

2024 Updates to the Water Conservation and Drought Contingency Plans

Water Forward Task Force – April 25, 2024
Kevin Kluge, Water Conservation Manager



Agenda

💧 Going Forward

💧 Water Conservation Plan – Program Results 2019-2023

- Water Conservation
- Reclaimed Water
- Water Loss Control

💧 Water Conservation Plan – Goals for 2029 and 2034

- Per-Person Use (GPCD or Gallons Per Capita Daily)
- Water Loss (GPCD and Infrastructure Leakage Index)

💧 Drought Contingency Plan – Overview

Going Forward

An aerial photograph of a large body of water, likely a reservoir or lake, with a marina area in the foreground. The water is a light blue-green color. In the foreground, there's a sandy area with some green grass and a few small structures. In the background, there are more buildings and a road. The sky is clear and blue.

- 💧 May 2024 - Seek Council adoption of the WCP and DCP and submit to the TCEQ
- 💧 Summer 2024 – implement conservation activities and review WCP in conjunction with the 2024 Water Forward Plan development
- 💧 November 2024 - Submit a revised WCP to Council with the 2024 Water Forward Plan

Water Conservation Plan

Program Results 2019-2023



Water Conservation

Residential Customer Programs

- 💧 Household Material Distribution
- 💧 Residential Irrigation Audits
- 💧 Go Repair! and Plumbing Program
- 💧 Austin Energy All-Star Conservation Kits

HOUSEHOLD MATERIAL DISTRIBUTION

Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023
1,479 items	95 items	74 items	780 items	5,923 items

RESIDENTIAL IRRIGATION AUDITS

Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Estimated Water Savings
214 audits	234 audits	122 audits	215 audits	140 audits	30,331 (gallons per year per audits)

GO REPAIR! AND PLUMBING PROGRAM

Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023
18	55	40	20	11

Water Conservation Residential Incentive Programs

RESIDENTIAL INCENTIVE PROGRAMS

Residential Incentive Program	Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Annual water savings per activity
Landscape Survival Tools	108	69	66	72	55	Undetermined*
Laundry to Landscape	-	0	0	0	0	Undetermined*
Pressure Regulating Valves	19	13	4	1	7	37,213 gallons per year
Pool Cartridge Filter Rebate	-	0	2	1	3	6,023 gallons per year
Pool Cover Rebate	0	0	8	5	4	27,153 gallons per year
Rainwater Harvesting Rebate	119	122	163	117	93	4.38 gallons per gallon capacity per year
Watering Timer Instant Savings	-	-	-	3,778	3,384	Undetermined*
Watering Timer Rebate	12	15	8	28	22	Undetermined*
<u>WaterWise</u> Landscape Rebate	11	6	10	3	19	11 gallons per sq. ft. per year
<u>WaterWise</u> Rainscape Rebate	2	5	5	6	7	1.5 gallons per sq. ft. per year

*Potential water savings have varied significantly in different analyses.

Water Conservation

Commercial Incentive Programs

💧 Bucks for Business

- Performance-based: \$1 per 1,000 gallons saved over 10 years
- Examples: high-efficient fixtures, cooling systems, reusing high quality rinse water
- Program resurgence: In Fiscal Year 2024, 18 applications, saving 16.4 million gallons, plus up to 10 more by end of the fiscal year

BUCKS FOR BUSINESS

Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023
1	54*	3	0	2

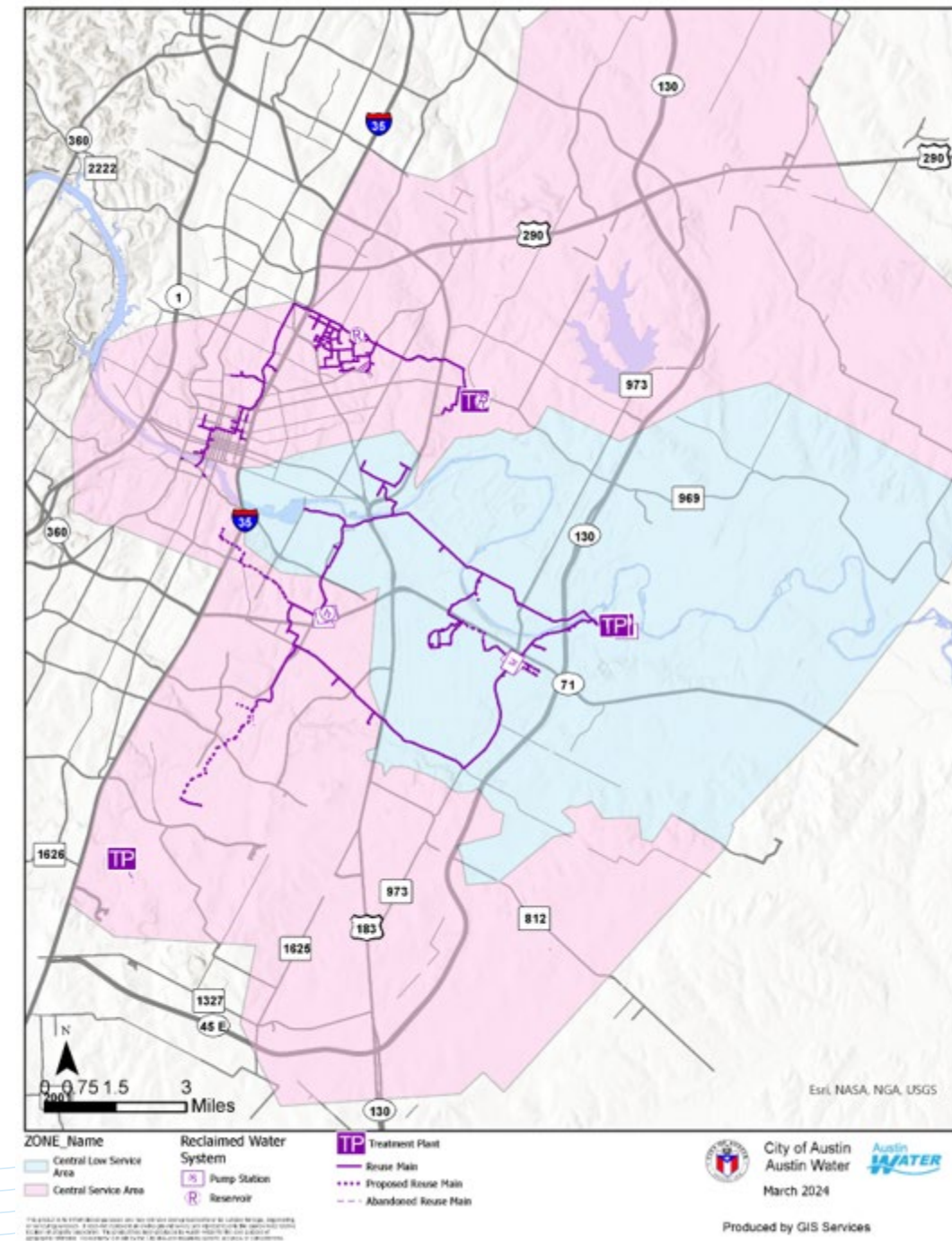
*One applicant – Austin Independent School District – and 54 unique facilities and activities

Reclaimed Water & Onsite Water Reuse

- 💧 Over 160 customers using reclaimed water
- 💧 Recent Go Purple program
 - Requirements for reclaimed connections and onsite water reuse systems
 - Incentives for reclaimed connections and onsite water reuse systems
 - Funding sources
- 💧 Voluntary reclaimed connection incentives

HISTORICAL USE OF RECLAIMED WATER (MILLION GALLONS)

FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1,493	1,569	1,606	1,689	1,634



Water Loss Control

- 💧 Leak detection:
 - Acoustic technology inspects > 500 miles of line annually
 - Smart ball technology for large transmission mains
- 💧 “Renewing Austin” program targets aging lines for replacement
- 💧 My ATX Water meter replacement

HISTORICAL WATER LOSS VOLUMES

Year	Water Loss (million gallons)	Water Loss (gallons per capita daily)	Infrastructure Leakage Index (ILI)
2023	8,678	21.68	4.19
2022	8,500	21.56	3.89
2021	8,030	20.43	3.67
2020	8,880	23.08	4.22
2019	7,470	18.91	3.52

- 💧 2021 Review of production meters
- 💧 2023 – External review of water loss activities, final report in June 2024

Water Conservation Plan

Goals for 2029 and 2034

Total Gallons Per Capita Daily (GPCD)

Residential GPCD

Water Loss GPCD

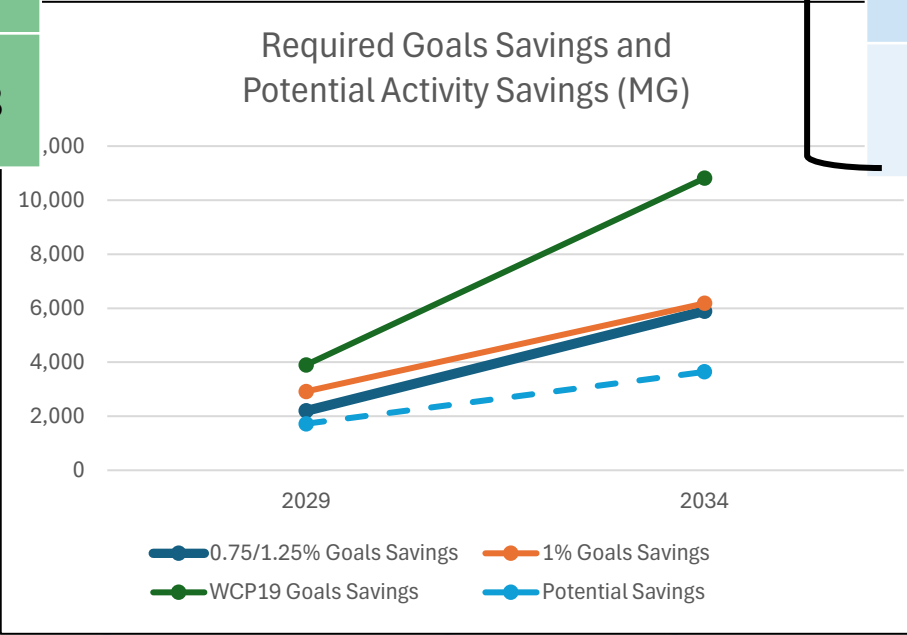
Infrastructure Leakage Index (ILI)

Goal	GPCD	Req. Savings (MG)
2029 Goal (0.75%)	123	2,199
2034 Goal (1.25%)	116	5,888
2029 Goal (1%)	121	2,917
2034 Goal (1%)	115	6,182
2029 Goal (WCP19 2024 Goal)	119	3,900
2034 Goal (WCP19 2029 Goal)	106	10,818

 Recommended Goals

1,715 MG = 2025-29 savings
 3,645 MG = 2025-34 savings

Potential Savings (MG) 2029/2034	Additional Activities
895/2,169	Water Loss Reduction
266/532	Landscape Transformation
245/490	Reclaimed Water Use
201/234	AMI Irrigation Engagement
54/113	AMI Customer Leak Alerts
54/108	Commercial and Industrial Incentives



Total and Residential GPCD Goals

FIVE AND TEN-YEAR GOALS FOR WATER CONSERVATION

	Historic 5-year Average	Baseline	2029 Goal	2034 Goal
Total GPCD ¹	127	127	123	116
Residential GPCD ²	64	64	62	58

¹Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

²Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

- Goals selected based on near-term estimates of additional savings from conservation, reclaimed, and water loss reduction
- 2029 Total GPCD Goals based on an average decline of 440 MG from baseline (0.75%)
- 2034 Total GPCD Goals based on an average decline of 738 MG from the 2029 Goal (1.25%)

2019 Water Conservation Plan

Five- & Ten-Year Goals for Water Savings from Conservation				
	Historic 5-Year Average	2018 Baseline	2024 Goal	2029 Goal
Total GPCD	126	126	119	106
Residential GPCD	67	65	61	55

Water Loss Goals

FIVE AND TEN-YEAR GOALS FOR WATER LOSS

	Historic 5-year Average	Baseline	2029 Goal	2034 Goal
Water Loss GPCD ¹	21	21	19	17
Infrastructure Leakage Index ²	4.07	4.07	3.57	3.31

¹Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

²Infrastructure Leak Index is a performance measure that expresses system real losses as a multiple of the calculated Unavoidable Real Losses

- Goals were developed by Austin Water staff in consultation with Black & Vetch
- Based on current and future efforts, such as improvements in production meters and utilization of a completed My ATX Water System
- The final Black & Vetch report is expected by June

2019 Water Conservation Plan

Five- & Ten-Year Water Loss Reduction Goals				
	Historic 5-year Average	Baseline	CY 2024 Goal	CY 2029 Goal
Water Loss (GPCD)	18.9	19.3	11	11
Infrastructure Leakage Index	3.68	3.84	2.6	2.4

Drought Contingency Plan

Proposed Stages and Changes

Drought Contingency Plan

Stages, Triggers, and Notable Changes

- 💧 Stage 1 – 1.4 million acre feet
- 💧 Stage 2 – 900,000 acre feet + inflow trigger
- 💧 Stage 3 – 750,000 acre feet
 - Athletic field exemption replaced by a variance
 - No warnings for watering violations, but dismissal of penalty after completing an online irrigation conservation course
- 💧 Stage 4 – 600,000 acre feet
 - No irrigation of nonfunctional turf
 - Temporary moratorium on permits for irrigation systems and single family pool permits



Questions?



Austin
WATER

