

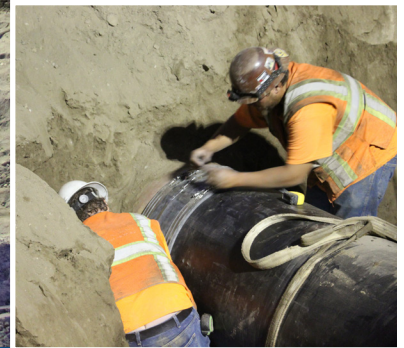


Purple Pipe

Volume IX Fall 2016



Upper Narrows Pipeline Project Completed



Workers from Apple Valley Construction set in place the final link in the Upper Narrows Project

For the first time in more than five years, wastewater flow from Hesperia, Spring Valley Lake and Victorville is being conveyed by gravity to the main VVWRA plant through a permanent pipeline. At 6:31 am on July 28th, workers installed the final link; a 27" pipe that functionally completed the project. The Upper Narrows Pipeline Replacement project consisted of a number of difficult challenges. Workers bored a large tunnel through a rocky hill in the Upper Narrows to house a 48" pipe. The tunnel continued underneath 'B' Street and 7th Street Victorville. In addition, a pair of 16" pipes from Apple Valley were installed 40 feet below the Mojave River and a 40" pipe was put underneath the BNSF railroad tracks. The ambitious project was made necessary after a series of storms in December of 2010 severely damaged the main sewer line to VVWRA. A temporary bypass was built in just 11 days and that bypass stayed in place until the final link was installed in late July. *(continued on page 6)*



Wastewater flowing through new Upper Narrows pipeline.

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A Message from our General Manager

Courtesy, please?

Lately I have been thinking about the importance of courtesy and the role it plays in our personal and professional lives. Are you familiar with the simile "agree to disagree"? Each of us has unique experiences and knowledge that create our system of beliefs. When we encounter beliefs that are at odds with our own, conflict arises due to our varied interests. Think about who you most routinely have conflict with. Most likely it is with people that you interact with on a regular basis at work or home.

What I have difficulty with is that courtesy seems to be the first casualty of conflict. Yet our ability to be successful both personally and professionally is directly related to conflict resolution. I would like to suggest that our lives would be more fulfilling if when we experience conflict, we step back a moment and respond with courtesy. This in no way means that your beliefs are subservient. Instead you recognize that conflict is a means by which a new and perhaps better condition can be created. That through conflict we can create something different. I believe the pathway of conflict resolution is paved with the mortar of courtesy. So the next time you see conflict rife with negativity, think about how much better it might have gone if the person had just shown a bit of courtesy.



Logan Olds

Logan Olds, General Manager

Governor Brown Signs Green Energy Bill Sponsored by Obernolte and VWRA

Governor Brown has signed Assemblyman Jay Obernolte's bill, AB 1773, which expands the Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) program to allow local government agencies to participate. Sponsored by the Victor Valley Wastewater Reclamation Authority, AB 1773 will allow Joint Power Authority's (JPA) that operate within a single county to participate in the program. VWRA is a JPA comprised of Victorville, Hesperia, Apple Valley and portions of San Bernardino County including Spring Valley Lake and Oro Grande. Previously, JPA's were not allowed to participate in the RES-BCT program. A JPA is formed when local governments choose to exercise powers common to all of them to help facilitate operations between entities that perform similar functions.

The RES-BCT program allows local governments to receive credit for energy generated from renewable sources at one of their facilities and exported onto the grid as a credit for energy consumed at another of their facilities. AB 1773 is a modest expansion to a successful program that will give more flexibility to local governments that wish to invest in renewable energy. In VWRA's case, we will be able to export green energy produced at our Victorville plant to offset the cost of energy used for our new subregional water reclamation facilities in Apple Valley and Hesperia. "AB 1773 will allow the VWRA to have access to the RES-BCT program, which will save our ratepayers a minimum of \$400,000 a year," stated Logan Olds, General Manager of the VWRA. "VWRA has been a leader in the wastewater field and is dedicated to the generation of renewable energy," said Assemblyman Obernolte. "AB 1773 will allow them, and other organizations like them across the state, to save money by adopting green energy practices."



VWRA GM Logan Olds talks with Assemblyman Obernolte during tour of our treatment plant.

Purple Pipe
newsletter

VWRA
Board of Commissioners

- Russ Blewett / Hesperia
- Jim Kennedy / Victorville
- Scott Nassif / Apple Valley
- Jeff Rigney / SB CSA 42 & 46

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VWRA named Utility of the Future



VWRA has been honored as a Water Resources Utility of the Future Today by a number of National water groups. VWRA was recognized as a Utility of the Future for its “innovative and forward thinking practices that are providing sustainable, efficient and value added services to the community.” The Utility of the Future initiative was established in 2013 by the National Association of Clean Water Agencies (NACWA), the Water Environment Federation (WEF), the Water Environment Reuse Foundation (WERF) and WaterReuse to encourage better treatment and use of water related resources. VWRA has been an industry leader in innovative approaches to green energy production and water reuse. Our “waste to energy” program has VWRA on the verge of becoming energy neutral, while our subregional water reclamation facilities under construction in Apple Valley and Hesperia will be providing recycled water to those communities in 2017.

VWRA Finance Dept. receives GFOA Award

For the fifth year in a row, the Finance Department at the Victor Valley Wastewater Reclamation Authority has been awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association (GFOA) for its comprehensive annual financial report (CAFR). The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting. “Although it’s been a difficult year for us financially, our finance team continues to strive for excellence in serving and protecting the public’s interests financially”, said VWRA Director of Finance Angela Valles. The GFOA is a nonprofit professional association serving approximately 17,500 government finance professionals with offices in Chicago, IL, and Washington, D.C.



Accounting technician Kyle Parker, Accounting supervisor Chieko Keagy, Director of Finance Angela Valles, Accountant Xiwei Wang

VWRA GM Speaks at Water Conference

VWRA General Manager Logan Olds was a featured speaker at the San Bernardino County Water Conference in Ontario. Logan spoke about the unintended consequences of water conservation on wastewater treatment. He shared that water is what transports waste to our plant. When there is a less water in the flow, there is an increase in the amount of hydrogen sulfide, which is an acid that corrodes steel and concrete which can damage pipes. In addition, lower water flows have a financial impact on VWRA, where all income is based on the amount of flow coming to the treatment plant. Less flow means less money to operate our facility. So we are forced to make budgetary adjustments as well. Logan also spoke at the 23rd annual SCE Water Conference in Irwindale



Logan Olds at SB Co. Water Conference



Around the Plant

Employee of the Quarter--Johnny Bustos



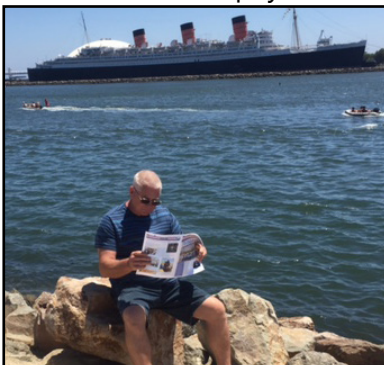
Congratulations to Johnny Bustos who is our newest Employee of the Quarter. Johnny began his career as an intern through VVC and even took a class taught by VVWRA GM Logan Olds. He was hired as an Operator in Training in August of 2015 and was promoted to Operator in July of 2016. Johnny has a Grade 1 certification and recently took the exam for the Grade 2 cert. Johnny describes himself as a born again Christian and he credits God and Logan for the success he has had at VVWRA. "If it wasn't for a conversation I had with Logan when I was first starting, I wouldn't have continued in this career." Johnny is being recognized as Employee of the Quarter, in part, for his hard work and positive attitude. Congratulations Johnny!



VVWRA Wins Air Pack Derby



Another year and another victory for VVWRA at the CWEA/DAMS Annual Air Pack Derby in Big Bear. At this years event, VVWRA's Finance Department team of accounting technician Kyle Parker and accountant Xiwei Wang brought home the gold beating out four other teams. It marked the second year in a row VVWRA won the competition. Last year, the team of Bobby Hesse and Brad Adams took first place. The Air Pack Derby is a timed event that requires a team of two to don an SCBA (self-contained breathing apparatus), walk a slalom course and then close "a leaking chlorine valve". While VVWRA no longer uses chlorine to disinfect recycled water, the competition is a great opportunity to display coordination and teamwork. The "trophy" is on display in the VVWRA lobby.



Take the Purple Pipe with you!

That's exactly what VVWRA's Robert Townsend did this Summer as he visited the Queen Mary in Long Beach. If an exciting vacation or getaway isn't enough for you, be sure to take a copy of the Purple Pipe with you. Snap a photo of yourself and you could end up in the next edition of the Purple Pipe. Send your photo to info@vwwra.com.



CWEA/DAMS Calendar

Nov. 3
Collection Systems
Training Day
Hesperia

Dec. 2
DAMS Awards Banquet
Victorville

More info:
damsfcwea.org





This 'n that!

The Great Duck Rescue



Keith Lueken holds a rescued duck.

It was the end of an October day for our staff at VVWRA, when mechanic Mike Koncur spotted a number of young ducks trapped in one of our drying beds. The drying beds contain thick sludge that is being dried by the sun. From the air, the drying beds can look like dry ground and that's apparently what these birds thought. They landed in the sludge and were unable to get out. VVWRA employees quickly convened and discussed how to safely rescue the ducks. A plan was put together. The team used a tractor to push the

ducks closer to the shore, where employees with a large net were able to scoop them up. In all, nine of the young ducks were rescued. All of them were tired and very dirty. The VVWRA rescue team managed to clean them up and released them to one our our ponds that contains recycled water. VVWRA's mission is to protect public health by treating more than 10 million gallons of wastewater every single day. The duck rescue was an example of the extra effort our employees are willing to take to assure that the environment and animals that live in it are taken care of.



The ducks get a bath before being released.

SCADA Control Room Gets Upgrade



The SCADA control room at VVWRA was recently given an upgrade with two new computer work stations and an additional large screen monitor. Further software upgrades are also in the work. SCADA stands for Supervisory Control and Data Acquisition. The SCADA control room is where our operators control all of the systems at the plant including water flow, treatment processes, pumps and aeration blowers. In addition, when the subregionals in Apple Valley and Hesperia come on line in 2017, our operators will be able to monitor and control them remotely from our main plant in Victorville.

Please Don't Flush!

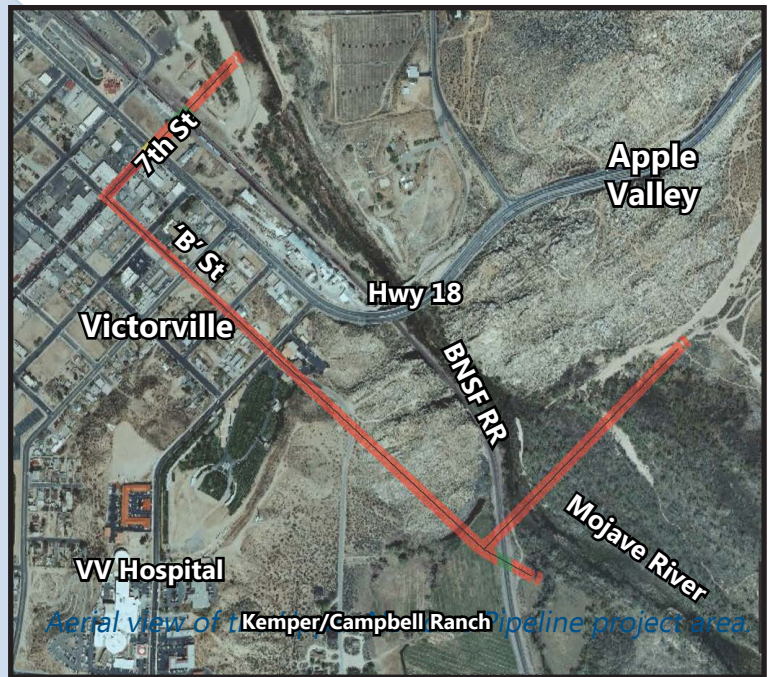
Please don't flush prescription drugs or wipes down the toilet! Treatment plants like VVWRA are not designed to filter prescription and over-the-counter drugs. Drugs can be taken to local household hazardous waste disposal sites. And despite what the labels say, there is no such thing as flushable wipes. Disposable wipes clog pipes and get stuck in the plant machinery.





Upper Narrows Pipeline Completed cont.

CONTINUED FROM PAGE 1...While the project was functionally completed in July, there was much to do after the wastewater began to flow. It took several months for crews to dismantle more than a mile of piping that was part of the temporary bypass. In addition, there were large pumps and other equipment that had to be removed from three different sites. In the end, after 2132 days, the project was declared complete on October 26. In all, the project cost approximately \$42 million, with VVWRA's portion at \$2.7 million. The rest is being paid for by FEMA. That's because the initial pipeline break and spill was declared a Federal emergency. "The project faced many challenges over the years, but we are very happy to have completed this much needed piece of infrastructure that benefits the entire Victor Valley," said VVWRA General Manager Logan Olds.



Aerial view of the Upper Narrows Pipeline project area.

Upper Narrows Pipeline Project History



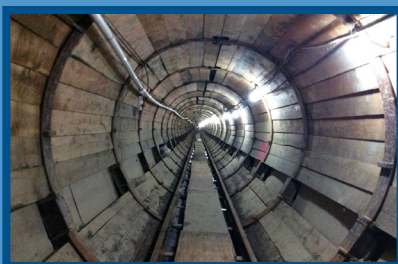
Dec. 2010--A series of devastating storms sweep through the Victor Valley. VVWRA's main sewer line breaks in the Mojave River



Jan. 2011--An emergency is declared and repairs begin immediately to contain the damage.



Jan. 2011--In just 11 days, more than a mile of an emergency bypass pipeline is built including this pipe bridge over the river.



2014--Major tunneling operations including this massive 84" tunnel under a rocky hill in the Upper Narrows.



2015--A series of large pipelines are installed in the tunnels bored under mountains, the Mojave River, railroad tracks and city streets.



July 2016--Upper Narrows Pipeline Project is functionally completed and wastewater begins to flow through permanent lines.



Subregionals Update

***VWVRA is currently building subregional water reclamation plants in Hesperia and Apple Valley. Both are set to open in 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



The Hesperia subregional is now 70 percent complete. The aeration basins have now been enclosed and roofing is being completed on the primary buildings. In the next few months, construction crews will be finalizing installation of mechanical piping, electrical conduit and wiring. Crews will also be installing cabinets inside the buildings and finishing the labroatory. Outside, they will be working on the site fencing and irrigation for the landscaping. At the nearby lift station, both underground and above piping is being finished along with electrical work. The lift station will essentially pump wastewater from a sewer line under Maple Avenue to the water reclamation facility.



Hesperia subregional is now 70% complete.

APPLE VALLEY



The Apple Valley subregional is approximately 60 percent complete as crew are finshing the masonry work on the structures at Brewster Park. They are also finishing the structural steel and the roofing. In the next few months, crews will be working on above and below ground piping, electrical conduit and aeration equipment. Brewster Park remains open throughout the construction. At the Apple Valley Golf Course, trees and shrubs are being planted near the percolation ponds. When that is completed, irrigation networking will be installed. While work on the Apple Valley subregional began several months after the the Hesperia subregional got underway, crews have made great progress.



Aerial view of construction of Apple Valley subregional

Innovation Solves Oxygen Issues in UV Disinfection

VWVRA Team makes upgrades to improve treatment in hot weather



Changes in the weather and temperatures often bring unique challenges to treating wastewater. One example came earlier this year in our UV disinfection process. In this process, we use powerful ultra violet lights to disinfect the treated water before it's released into the Mojave River. The Summer heat caused the amount of dissolved oxygen in the treated water to drop. In response, our staff came up with an innovative solution by installing aeration bay diffusers in the UV effluent channel. The diffusers release small air bubbles into the treated water. This effectively increases the amount of oxygen in the treated water which benefits the wildlife that lives in and around the Mojave River basin.



Ask Johnny!



Water District in Orange County is recognized as one of the pioneers in the recycled water field. They were the first to provide recycled water for agricultural use in the early 1960's. As recycled water use gained momentum in the 1980's, Irvine Ranch engineers wanted an easy way to differentiate recycled water pipes from those carrying drinking water. They settled on purple pipes for recycled water. In fact, the color is now known as "Irvine purple" and has become the international standard for identifying recycled water systems. VVWRA produces up to 10 million gallons a day of recycled water, which replenishes our local



Purple Pipe at VVWRA

aquifer. Purple pipe will deliver the recycled water to local golf courses and parks once construction of our new water reclamation facilities are completed in Apple Valley and Hesperia. So naming our newsletter the "Purple Pipe" was a natural, and we think its kind of cute too!

Johnny

Q. Why do you guys call your newsletter the Purple Pipe? Is that just a cute name or is there something else to it?

--Maribel, Apple Valley

A. Great question Maribel! The answer is a little bit of both. First, a little history. The Irvine Ranch

Masked Bandits at VVWRA



photo courtesy of Daniel Enriquez

A family of raccoons recently made a rare daytime appearance at the VVWRA plant in Victorville. Raccoons are normally nocturnal, but this group seemed to be pretty comfortable roaming our grounds during the daylight hours. With thick brush and the Mojave River nearby, VVWRA gets lots of animal visitors throughout the year.

Dingle's Corner



What kid or adult can resist getting a Mr. Dingle selfie? This is just some of the fun you can have during an informative tour of the VVWRA plant. If your group, class or organization would like a tour to see firsthand how wastewater is treated and cleaned, contact David Wylie at dwylied@vwwra.com or (760) 523-1781.

Contact the Purple Pipe: info@vwwra.com