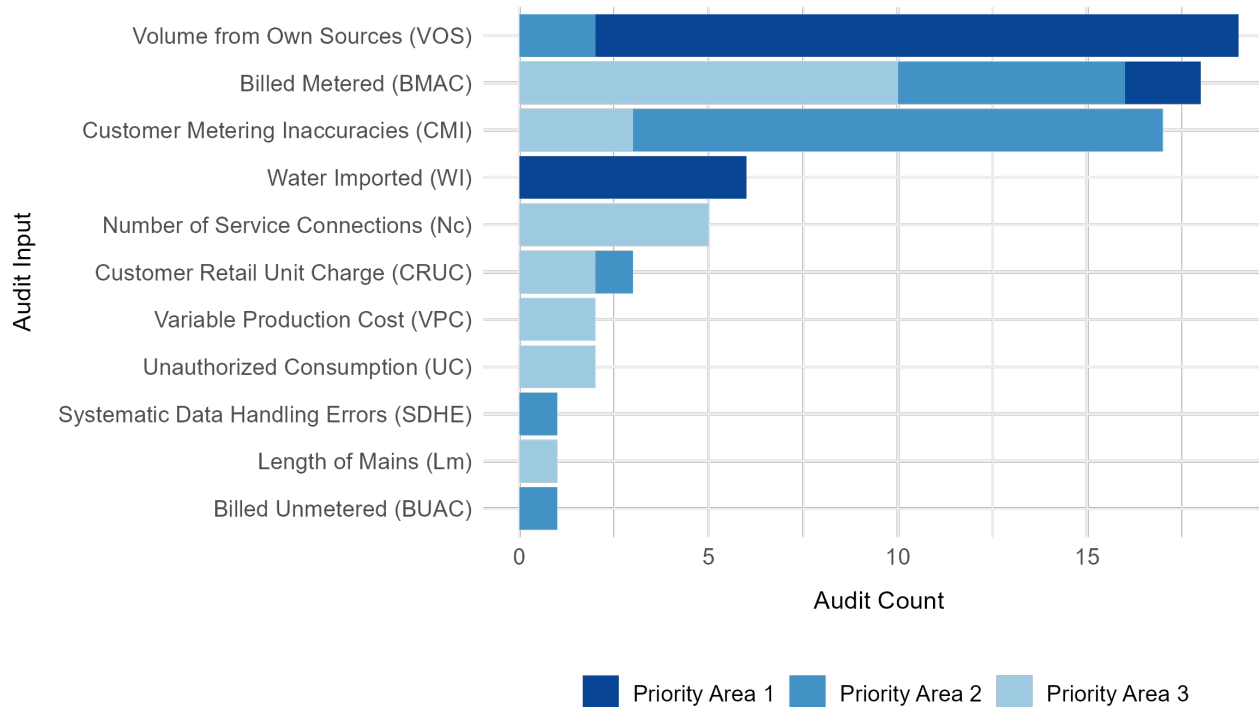
- Each audit input is assigned a data validity grade from 1 to 10.
- This grade is based on the answers provided in the audit's Interactive Data Grading sheet.
- The process assesses the utility's data management and operational practices to determine data reliability.

Stage 4 Post-Validation Data Validity Grade Distribution



# Phase 1 Results (2022– 2024)

Stage 4 Post-Validation Priority Area Counts



## AWWA Water Loss Audit Priorities

- The AWWA audit prioritizes areas for review based on data quality and their volumetric impact on estimated leakage.
- Most 2023 audits for FL utilities focused on Volume from Own Sources and Billed Metered Authorized Consumption as their top priorities.



American Water Works Association

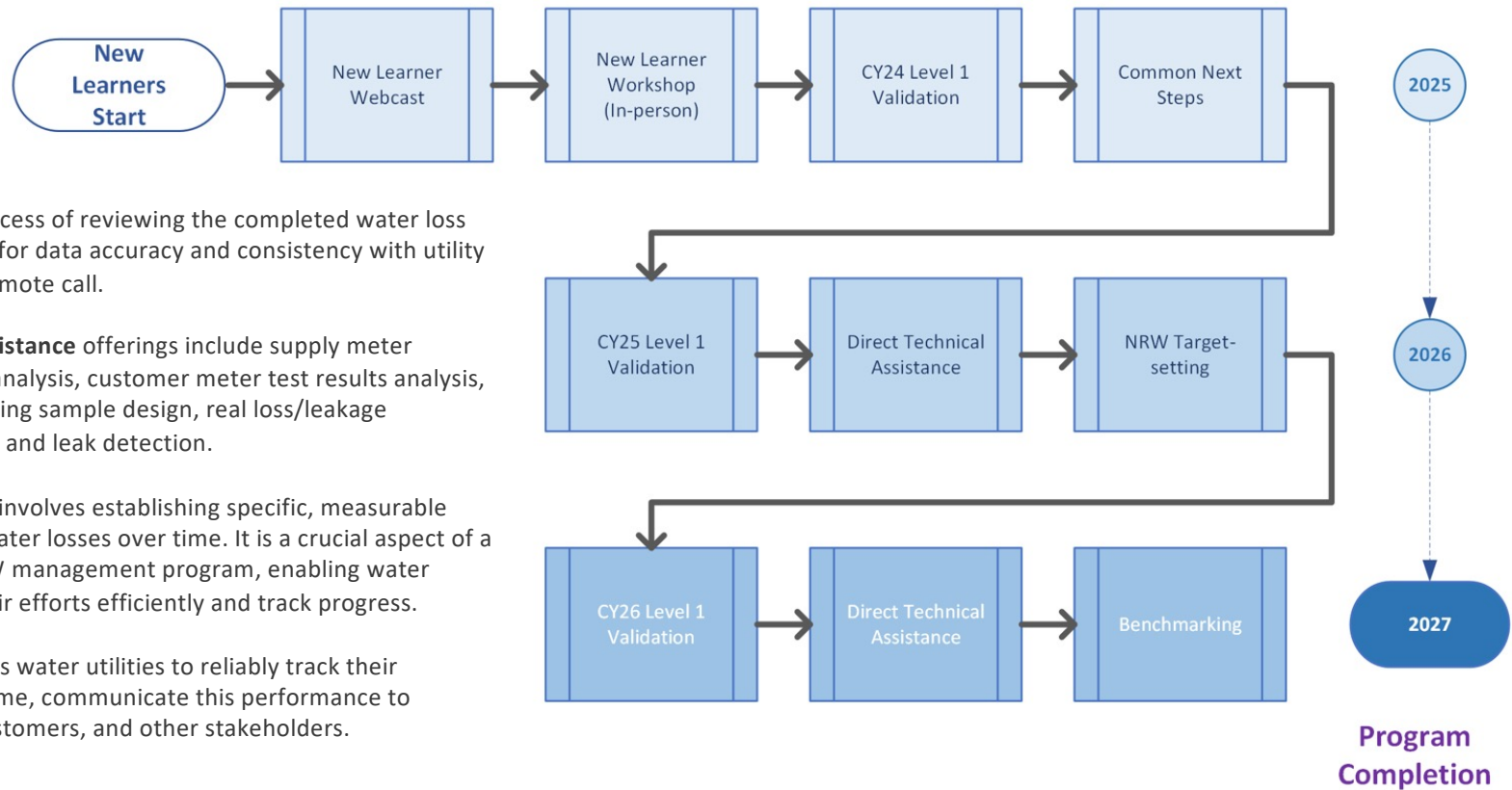
## Phase 2 (2025– 2027)

### Two Program Tracks

**New Learners:** Utilities are considered New Learners if they partially participated in Phase 1 of the program or if they are completely new to the program.

**Advanced Learners:** Utilities are considered Advanced Learners if they fully participated in Phase 1 and completed a CY2023 Level 1 Water Audit Validation.

# Phase 2 (2025– 2027) New Learners Path



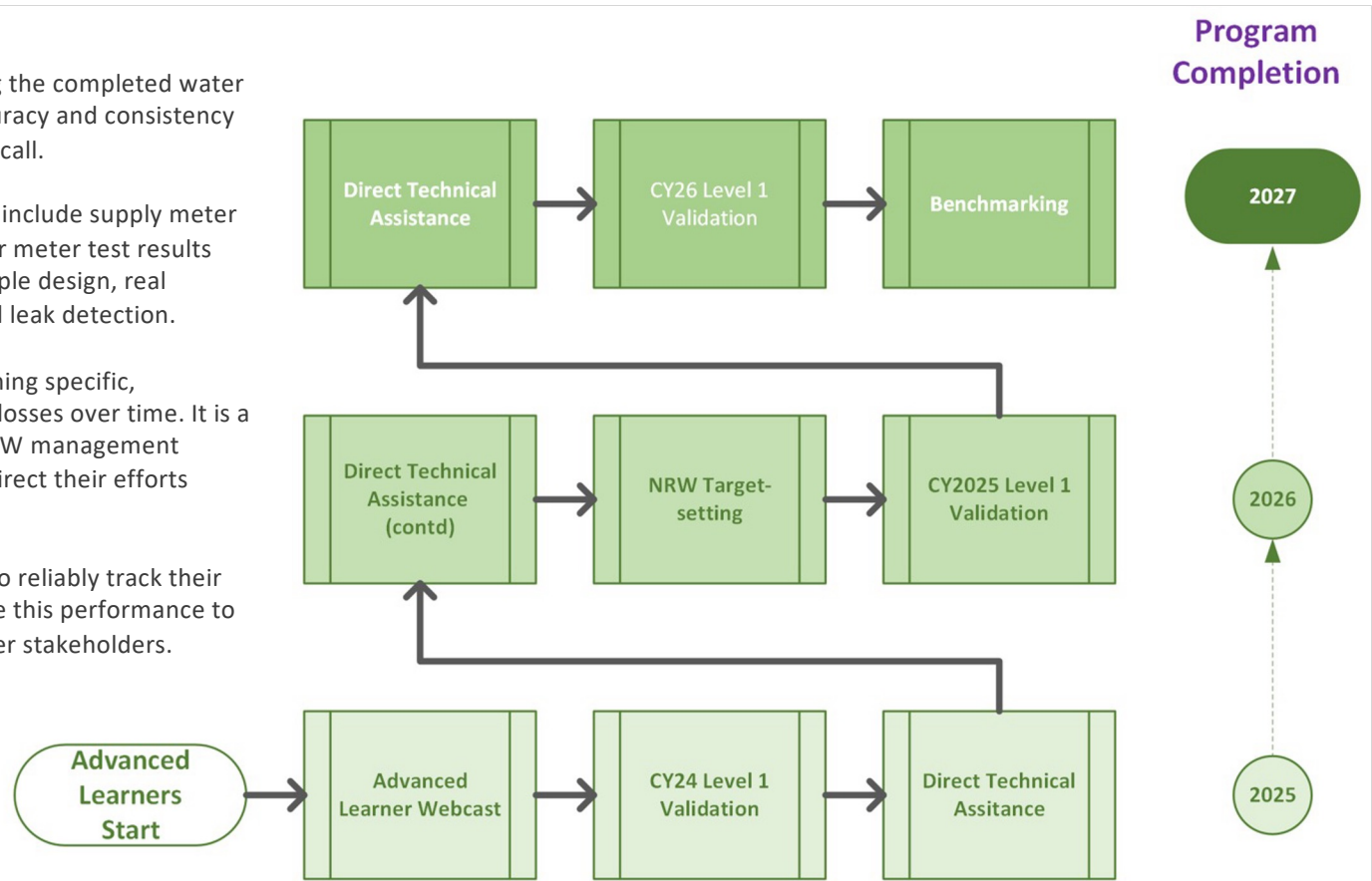
# Phase 2 (2025– 2027) Advanced Learners Path

**Validation** is the process of reviewing the completed water loss audit at a high-level for data accuracy and consistency with utility staff on a ~2 hour remote call.

**Direct Technical Assistance** offerings include supply meter testing, billing data analysis, customer meter test results analysis, customer meter testing sample design, real loss/leakage component analysis, and leak detection.

**NRW target-setting** involves establishing specific, measurable goals for reducing water losses over time. It is a crucial aspect of a comprehensive NRW management program, enabling water utilities to direct their efforts efficiently and track progress.

**Benchmarking** allows water utilities to reliably track their performance over time, communicate this performance to decision-makers, customers, and other stakeholders.





## Phase 2 (2025– 2027) **Direct Technical Assistance**



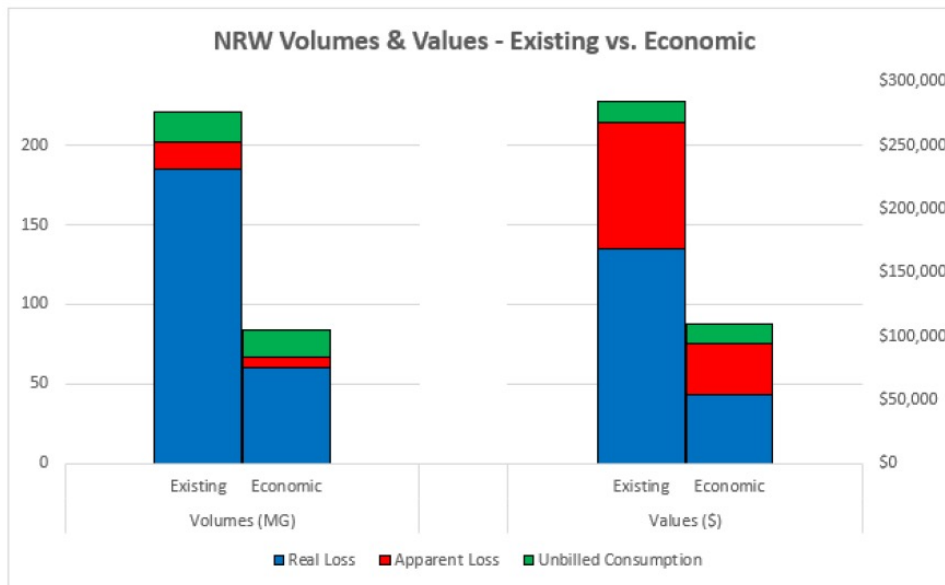
**Based on audit results, ranking & prioritizing next steps:**

- Supply Meter Testing
- Billing Data Analysis
- Real Loss (Leakage) Component Analysis
- Customer Meter Testing Design
- Customer Meter Tests Analysis
- Leak Detection

**Utility must maintain annual water loss audit validation before qualifying for Direct Technical Assistance**



## Phase 2 (2025– 2027) NRW Target Setting



Volumes (MG)	Existing	Economic
Unbilled Consumption	18.6	17.1
Apparent Loss	17.1	6.9
Real Loss	185.3	59.8

Values (\$)	Existing	Economic
Unbilled Consumption	\$16,932	\$15,538
Apparent Loss	\$99,331	\$40,069
Real Loss	\$168,460	\$54,379

- Definition:** The Economic Level of Loss is the point where the combined cost of NRW and the cost of mitigating it are at a minimum.
- Calculation:** These targets are determined for eight different NRW subcomponents, using optimization models and expert judgment, and then aggregated into a total economic target.
- Dynamic and Unique:** Economic targets are preliminary and must be updated as utility costs and revenues change. They are also unique to each utility, based on its specific infrastructure and financial profile.
- Non-Zero:** It is important to remember that a zero level of NRW is not an economically viable goal; a small, justifiable level of loss will always exist.



American Water Works Association

## Want to Participate?



Register Here:

[Florida Water Loss \(TAP\) - Florida Section of the American Water Works Association](#)

More information:

[Web: floridawaterloss.org](http://floridawaterloss.org)

[Email: team@floridawaterloss.org](mailto:team@floridawaterloss.org)



## Questions?



**Jessica Jagdeo**  
Project Manager  
Jessica\_Jagdeo@esource.com



**Ashlee Hollifield, P.E.**  
Project Engineer  
Ashlee.hollifield@cavanaugholutions.com

*Special thanks and acknowledgements:  
Eric Meyers, FDEP  
Julie Roberts, FDEP  
Donna Metherall, Florida AWWA*