



# Water Efficiency Master Plan Update

Communications &  
Water Efficiency Committee

November 15, 2023



# Overview

- Water Efficiency Master Plan Process
- Review Measures Evaluated
- Incentive Program Changes
- Potential Incentive Portfolios and Targets
- Ordinances and Pilot Programs

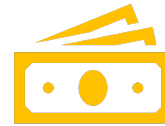
# Water Efficiency Master Plan Process



Understand program and device saturation within service area and remaining savings potential



Develop new or revised policies for the Board's consideration



Identify cost-effective incentives that could be implemented

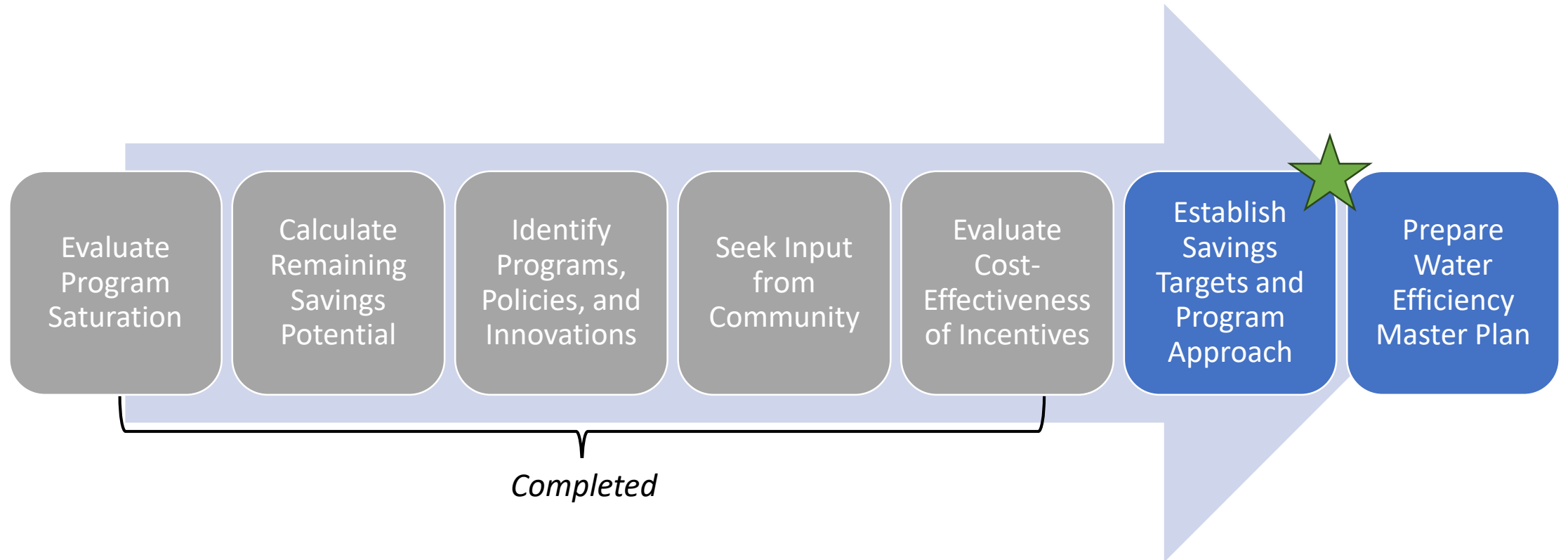


Consider opportunities for innovation, such as pilot programs and participation in research



Evaluate conservation savings potential and establish savings targets

# Developing the Water Efficiency Master Plan



# District Has a Comprehensive and Successful Water Use Efficiency Program

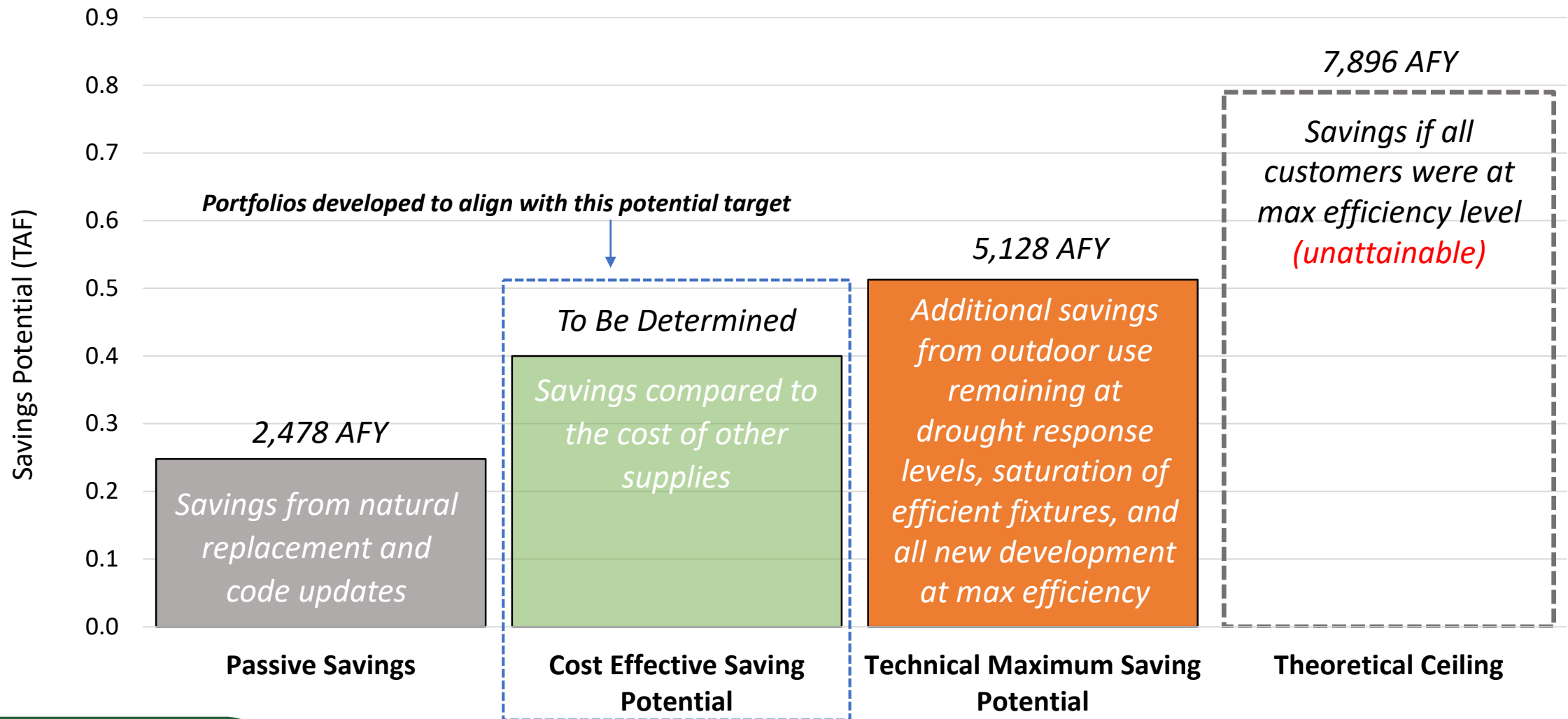
- Existing program includes a broad mix of water efficiency measures
  - Comparable to most aggressive agencies
  - Includes award-winning innovations
- Water use profile reflects program successes
  - District's residential per capita water use is lower than 75% of Californians
  - District is well-positioned to meet State water use efficiency standards
- FY 2024 Water Efficiency Program Budget: \$3.3M
- District's First Water Conservation Master Plan was developed in 1989



# District's Indoor Residential Per Capita Water Use Was 31 Gallons Per Person Per Day in 2022



# Remaining Conservation Savings Potential in 2045





# Measures Evaluated for WEMP

## Existing Measures

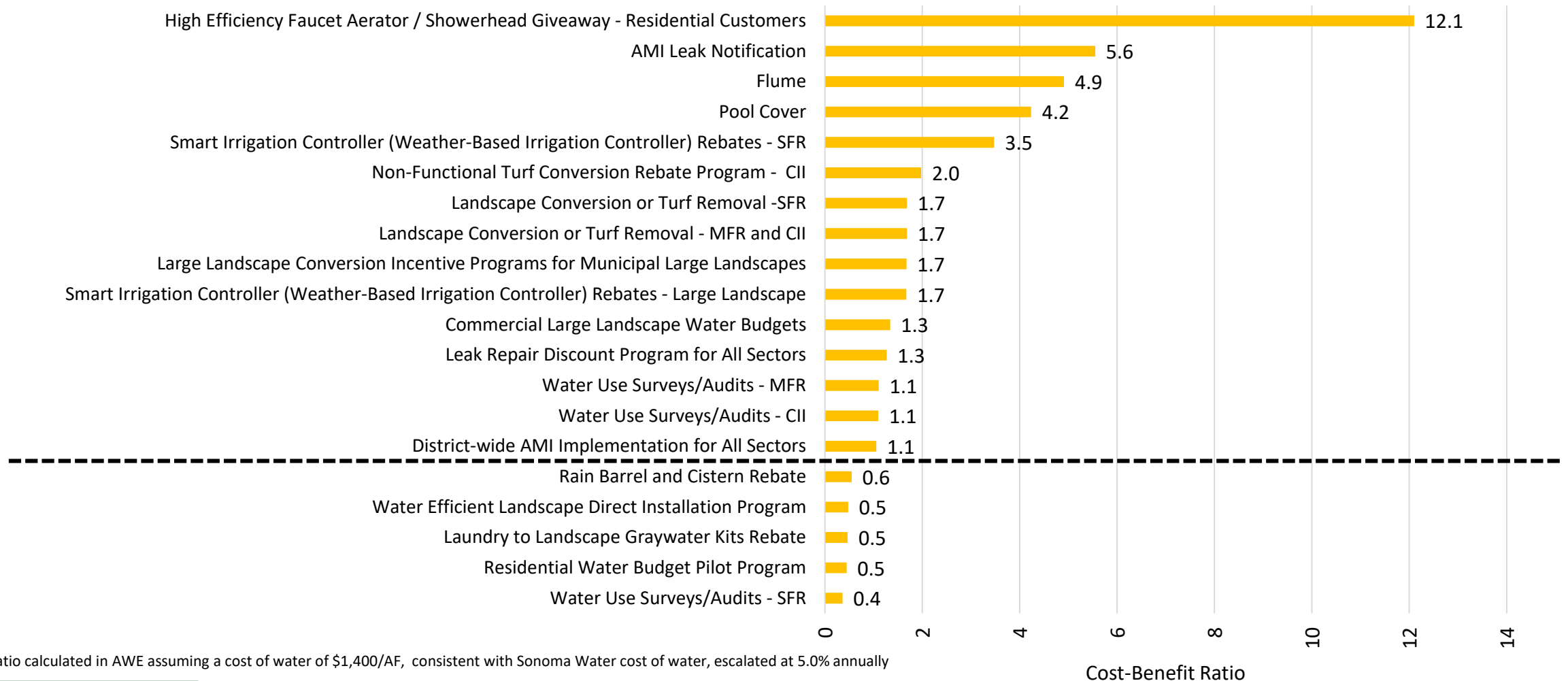
- AMI Leak Notifications (current AMI accounts)
- Non-Functional Turf Conversion Rebates
- Turf Conversion Rebates
- Pool Cover Rebates
- Residential CAP's (site visits)
- Laundry-to-Landscape Graywater Kits
- Rain Barrel Rebate Program
- High Efficiency Faucet Aerator / Showerhead Giveaway
- Residential and Commercial Smart Irrigation Controller Rebates
- Non-Residential Water Use Surveys
- Flume Direct Distribution

## Potential New Measures

- Commercial Large Landscape Water Budgets
- Residential Water Budget Pilot Program
- Leak Repair Discount Program
- Large Landscape Conversion Incentive Programs for Municipal Large Landscapes
- Water Efficient Landscape Direct Installation Program
- District-wide AMI implementation



# Benefit-Cost Analysis Indicates 15 Incentives Could Be Cost-Effective for District



# Proposed Program Changes

- Sunset:
  - High Efficiency Toilet Rebate (\$150 Rebate)
    - Sunset rebate based on Flume saturation data and low participation
  - High Efficiency Clothes Washer Rebate (\$100 Rebate)
    - Sunset rebate based on low participation, high saturation, and free-riders.
- New Program Offering:
  - Custom rebate for commercial, industrial, institutional, dedicated irrigation, and multi-family customers
- Re-evaluation:
  - Graywater Ordinance

# New Program Offering- Custom Rebate

- Program will provide support for restaurants, schools, apartment dwellers and other customers who have had less access to financial support to make water efficient changes.
- The Custom Rebate would provide an incentive for customers to implement water saving upgrades that are not covered through any other existing rebate program.
- Water savings are a required component to qualify for the Custom Rebate, conversion from potable water to recycled water or private wells would not qualify for the rebate.

# Determining the Incentive for a Custom Rebate

Water savings, fixture life, and costs must be reliably estimated and verified by District staff prior to installation.

- Rebate based on water savings will be calculated at 75% of the cost of water purchased from Sonoma Water.
  - As of FY2024 the rebate would be  $75\% \times \$1,455/\text{acft}$  or  $\$3/\text{ccf}$  saved.
- The customer rebate amount will be the lesser of:
  - 50% of project cost or
  - The amount calculated based on  $\$3/\text{ccf}$  of water saved.
- Rebate payments will be made in two installments:
  - 1) 50% after installation
  - 2) Remaining rebate after demonstrating water savings over a one year period
- All projects with an incentive that exceeds \$25,000 will require an additional administrative approval.

# Examples of Custom Rebates Issued by Other Utilities

<i>Measure</i>	<i>Annual saving (gal)</i>	<i>Measure Cost</i>	<i>Rebate Based on Savings</i>	<i>Rebate Based on 50% of Cost</i>	<i>Sample Rebate Amount</i>	<i>\$/acft</i>
<i>Washing Machine Ozone Units</i>	316,820	\$ 4,067	\$ 12,707	\$ <u>2,034</u>	\$ 2,034	\$ 209
<i>Water Recirculation Loop</i>	4,644,000	\$ 45,635	\$ 465,642	\$ <u>22,818</u>	\$ 22,818	\$ 64
<i>Replaced Wet Vac with Dry Vac</i>	80,004	\$ 10,628	\$ <u>3,209</u>	\$ 5,314	\$ 3,209	\$1,307

\*Provided by local water utility partners from actual projects.

# Potential Incentive Program Portfolios

Three potential portfolios of incentive programs were evaluated.

Portfolio	Description
A – Cost-Effective Incentives	Implement incentives identified as cost-effective to the District.
B – Beyond Cost-Effective Incentives	Implementation of cost-effective incentives, additional customer support programs and innovative pilot projects.
C – Most Aggressive	Maximize implementation of all modeled measures

# Sample Portfolio A: Cost-Effective Incentives

- AMI Leak Notification (current AMI accounts)
- District-Wide AMI Implementation
- Commercial Large Landscape Water Budgets
- Flume
- High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers
- Landscape Conversion or Turf Removal for SFR, MFR, and CII
- Large Landscape Conversion Incentive Programs for Municipal Large Landscapes
- Leak Repair Discount Program for all sectors
- Non-Functional Turf Conversion Rebate Program - CII
- Pool Cover
- Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates for SFR and Large Landscape
- Water Use Surveys/Audits for MFR and CII



# Sample Portfolio B: Beyond Cost-Effective Incentives

- AMI Leak Notification (current AMI accounts)
- District-Wide AMI Implementation
- Commercial Large Landscape Water Budgets
- Flume
- High Efficiency Faucet Aerator / Showerhead Giveaway - Residential Customers
- Landscape Conversion or Turf Removal for SFR, MFR, and CII
- Large Landscape Conversion Incentive Programs for Municipal Large Landscapes
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- Smart Irrigation Controller (Weather-Based Irrigation Controller) Rebates for SFR and Large Landscape
- Water Use Surveys/Audits for SFR, MFR, and CII
- Water Efficient Landscape Direct Installation Program
- Rain Barrel and Cistern Rebate
- Residential Water Budget Pilot Program
- Laundry to Landscape Graywater Kits Rebate

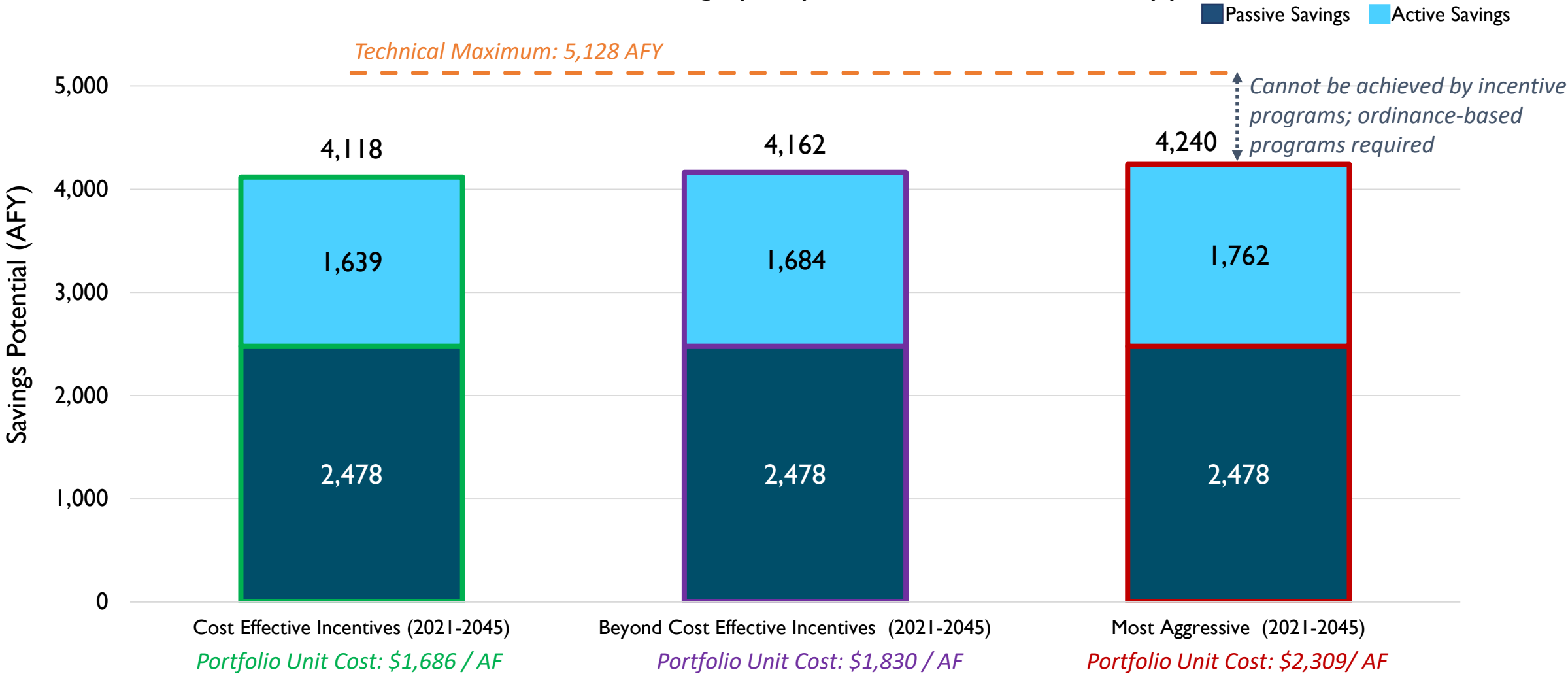
# Sample Portfolio C: Most Aggressive

- AMI Leak Notification (current AMI accounts)
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*Assumes increased annual participation levels for most measures beyond historical levels*

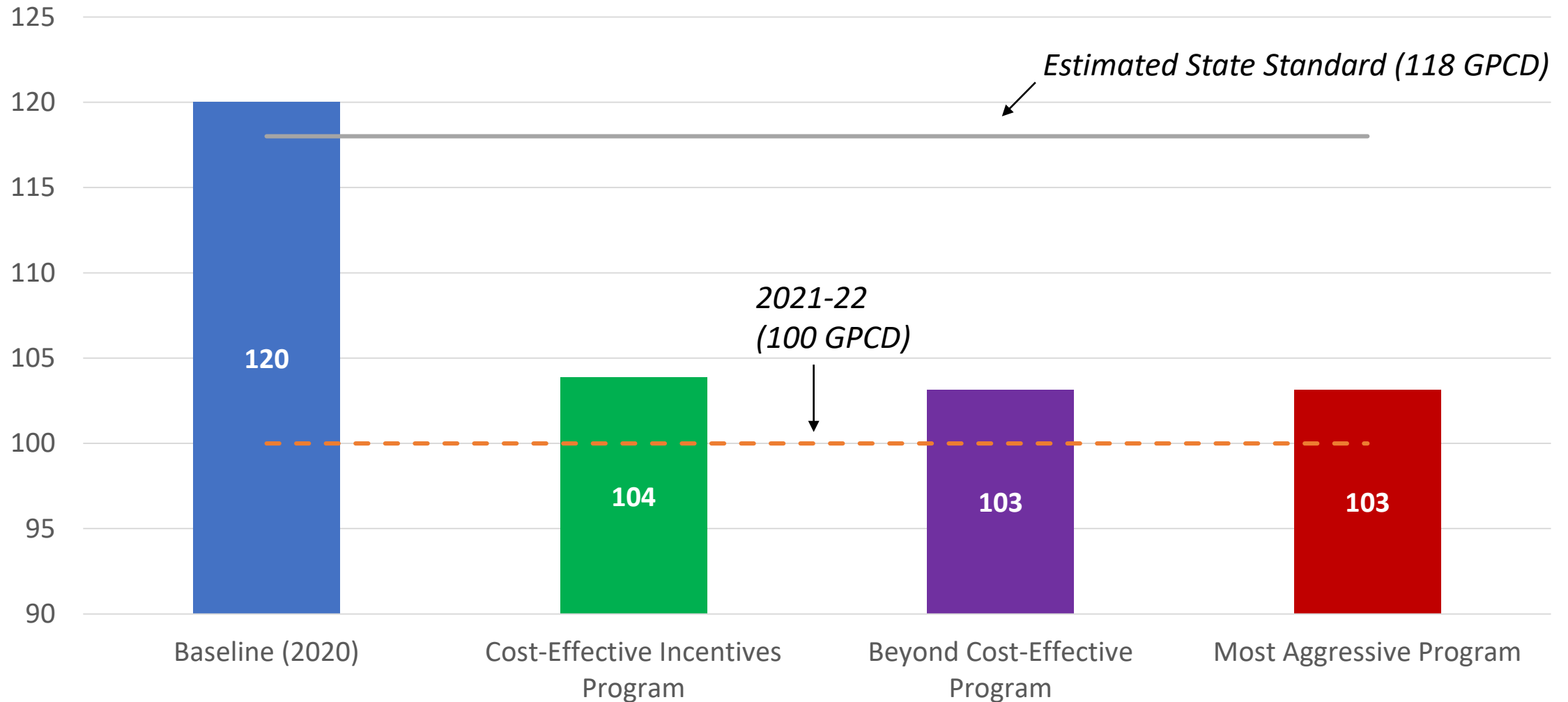
# Potential Savings from Sample Conservation Portfolios

Total New Conservation Savings (AFY) and Portfolio Unit Costs (a)



(a) Portfolio costs include overhead costs

# 2030 Per Capita Gross Water Use for Potential Targets



*GPCD calculated based on reduction from 2020 use from estimated savings*

# Examples of Potential Future Ordinances

Potential Future Ordinances	Description	Category
<b>Hot Water Recirculation</b> <i>(feedback from community workshop)</i>	Develop District code mandating applicants for new water service and those implementing significant renovations to implement a hot water recirculation system into their plumbing infrastructure & require the accurate sizing pipes to minimize wait times for hot water.	Residential
<b>Retrofit upon Resale</b>	All existing residential buildings shall, at the time of change of ownership, be retrofitted, if not already so, exclusively with high-efficiency water-use plumbing fixtures.	Residential
<b>Limit New Non-Functional Turf Area Limits</b>	Update District code to limit, or ban, the future installation of non-functional turf areas in SFR and duplex sites.	Landscape

# Examples of Pilot Programs

Potential Future Pilot Programs/ Ordinances	Description	
<b>Customer Rebate Portal</b>	Customer-side capabilities may include identifying eligible rebate programs, updating variables (such as landscaped area, # of residents, etc.) that impact water use calculations, and tracking tax reporting.	District-side capabilities may include tracking program participation, visualizing participation data geospatially, and customizing analytics and reporting.
<b>Residential Water Budgets</b>	Develop customized water budgets for residential large landscapes and provide monthly tracking of actual water use compared to budgeted use.	
<b>Leak Assistance Program</b>	Implement program to help customers in identifying and repairing leaks.	

# Summary

- Proposed incentive changes will be brought back to the December 5 Board meeting
  - Toilets, Clothes Washers, & Custom Rebate
- Refine portfolios and associated water savings potential
- Return to Board with recommendations for Draft Water Efficiency Master Plan