



## A Brief History of Kachina Village Improvement District

### Formation

The Kachina Village Improvement District (KVID) was formed in 1965 when the property owners in Kachina Village petitioned to form the district with the intent of paving streets, building sewers and other local improvements. This district was approved by the Coconino County Board of Supervisors on April 8<sup>th</sup> of 1965. During the early 70s, KVID raised funds through a bond effort to provide paved roads as well as a water and sewer system for the community.

### Kachina Utilities

On January 4, 1974, the Environmental Protection Agency (EPA) issued a permit allowing KVID to discharge treated water into Pumphouse Wash, an acceptable practice at the time. A couple of years later KVID entered into an agreement with Kachina Utilities, an Arizona corporation, to maintain the water and sewer systems for the residents of Kachina Village. At that time, the utility's Board of Directors (a local board – not the County Board of Supervisors) set the utility rates at ten dollars a month to provide service to the community.

Under the management of Kachina Utilities, KVID struggled to maintain compliance with the EPA and the Arizona Department of Health Services (ADHS, the predecessor of the Arizona Department of Environmental Quality (ADEQ)). Numerous violations took place going back as far as 1978, with these issues culminating in 1986 with a consent decree being filed against the utility demanding that resources be secured to properly repair and upgrade the wastewater treatment facilities to meet EPA standards.

It was during this time that Coconino County took over management of KVID. The intent was for the County to aid in returning the utility to compliance and stability, and now to return the governance of KVID to the residents of Kachina Village. The County invested in the utility, and along with grant funding through the EPA, the wastewater treatment plant was upgraded and the Kachina Village Wetlands constructed for use in the disposal of treated wastewater. The utility continued to improve under County stewardship and has become a reliable fixture for the Kachina Village community.

### KVID Today

KVID provides water and sewer service to approximately 1,400 residences in the unincorporated area of Coconino County known as Kachina Village. The utility is maintained by a total of eight staff that focus on providing quality water and wastewater services to the residents of Kachina Village.

The drinking water system is supplied by four deep aquifer wells and distributed to our customers using three pumping stations and some fifty miles of underground water lines. KVID's well water is lightly treated with chlorine and then housed in one of four above ground storage tanks. While usage varies from day to day, daily flows from our system average around 150,000 gallons a day in the winter months to about 250,000 gallons a day during the peak summer months.

The wastewater treatment plant at KVID is supplied through a gravity collections system by roughly forty miles of underground sewer lines. KVID's plant relies on extended aeration as its primary form of treatment with gaseous chlorine for final disinfection. Our treated wastewater is pumped to the Kachina Village Wetlands and stored in lined ponds for evaporation. Though we typically process only about 150,000 gallons a day, KVID's treatment facility is designed to handle more than double that amount of flow.



KVID is still under the stewardship of Coconino County, being managed by the County's Public Works Department. It bears mentioning that KVID is funded by the residents through the payment of their water and sewer bills and that KVID does not draw off of the County's general fund. Coconino County's Board of Supervisors resolves as the KVID Board of Directors when making decisions concerning the operations of the utility.

## **Recent Efforts**

Over the last ten years KVID has implemented a number of improvements, which resulted in operational improvements, cost savings and increased efficiencies. This includes process improvement, installation of more effect pumps and motors, automation of monitoring processes through the use of a Supervisory Control and Data Acquisition (SCADA) system, as well as changes to the solids disposal processes. These efforts have resulted in cost savings, including a 63% reduction in the power usage at the wastewater treatment plant.

KVID has also worked to improve its service to its customers. Installation of radio read water meters allows KVID staff to identify unusual usage at a connection and notify the resident that they may have a potential leak. KVID has also implemented e-billing and auto-deduct options to help make our billing process more convenient for our customers.

Most recently KVID has completed a Master Plan process for both the water and wastewater systems. The Master Plans provide inventory and assessment of system infrastructure as well as GIS mapping and survey of KVID's underground infrastructure. A key component of the Master Plan effort was to prepare operation recommendations for the utility as well as a 20-year Capital Improvement Plan that will help guide KVID to a similar level of success in the future.

The Capital Improvement Plan lays out a schedule for beginning to replace KVID's aging underground infrastructure, which in most instances is more than forty years old. KVID's sewer manholes are in need of rehabilitation and a key interconnection between KVID's two water distributions zones should be improved and modernized. KVID is also working towards construction of a second clarifier, a key component of the wastewater treatment process that is in need of redundancy to ensure uninterrupted sewer service for the community. KVID is working hard to maintain its existing infrastructure, but in some cases replacement or improvement is needed to keep the utility running strong for years to come.

## **What's Next?**

As announced last month, KVID is embarking on a rate study to insure the successful future of the utility. The rate study is being conducted by an independent expert who is working with KVID staff to evaluate the past 5 years of operations as well as projecting expected operating and capital costs over the next 10 years. KVID's rates have not been increased or evaluated in more than ten years.

The Board of Directors and KVID staff also endorsed the development and implementation of a robust communication process that will facilitate input from the residents and ratepayers. A Citizen's Advisory Committee will be created to review the results of the master plan and to provide a recommendation to the Board on proposed changes to the utility's rate structure.

It is also the intent of the Board to transition KVID's governance and eventually convey the utility back to the community. In doing so, it is important to ensure a sustainable water and sewer system for the community. Any proposed rate increase will be evaluated in relationship to these objectives.