

## GET TO KNOW YOUR



### **Pine Valley Water Supply Project Information Sheet - Fall 2021**

#### **Drought and Flooding**

- According to the [United States Drought Monitor](#)<sup>1</sup>, Iron County is currently experiencing a “Severe/Extreme Drought.”
- June 2019 thru July 2021, Iron County experienced it’s second [driest consecutive years](#)<sup>2</sup> on record (in 127 years), and is currently in it’s 2nd warmest year on record.
- In July and August 2021, Cedar Valley experienced drastic monsoon storms that resulted in the most costly and damaging flooding throughout the valley on record.
- It is time to address the water issues. Cedar Valley has reached a point where the conversation can no longer wait.

#### **Cedar Valley Water Budget**

- Yearly water usage: 28,000 acre-feet [1 acre-foot(AF) = 325,851 gallons of water]
- Current water safe-yield (water that is actually available): 21,000 AF per year
- The Utah Division of Water Rights has implemented a [Groundwater Management Plan](#)<sup>3</sup> that will slowly reduce water rights to safe-yield. Cedar City Corporation stands to lose 80% of their groundwater rights through the Groundwater Management Plan.

#### **Planning for the Future**

- Following recommendations from state scientists and water experts, current efforts of Central Iron County Water Conservancy District to conserve, recharge, reuse, and import include:
  - o **Agricultural Conservation:** With 75% of Cedar Valley’s water use designated agricultural, the District has placed a large focus on [agriculture efficiency](#)<sup>4</sup>.
    - **LEPA/LESA:** Working with the E&I Soil Conservation District and the Utah State Legislature, the District helped convert more than 2,000 acres of center pivots to [LEPA/LESA Systems](#).
    - **Ag Optimization Task Force:** District General Manager Paul Monroe serves on the Agricultural Water Optimization Task Force for the state of Utah.

<sup>1</sup> <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?UT>

<sup>2</sup> [https://www.ncdc.noaa.gov/cag/county/time-series/UT-021/pcp/12/5/1895-2021?base\\_prd=true&begbaseyear=1901&endbaseyear=2000](https://www.ncdc.noaa.gov/cag/county/time-series/UT-021/pcp/12/5/1895-2021?base_prd=true&begbaseyear=1901&endbaseyear=2000)

<sup>3</sup> <https://www.waterrights.utah.gov/groundwater/ManagementReports/CedarValley/CedarValley.asp>

<sup>4</sup> <https://cicwcd.org/agricultural-conservation/>

- **SUU Farm:** The District is partnering with SUU Farm and USU Extension on irrigation and crop management trials to help optimize water supplies.
- **Artificial Recharge:** In cooperation with local government agencies, the District began an extensive recharge program in 2016 that now includes seven [recharge facilities](#)<sup>5</sup> in Cedar Valley and added more than 14,000 acre-feet of additional water to the aquifer.
- **Reuse of Wastewater Treatment Plant Effluent Water:** The District is working with Cedar City and Enoch City to prepare for the construction of a project that would transport treated effluent water from the Cedar City Regional Wastewater Treatment Facility to agricultural fields in Cedar Valley. Transporting effluent water will help reduce pumping from our declining aquifer.
- **Import from Pine Valley Water Supply Project:** Efforts to import 15,000 acre-feet from the Pine Valley area northwest of Cedar Valley are currently in the early planning stages.
  - Water from the West Desert's Pine Valley will provide an additional source of water, help restore Cedar Valley aquifer levels, provide safe and reliable drinking water, and ensure there is water for the future. The project is designed to provide solutions for Cedar Valley, including the municipalities of Cedar City, Enoch, and Kanarraville.
  - The Pine Valley Water Supply Project is currently in the Environmental Impact Statement process with the Bureau of Land Management and ultimately it will be up to community leaders and our community to approve the construction.

## FAQs about the PVWS Project

- **What is the PVWS Project?** - The PVWS begins with a fully renewable solar power generation system at the well sites in Pine Valley, northwest of Cedar Cedar. The water will be transported through 70-miles of buried pipe and arrive in the Cedar Valley near Iron Springs Road where it can be distributed to the communities within the valley.
- **Who owns the water?** - In February 2019, the court decreed 15,000 acre-feet of water in Pine Valley and up to 11,275 acre-feet in Wah Wah Valley to the District. Through a settlement the District gave water to Beaver County and will provide water to mining operations in Wah Wah Valley, Beaver County if they come to fruition.
- **What is the cost of the PVWS?** - The PVWS Project is expensive; however, it is feasible, and it is important to invest in the future of our valley. The District is currently working with local municipalities to create a feasible financial plan. The project will be financed and funded through a combination of grants, loans, impact fees, user fees, and property taxes. If the project was only paid back by the current water users in the valley, water users could expect to see approx. \$55<sup>6</sup> added to their monthly bill.
  - *Comparing Cost of Similar Projects:*

<sup>5</sup> <https://cicwcd.org/aquifer-recharge-3/>

<sup>6</sup> [https://cicwcd.org/wp-content/uploads/2020/06/2020-5-21-PVWSProject-FBP-WtrNeedsAssmt\\_Final-Report-June-2020.pdf](https://cicwcd.org/wp-content/uploads/2020/06/2020-5-21-PVWSProject-FBP-WtrNeedsAssmt_Final-Report-June-2020.pdf)

- Cost of Pine Valley Water Supply Project 15k AF \$260M = \$17,333/AF
  - Cost of LPP to Cedar Valley (Present Value) 13k AF \$515M = \$39,654/AF
  - Cost of LPP to Washington County 83K AF \$1.5B = \$17,909/AF
  - Cost of Kolob to Cedar Valley (Present Value) 6,500 AF at \$105M=\$16,277/AF
  - Las Vegas Lawn Buyback Program: \$3/sq.ft. of lawn = \$56,800/AF
- How will the PVWS affect the Environment? - The PVWS Project is designed with acute attention to possible environmental impacts. It is currently in the [Environmental Impact Statement \(EIS<sup>7</sup>\)](#) process with the Bureau of Land Management.
  - Hydrology - Hydrologic models have been created to show all possible impacts to the environment. This data has been collected by and presented using the most current and best science available. The latest report was produced by Transcon Environmental and Formation Environmental with concurrence and review from the leading scientists from USGS, and BLM.
  - Wildlife - Scientific studies in connection with the hydraulic model show regional springs in Pine Valley are not connected to the underground aquifer. In Snake Valley the model predicts less than 1% change in flow, which would not be observable or measurable. Impacts to further distant springs that are home to Least Chub and other fish are expected to be less.
  - Energy - This project is one of a kind being fully powered by onsite solar panels. When the sun is shining water will be pumped up to a large tank where it will be stored to be used when needed in Cedar Valley.
- What if someone's water right is impacted? - It is not the intention of the District to impair anyone's water rights, and models show that others will not be measurably impacted. However, if other senior water right holders are impacted by the PVWS Project, water rights will be made whole through supplemental water or other measures as indicated by state law.
- Why don't we just conserve and reuse our wastewater? - Conservation and reuse are key pieces to the water solution puzzle. However, due to drought, the state's Groundwater Management Plan, population growth, etc., conservation and reuse are not enough to fix our water resource issues. We must diversify our water resources and extend our reach for water.

### **What You Can Do for Our Community (regarding PVWS)**

- Ultimately, the PVWS Project's success relies on the support of the Cedar Valley community.
- There are outside environmental activists who oppose this project.
- The District encourages you to research the facts about the PVWS Project and welcomes your questions and comments: <https://cicwcd.org/pvwsproject/>
- Educate: Share this information with your family, friends and neighbors.

### **Historically Speaking**

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<sup>7</sup> <https://cdxapps.epa.gov/cdx-enepa-ll/public/action/eis/details?downloadAttachment=&attachmentId=343812>

- From approximately 1851-1908, residents drew water exclusively from Coal Creek. According to Clemont Adams' book "A History of Water in Iron County," once water reached town it was diverted from Coal Creek and ran in small ditches along city streets where residents drew water into barrels for family use and channeled it onto their properties for irrigation. Each morning, residents would fill their water barrels which were positioned near the ditches to serve as the family's supply for the day.
- In 1854, just three years after the city was settled, an ordinance was passed "to preserve the purity of the water," and declaring a fine between \$5 and \$100 for anyone who would "foul or filth the water" by throwing raw hides or dirty clothing into a ditch. Also prohibited in ditch water was emptying chamber pots, slop buckets or washing one's hands or feet.
- By 1884, a water tax was established in Iron County amounting to \$1 per family and 50 cents per lot for irrigation, or 45 pounds of grain per resident lot and 30 pounds of grain per irrigation lot (\$1 in 1884 is worth \$27.99 today).
- It was 1997 when Cedar Valley residents petitioned and the state formed the Central Iron County Water Conservancy District, under the Utah Water Conservancy District Act. The District was created with the understanding that water is a geographical issue; larger than what each municipality in the Cedar Valley can manage on its own.
- Concern for water in Iron County (or the lack thereof) is nothing new and has historically controlled or influenced nearly all decisions regarding community growth.

### **Working to Optimize Every Drop of Water in Iron County**

The Central Iron County Water Conservancy District is charged with conserving, developing and stabilizing the Cedar Valley water supply for the benefit of all current and future water users and consumers in the region. The Water District educates residents about conservation, reuse and water import strategies as it strives to meet the challenges of declining water levels and community growth.

"We realize there is still more to do, and we are open to new ideas and solutions. Never has it been more important to optimize every drop of water in Cedar Valley and to create sustainable solutions for the future," Paul Monroe, General Manager said. "In the end, plans are in place, our community is resilient, and we are going to be okay."

#### **More information**

Website: [cicwcd.org](http://cicwcd.org)

Facebook and Instagram: @cicwcd

Phone: 435-865-9901

