



Wastewater Billing Ordinance for Onsite Water Reuse Systems

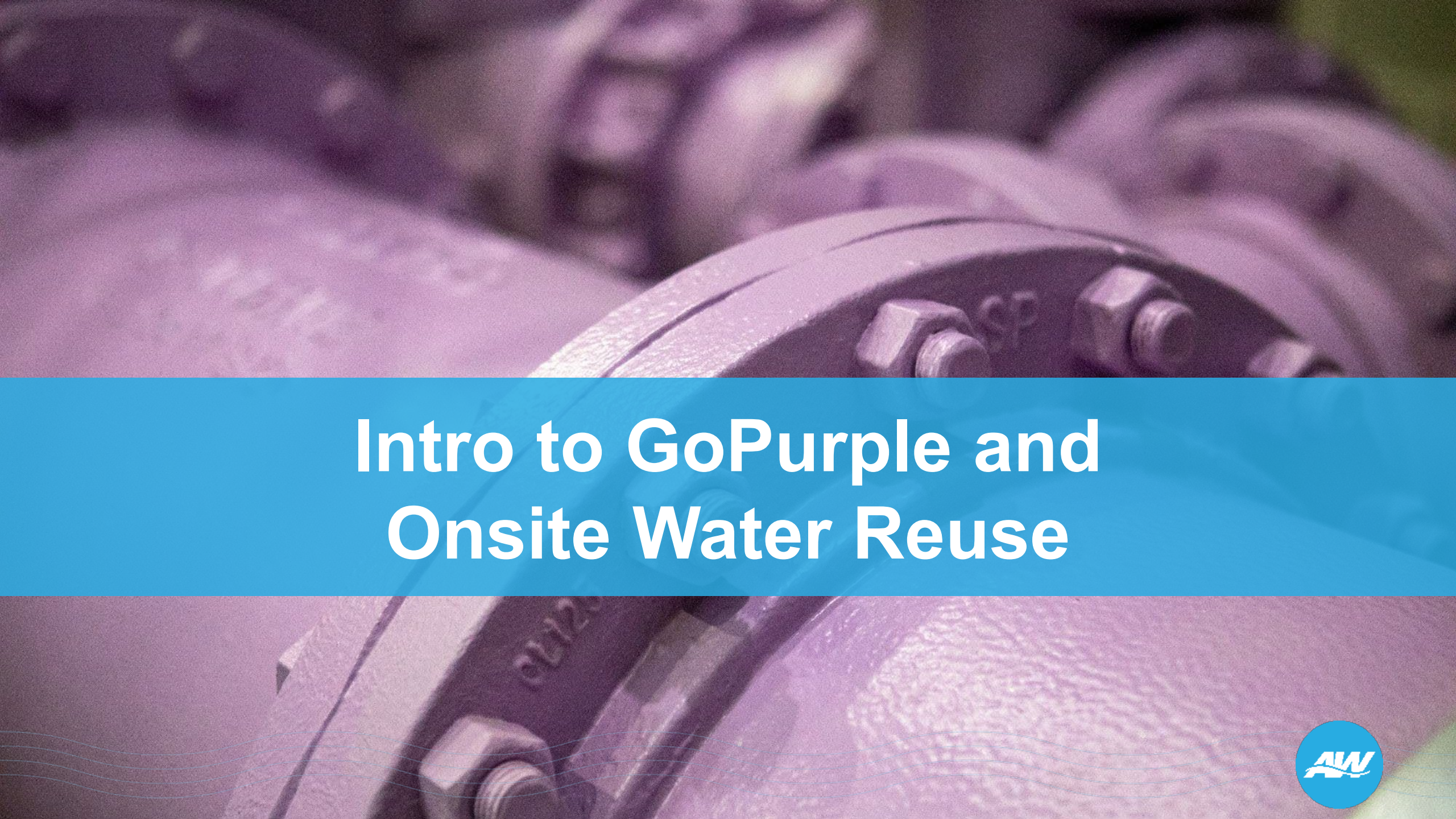
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Supervising Engineer

February 19th, 2025

Water & Wastewater Commission

Agenda

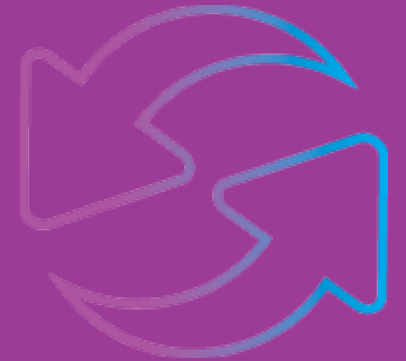
- 💧 **Intro to GoPurple and Onsite Water Reuse**
- 💧 **Options for Billing for Wastewater**
- 💧 **Wastewater Flow Factor Billing**
- 💧 **Proposed Ordinance**
- 💧 **Q&A**



Intro to GoPurple and Onsite Water Reuse



GoPurple



Austin City Council Adoption on March 7th 2024

- 💧 Code Changes for Onsite Water Reuse and Reclaimed Water Connections
- 💧 Affordability Strategies for Reuse Projects
- 💧 New community Benefit Charge increase (\$0.15 per thousand gallons) to fund Reclaimed Water System expansion and Onsite Reuse programs

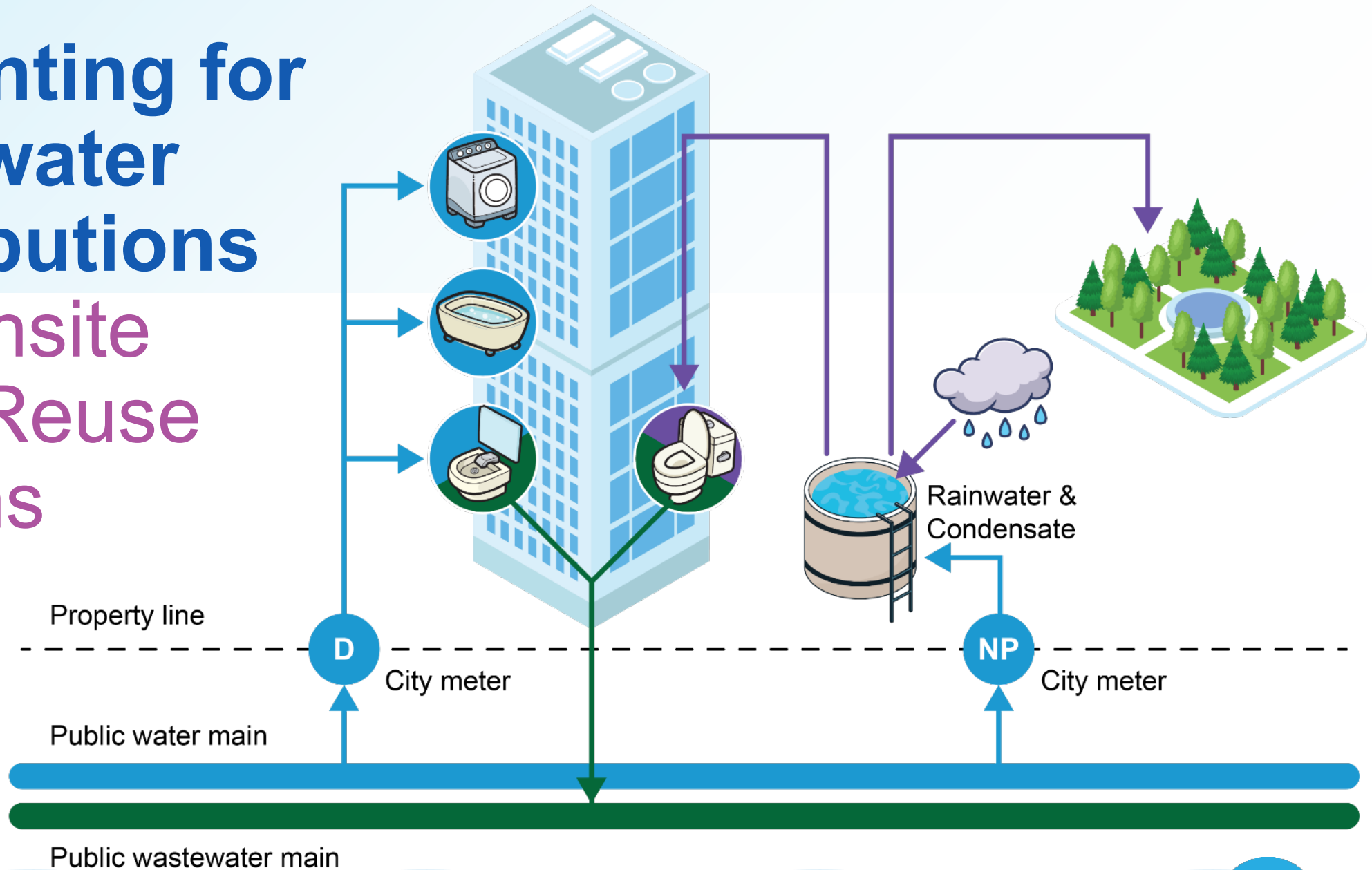
[Go Purple | AustinTexas.gov](https://www.austintexas.gov)

Requirements for Onsite Water Reuse Systems

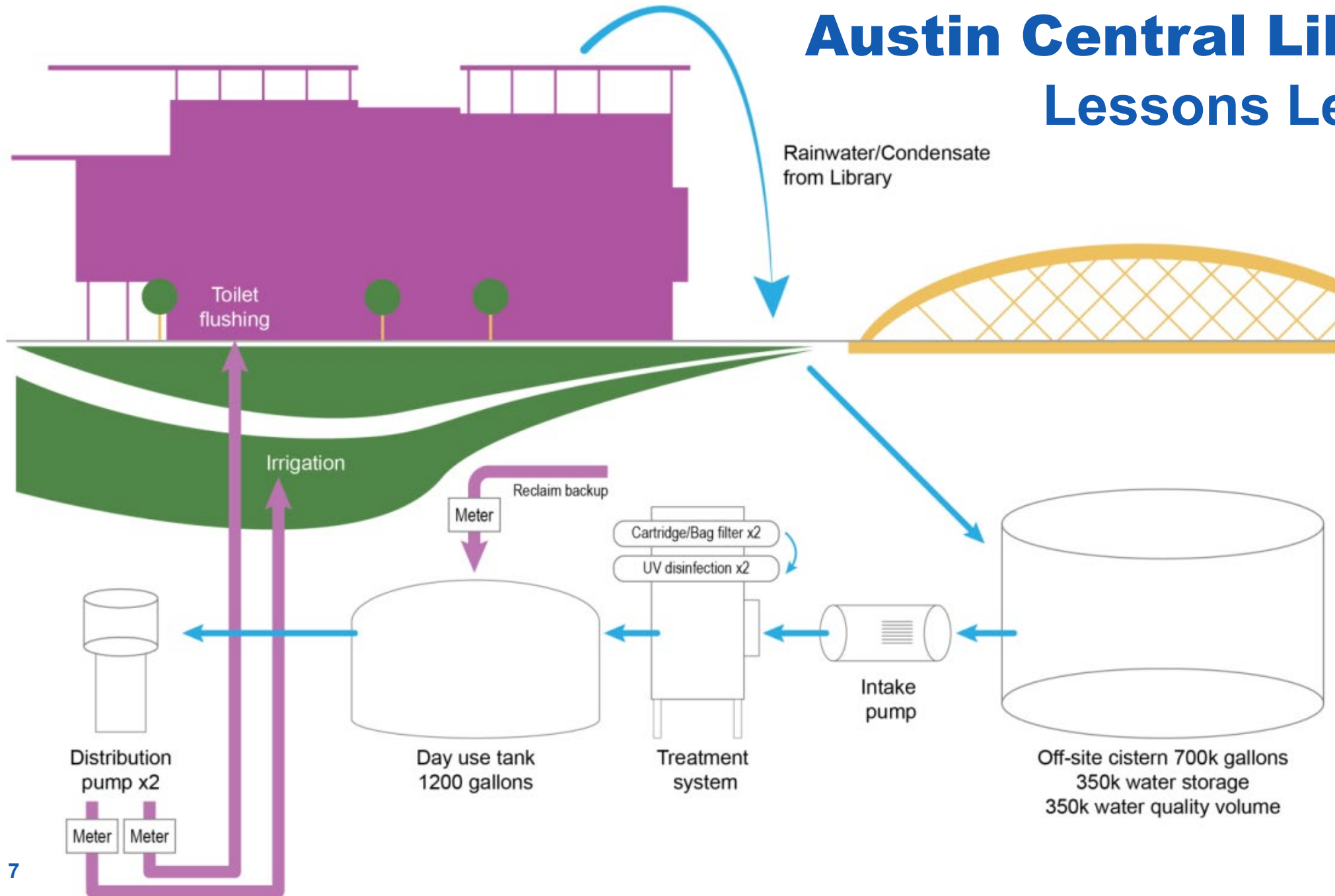
Project Size	Other Project Characteristics	Required Sources	Required End Uses
250,000 sf or greater of GFA	Project has one or more commercial, multifamily or mixed use buildings	Combined AC condensate and Rainwater	Irrigation Toilet/urinal Cooling Tower
	Exception: project has four or more multifamily buildings with a FAR <1	Combined AC condensate and Rainwater	Irrigation
Less than 250,000 sf of GFA	Project has a cooling tower of 100 tons or greater capacity	AC condensate	Cooling Tower

GFA = Gross Floor Area **FAR** = Floor to Area Ration

Accounting for Wastewater Contributions from Onsite Water Reuse Systems



Austin Central Library: Lessons Learned



Considerations for Private Meters for Wastewater Billing

- 💧 **Cost** to add additional metering reduces the affordability of the systems
- 💧 **Location** of private meters within buildings requires self-reporting
- 💧 **Maintenance** and calibration of meters increases workload for facility managers
- 💧 **Manual Billing** to get meter reads into Austin's billing system adds substantial workload and increases staffing needs at AW

Options for Billing for Wastewater



City Code Chapter 15-9 (Utility Regulations)

City Code Specifies
Current Options for
Wastewater Billing

1. Wastewater averaging
2. Gallon for gallon
3. Wastewater billing adjustments for evaporative cooling towers
4. Metered wastewater billing



Metering and Billing for Existing Customers

Residential



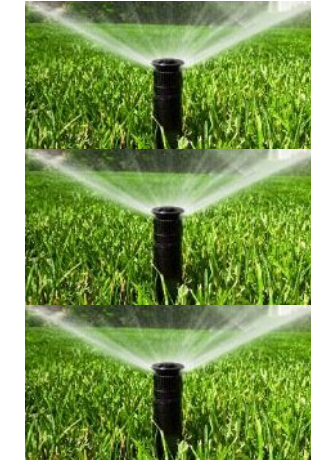
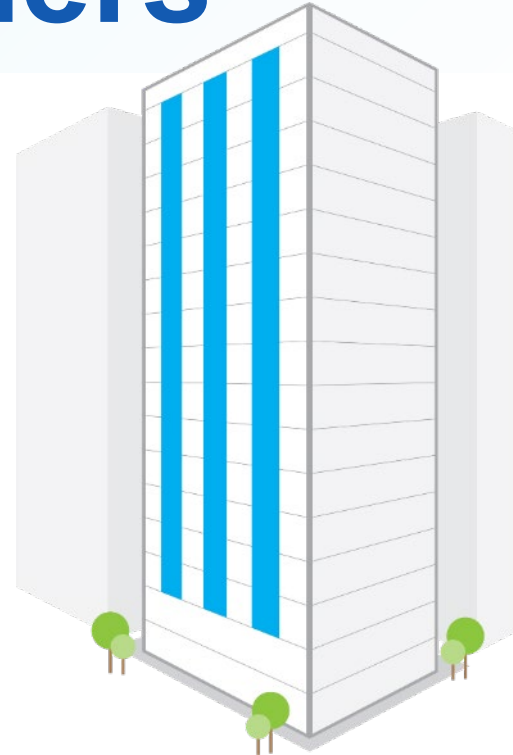
~ 95% of
AW customers

Wastewater Averaging

Water = Domestic meter consumption

WW = Average meter consumption Nov-March

Commercial



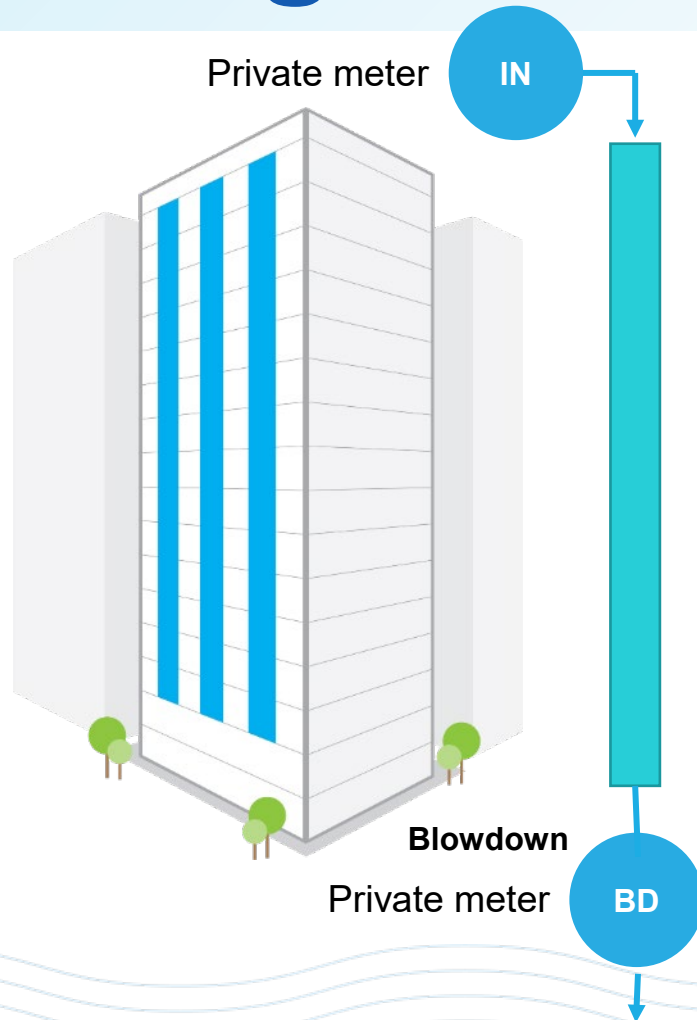
~5% of AW
customers

Gallon for Gallon

Water = Domestic + Irrigation meter consumption

WW = Domestic meter consumption

Evaporative Loss Adjustment Program for Cooling Towers



Approximately **120 AW customers** participate

These customers:

- reapply every 5 years
- are responsible for the ownership and maintenance of their private meters which support the cooling tower system
- self report their reads through an online portal
- the readings must occur on the same day as the City's meter is read
- Once the reads are validated, AW staff provide credits to the customer bill for the true flows to the wastewater system

Evaporative Loss

Water = Domestic meter consumption

WW = Domestic meter consumption + (BD - IN)

Billing for Wastewater Only by Flow Meters

20 Customers

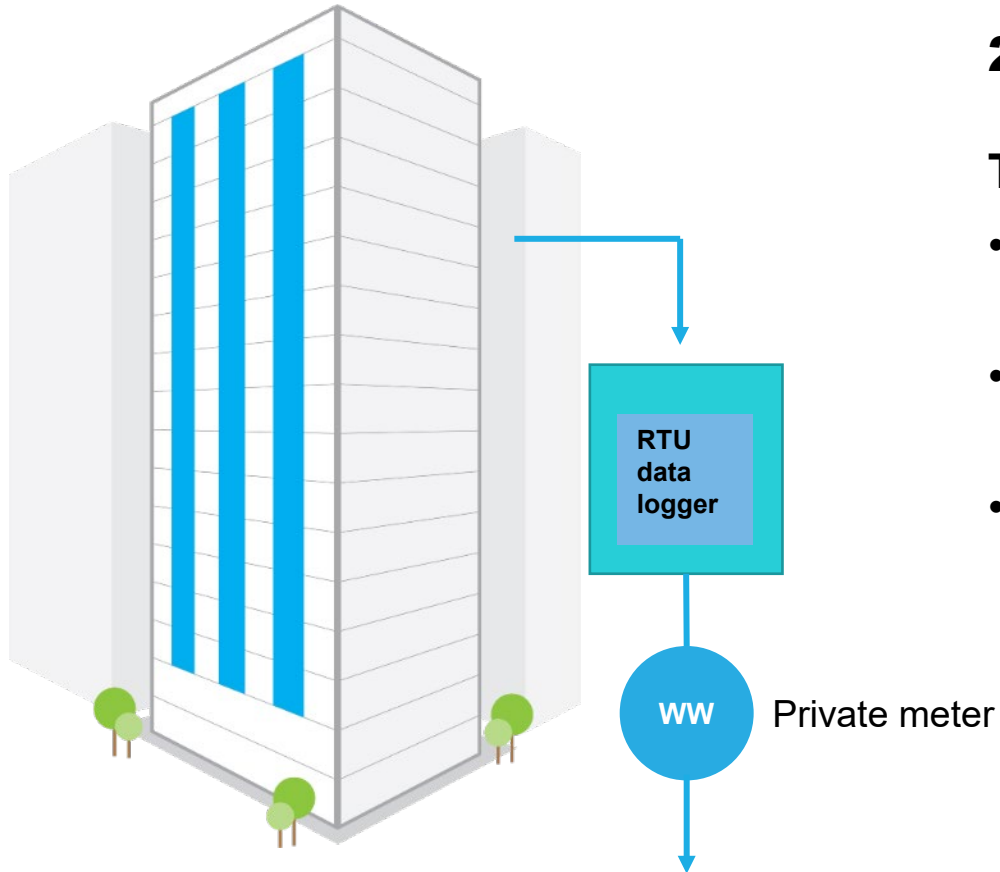
The customers:

- Install WW flow meters and a remote terminal unit to collect and transmit data to AW
- Are responsible for the ownership and maintenance of the RTU and meters
- Email the flow meter data to AW which is input into the billing system

WW Flow Monitoring

Water = Domestic meter consumption

WW = WW billing meter



Wastewater Flow Factor Billing



Wastewater Flow Factor Billing

Use Engineering
Calculations for
Wastewater Flow

- **OWRS** projects require the customer to complete a detailed water balance calculator to accurately assess water used and wastewater generated for their buildings
- **San Antonio Water System (SAWS)** has a similar program allowing for engineered calculations for wastewater billing for commercial customers with consumptive uses
- **San Francisco Public Utilities** was going to use this method for their onsite water reuse program, but their billing system couldn't accommodate it

Example Wastewater Flow Factor Calculation

Potable Fixtures = 1/4 Indoor Water Use

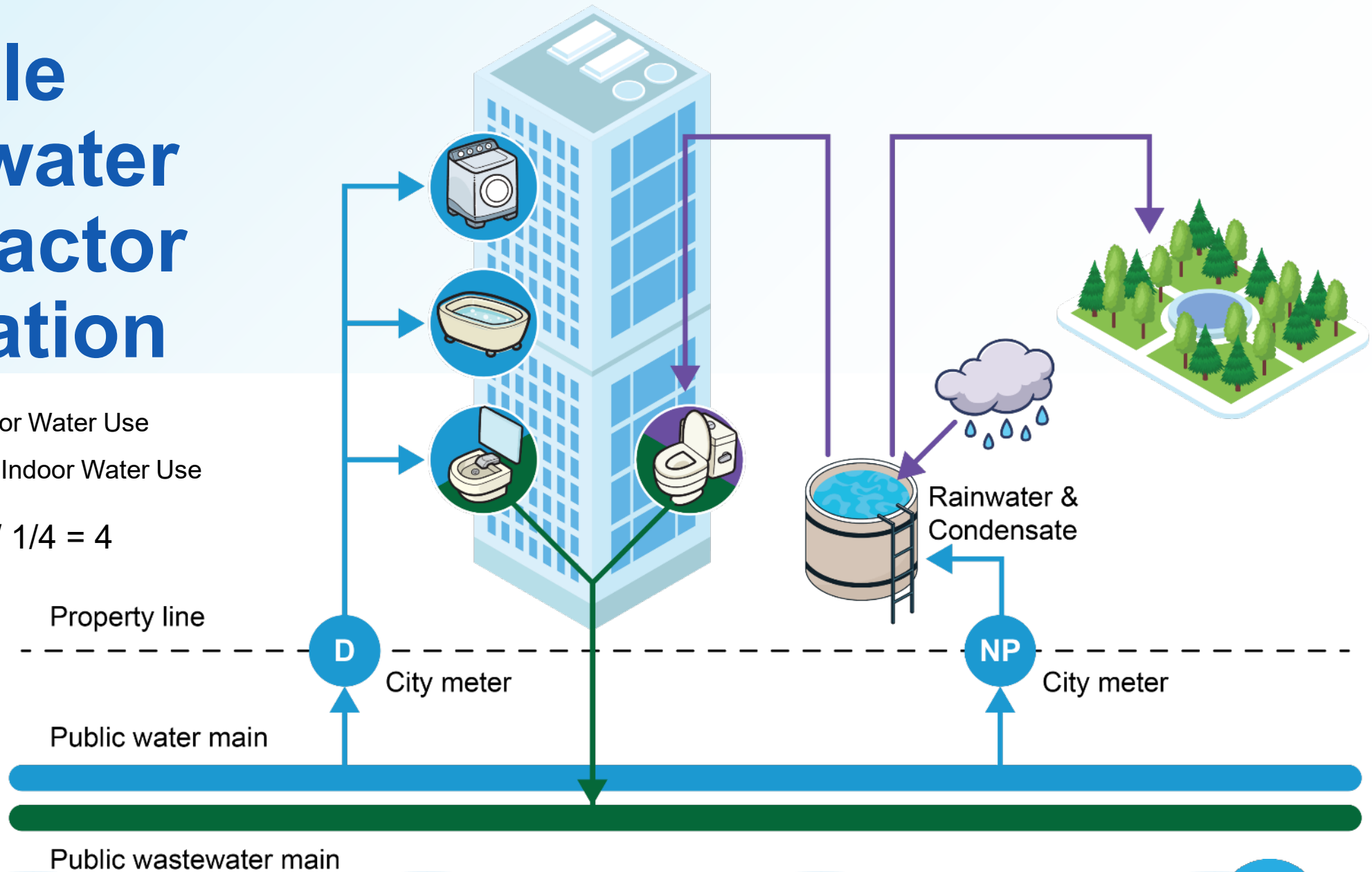
Non-potable Fixtures = 3/4 Indoor Water Use

$$\mathbf{WWFF} = (1/4 + 3/4) / 1/4 = 4$$

**Billing
Consumption**

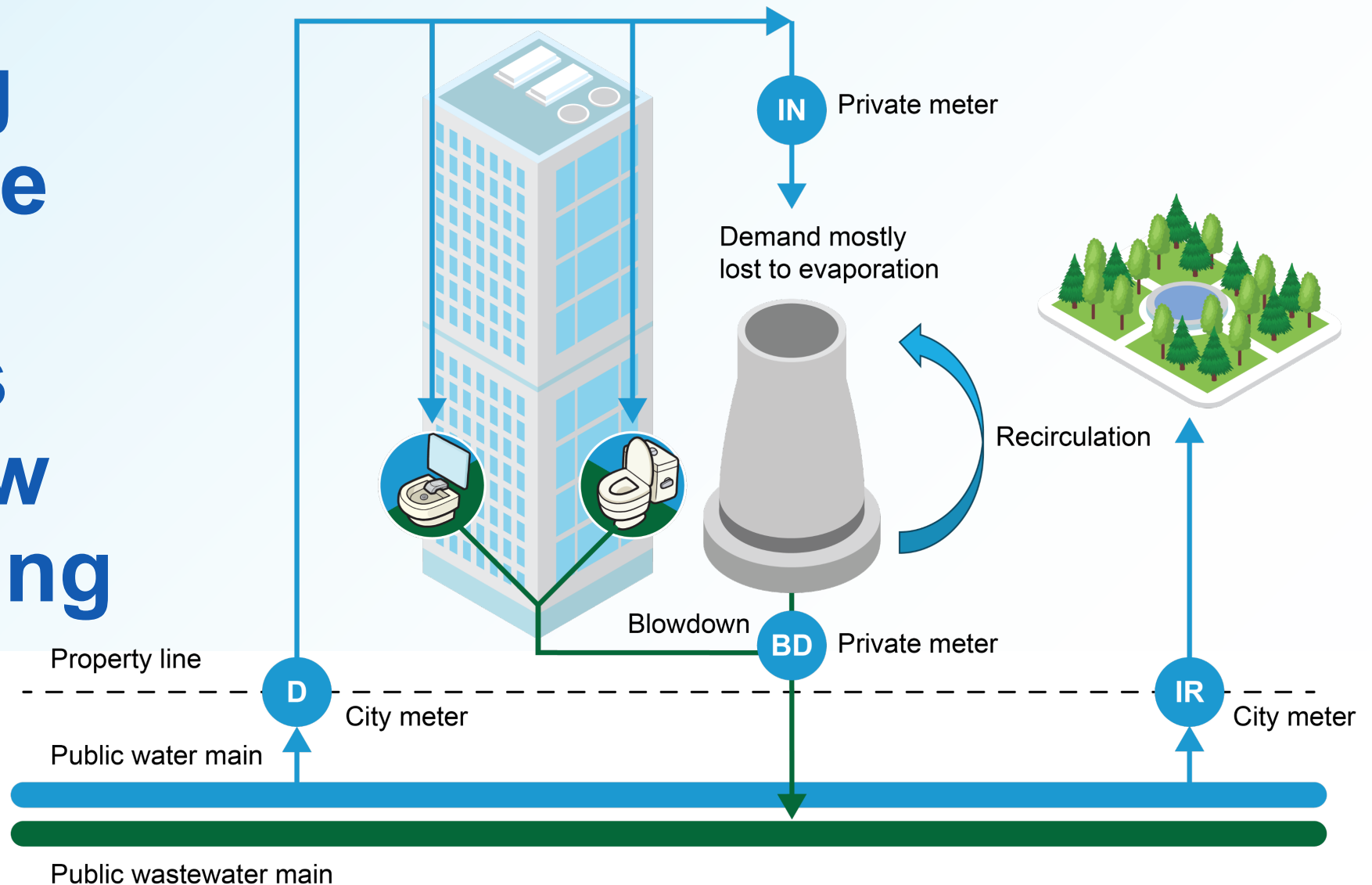
Water = D + NP

WW = 4D



Converting Evaporative Loss Customers to WW Flow Factor Billing

$$\text{WWFF} = \frac{D - \text{IN} + \text{BD}}{D}$$



Use 5 years of evaporative loss data to establish WW Flow Factor

Meter	W billing volume	WW billing volume
D	D	WWFF x D
IR	IR	

Proposed Ordinance



City Code Chapter 15-9 (Utility Regulations)

Proposing to Amend City Code to Add Wastewater Flow Factor Billing for Customers with Onsite Water Reuse Systems

1. Wastewater averaging
2. Gallon for gallon
3. Wastewater billing adjustments for evaporative cooling towers
4. Metered wastewater billing
5. Wastewater flow factor billing for onsite water reuse systems

Qualified evaporative loss customers can apply for wastewater flow factor billing during 5-year renewal



Summary

Proposed ordinance allows for more efficient WW billing for buildings with OWRS and evaporative cooling towers

- Reduces number of meters and costs required for projects
- Reduces manual tracking and submission of meter reads
- No impact to budget or housing affordability (neutral AIS)
- Billing method used by peer utility (SAWS)



Questions?

