Message from Hydrologist John Wells



I am the Hydrologist for Salt Lake City's Department of Public Utilities. This position affords me the unique opportunity to work with our partners in an effort to quantify the water resources on which our community depends for drinking water, irrigation, and all other water needs.

Let's start with the good news. While the Great Salt Lake remains in a long term, hydrological drought, above average precipitation this winter season and last has created a favorable water supply outlook. Snowpack is a critical factor in determining water supply for Salt Lake City as it provides more than half of the total water supply needed for the City. The amount of water stored in the snowpack is known as the Snow/Water Equivalent, or usually just referred to as SWE. Hydrologists calculate SWE in the snowpack by sampling different areas in our watersheds to determine how much water we can expect to see downstream as the snow melts. That melt supplies SLCDPU's water service area with drinking water for the year to come. And, of equal importance, runoff ultimately flows to our local creeks, water bodies, and Great Salt Lake. We are seeing above normal snowpack in our watershed areas this year. While there is still more than a month of winter left in our mountains, with the above normal snowpack currently in the mountains and the forecast for more to come in the next month, it would appear we will have a robust supply of water this year.

2023 set snowpack records. It's important to remember that today because last year's conditions set the stage for this year. As a result of last year's extraordinary snowpack, our water supply received a much-needed replenishment. Reservoirs, like Deer Creek or Little Dell, act as storage facilities which feed drinking water to our community throughout the year. Water levels in these key reservoirs are encouraging. Groundwater, which sustains the wells SLCDPU draws from in times of peak demand (usually during the summer months), was also partially recharged thanks to last year's extraordinary water year. When soil moisture levels are high, runoff is more likely to make its way to our local water bodies, rather than being absorbed. This is good news when it comes to the health of our downstream riparian areas, wetlands, and the health of Great Salt Lake.

Just over one month remains before we begin heavier consumption and stop storing water for the season, and much can change in that time. Currently, The Weather Service is forecasting a slightly wetter and warmer than normal March. This will probably result in some additional snowpack storage at the higher elevations, while also creating higher stream flows with rain on snow events at the lower elevations. Additionally, The Weather Service is predicting slightly higher than normal temperatures over the next 3 months. This may lead to the snowpack "ripening" and melting off at a somewhat faster rate, though this is not an unusual occurrence.

Because of an impossibly complex set of factors involved, hydrology is not an exact science. That being said, the science gets better every year because of a collaboration between local, state, and federal governments all working on their own part of making this very complex picture more clear. Using tools created by some

of these entities and some of our own, I am encouraged by the data we're seeing right now. I am also confident in SLCDPU's ability to manage water supplies to best support our community today and for generations to come.

Stewarding our water resources responsibly and efficiently is our top priority. If you are interested in learning more about how hydrology informs the decisions we make here at SLCDPU and how it impacts our water supply in general, you may wish to view the <u>presentation</u> we recently shared with Salt Lake City's Council on February 20, 2024.

Droplet's Phrase of the Month

Hey Droplet - what is a "hydrological drought?"

The National Weather Service defines hydrological drought as "the impact of rainfall deficits on the water supply such as stream flow, reservoir and lake levels, and ground water table decline." Thanks to 2022-2023's record-setting snowfall, Utah's water supply received a much-needed recharge. But one year of favorable precipitation does not solve a drought.

Hydrological drought can occur when an area is subjected to a prolonged state of meteorological drought. Hydrological drought considers multiple factors, including the demand on water resources.

Here in Utah, drought is a normal and recurrent weather event. We cannot always rely on precipitation, though we're grateful for it. Rather, we are called upon to be thoughtful stewards of our water resources. Here at SLCDPU, this is our top priority.

Get Involved!

- Join the team! We're hiring. Explore career opportunities and submit your application on Salt Lake City's Careers website.
- Did you know the Public Utilities Advisory Committee (PUAC)
 meets monthly? These meetings are open to the public. Visit their
 webpage to learn more about these meetings and the function of
 our PUAC.
- Follow SLCDPU on social media! Find us on Facebook, X, and Instagram.

Join SLCDPU's Team



A dirty park strip, driveway pipe, or gutter can impede the flow of water and potentially lead to localized flooding. Please help us keep the water running as intended! This spring, make sure leaves, garbage, and other debris are removed from your park strip, driveway pipe, and/or gutter.

Project Updates

Salt Lake City's Department of Public Utilities manages a number of construction projects to maintain and improve our system. Many of these projects are smaller in scale but we've highlighted a few of our larger projects below. If you're interested in learning more about other SLCDPU projects, please visit our website.

- 1800 North Sewer Realignment: SLCDPU celebrated a milestone event on this project in February. A massive sewer tie-in structure, weighing over 550,000 lbs., was constructed above ground, hoisted, and installed below our feet. The second phase of this project is moving forward toward its ultimate completion date in Spring 2025.
- 2100 South Sewer Upsize: The 2100 South sewer upsize team is making significant progress toward completing this project in mid-March 2024. The roadway project along 2100 South is anticipated to start the first week of March, and we continue to coordinate with those teams to ensure a collaborative working environment to the benefit of our neighbors. More details about Salt Lake City's 2100 South improvements are available online.







Salt Lake City Department of Public Utilities | Salt Lake City

Salt Lake City Department of Public Utilities

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