



# Purple Pipe

Volume VII Spring 2016



## New Apple Valley Sewer Line Opens

### Upper Narrows Pipeline Replacement Project Nears Completion

For the first time in more than five years, wastewater from Apple Valley is flowing through a permanent interceptor, or sewer line, to VVWRA's main treatment plant in Victorville. The newly completed interceptor was opened for wastewater flow in mid-February and marks another major milestone toward the completion of the Upper Narrows Pipeline Replacement Project. The new interceptor features two 16" pipes that connect to the 30" existing line in an area east of the Mojave River. The 16" pipes stretch more than a third of a mile and go 42 feet under the Mojave River. At Kemper Campbell Ranch, they join a large pipeline drilled through the rocky hills of the Upper Narrows. Another pipeline that will carry wastewater from Hesperia, Spring Valley Lake and portions of Victorville is being installed under the BNSF railroad tracks. It will tie into the same large pipeline in the Upper Narrows. Construction on that portion of the interceptor system is expected to be completed in June.



Wastewater flowing from a 30" pipe to two new 16" pipes that go under the Mojave River and join the large pipeline drilled through a rocky hillside in the Upper Narrows.

**RIP Mike Guoin**



It is with great sadness that we say goodbye to our friend and co-worker Mike Guoin. Mike was killed when his motorcycle was hit by a suspected drunk driver on February 16. Mike had been a Senior Operator at VVWRA for more than 2 years. His positive attitude and infectious smile made VVWRA a better place to work. Mike will be greatly missed. RIP Mike.

The Upper Narrows Pipeline Replacement Project became necessary in late 2010 after a series of powerful storms severely damaged the existing pipeline that ran along the Mojave River. An emergency bypass was constructed in just 9 days. The new, permanent interceptor project was designed to avoid environmentally sensitive areas as much as possible. The cost of the Upper Narrows Emergency and the Pipeline Replacement projects is estimated at \$41 million. The Federal Emergency Management Agency (FEMA) is paying for the majority of the repair cost.



VVWRA's Robert Townsend enters a manhole to pull the plug that opened the newly finished Apple Valley sewer lines.

(see map of the project on page 3)



# A Message from our General Manager

## A New Hope?

Hope as a noun means to have a feeling of expectation and desire for a certain thing to happen. Did you notice that nowhere in the definition is hope intended to convey a positive outcome or an uplifting sentiment? Yet we commonly enlist hope to describe a better future for ourselves, our loved ones, our coworkers, our community, our nation, etc.

My hope is that the planning for our future as shown in the Hesperia 2034 campaign, the County Vision Statement, the Mojave Water Agency integrated planning and the VWRA recycled water and energy goals provide a positive vision of what we can be together. The language of division is often laced with hope but is that what truly made our nation, our democracy, our neighbors, family and coworkers so great?

My hope is that we will recall our proudest moments and the effort, the teamwork, the resolve that it took to achieve greatness; then we pause a moment, look around us, then we work as a nation, a community, as coworkers and family to give hope to others for a better tomorrow.



Logan Olds, General Manager

## VWRA receives incentive check from SCE



(left to right, VWRA commissioners Russ Blewett, Jim Cox, Scott Nassif, SCE's Amy Olson and VWRA Director of Operations Gilbert Perez

VWRA received an energy saving incentive check of \$121,919.84 from Southern California Edison for its aeration energy efficiency upgrades. The check was presented by SCE representative Amy Olson to the VWRA Board of Commissioners at their regular meeting in February. The aeration energy efficiency upgrades will save VWRA about 1,336,000 kilowatt hours of electricity per year. That is the equivalent to the amount of electricity needed to power 122 homes annually. "These upgrades allow us to save energy while improving our wastewater treatment process," said VWRA Director of Operations Gilbert Perez. The aeration energy efficiency upgrades consisted of a new electric powered, 400 hp Piller turbo blower and new Aquarius fine bubble diffusers installed in aeration basins 1 through 8. The Piller blower replaces three blowers that were powered by internal combustion engines. The Aquarius fine bubble diffusers have much better oxygen transfer efficiency than the previous diffusers and thus require less energy.

## Target 99 Hits 10,000 Assets

Target 99 hit a milestone in mid-March as its asset inventory list reached the 10,000 mark. Target 99 was launched in 2015 in conjunction with the implementation of Lucity asset management software with the goal of getting better than 99% adoption. "The first component of asset management is a comprehensive inventory," said VWRA's Latif Laari. "Everything is then based on that." At the beginning of this process, the VWRA team asked the following important questions: 1) What do we own?; 2) Where is it; 3) What condition is it in?; 4) What is it's value and 5) What is it's life expectancy? The 10,000 asset milestone helped answer the first two questions, because it is absolutely critical for a utility to understand what it owns. It is pretty hard to manage something effectively if you don't know what that "something" consists of. Team VWRA expects the asset inventory to continue to grow and more relevant information about critical assets will be added. Over the next few years, the team's mission will be to answer questions 3, 4 & 5. It's hoped by embracing these asset management principals, that VWRA will be able to make better operational decisions, improve emergency response, and plan and budget for future repairs and replacements.



VWRA's Katie Still takes inventory with Lucity.





# Purple Pipe - bits & pieces

## Lighting Up VWVRA



New lighting improves visibility and safety in the area surrounding the primary clarifiers

Newly installed, energy efficient LED lighting is brightening up the VWVRA plant, improving safety and reducing energy usage. Approximately 300 lights are being replaced throughout our main plant in Victorville, as part of the exterior lighting efficiency program. It's expected that the fixtures will reduce

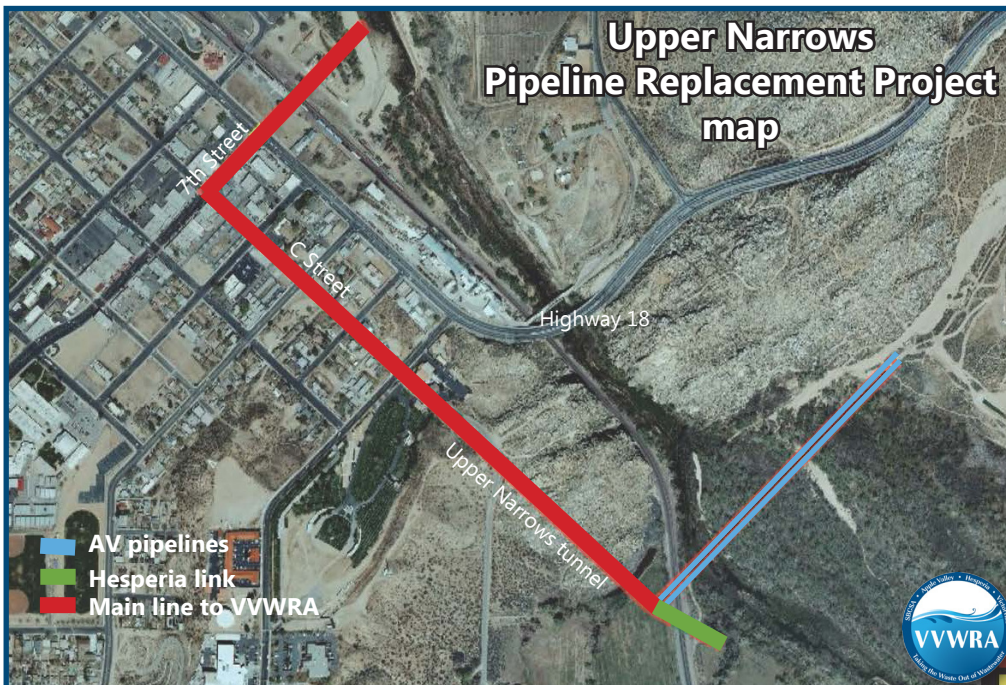


Worker removes old 175 watt light. electrical demand in outdoor lighting by more than 30%. The project also establishes standardized lighting at the VWVRA plant. Over the years, about 20 different types of ex-



New 78 watt dome hat LED light installed by Aaron Rister from Big Sky Electric

terior lights have been installed here. The new upgrade reduces that to two. As a side benefit, LED lights tend to not attract as many bugs as traditional lights, meaning less moths and spiders at the plant. The new lights also produce a white light similar to daylight, while the old lights had a yellow color to them. Many of our operators have said that the new lighting makes it easier and safer to work at night. The entire exterior lighting efficiency upgrade is expected to be completed in mid-April.



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# Around the Plant

## Kyle Parker -- Employee of the Quarter

Congratulations to Accounting Technician Kyle Parker who was named VVWRA Employee of the Quarter. Kyle was recognized for his hard work, dedication and commitment to excellence. His responsibilities include payroll and accounts payable among other things. Kyle joined the VVWRA team in January of 2015 after earning a Bachelors of Arts degree in Accounting from Cal State San Bernardino. He had previously worked for the Hesperia Park and Rec District as a Recreation Specialist. Kyle is a lifelong High Desert resident who grew up in Hesperia and graduated from Hesperia High School. He recently moved to Apple Valley. In his free time, he enjoys fishing and kayaking. As part of his win, Kyle received a letter of commendation for his file, a \$150 gift card and the coveted reserved parking space. He says he plans to use some of the money to take his parents out to dinner! Congratulations Kyle!



## Snakes Alive!



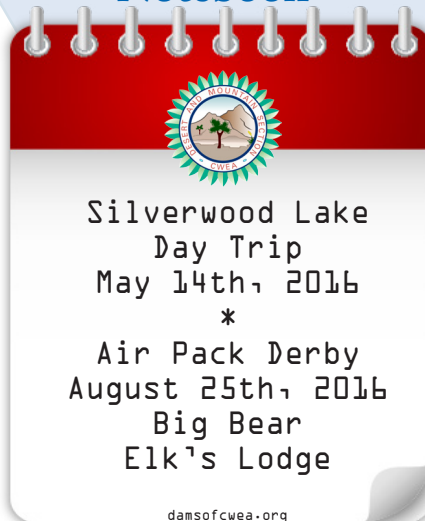
Temperatures are rising and that means snake season is here. It's not uncommon to see snakes like this kingsnake on the grounds of VVWRA or near our interceptors and pump stations. While the kingsnake is not venomous, our desert is filled with rattlesnakes that are very dangerous. Be extra careful as the weather gets warmer and keep an extra eye out for these guys. Snakes like to sunbathe on rocks or dirt, but they also can be found in grassy areas or near bushes. If you see a snake, give it a wide clearance.

## Checking Out the Blanket!



VVWRA Senior Operator Mike Tarango is shown here using a "sludge judge" sampler to check the depth of the sludge blanket in our primary clarifiers. The settled solids in our primaries, called sludge, are sent to anaerobic digesters to help in producing power. The sampling helps ensure that the sludge is the proper consistency for the digesters while not damaging our equipment. Sludge blankets are checked up to four times a day.

## CWEA/DAMS Notebook



## A new face @ VVWRA



VVWRA welcomes Patrick Shields as our new Mechanic in Training!



# Subregionals Update

**\*VWVRA is currently building subregional water reclamation plants in Hesperia and Apple Valley. Both are set to open in early 2017. When fully operational, each site will be capable of producing one million gallons per day of recycled water. The water will be used for above ground irrigation saving our precious drinking water.**

## HESPERIA



Construction on the Hesperia subregional water reclamation plant (WRP) is progressing well. Contractors working with W.M. Lyles Co. are working on the masonry walls of the primary and secondary buildings. The masonry will be complete in April and they will then start the structural framing for the roofs. Once the roof framing is complete, crews will be able to start drywall and painting. Crews are preparing for the installation of electrical gear and laboratory equipment. Preparation will also begin on other

activities like installing doors, flooring and bathrooms. Additionally, crews have begun to work on the equipment, as well as above ground and below ground piping. W.M. Lyles currently has 2 full time crews assigned to piping and equipment. A 3rd crew will start in April. This work will continue to the end of 2016 when we plan to begin preliminary start up. Work on the nearby pump station is also underway with installation of the vault to house odor control fans.



*Aerial view of the Hesperia subregional.*

## APPLE VALLEY



Excavation at the Apple Valley subregional site at Brewster Park has been completed and crews are now concentrating on building the concrete structures. Construction of these below ground structures will continue into the Summer of 2016. At that time, the construction team will begin back filling the structures. Important note: Brewster Park remains open during construction. Our crews

are already working with Town officials to assure the best possible access to the park for the communities annual 4th of July celebration. Meantime, two percolation ponds adjacent to holes 13, 14 and 15 at the Apple Valley Golf Course are virtually complete. Most of the pipelines along Town of Apple Valley streets have been completed and construction on piping at the golf course is underway.



*Aerial view of construction of Apple Valley subregional*

## Local Teachers Tour VWVRA



VWVRA GM Logan Olds explains how the monitoring system works for one of our aeration basins.

More than a dozen Victor Valley area school teachers toured the VWVRA plant on a cool, breezy evening in early February. The tour was part of a free teachers workshop offered by VWVRA through the Mojave Environmental Education Consortium (MEEC). The workshop was an opportunity for educators to learn first hand about the complex world of wastewater treatment and to see the exciting sustainable energy projects that have made VWVRA a leader in its field. The teachers witness real world science and technology in the field with the hope of passing those lessons on to their students. VWVRA offers tours for all types of groups. For more information, contact David Wylie at [dwyllie@vwwra.com](mailto:dwyllie@vwwra.com).



## VWVRA's ISO 50001 Endeavor

VWVRA has embarked on a new Endeavor by joining ISO 50001, a nationally recognized Energy Management System certification program. Recognized by the U.S. Department of Energy, the program is designed to identify areas at the VWVRA plant that are considered significant energy users and put in place a strategy to become more energy efficient over a period of time. VWVRA staff is calling their effort Endeavor. The word endeavor is defined as a conscientious or concerted effort toward a goal. With that in mind, our staff created an acronym for the Endeavor campaign: **E**fficiently carry out operations, **N**ever turn down an opportunity to request additional resources, **D**o not submit to failure, **E**nsure regulatory compliance



and legal obligations, **A**lways be transparent, **V**erify new projects and equipment will improve energy efficiency prior to purchasing, **O**ur commitment to improve energy performance is strengthened with increased communication, **R**educe carbon footprint. As part of the strategy, VWVRA staff is closely looking at all operations at the plant and exploring options for reducing power usage. While VWVRA has had significant success in recent years in reducing power consumption, this program is designed to improve on those past accomplishments.

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VWVRA EIT Mauricio Marin

### Perc Pond Prowler!



Photo courtesy of Wesley Bardsley

The Mojave River runs adjacent to VWVRA. The heavy brush, trees and water in the area are home to a vast amount of varied wildlife. Therefore, it's not unusual to have visitors at our plant. This is a bobcat that was recently spotted near our north percolation ponds. Our staff has nicknamed it the "Perc Pond Prowler". Coyotes, snakes, scorpions and raccoons are also regular visitors to VWVRA.

### Mister Dingle's Corner



Check out Mr. Dingle on Facebook [www.facebook.com/misterdingle](http://www.facebook.com/misterdingle)



"A lot of folks have been eating corn lately."

Contact the Purple Pipe: [info@vwwra.com](mailto:info@vwwra.com)