

UTILITIES QUARTERLY REPORT

Review of Q4 2024

LYNN R. MORGAN WATER TREATMENT FACILITY (WTF)

Average Flow Million Gallons per Day (MGD):

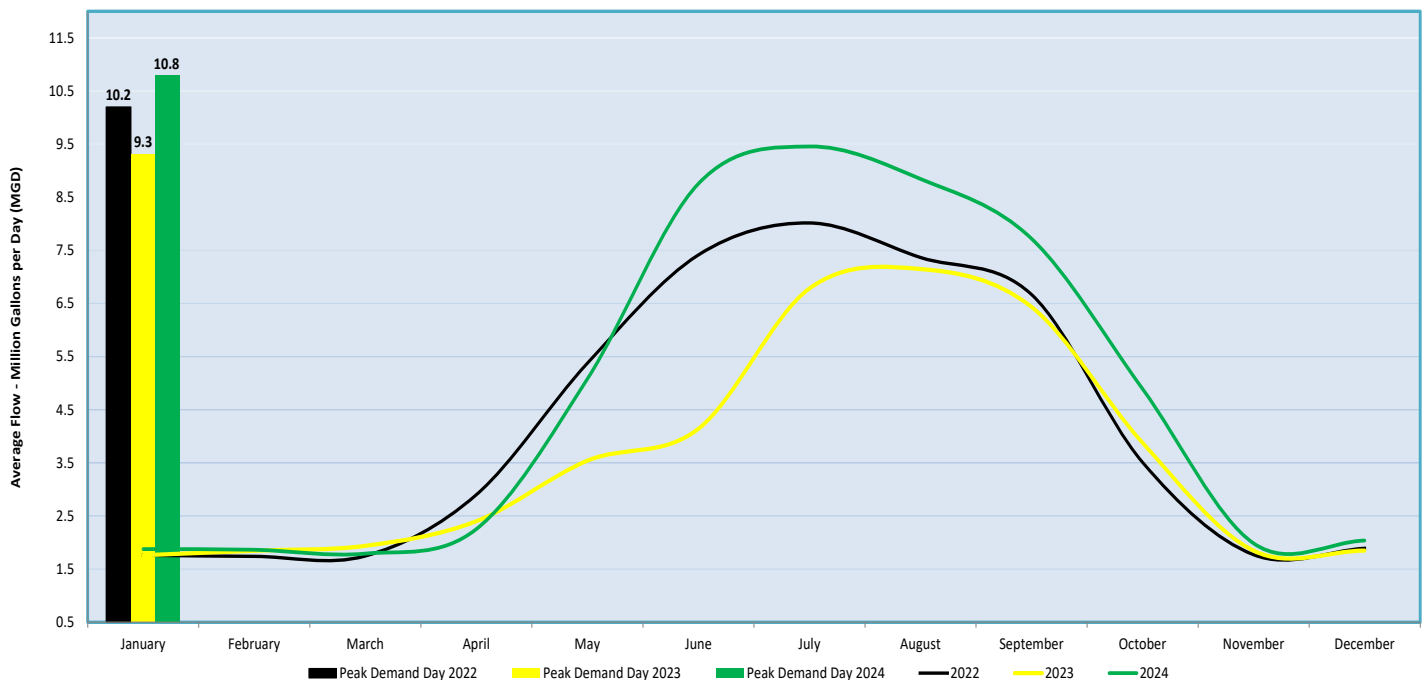
2022 – 4.2 MGD | 2023 – 3.6 MGD | 2024 – 4.7 MGD

The Lynn R Morgan Water Treatment Plant produced 1.7 billion gallons in 2024. 2024 was an unusually hot and dry year and as a result we have seen significant water demand over recent years. 2024 stands in stark contrast to 2023, which was a very wet and cool year. This makes the jump between the two years look larger than it really was, however we certainly can see the effect of extended low precipitation and growth in these graphs.

What Does this Tell Us?

Overall water demands are relatively flat in the winter (indoor demand) over the period of record; this year showed us how a long, dry summer can cause broad shifts in a single year – especially when coupled with rapid growth. Will continue to help residents manage their water use with incentives, smart meters, conservation programs and low water use landscape ordinances. This year's max production day was July 15th at 10.8 MGD, an all-time high. There were many days June – September that exceeded past peak days, which is unusual.

Average Water Monthly Production



Average Per Capita per Day (GPCD):

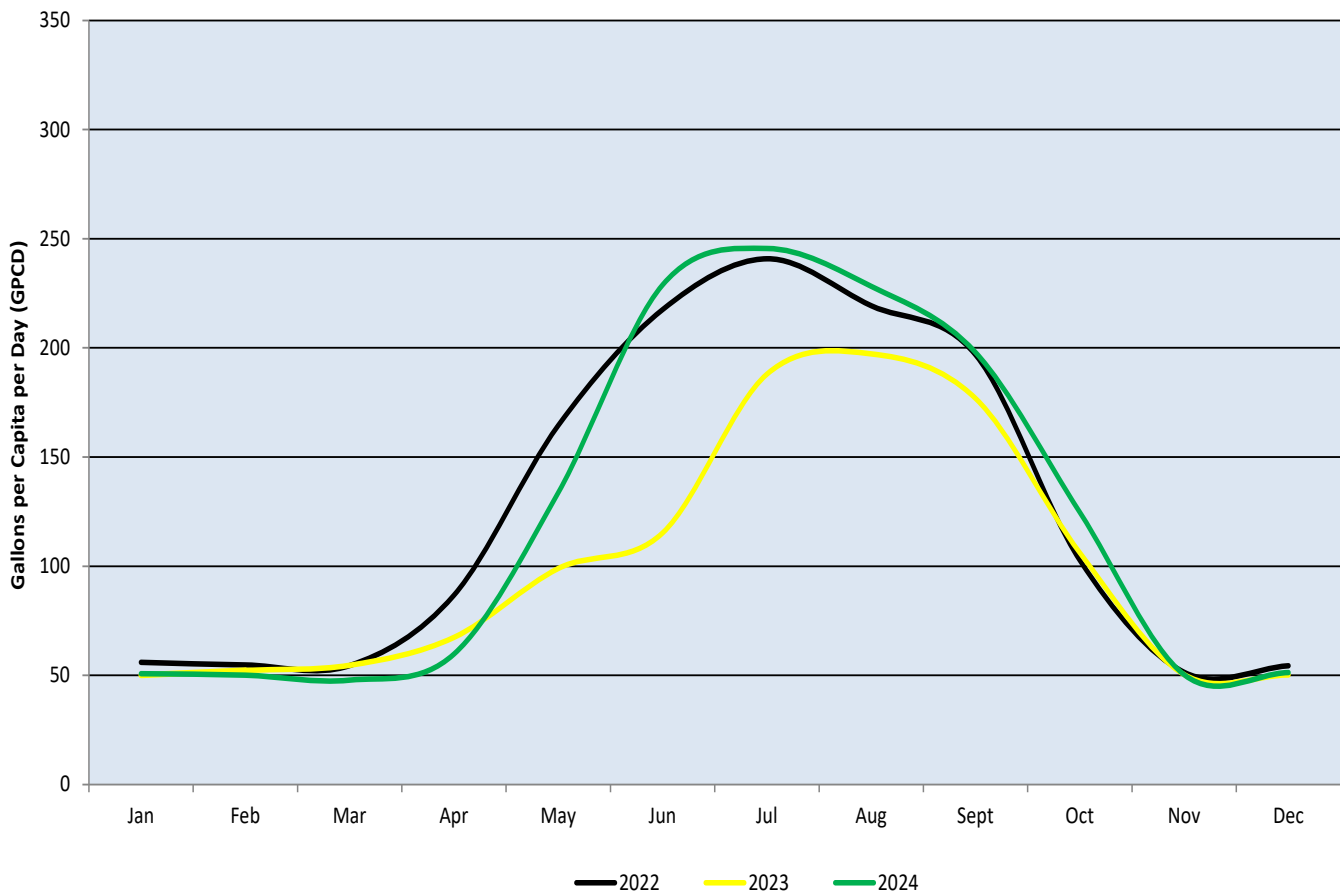
2022 – 125 GPCD | 2023 – 101 GPCD | 2024 – 122 GPCD

Per capita demands stayed relatively stable throughout 2024; however as new development comes online with water saving features and smaller landscaped areas, combined with the Town's strong tier pricing and conservation messaging; we are seeing water demands generally reacting appropriately in normal years. Outdoor irrigation typically amounts to roughly 40 - 50% of annual deliveries, this year we saw closer to 60% of the water supplied going to irrigation likely due to dry and hot conditions.

What Does this Tell Us?

Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Staff will be collaborating with Water Conservation staff in Environmental Services to continue with Turf Replacement programs and other conservation messaging, we continue to work to develop a code-based water landscaping standards that can reduce customer bills and demand, while also leveraging our water supply portfolio. The Town is an innovator in the State and region in these areas.

Average Water Daily Usage Per Capita



NORTH WATER RECLAMATION FACILITY (NWRF)

Average Flow Million Gallons per Day (MGD):

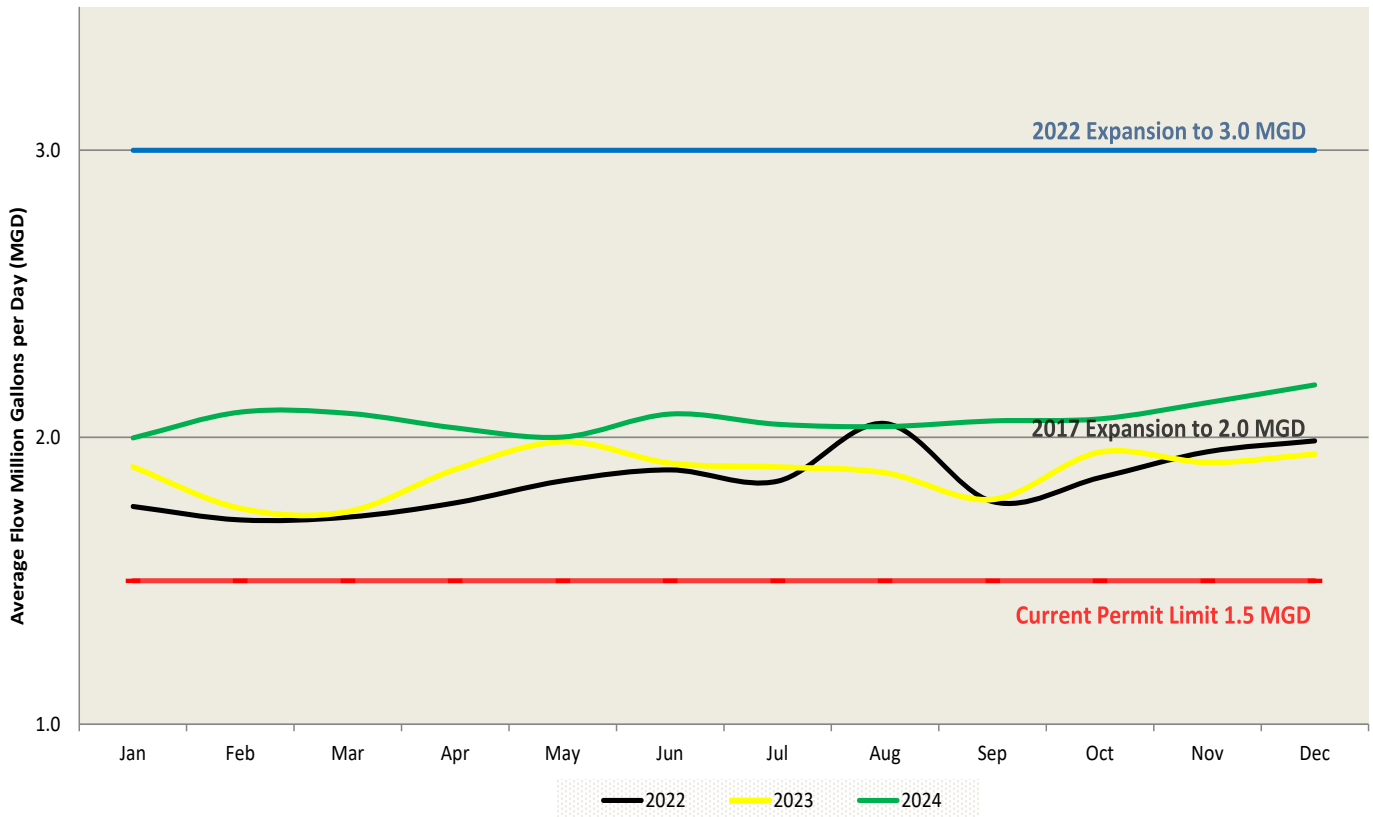
2022 - 1.8 MGD | 2023 - 1.9 MGD | 2024 - 2.1 MGD

As is the case for most wastewater utilities in the State, our permit expired long ago and is on “Administrative Extension” a sort of limbo period where no changes are made to the permit, even though changes are made to water quality standards along with treatment plant improvements and expansions. Our permit is currently about 8 years expired. This summer’s base flows of about 2.1 million gallons per day are a good indication of actual indoor demands.

What Does this Tell Us?

The NWRF is permitted to treat 3.03 MGD, design for expansion is required at 80% (2.4 MGD) of permitted capacity and we must be under construction for an expansion at 95% (2.9 MGD) capacity. Based on current growth trends, we are 7-8 years out from our next expansion and three years out from starting the design for the next expansion, as we tend to increase by about 0.1 MGD per year. This graph also shows the variability of inflow and infiltration (I&I) in the collection system during extremely wet periods like 2022, when storms inundated streets and led to water getting into manhole lids and other sewer collection system structures. We see a similar uptick throughout winter as snow melts and some of it finds it’s way into manhole covers.

Average Wastewater Monthly Flows



Annual Gallons Per Capita per Day (GPCD):

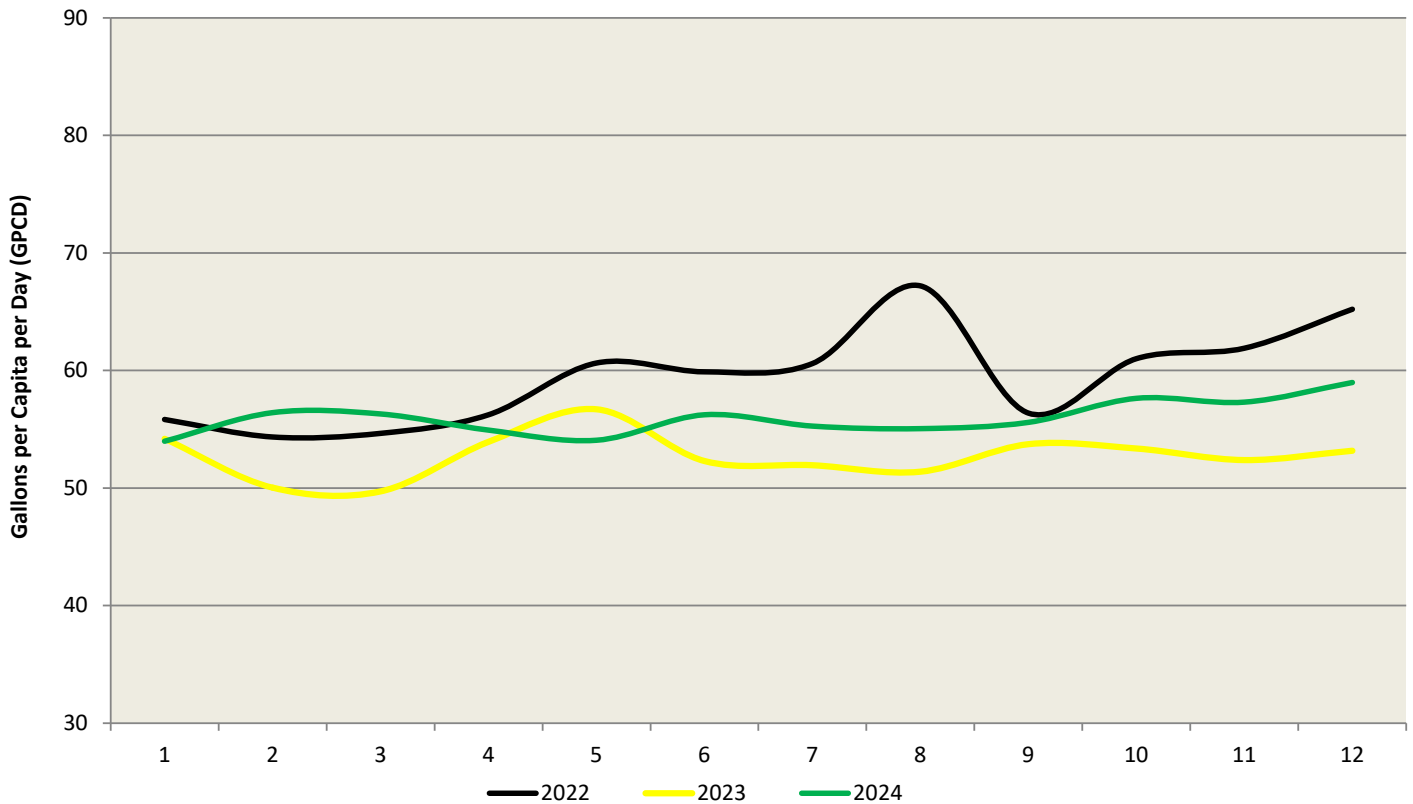
2022 - 59 GPCD | 2023 - 53 GPCD | 2024 - 56 GPCD

This graph depicts customer indoor water usage. The average daily usage per capita in 2024 was stable, due to very low precipitation and general lack of I&I. In comparison, August 2022 had the highest usage at 67 GPCD, again due to intense rain and particularly micro-burst storms that affected multiple sub-divisions on the west side of Town.

What Does this Tell Us?

High precipitation events that flood streets and heavy, wet snowstorms have a major impact on inflows to the NWRf. This is primarily due to leakage into manholes. Overall usage per capita continues to be tempered by lower water using plumbing fixtures and newer, less prone to leakage, infrastructure. Dry periods show the actual sewer inflows related to development & growth. The differences between 2023 and 2024 are good examples of that here.

Average Wastewater Daily Usage Per Capita



MONTHLY WEATHER DATA FOR BOULDER

National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

NOAA is predicting 33-40% below normal precipitation and equal chances of above or below normal temperatures February through March. Good news for skiers and water drinkers! Snow pack is hovering around 100% in the Colorado Basin (where most of our water comes from).

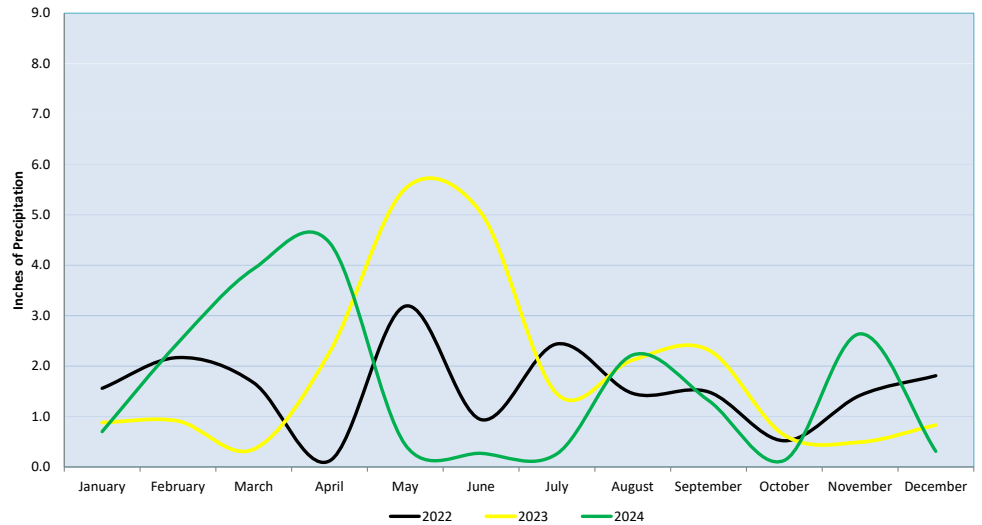
HIGHLIGHTS

We continue to move forward to develop the North Water Treatment Facility design as well as Boulder Creek and Filly Lake supplies.

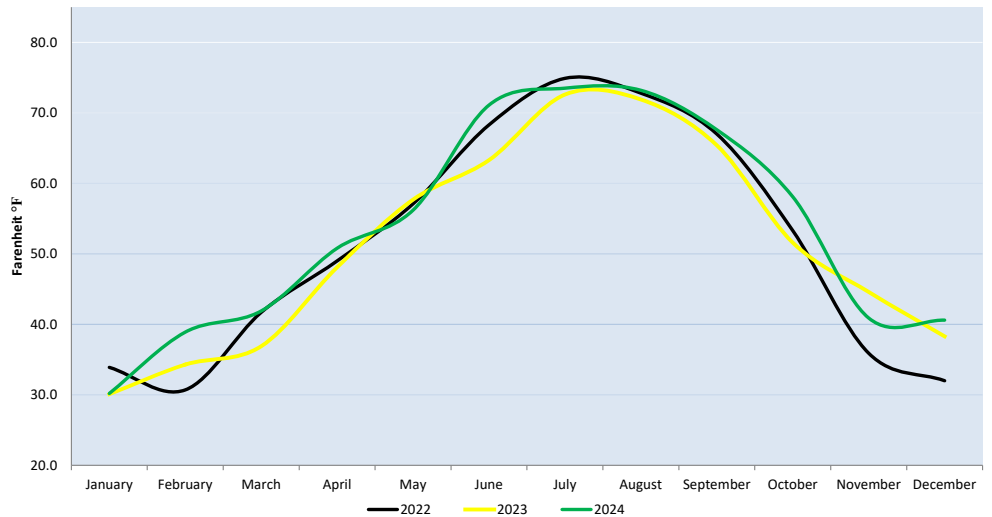
We are working to secure water tank storage sites in Zone 2 (North Westerly) and Zone 3 (Arapahoe and 287 at Tebo site).

We are looking to clear the old Prince Reservoir Forebay at 287 and Arapahoe of vegetation in order to perform a land swap with the developer of the Tebo Site.

Precipitation



Mean Temperature



What Does this Tell Us?

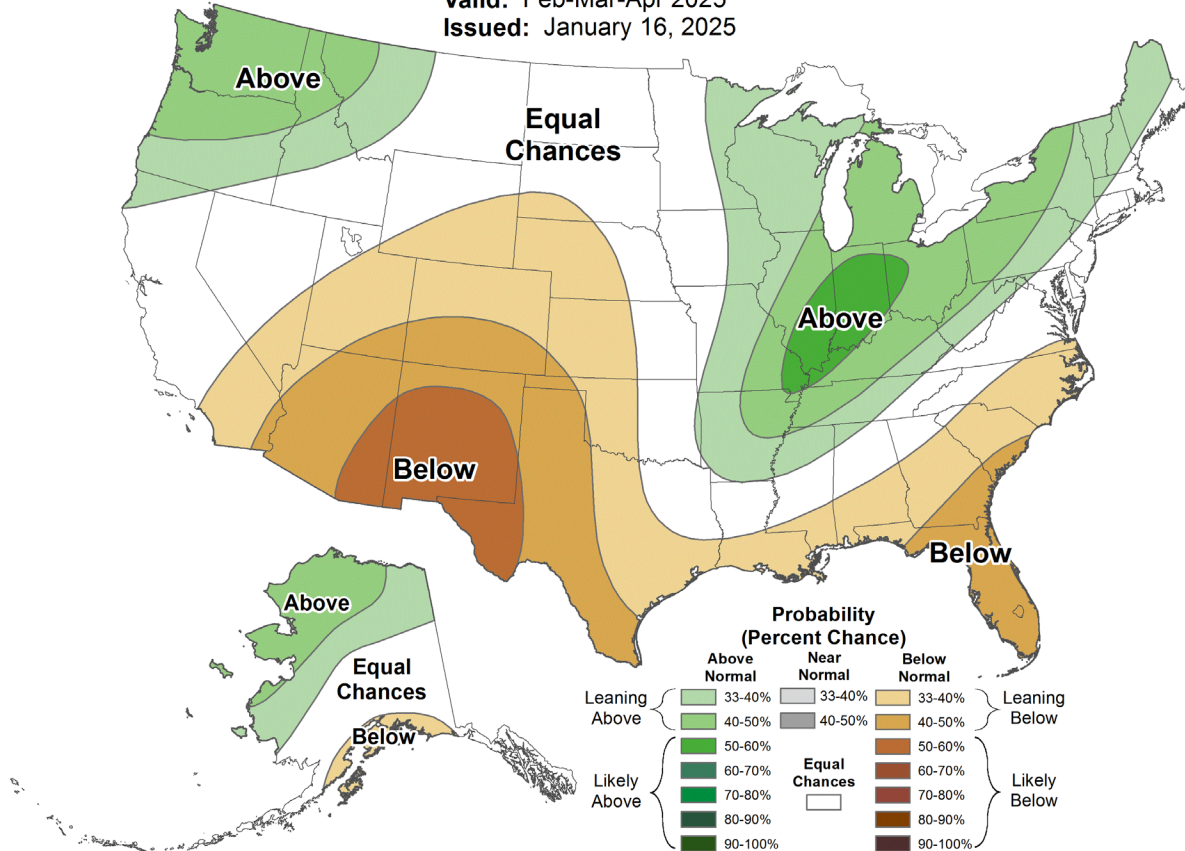
Precipitation and temperature are the two most significant factors in irrigation season water demands. Tracking these demands over time helps us track demand patterns and also see factors that may influence demands and timing in water supplies and wastewater I&I.



Seasonal Precipitation Outlook



Valid: Feb-Mar-Apr 2025
Issued: January 16, 2025



Seasonal Temperature Outlook



Valid: Feb-Mar-Apr 2025
Issued: January 16, 2025

