

## **DROUGHT TOLLERANT LANDSCAPE PROJECT**

### *How we got here.*

The Barstow Cemetery began business at the Irwin Road location sometime in the 1930's. It started as a for-profit, privately-owned cemetery. Around 1947 the cemetery was gifted to the people and The Barstow Cemetery District was formed as a self-governed special district. Two cemeteries located within the City of Barstow were interred and relocated to Section 1 blocks 2 thru 5. For many years this area was not developed with any grass primarily because of the upright grave markers.

District boundaries for the Barstow Cemetery District are approximately north to Ft. Irwin, east to the Marine Base, south to Hodge Road and west to the San Bernardino – Kern County line.

Water for the cemetery was supplied by wells on the property. Over the years there was believed to have been four different wells and a reservoir to hold water. Around 1960, with the building of Irwin Estates Housing Development, municipal water from a private water company was extended to the cemetery. A combination of well water and municipal water was used for watering the trees and lawns.

By 2000 the wells were in bad repair or not even working. Local well drillers had come out and checked the wells condition. The San Bernardino County Board of Supervisors awarded the cemetery district with an approximate \$31,000 to get the wells functioning again. The money was used to repair the existing wells and drill another. This latest drilled well does not have enough output to supply the water needed and the remaining wells were not deep enough.

In a Desert Dispatch article dated 10-19-2014 it was mentioned that the grass was not up to par and that water was costing the district approximately \$4,000 to \$18,000 a month, depending on the time of year. In a subsequent Desert Dispatch article on 06-06-2015, it was mentioned that mandatory water rationing came to be. This caused an even greater toll on the grass and trees as water was cut 25% by California State Mandate. It was further stated that the high cost of water continued, that wells were not working and that a water audit

was requested by Golden State Water, the purveyor the of municipal water company. The water use audit was completed in June of 2015. For whatever reason, the board of directors was not made aware of the results until a couple years later (about 2018) when a representative of Golden State Water advised that an audit had been completed, and a report submitted.

The Cemetery Board of Directors received the audit report which addressed indoor usage of sinks and toilets and that they be replaced with current available low-flow devices. The audit also addressed the outdoor usage of water, of which was most of the water consumption. The report further stated that then current water usage was well below the amount needed by the plants and grass. The recommendations were to upgrade the existing irrigation system and replace current sprinklers. The aforementioned suggestions were followed, but water usage was barely affected.

In December of 2016 the Watermaster for the Mojave Basin Water Area requested a meeting with representatives of the Barstow Cemetery District. The General Manager and a Cemetery District board member attended. The cemetery officials were advised that they had no declared or allocated well water quota and that from satellite imaging the cemetery was using way too much water. The Watermaster was advised that the cemetery was not pumping water from the wells and all but one well was dry and that the remaining well had little output. Along with that, the cemetery had monthly bills ranging from ten to twenty thousand a month along with dying and yellow grass and was not pumping well water. It was suggested that the cemetery investigate alternative means of landscaping. It was also stated by the Watermaster that due to current drought conditions further ramp downs of water use were expected.

As it was no longer viable to continue status quo, the cemetery began looking into various ways to deal with the water supply issue. This included using non-potable water, trucking in water, artificial turf, re-drilling wells and bringing in a pipeline from other sources. These options were economically unfeasible. The Mojave Water Agency (MWA) advised that they had a cash for grass removal program that could be of assistance. Initially cemetery board members were reluctant to engage in this program. The MWA further advised that the cemetery consider drought tolerant landscaping.

The cemetery board discussed project alternatives in monthly open meetings and two town hall type meetings. Meetings with the MWA, Golden State Water, Mojave Resource Conservation District and others to address the project were conducted. Initial discussions with experts in the field placed the total cost of converting to a drought tolerant landscaping at approximately 1 million dollars. After figuring out the amount that would be allocated for the MWA Cash for Grass Program, the decision was made to go ahead with the project in phases. It was also found that the cemetery had a very good chance of receiving a California Proposition 1 grant for further funding, which it indeed was awarded. Golden State Water Company offered and paid for the services of a landscape architect. A local stone supplier donated tons of rock filings for the landscape. Total compensation received in grants and services was right at 1 million dollars.

Unfortunately, in the spring of 2020 the Covid Pandemic struck. It put many things on hold including burials, gatherings, and construction projects. This also led to the unavailability of and cost of products and services. The pandemic put the cemetery behind schedule in completing the landscape project.

Requests for bids were sent out. The bid was awarded in September 2021 for the first phase of the work. The work started towards the end of 2021. As grass was being removed it was noted that most of the trees had visible surface roots and was also disturbing placement of burial markers. Further examination of the trees revealed dry rot and insect infestation. Ensuing winds over the next year and a half also took many trees out by the roots. Most of the Fruitless Mulberry trees were over 60 years old, along with Cottonwoods that were over 40 years old. It was decided to remove all trees and to replant with drought tolerant plants and trees. The first phase of landscape renovation Section 1 Blocks 2 thru 5 was completed in April 2023.

With change in cemetery management numerous issues concerning the office building and maintenance area were addressed. The building conditions and unsafe equipment in use by staff were identified. Much needed improvements and upgrades were necessary. These changes were made with cemetery funds

and DID NOT come out of any grant money allocated and awarded to the cemetery.

The next phase of the project was chosen based on the amount money left in the grant and time left to complete. Section 4,000 located directly to the left as one enters the gates was selected by staff and the board to be next. The work in this area went out to bid and work commenced in November 2024. One thing done differently in this phase was having current maintenance staff assume some of the landscaping tasks. Currently all are on track and completion is anticipated by the end of March 2025. This also should put us close to zeroing out the balance of the two grants received.

Along with the landscape renovation project a generous donation was made by a local family for the design and installation of a commemorative fence along the Veteran's Section of the cemetery. A grant under the American Rescue Plan Act (ARPA) was awarded which is going to be installing ADA bathrooms at the cemetery.

The Board of Directors and cemetery staff are well aware that there is more to do. Office staff has been diligently seeking further grants and options to complete the entire project. The cemetery maintenance staff has also taken on greater responsibilities and involvement in the renovation project and will be assuming more of the tasks. We know there is more to do and both staff and the board are looking at all avenues to complete the renovation as soon as possible.