CITY OF SPOKANE WATER DEPARTMENT

Together for Tomorrow: Conservation in Our Community

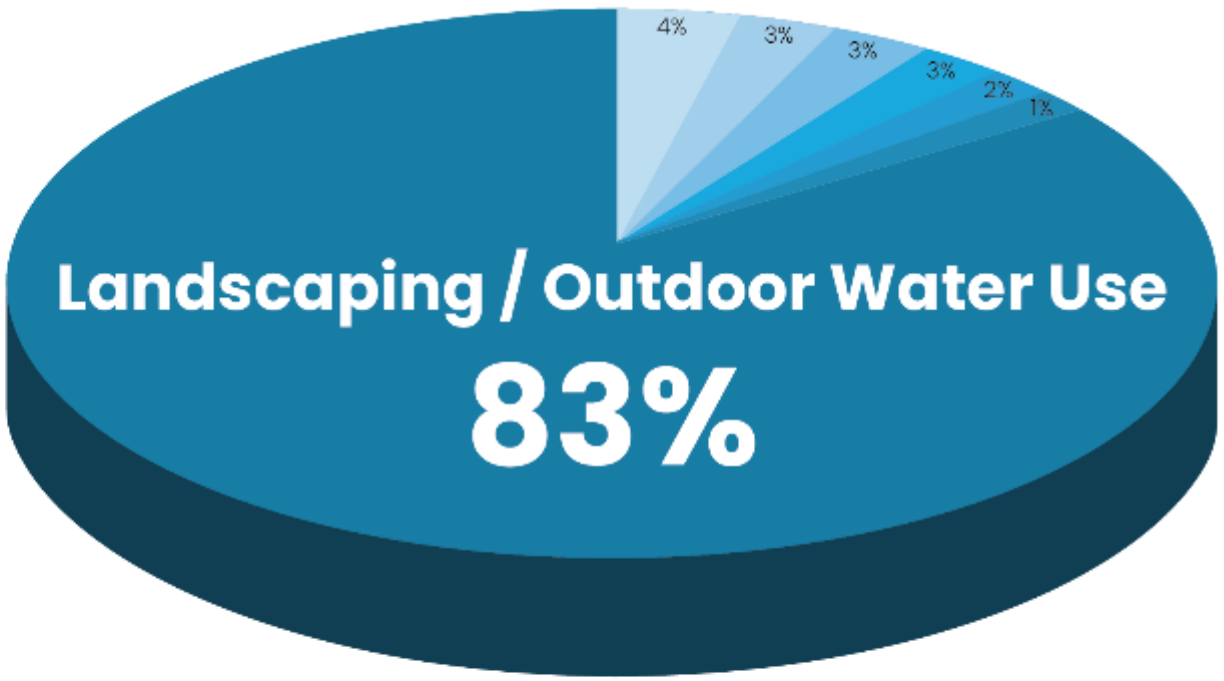
SPOKANE'S WATER WHY


Bellingham
Bremerton
Seattle
Tacoma
Olympia
Mt. Rainier
Spokane
Longview
Mount St. Helens
Yakima
Vancouver
Kennewick

- **16.5” precipitation per year in Spokane**
- **Grass needs 1.5” per week (48” – 72” per season)**

WATER USE IN THE CITY OF SPOKANE

Outdoor watering makes up approximately 83% of average annual residential home water use.



- Toilet 27 gallons
- Shower 27 gallons
- Faucet 21 gallons
- Clothes Washer 19 gallons
- Leaks 14 gallons
- Other 9 gallons
- Landscaping 553 gallons

Data is representative of average consumption; your water use may vary.

WELL ABOVE AVERAGE

GALLONS PER CAPITA PER DAY (GPCD)
2024 ANNUAL GPCD: 199

NATIONAL: 100
ARIZONA: 147
SPOKANE: 199

Most water is used in the summer for irrigation.

WATER SUPPLY

SPOKANE'S WATER SUPPLY DRAWN FROM DEEP WELLS

Purified by Running Through Gravel of Valley—Source Unknown.

408 miles of water main.
56,502,360 gallons maximum pumpage.
20,690,000 gallons minimum pumpage.
85,500,000 gallons capacity.

Two Spokane rivers flow through Spokane.

One rushes and tumbles over the falls to make electricity for the entire Inland Empire, and sights for the tourists.

The other flows uninterrupted through the mains of the city water system, clear, cold and sparkling, to quench the thirst of the citizens of Spokane, and keep the lawns green.

When Spokane needed water for drinking purposes, back in the '80s, and the Spokane river became a rather questionable source, the members of the water division went hunting, and found a spot five miles east of town, near the river, that looked as if it might produce drinking water.

First Unit in 1894.

In 1894, the first unit of the present water system was built at Upriver. The dam, which furnishes hydraulic power for the pumping system, was constructed then, and a 10,000,000-gallon plant was built, drawing water from the river.

Reservoirs were the next question, for it was necessary to have a storage area. In 1907 the first well was sunk, at Upriver, and since that time n... through ... tional ... short tim...

The n... power u... the dail... wells, a... "well st... with ol... ery wit... daily c... was tho...

The s... far has ... matter ... ity has ... can be s... It filter... gravel ... suring ... to the ... fied." ... ter, whi... Fahrenh... makes ... ter.

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SPOKANE WATER IS FROM WELLS

The source of Spokane's sparkling, cool and pure water supply is from five wells that tap a great underground river flowing from east to west the entire length of the Spokane valley. These wells vary from 40 feet to 51 feet in depth and from 28 feet to 45 feet in diameter.

A little over half a century ago, Spokane citizens paid 25 cents a barrel for their water supply, which was obtained from a spring hauled to local homes. Later wells were dug in various sections of the little village. Pioneers will best recall the downtown well, of which the Chronicle of September 30, 1886, published the following

SPOKANE WATER SUPPLY TOO PURE

"Spokane's water supply is too pure."

This was the statement today of Hendricks, commissioner of ...irs, in explaining the strong ...hlorine in city water.

...es that use surface water—... of them do—are forced to ...h chlorine," Dr. Hendricks ... pure water containing or... ...tter absorbs chlorine so it ...sted. Water such as comes ...kane's well, containing no ...atter, gives a much stronger ... chlorine because it is not ...

... as taste is concerned, people ... better satisfied if we turned ...ane river into the wells. ...ganic impurities would ab... chlorine." 3/23/36 Spokane Daily Ch...

Supply Unlimited

"Water is important to any community not only for fire protection and for domestic use but it is also important in attracting industries," Arend said. "An unlimited supply of pure water accounts, in part, for the location in the Spokane valley of the Inland Empire Paper company's mill and the aluminum rolling mill at Trentwood and other industries. The water supply is one of the first things prospective industries inquire about.

"The cost of tapping these sources in this area is slight, compared to the hundreds of millions of dollars that have been spent to bring water 350 miles to supply Los Angeles and other cities in that part of California," said Arend. "In listing the advantages of Spokane and the Inland Empire as a place to live and to develop industries we should not overlook this tremendous asset." 7/27/1948

COST

If Seattle used water like the median Spokane resident

@ 29,920 gallons monthly it would cost…

Seattle Public Utilities

Note: One CCF equals 100 cubic feet or 748 gallons of water.

Residential Commodity Charges

2024

All charges per CCF and effective January 1, 2024.

Water Usage	Inside Seattle	Outside Seattle
Off-Peak Usage (Sept. 16 - May 15)	$5.76	$6.57
Peak Usage (May 16 – Sept. 15) First-Tier: Up to 10 CCF in 60 days	$5.92	$6.75
Peak Usage (May 16 – Sept. 15) Second-Tier: Next 26 CCF in 60 days	$7.32	$8.34
Peak Usage (May 16 – Sept. 15) Third-Tier: Over 36 CCF in 60 days	$11.80	$13.45

* These rates apply to the Cities of Shoreline and Lake Forest Park, not the water districts.

COST

If Tacoma used water like the median Spokane resident @ 29,920 gallons monthly it would cost...

TACOMA PUBLIC UTILITIES

2024 Usage Charge per month, per CCF (100 cubic feet or 748 gallons)

Winter

- Inside City of Tacoma: $2.575
- Outside City of Tacoma: $3.089
- City of University Place: $3.318

Summer (T1)

- Inside City of Tacoma: $2.575
- Outside City of Tacoma: $3.089
- City of University Place: $3.318

Summer (T2)

- Inside City of Tacoma: $3.218
- Outside City of Tacoma: $3.862
- City of University Place: $4.148

COST

The cost of 29,920 gallons of water in Spokane

WHY SAVE WATER

1 Protect the River

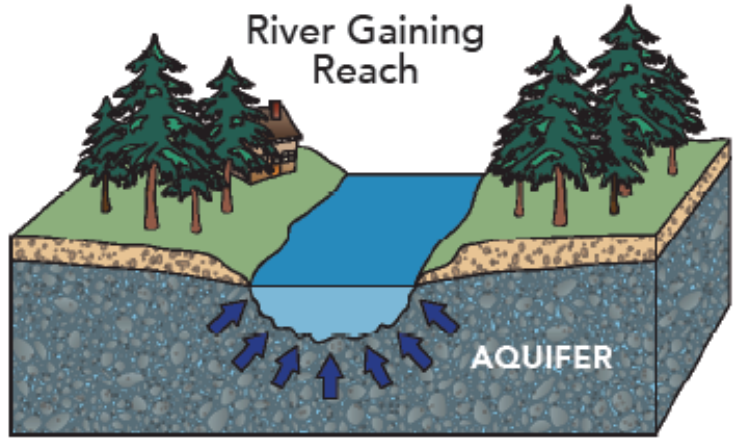


Figure 2: Water flows into the river through the bottom or through springs on the banks of the river.

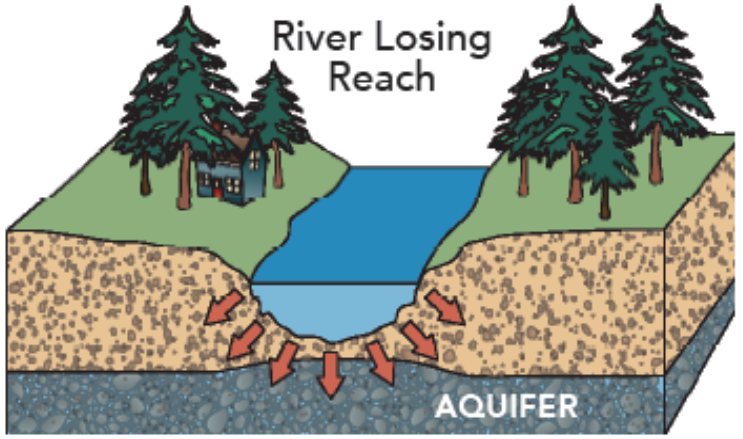


Figure 3: In these areas the water seeps out of the bottom of the river and recharges the SVRP aquifer.

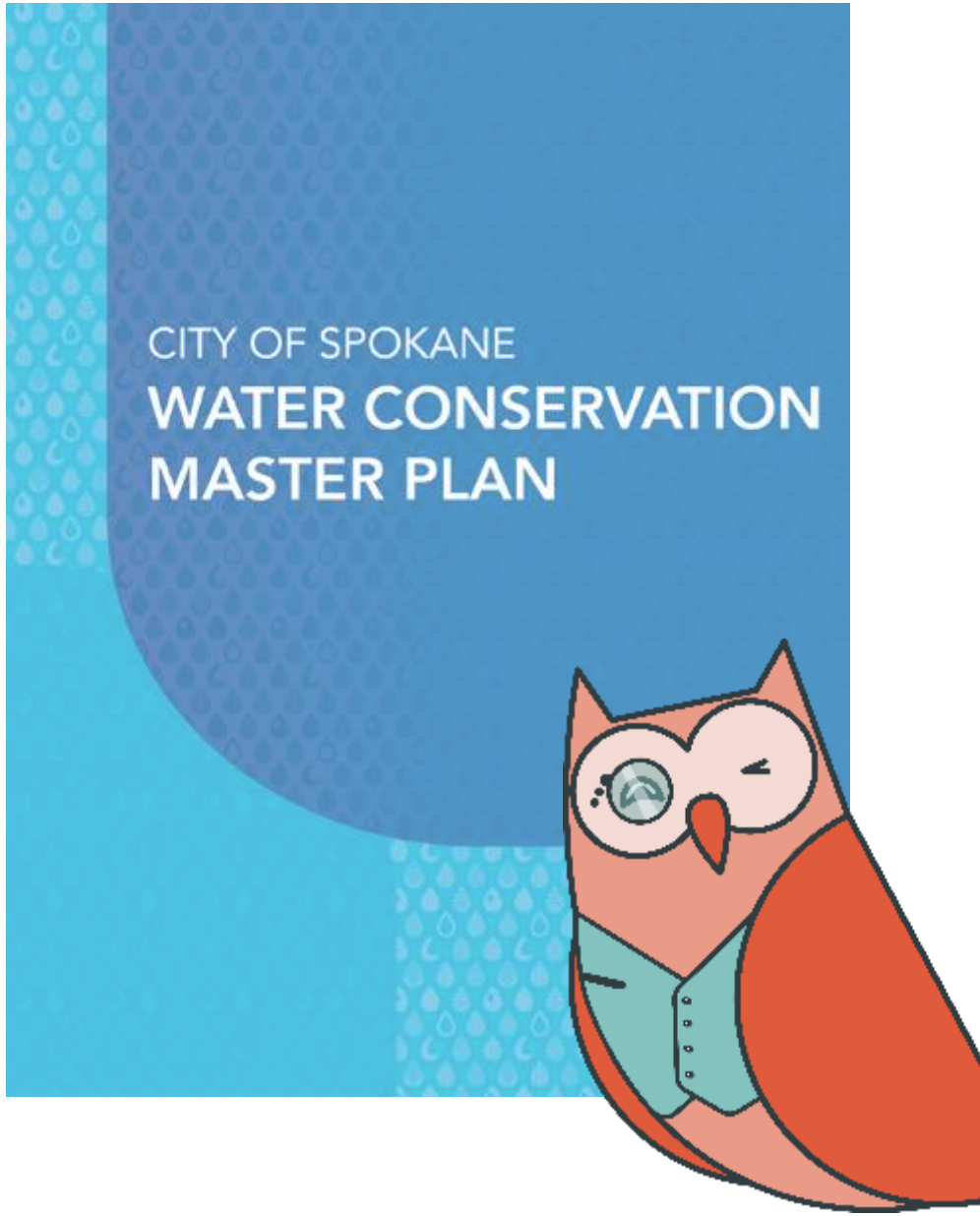
2

- **Adjust for increasing population and climate change**
- **Cut down on costly system expansions**

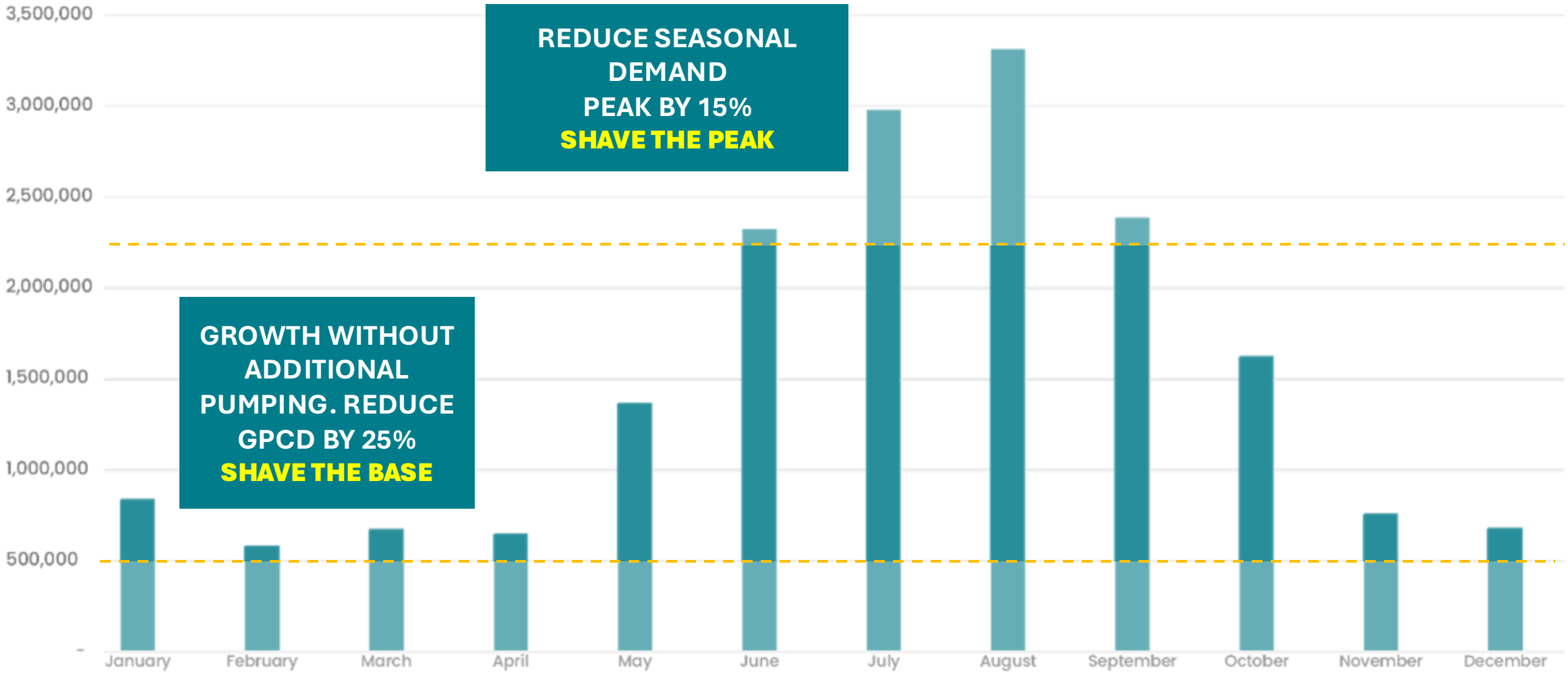
2020 WCMP

2020 MASTER PLAN REVIEW

- Adopted July 2020
- Outlines goals and actions to sustainably manage our water supply.
- Variety of activities provide an opportunity to reduce demand while minimizing customer sacrifice.
- **GOALS:**



CONSERVATION MASTER PLAN GOALS



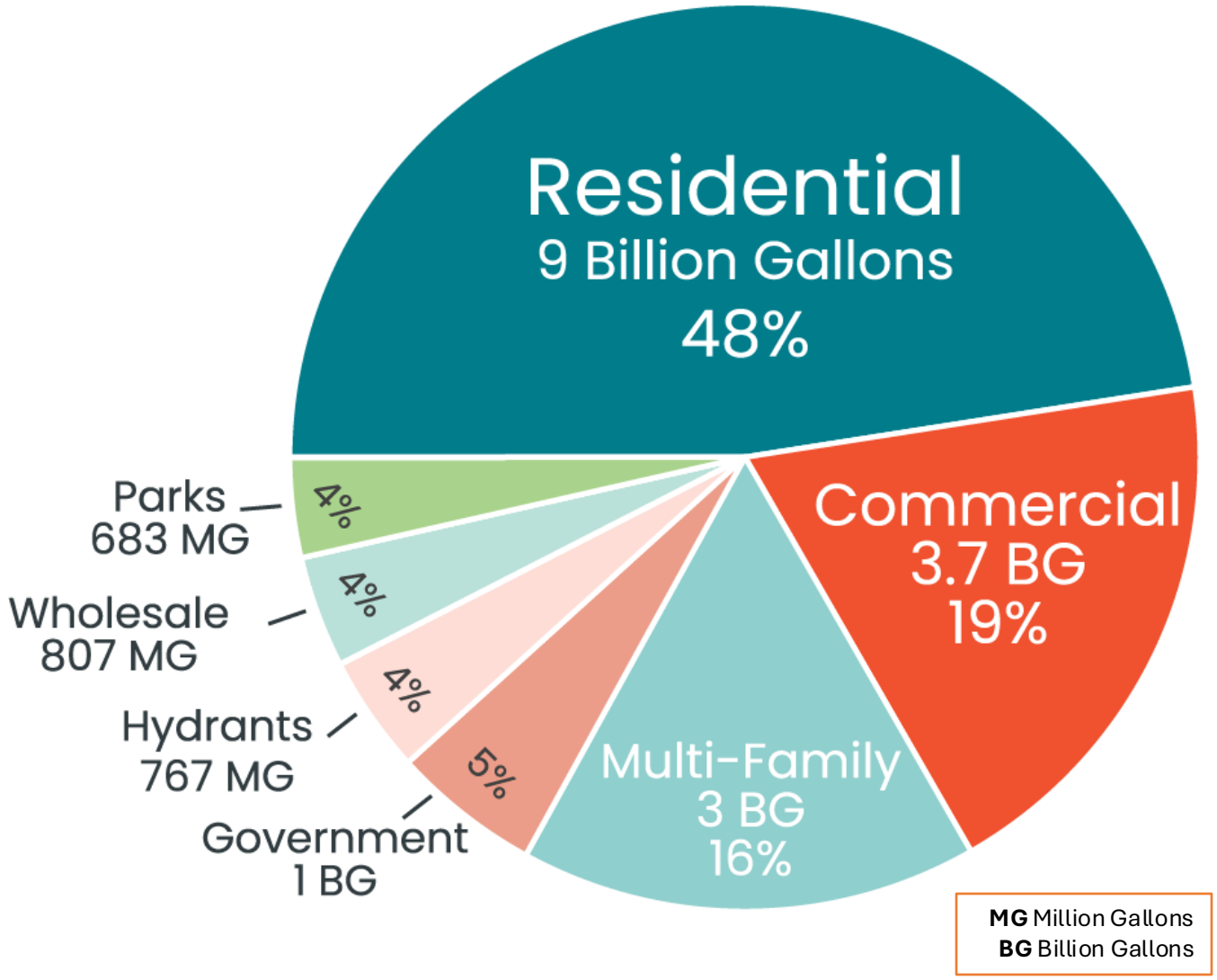
Shave the Base & Shave the Peak

PROGRAMS BUILT BY MASTER PLAN

2022 WATER CONSERVATION ORDINANCE

2024 WATER CONSUMPTION

2024 METERED WATER BY CUSTOMER SECTOR



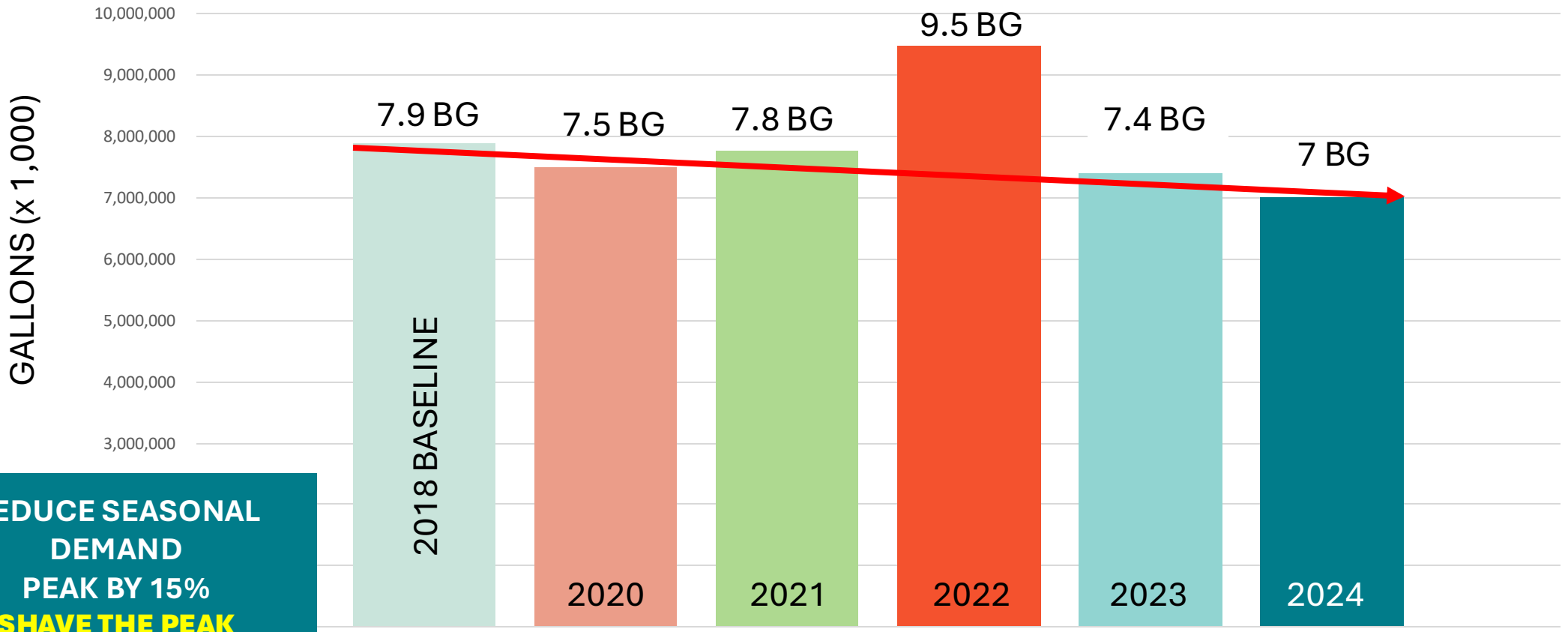
MG Million Gallons
BG Billion Gallons

2020-2024 TOTAL PURCHASED WATER

- **2024: 19.9 BG**
- 2023: 19.8 BG
- 2022:18.6 BG
- 2021: 20.7 BG
- 2020: 17.8 BG

2024 CONSERVATION GOALS

Shave the Peak



REDUCE SEASONAL DEMAND PEAK BY 15%
SHAVE THE PEAK

2024 METERED WATER IN GALLONS & GPCD

GALLONS PER CAPITA PER DAY (GPCD)

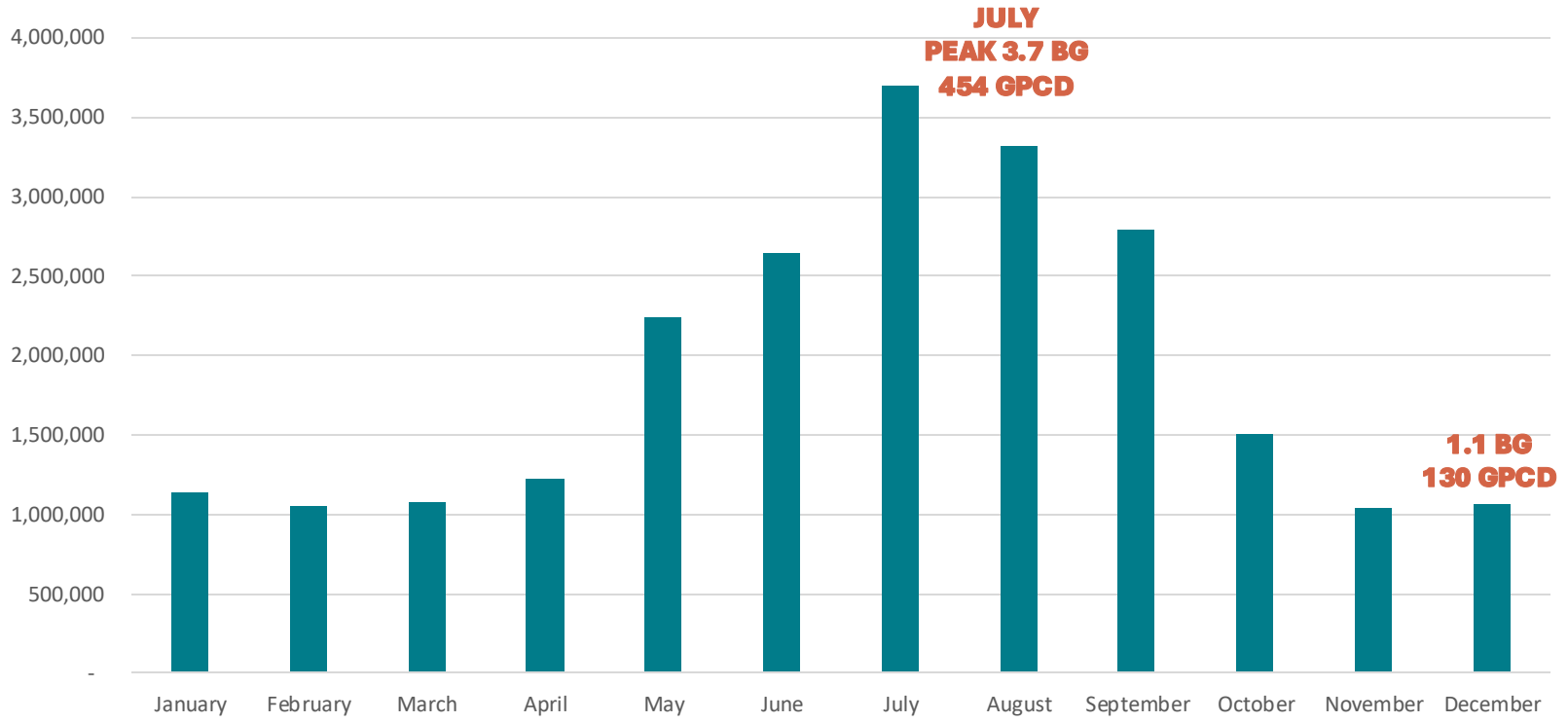
2018 BASELINE: 200

2024 SPOKANE: 199

Range 130 – 454 GPCD

GROWTH WITHOUT ADDITIONAL PUMPING. REDUCE GPCD BY 25%

SHAVE THE BASE



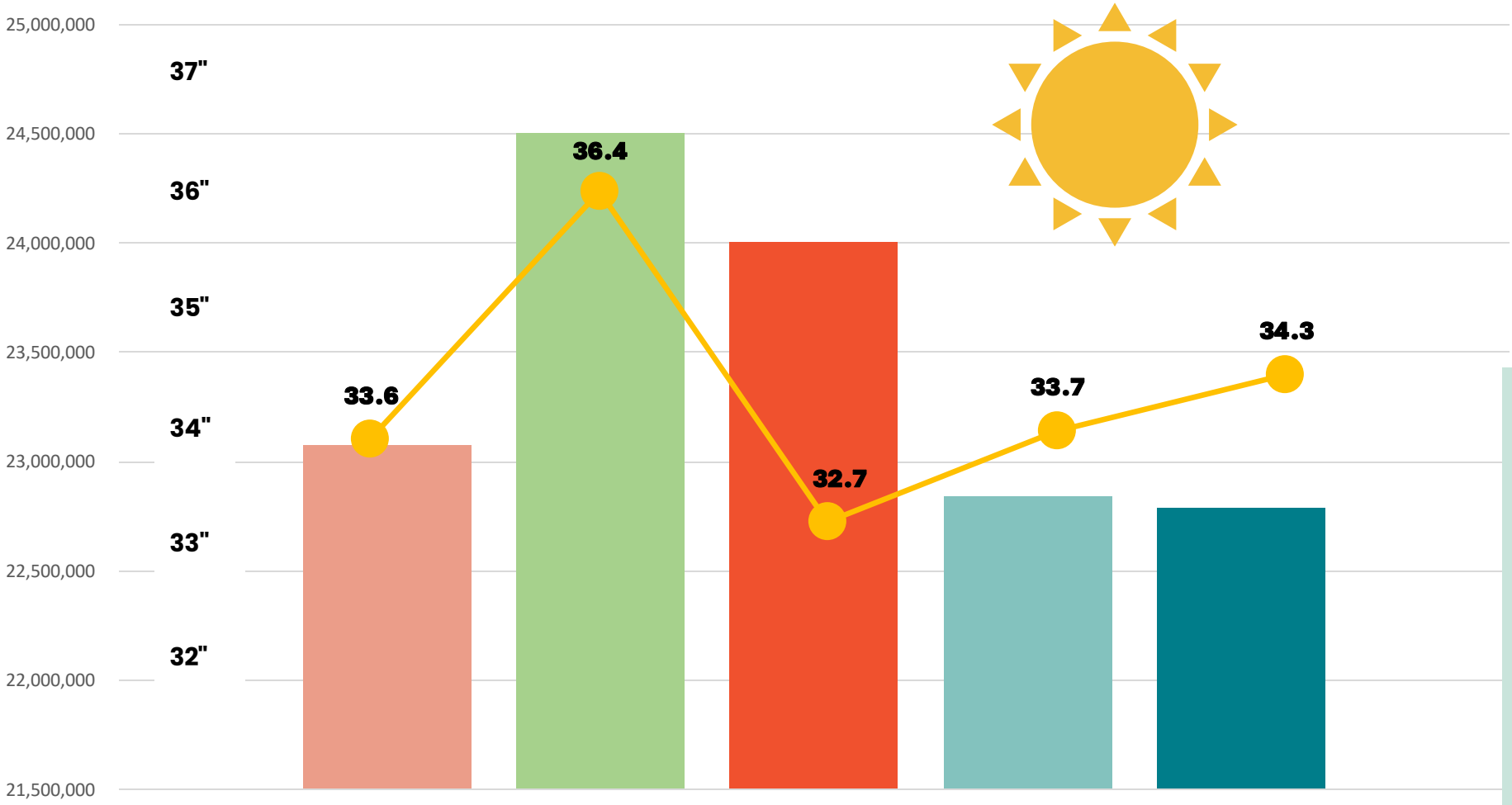
2024 GALLONS PUMPED BY MONTH & GPCD

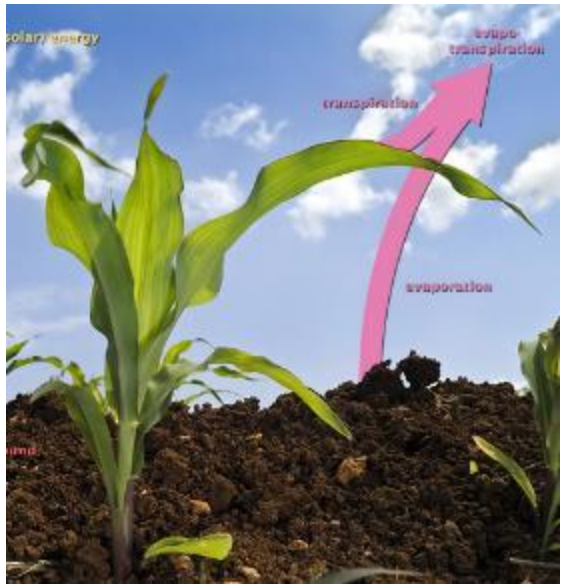
MG Million Gallons
BG Billion Gallons

*Gallons Per Capita Day is calculated using total annual consumption, without wholesale sales and population estimate of water service area.

2020-2024 TOTAL PUMPING + EVAPOTRANSPIRATION (ET)

2020-2024 TOTAL PUMPING + EVAPOTRANSPIRATION (ET)





2020-2024 TOTAL PUMPED WATER

- 2024: 22.7 BG
- 2023: 22.8 BG
- 2022: 24.0 BG
- 2021: 24.5 BG
- 2020: 23 BG

EVAPOTRANSPIRATION & WATER BUDGETING

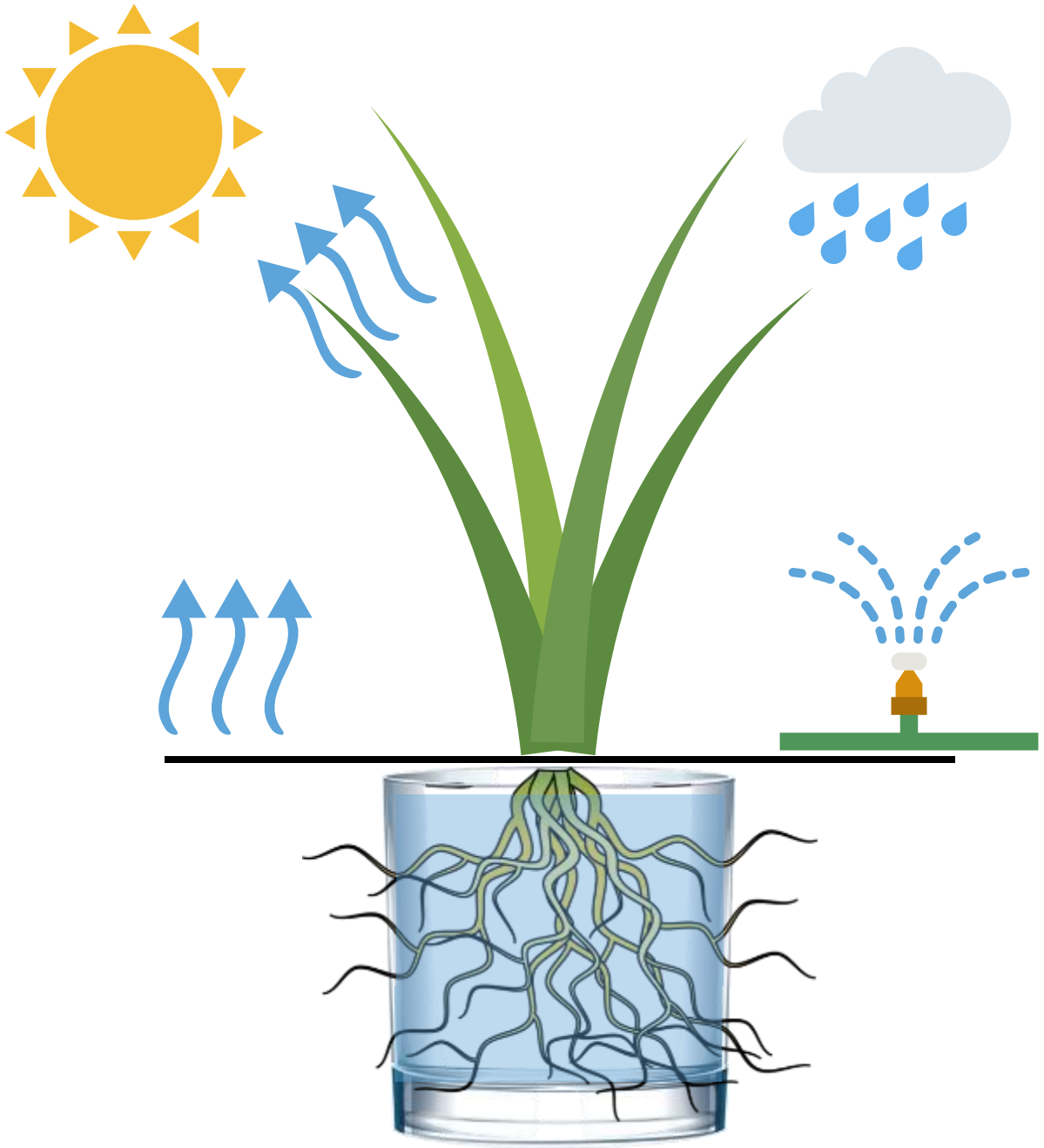
HOW EFFICIENT IRRIGATION WORKS

MEASURING THE WATER NEEDS OF PLANTS

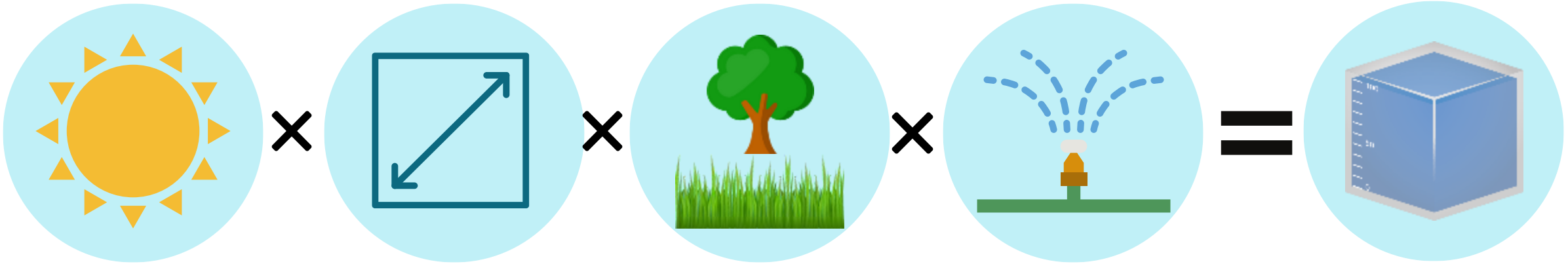
EVAPOTRANSPIRATION

(in)

Human Speak = Local Weather

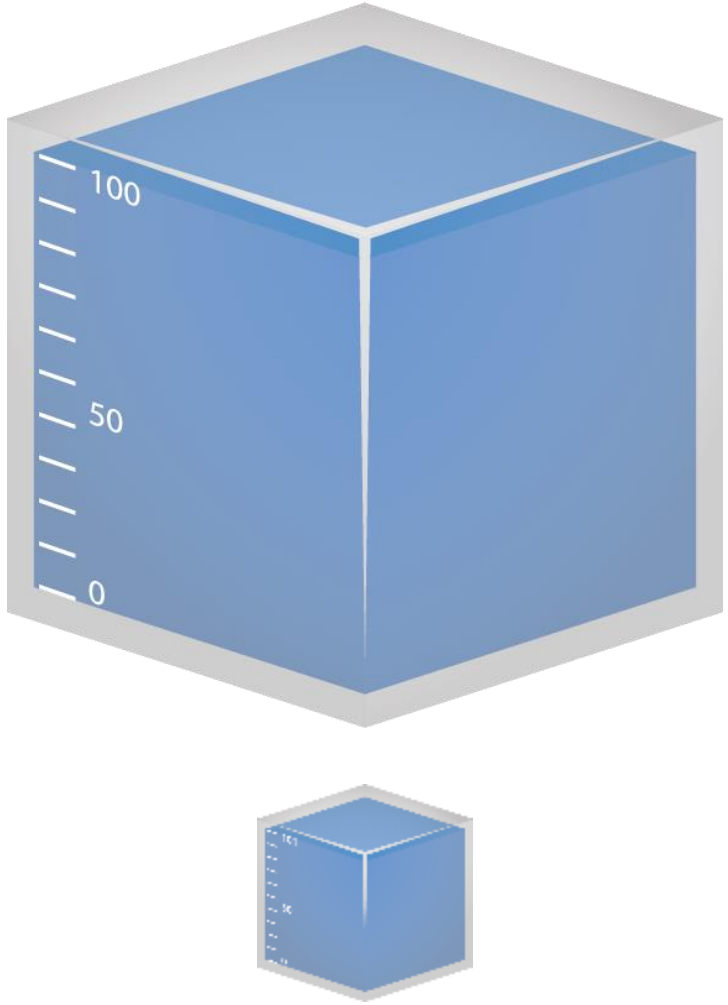


WHAT IS A WATER BUDGET?

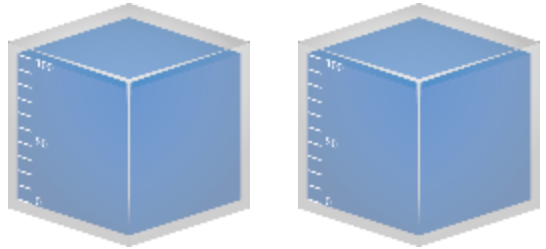


Local Weather × **Landscape Area** × **Plant Type** × **System Efficiency** = **Water Need**

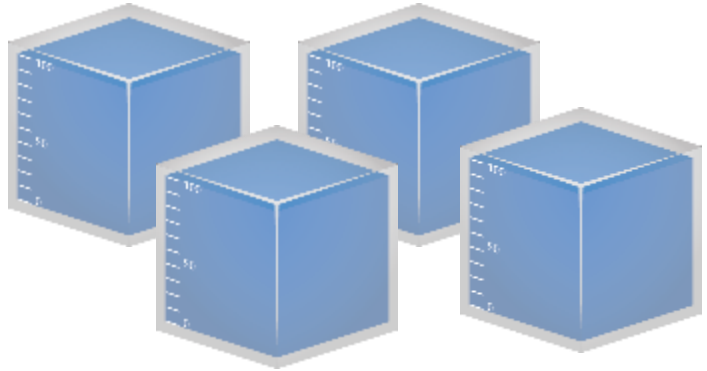
WATER NEED VS. WATER USE



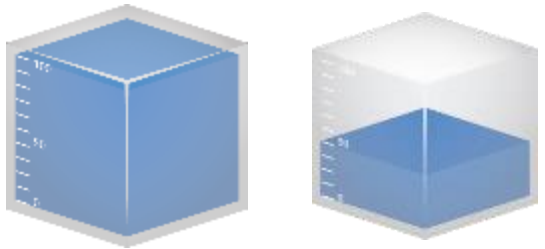
National Average: 2x



Spokane Average: 4x



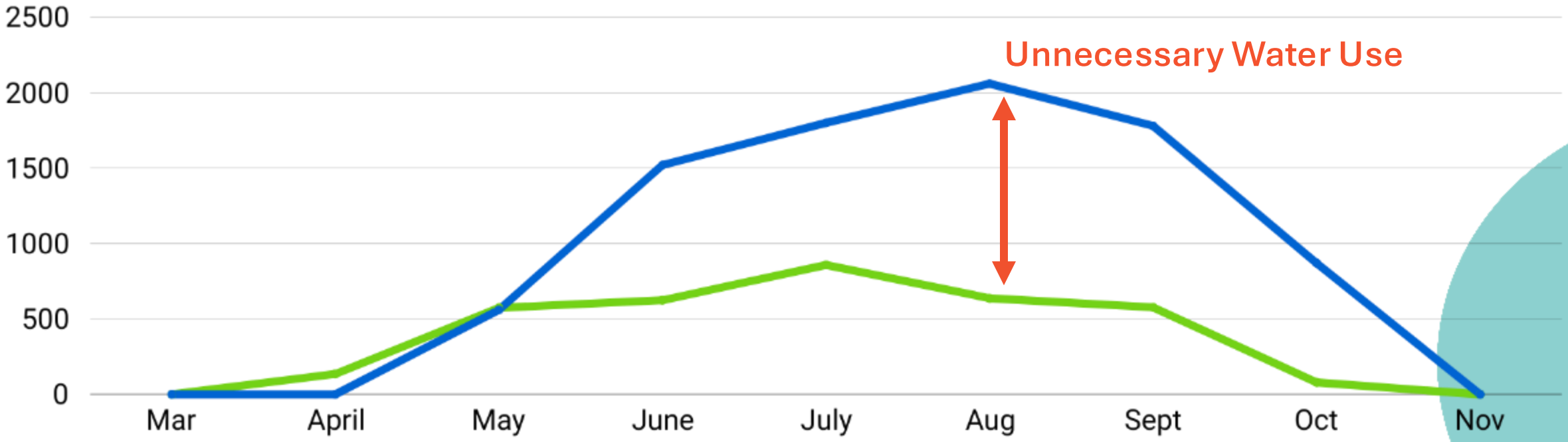
Goal: 1x + 30%



WATER NEED VS. WATER USE

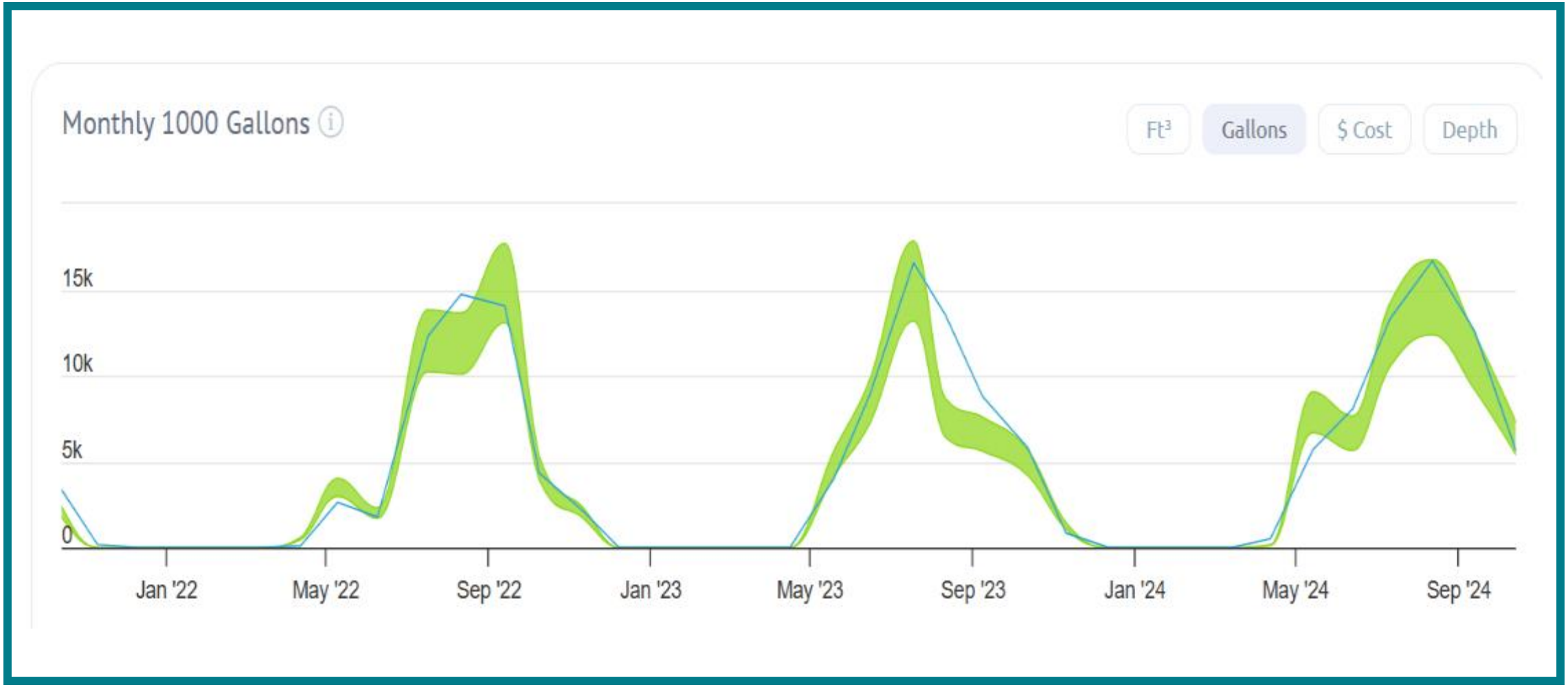
WATER NEED: The amount of water needed to replace water lost to plant and evaporation.

WATER USE: Water actually used by the property per billing records.



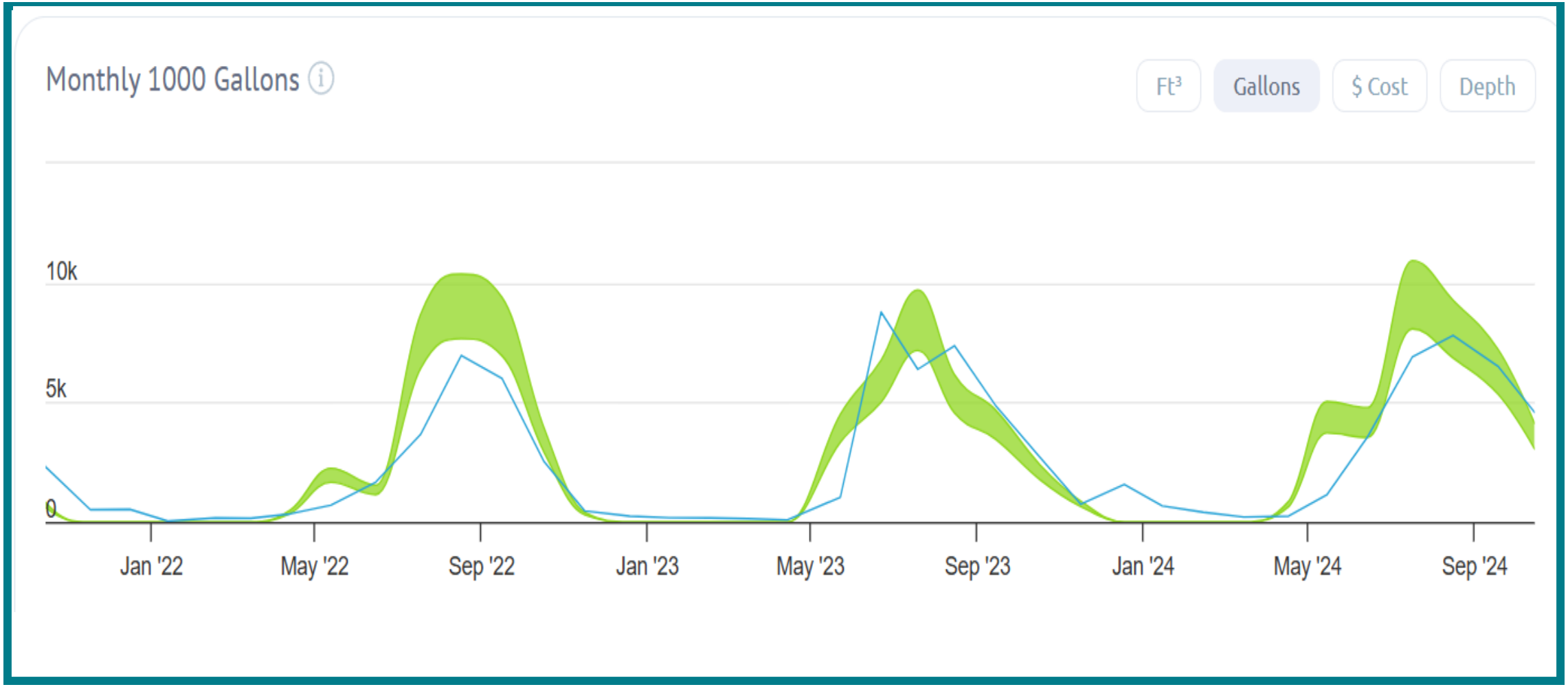
IS THIS REALLY POSSIBLE?

QUALCHAN GOLF COURSE: 106%



IS THIS REALLY POSSIBLE?

MANITO PARK: 91%

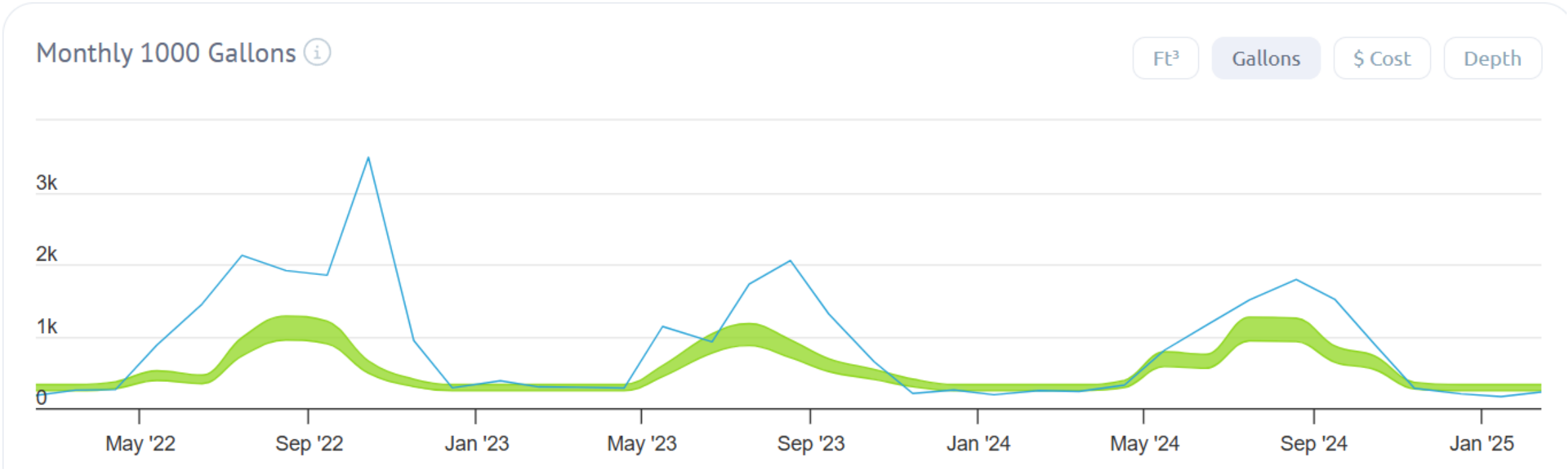


IS THIS REALLY POSSIBLE?

250% - 135%

Outdoor | Insights | People | Map | Basics

Budget	Lost $	Score	Applied	Budget
135%	$4.0k	44	4.1'	2.2'



WATER CONSERVATION PROGRAMS

COMMERCIAL & CITY OWNED PROPERTIES

12.5 MILLION GALLONS SAVED IN 2024!

By Leak Identification & Repair, Irrigation Efficiency, Cooling Tower Monitoring & Sub-Metering.

53+ PROPERTIES ENROLLED

Providence Ministries
Deaconess MultiCare
Ganzaga University
Convention Center
Spokane Arena
Podium
Kiemle Hagood (5)
HOAs (4)
Water Department Sites (12)
Spokane Fire Stations (15)

LARGE LANDSCAPES 63

enrolled in monthly landscape watering program: Waterfluence.!

15 COOLING TOWERS

enrolled in daily efficiency tracking and monitoring.

91 WATER CONSULTS

for commercial water customers: landscape watering, facility water use, and cooling system efficiency.

48 INSTALLED SUBMETERS

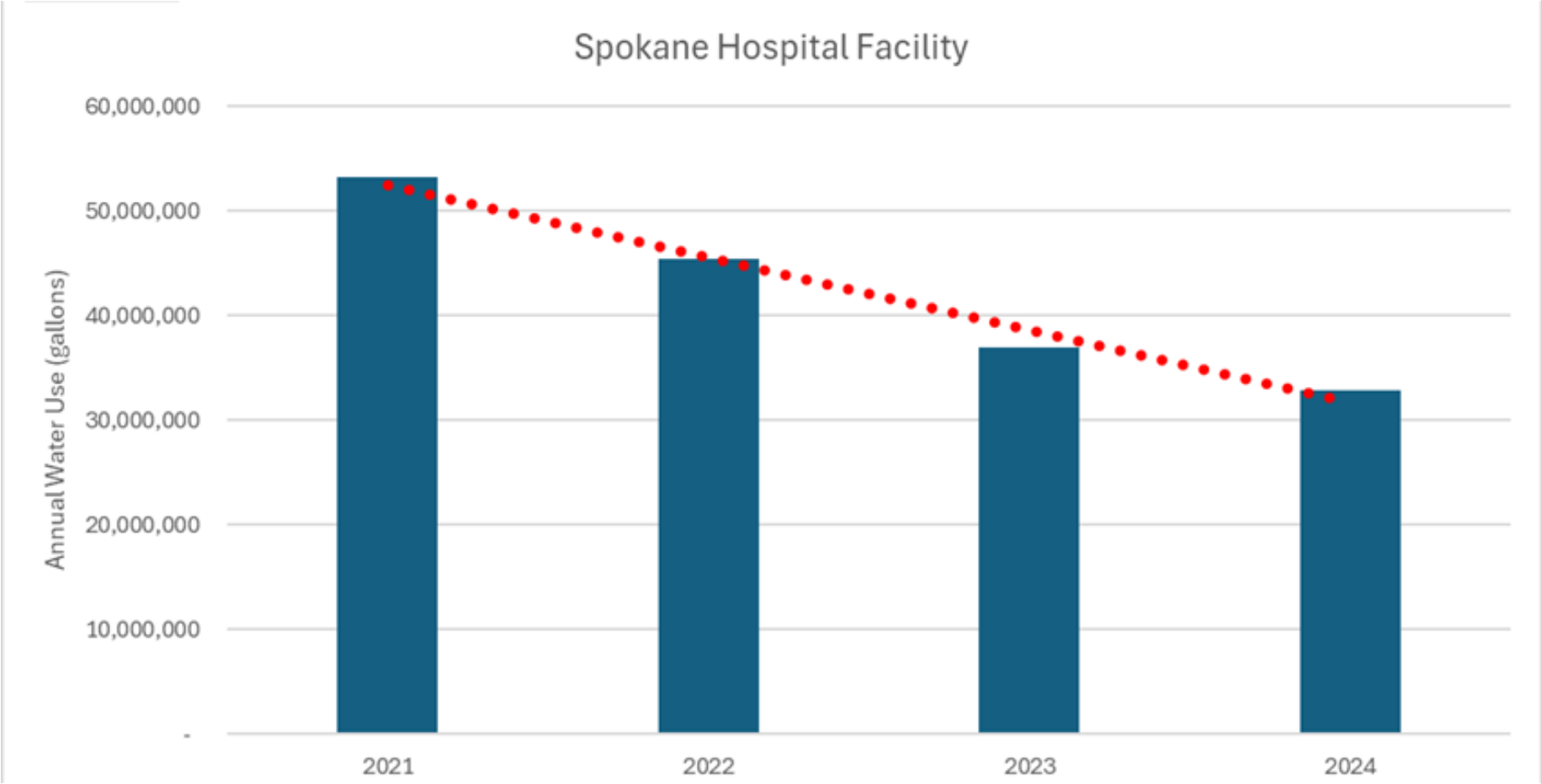
for monitoring equipment water use and performance.

TRAININGS/ WORKSHOPS 4

on efficiency solutions, strategies, sub-meters, irrigation, and more!

COMMERCIAL PROGRAM

WATER USE FROM A WATER WISE SPOKANE BUSINESS PARTNER



COMMERCIAL PROGRAM

IT Server Closets

Cooling Tower Google Sheet_WTFC 1_Final

File Edit View Insert Format Data Tools Extensions Help

K30

	A	B	C	D	E	F	G	H	I	J	K	L
1	Oct	30-Sep	3-Oct	6-Oct	7-Oct	10-Oct	12-Oct	13-Oct	14-Oct	17-Oct	18-Oct	19-Oct
9												
10	Closet 8		1044	980	333	1011	277	315	360	914	341	270
11	Daily Use		348	327	333	337	139	315	360	305	341	270
12	Closet 14		37052	37867	12354	37641	10589	12543	13884	35762	13464	10210
13	Daily Use		12351	12622	12354	12547	5295	12543	13884	11921	13464	10210
14	Lower Level		5193	5742	2385	5970	1478	1714	2242	4358	1707	872
15	Daily Use		1731	1914	2385	1990	739	1714	2242	1453	1707	872
16												
19											Monthly Total To Date	
20											Closet 8	9419
21											Closet 14	368835
22											Lower Leve	37082
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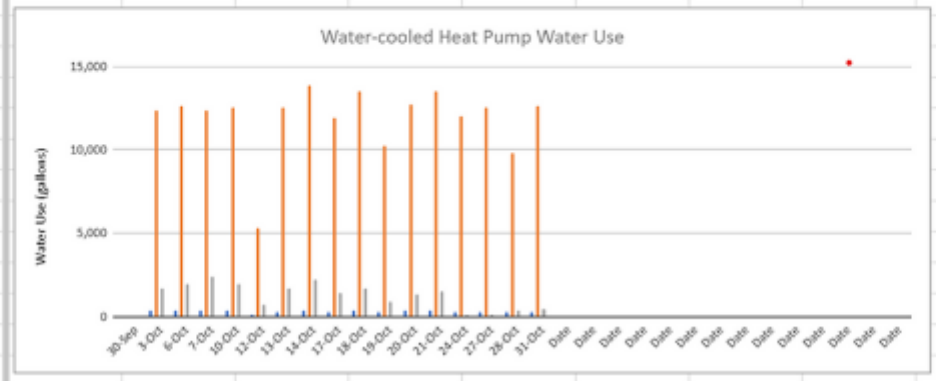
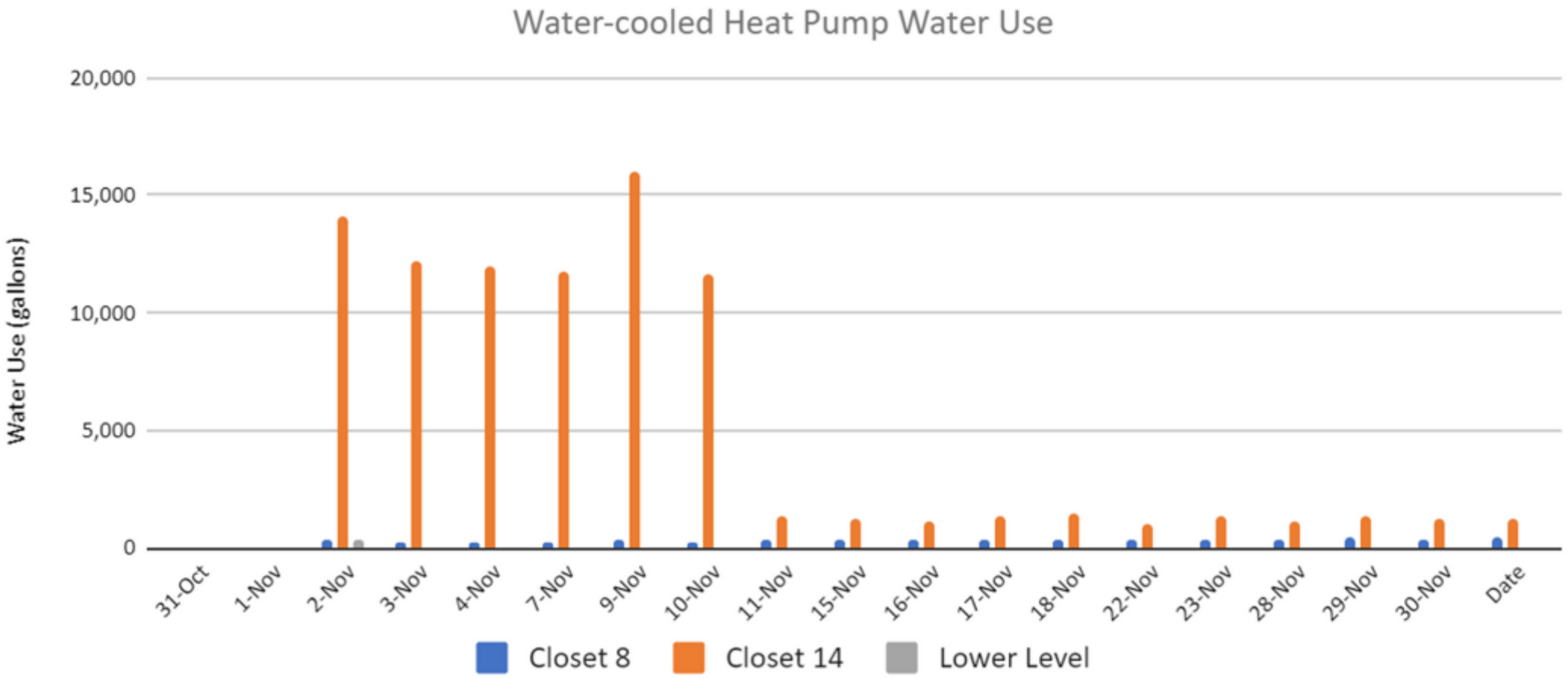
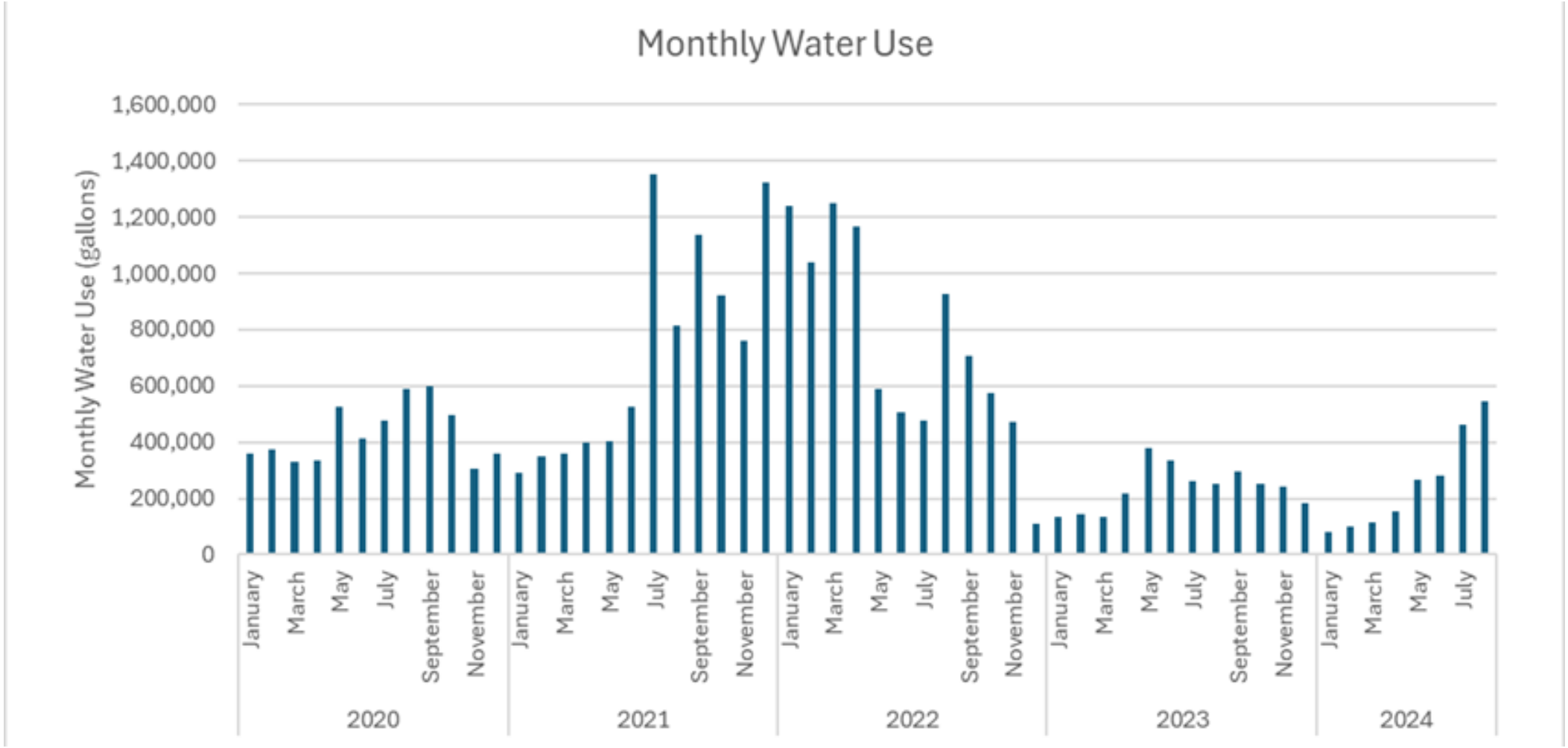


COMMERCIAL PROGRAM



COMMERCIAL PROGRAM

Long term success!



RESIDENTIAL EFFICIENCY CHECK UPS

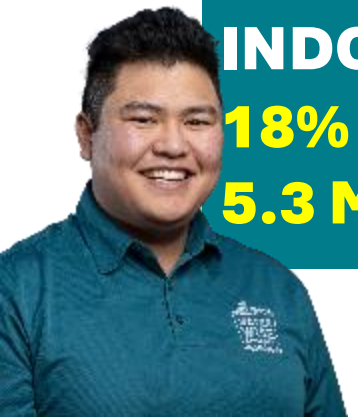
2024

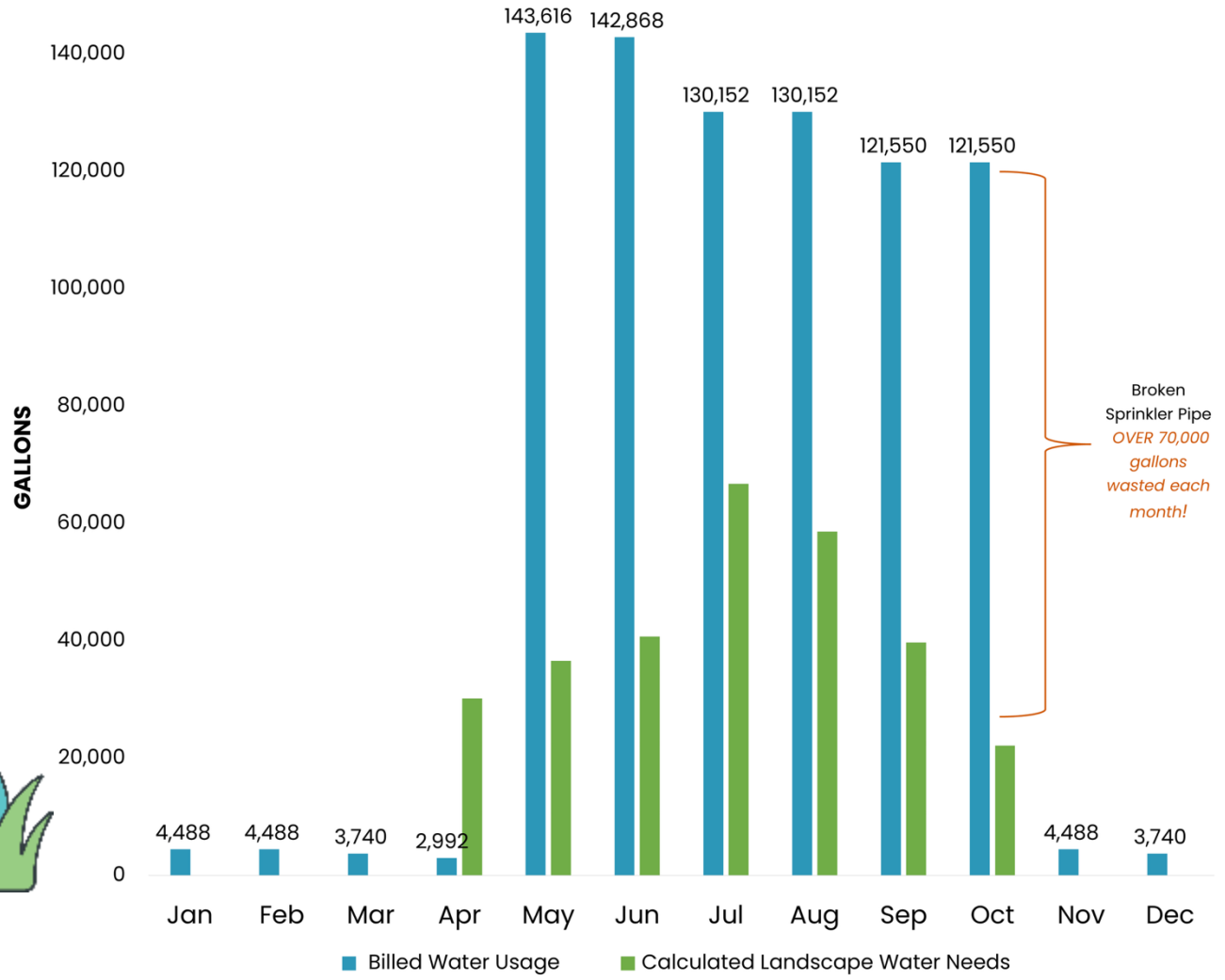
SPRINKLER CONSULTS: 135

INDOOR CONSULTS: 92

18% AVERAGE SAVINGS

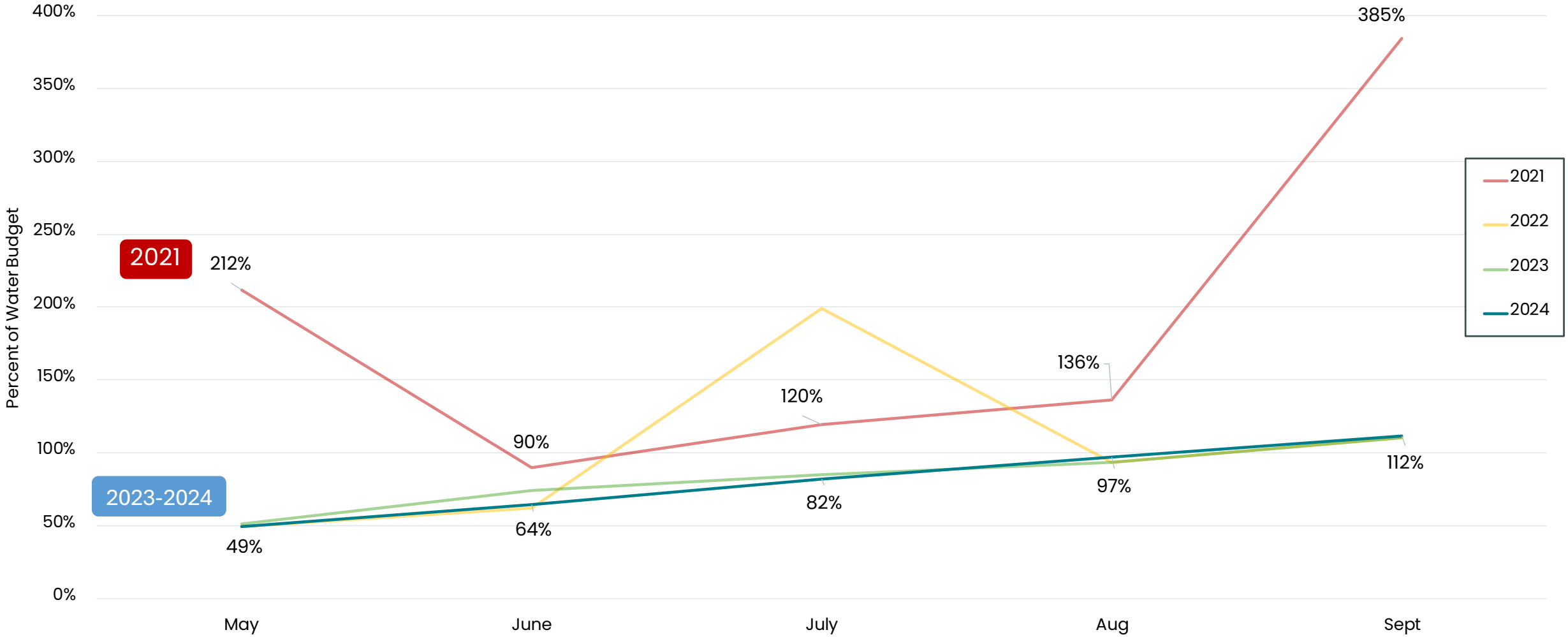
5.3 MG SAVED





EFFICIENCY CHECK-UPS

Water Budgets for 2022 Audit Properties
(Summer of 2021-2024)



WATER CONSERVATION INCENTIVES

2024 WATER WISE REBATE PROGRAM

$64,000 CREDITS

3.1 MG WATER SAVED

335 REBATES

1.6MG	1.0MG	0.3MG	0.1MG
151	84	30	53
CONTROLLERS	SPOKANESCAPE	SPRAY-TO-DRIP	NOZZLES

WATER WISE CHALLENGE

5 YEAR TOTALS:

- **2.8 MG Saved by 306 Households**
- **$21,800 in Credits Awarded**

SPOKANESCAPE

2024

SIGN-UPS: 87

PROJECTS: 84

GUIDEBOOKS: 3,000

CLASSES: 15

ATTENDEES: 604

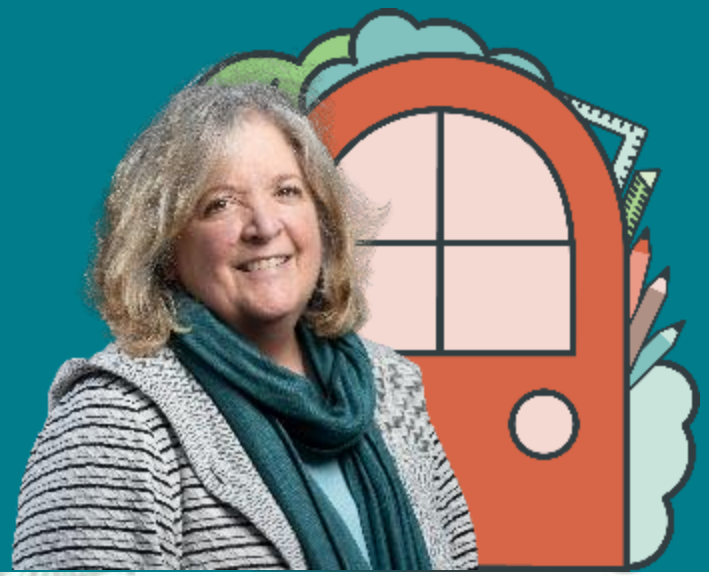
SPOKANESCAPE STATS

Over the last 7 years, the SpokaneScape Program has removed 430,000 sf or 10 acres (7.5 city blocks or 8 baseball fields) of turfgrass and replaced with ecologically beneficial landscapes.

Number of Completed Projects: 385
Approximate Water Saved: 11.5 MG

DESIGNER AT YOUR DOOR

- **One-hour, FREE, landscape design plan** and install advice by an industry professional.
- Help residents get started on their SpokaneScape journey.



2024
DESIGN APPTS: 103
COMMERCIAL DESIGNS:
SPOKANE COUNTY WATER RESOURCES
INDIAN TRAIL LIBRARY
HOFFMAN WELL SITE

EDUCATION & OUTREACH

ENTOMOLOGY RESEARCH

WHITWORTH UNIVERSITY

- Dr. Olivia Cope reached out spring 2024 proposing SpokaneScape partnership with her Summer Research Group and BI-307 Fall Entomology Class
- Interested in working with a local program and conduct field work to support habitat for pollinators
- Students surveyed three of our public SpokaneScape demo gardens and collected insect samples
- **Findings: SpokaneScape attracts double the arthropods as traditional plots**

SPOKANESCAPE STATS

Alliance for Water Efficiency

The City of Spokane Water Conservation Program was included in the national **AWE Best in Class** research project focused on smart practices for residential landscape and irrigation programs.

CONSERVATION PROGRAM WATER SAVINGS

TOTAL GALLONS SAVED

344,457,344

Through the Conservation Program Lifespan


Let’s make Spokane more sustainable.
One home at a time.
“We don’t have to engage in grand, heroic actions to participate in change. Small acts, when multiplied by millions of people, can transform the world.”
- Howard Zinn

FIND US ONLINE!

@WaterWiseSpokane