

How long can Payson's current water supplies last?

A question that many people ask is "just how long can Payson's water supplies last?" Payson's water supplies are managed with the **Safe Yield** approach. This means that we do not wish to use more water than is naturally replenished over the long-term average. We expect to reach this balance at about the same time that a new source of surface water is delivered to Payson. At that point, groundwater wells will be turned off seasonally, in favor of the surface water supply. Therefore, assuming Payson's water resources are managed appropriately Payson's long-term water supplies are anticipated to be quite sufficient.

What will happen if the Town of Payson were to continue to grow beyond its Safe Yield and C.C. Cragin water is not yet being delivered?

Assuming a growth rate of 3% per year, average precipitation, and per capita use remains less than 90 gallons per person per day, groundwater supplies should remain sufficient to meet annual demands until C.C. Cragin surface water deliveries commence; even if several years of demand above Safe Yield were to occur.

What is Payson doing to conserve its water resources?

Our water conservation ordinances are some of the most aggressive in the state of Arizona. Water conservation is taken seriously in Payson. Resource status levels such as precipitation trends and groundwater levels are used to set reality based

conservation levels. We provide free conservation education to schools, free water saving devices, special incentive programs, and much more.

What's in Payson's future for water?

Continuing to provide sufficient quantities of the highest quality drinking water for the people of Payson is our goal. The Town of Payson is working hard to **preserve and protect** our current water resources while developing new ones. Working towards the utilization of C.C. Cragin surface water is a priority for the Town's Water Department. We are focused on working with the Salt River Project, Bureau of Reclamation, Gila County, Department of Water Resources, Tonto National Forest and others in a cooperative effort to ensure utilization of this source. With the utilization of C.C. Cragin Reservoir surface water, Payson will have obtained a water supply necessary to satisfy foreseeable future water demand.

We are excited about Payson's water future and look forward to continued success.

TOWN OF PAYSON WATER DEPT.

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WATER RESOURCES FACT SHEET



Payson's signature water tank, as seen from Highway 87 when entering Payson.

WHERE DOES PAYSON GET ITS WATER?

Currently, Payson utilizes two sources of water to meet its needs. Groundwater is Payson's only source of drinking water, while reclaimed water is used for irrigation and artificial recharge.

What is groundwater and how does Payson obtain it?

Groundwater is water that resides in aquifers within the earth's crust. The geology in and around Payson is made up of decomposed and fractured granite rocks. This kind of geology has allowed for snowmelt and rainfall to percolate or recharge into the earth's crust and create our aquifers. Also, a deeper portion of the aquifer system carries groundwater of the regional aquifer. Groundwater that exists within this part of the aquifer is believed to originate as recharge from atop the Mogollon Rim northeast of Payson.

While well yields are typically not as high as sand and gravel aquifers, the Payson granite is a surprisingly productive aquifer. One of our deeper wells is capable of yielding nearly 1,000 gallons per minute or 1.44 million gallons per day! The deeper portions of the aquifer yield groundwater from a much larger regional aquifer system.

These Groundwater resources are pumped into the Town's distribution system from wells drilled into the aquifer at locations throughout the Town of Payson.

What is recharge? Why is it so important?

Recharge is a term used to describe how aquifers are replenished. The shallower portions of the Payson granite aquifer are totally dependent on local recharge from winter precipitation and to a lesser degree, summer monsoon rains. Studies indicate that between ten and sixteen percent of Payson's annual precipitation recharges into the local aquifer.

In times of drought, recharge is limited for the entire aquifer system. This is why water levels within the aquifer and precipitation totals are watched closely. Water levels and production capabilities will decline when recharge is low. This is very important because of the frequency of severe droughts in the high deserts of Arizona. Conservation therefore plays a vital role in the Town of Payson's water management efforts.

What is reclaimed water and artificial recharge?

Reclaimed water is treated effluent or recycled water. The Northern Gila County Sanitary District receives wastewater and treats it to a very high quality. The quality of the reclaimed water is so good that portions of the Payson aquifer are being artificially recharged with it at Green Valley Park. The Green Valley Park Lakes also serves as the distribution hub for reclaimed water used at golf courses, schools, and park turf areas thereby helping to preserve groundwater for potable uses. In the future, additional artificial recharge facilities may be utilized in order to offset the negative influences of unusually long dry spells.

What about surface water resources?

Currently, **surface water** resources are not available to the Town of Payson. Locally, the rights to surface waters in streams and rivers around Payson belong primarily to the Salt River Project (SRP).

However, the United States Congress passed the 2004 Arizona Water Rights Settlement Act, in December 2004. By the passage of this Act, Payson was given access to up to 3,000 acre-ft/yr of surface water from **C.C. Cragin reservoir (formerly Blue Ridge)**. This reservoir is located atop the Mogollon Rim north of Payson. The Water Department is currently working with SRP to secure the Town's rights to this surface water source. The Department is also working on preliminary designs and permitting for the installation of an approximately 15 mile long pipeline needed to bring the water to the community. A water treatment plant is also being considered in that process. The project is anticipated to cost \$30M, with impact fees being the primary funding source. The Department's goal is to have the new source of water available between the years 2015 to 2020.



Ariel View of C.C. Cragin (Blue Ridge) Reservoir % SRP