City of Wichita Drought Response & Water Supply Resilience

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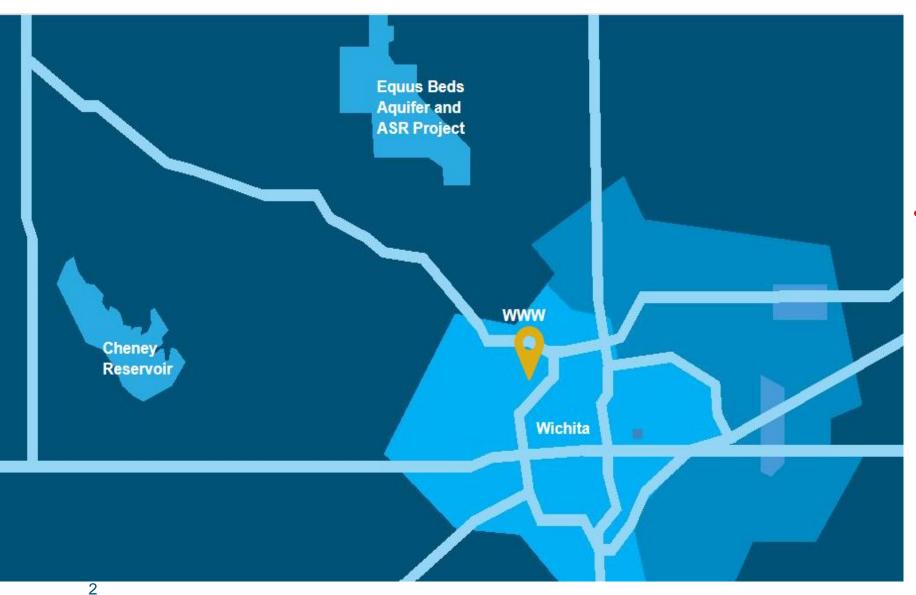
Gary Janzen. P.E. – Director Public Works and Utilities

June 12, 2025





Wichita Raw Water Sources



- Wichita raw water two main sources:
 - Cheney Reservoir (surface water)
 - Equus Beds Wellfield (groundwater)
 - <mark>92% full</mark>
- El Dorado not a viable source

Wichita Water Treatment

- $\bullet \bullet \bullet$
- Wichita provides water to 500,000 residents:
 - Wichita: 150,000+ residential & commercial customers
 - 11 Wholesale Customers: Bel Aire, Benton, Bentley, Derby, Kechi, Park City, Rose Hill, Valley Center, RWD 1-3-5
 - McConnell AFB

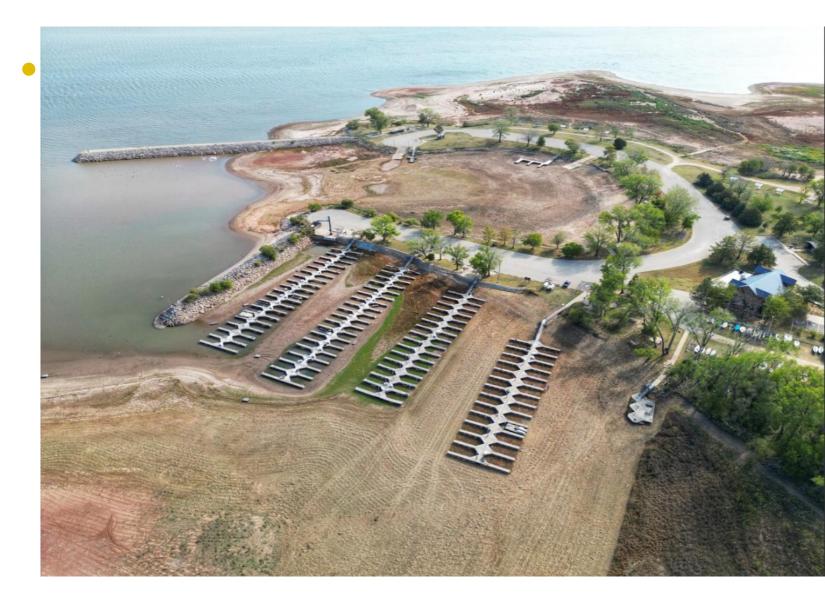


Cheney Pool Condition

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June 6, 2025:

- Water level is 4.73 feet below normal pool
- Stage 2 watering restrictions remain in place, expected through all of 2025



Cheney Capacity/Dam Repair

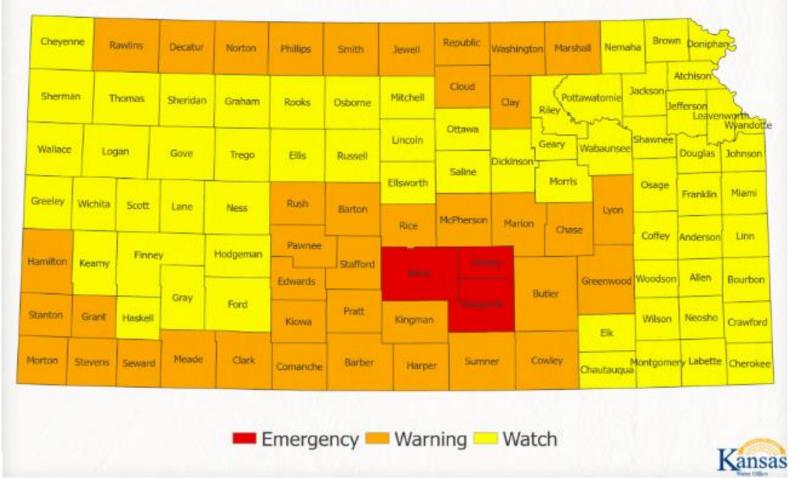
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Governor's Drought Declaration





Drought Response Plan

Stage 1 Activated January 2023

Triggered when the 12-month moving average is between 70% and 89%

- Voluntary water conservation measures
- Incentives or rebates to encourage indoor and outdoor water conservation
- City of Wichita Internal Conservation Plan enacted

Stage 2 Activated August 5, 2024

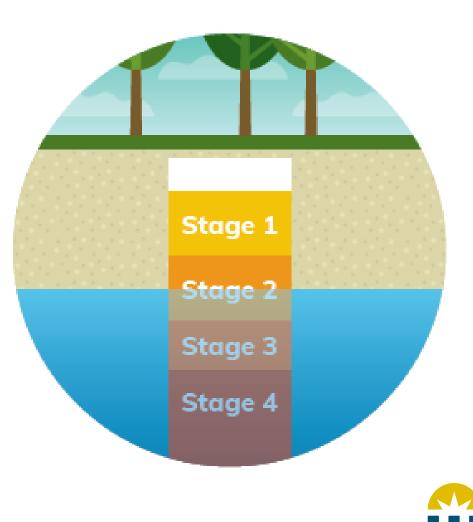
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Triggered when the 12-month moving average is **between 50% and 69%**.

- Mandatory water conservation:
 - Restricting outdoor water usage to one day per week
 - Prohibiting all customers from using outdoor water from 10am-8pm*
- * Some exemptions apply

Stage 2 Penalties/Fines

- 1st violation written warning
- 2nd violation \$50 administrative fee
- Subsequent violation \$100 per violation



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Drought Response Plan

Stage 3

Triggered when the 12-month moving average is between 35% and 50%

- All usage of outdoor water prohibited*
- * Some exemptions apply

Stage 3 Penalties/Fines

- 1st violation written warning
- 2nd violation \$250 administrative fee
- Subsequent violation \$500 per violation

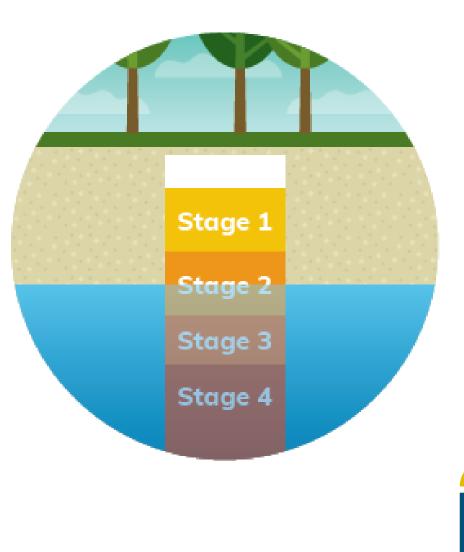
Stage 4

Triggered when the 12-month moving average is **between 0% and 34%**

- Mandatory water conservation measures for all customers, including prohibition of usage of outdoor water. No exemptions.
- All customers are required to reduce their water usage by 15% from their Average Winter Consumption*
- * Some exemptions apply

Stage 4 Penalties/Fines

- 1st violation written warning
- 2nd violation \$250 administrative fee
- Subsequent violation \$500 per violation and installation of a water flow restrictor.



Drought Response – Stage 2 Mandatory Water Restrictions

 Once-weekly restrictions were implemented August 5, 2024 and remain in place

Stage 2 Drought Watering Schedule

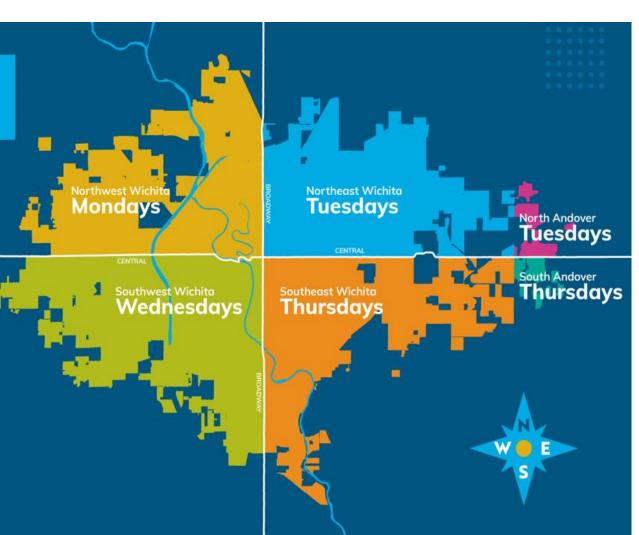
 Customers at real properties northwest of Central & Broadway may use outdoor water on Mondays.

 Customers at real properties
northeast of Central & Broadway may use outdoor water on Tuesdays.

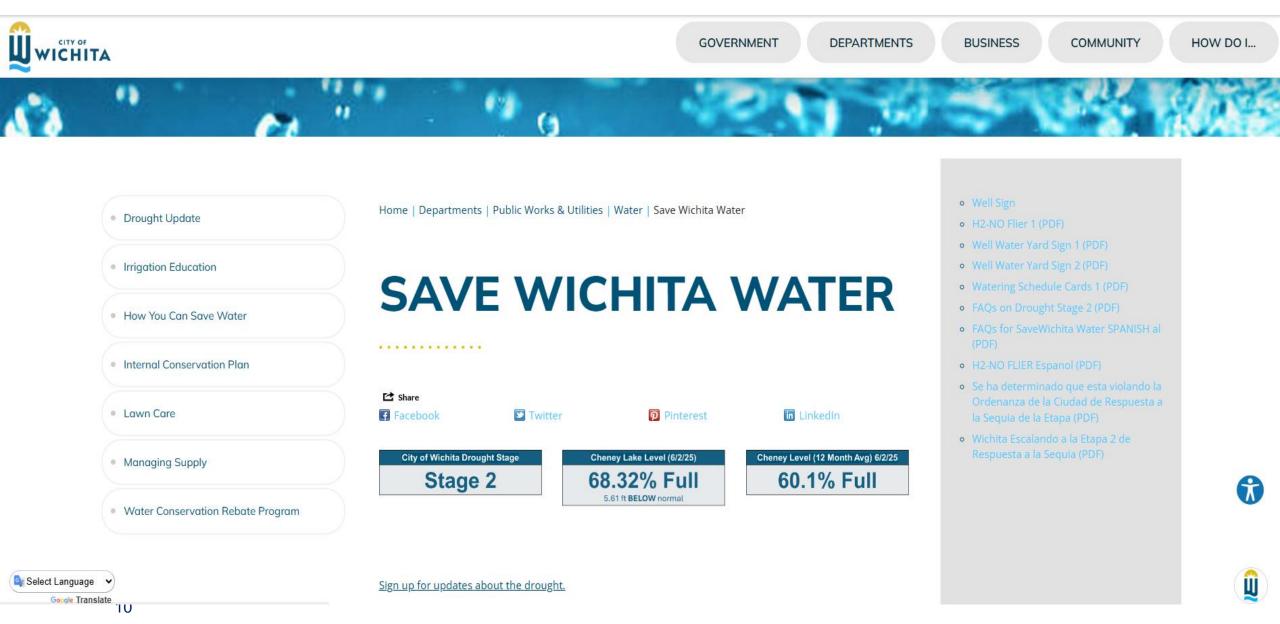
- Customers at real properties southwest of Central & Broadway may use outdoor water on Wednesdays.
- Customers at real properties
- southeast of Central & Broadway may use outdoor water on Thursdays.

No residential watering on Friday/Saturday/Sunday. No watering from 10am-8pm any day.





Resources – savewichitawater.com



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Strategic Planning and Innovation for the Future



Aquifer Storage and Recovery (ASR) – keeping the **Equus Beds aquifer healthy**

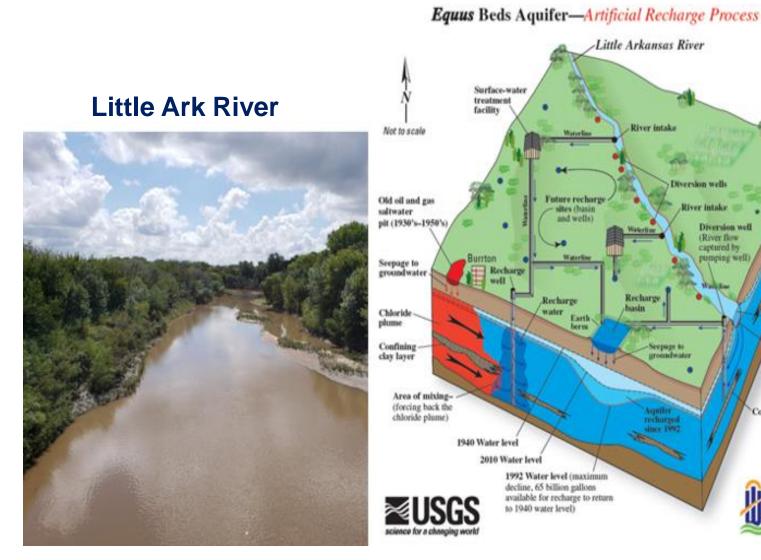
Diversion wel River flow captured by

Permian bedrock

High flow

Low flow

Confining clay layer



ASR Recharge Basin



Wichita Water Works – new water treatment plant



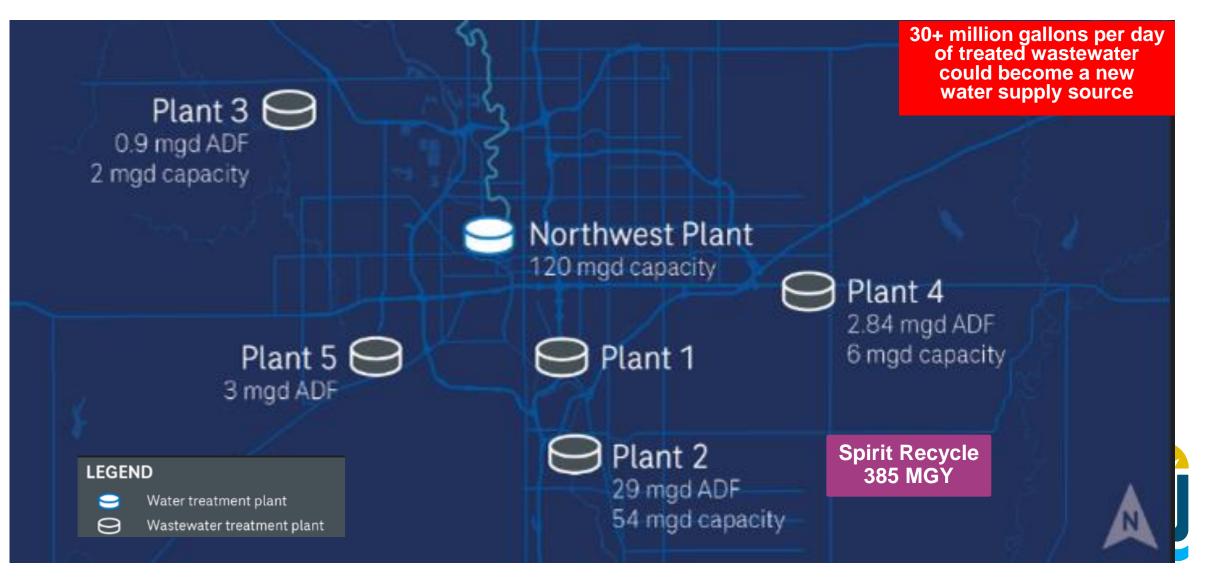




Treated Groundwater Available at Herman Hill Park – <u>www.Wichita.gov/reclaimed</u>water



Water Recycling & Reuse – expanding our long-term water supply

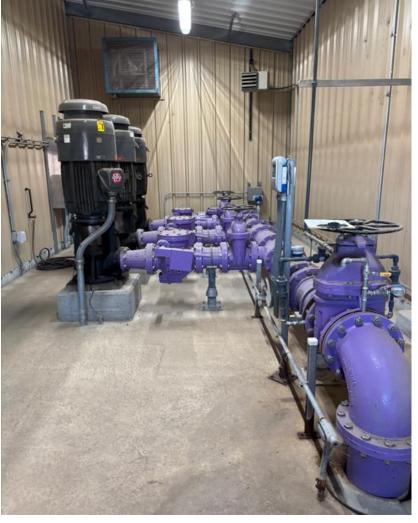


Spirit Industrial Reuse

Pipe routing from City WWTP to Spirit

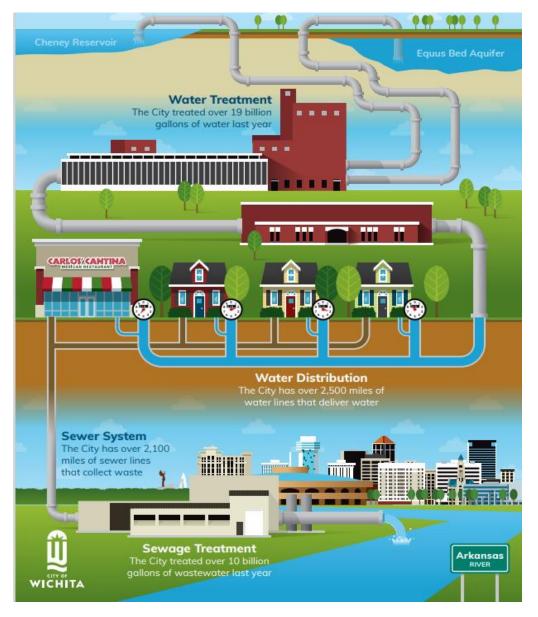
Pump station sending treated wastewater to Spirit





The Future of Recycling & Reuse

The Wichita Water Cycle

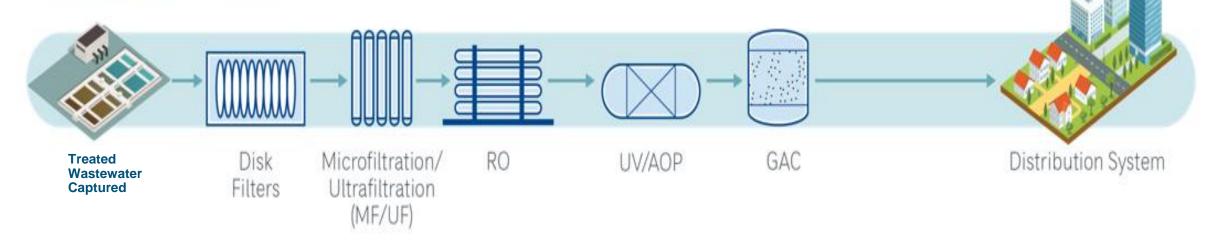


Treated wastewater discharge to Ark River – 25 million gallons per day available to reclaim/recycle



Treated Wastewater Recycling Process (Direct Potable Reuse - DPR)

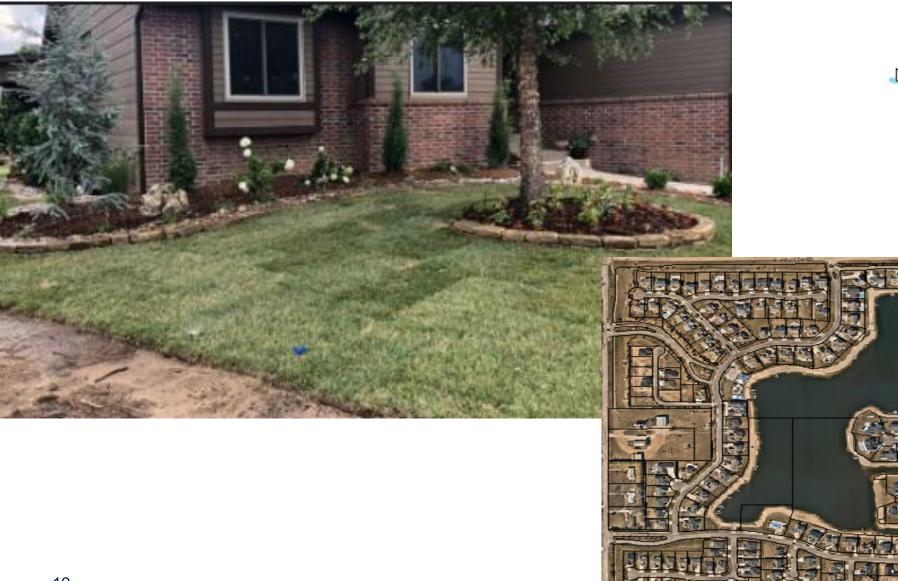
Plant 2 and Plant 3



- DPR creates an additional water supply for the future
- City Council approved consultant contract and initial funding May 13, 2025
- Staff met with state agencies to initiate development of state regulations



Landscape/Development Practices





Landscape Ordinance Guidebook



What Others Are Doing – OKC alternate day watering

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SUN	MON	TUE	WED	THU	FRI	SAT
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6





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Questions?

June 12, 2025

