



Purple Pipe

Volume XXVI Spring/Summer 2022



Telling the Story of Resource Recovery



Greater High Desert Chamber of Commerce Leadership Academy tours VWVRA . Photo courtesy of Jenny Flores.

VWVRA is on a mission to educate the High Desert about the many services we provide and the incredible career opportunities in the wastewater industry. While wastewater is on our name, VWVRA is a resource recovery facility. We treat wastewater and create Title 22 recycled water that can be used for irrigation as well as a number of other uses. We treat and dry biosolids which are then re-used as a nutrient-rich fertilizer. And with the advent of SB 1383, which requires 75% of food waste be diverted away from the landfills by the year 2025, VWVRA has begun treating food

waste. The food waste is delivered by large truck as a liquid slurry and treated inside three newly rehabilitated digesters. We capture the methane that is produced by the food waste and the municipal sewage, then run it through a scrubbing process so it can be used as renewable natural gas. "It's important that the High Desert is aware of what we are doing



Mechanic intern Allen Dorado (l) working with Mechanic Mike Koncur.

in terms of reclaiming our natural resources while producing renewable green energy", said VWVRA General Manager Darron Poulsen. "And as our population grows, so will the opportunity for careers in the wastewater industry." Careers in wastewater offer many great benefits including good pay and recession proof jobs that don't require a college degree. But many agencies, including VWVRA, struggle to find qualified operators and mechanics. To tackle that problem, VWVRA offers a paid internship pro-

gram that gives inexperienced, career-minded people a chance to learn the trade hands-on. Many members of our staff, including top management, started at VWVRA as an intern. "When the recession hit in 2008, I found myself looking for a new career", said VWVRA Plant Superintendent Brad Adams. "I came on board as an intern and found I had a passion for this type of work." To further prime the pump, so to speak, Poulsen is now a faculty member at Victor Valley College. He and the college staff are preparing -...



VWVRA GM Darron Poulsen talks with high school students during a career day at Victor Valley College.

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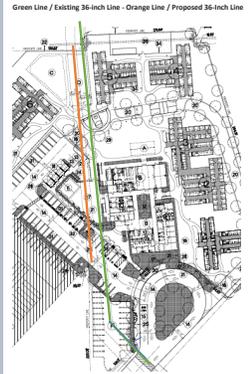


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Victorville Wellness Center Breaks Ground



VVWRA staff recently attended the groundbreaking ceremony for the new Victorville Wellness Center. The center will be located on 4.5 acres near Eva Dell Park and provide 170 beds for homeless individuals. VVWRA has an existing 36" sewer line that runs underneath the property and the agency anticipates needing more capacity in the future. So as construction begins on the Wellness Center, VVWRA will install a second 36" line parallel to the existing one for future capacity expansion. The new line will prevent construction issues once the Wellness Center is completed and will allow VVWRA to tie into the new line with minimal disruptions.



Poulsen Speaks at CWEA



VVWRA General Manager Darron Poulsen was a featured speaker at the annual CWEA Conference in Sacramento. Poulsen and staff from Anaergia, Inc. made a presentation about the brand new Renewable Natural Gas Facility at VVWRA. The site is the first facility in the state to take methane from treated food waste and convert it into green renewable natural gas. The RNG is then injected into an existing Southwest Gas pipeline that runs through the main plant. The facility is helping with com SB 1383 compliance which requires a reduction in the amount of food waste taken to landfills.

Happy Retirement!



VVWRA wishes a happy retirement to Environmental Compliance Inspector Robert Townsend. Robert has spent 10 years at VVWRA helping assure that the sewer system stayed safe from harmful dumping and overflows. Thanks Robert!

Purple Pipe

VVWRA Board of Commissioners

- Bill Holland / Hesperia
- Debra Jones / Victorville
- Scott Nassif / Apple Valley
- Paul Cook / SB CSA 64 & 42

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Around the plant

VWVRA takes 1st and 2nd place in CWEA Photo Contest



VWVRA captured the top two places in the annual CWEA statewide photo contest. The first-place photo, taken by VWVRA Safety and Communications Officer David Wylie, show E & I Technician Derek Evans working with Intern Adalberto Arteaga on equipment at a recycled water pond in Apple Valley. The second-place photo, also taken by Wylie, shows Senior Mechanic Marcos Avila cleaning the inside of a 1.2 million gallon digester as a brilliant beam of sunlight shines down from an open hatch.



Pasieka and Castro Earn New Certs



James Pasieka

Congratulations to EC Inspector in Training James Pasieka who earned his Grade I Environmental Compliance Inspector Certificate and Operator Moises Castro who earned his Grade III Wastewater Operator Certificate.



Moises Castro



Resource Recovery story cont.

VWVRA Stats

A QUICK LOOK AT RESOURCE RECOVERY for March, April and May of 2022



760 million gallons of recycled water sent to the Mojave River



Equivalent to 1151 Olympic size swimming pools

456 million gallons of recycled water sent to percolation ponds



This water soaks into the ground and replenishes the aquifer.

1411 tons of treated biosolids taken to farms for soil amendment.



10 million gallons of recycled water produced by the Hesperia Subregional Facility.



Equivalent to 15 Olympic size swimming pools.

22.48 million Standard Cubic Feet (SCF) of renewable natural gas put into the grid.



Enough RNG to supply 3,822 homes for a month.



2,098,029 gallons of slurrified food waste received.

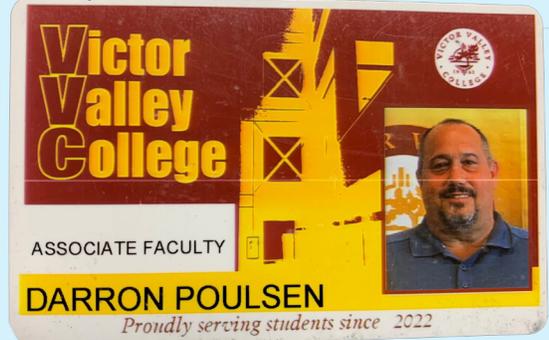
This is material diverted from the landfill.

Resource Recovery is our business
VWVRA.com



Continued from front page...new curriculum in water and wastewater treatment with classes expected to be offered soon.

Public outreach is a big part of getting the message out. After a two-year hiatus because of the pandemic, VWVRA is once again offering plant tours. Already, we have hosted students from VVC, the Greater High Desert Chamber of Commerce and a local senior citizens group. VWVRA is also making an effort to get that message out at high profile events like a career day at VVC and a water conservation fair at Spring Valley Lake.



VWVRA General Manager Darron Poulsen is now a member of the VVC faculty and is working with the college to develop wastewater and water treatment curriculum.

In the end, our number one goal at VWVRA is to protect the environment. That mission can take on different looks...from the obvious of effectively containing and treating wastewater to the less conspicuous of training a competent workforce and educating the public about best practices...i.e. don't flush wipes and keep grease out of the pipes. While VWVRA takes on much of the heavy lifting, protecting the environment is something we can all do.

7 BENEFITS TO A CAREER IN WASTEWATER



It's a career, not just a job.

Beneficial to the environment and your community.



Room for advancement

Good pay! An operator at VWVRA starts at about \$60,000 with benefits.

No college degree necessary. Paid internships available.



Job security. Wastewater treatment will always be needed no matter the economy.

Relocation options. There are wastewater plants in every community.



Find out our internship program at:

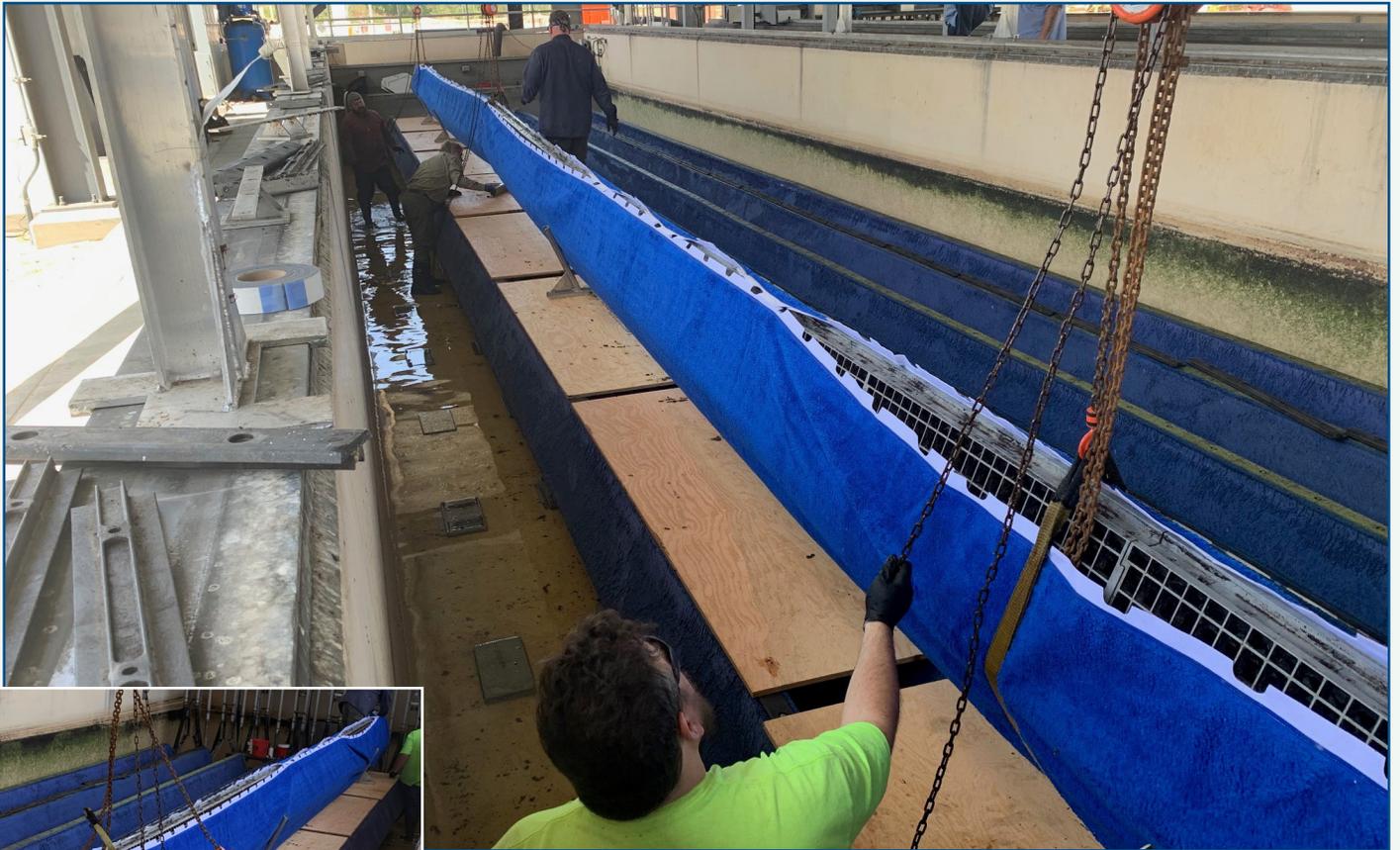
WWW.VWVRA.COM



Operator Johnny Bustos puts out a fire during a recent training.



Aqua Diamond Filters Replaced



Aqua Aerobics staff install filters.

VWRA uses tertiary filtration as part of its wastewater treatment process to get rid of microscopic particles. The AquaDiamond OptiFiber brand cloth filters look and feel like blue carpeting, but they are effective in removing particles as small as 5 microns. (A human hair is roughly 70 microns for comparison.) After more than seven years of use, the original filters had reached their life expectancy. Recently,

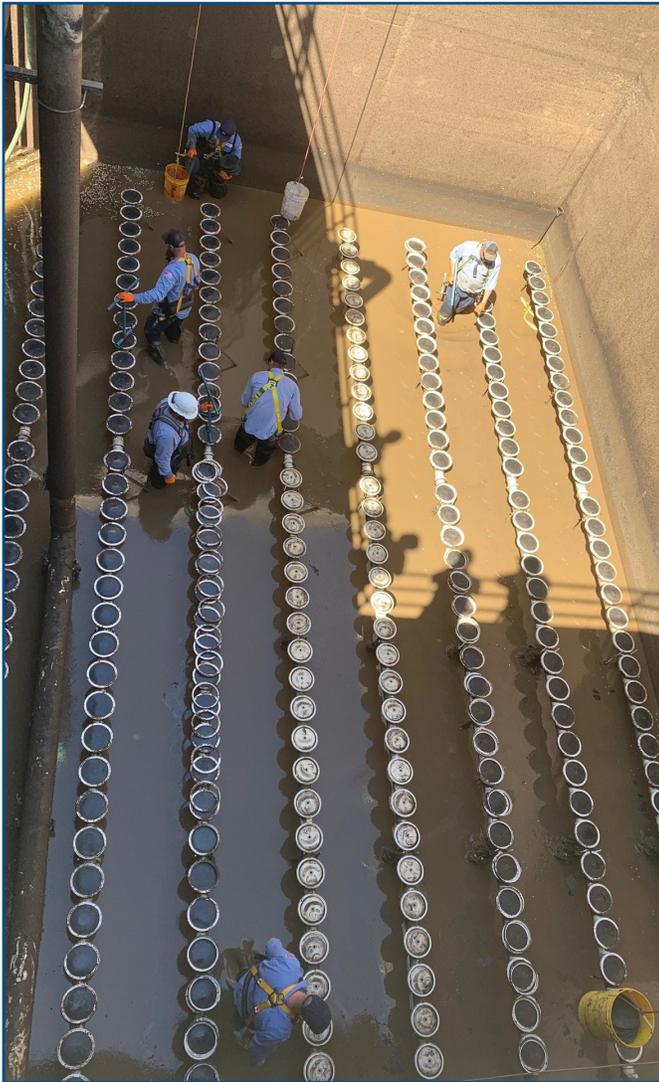
a crew of four from Aqua Aerobics spent six days removing and replacing the cloth media. The cloth media surrounds large diamond shaped frames that sit in a basin filled with secondary effluent. The water flows through the filters by gravity and is collected in the diamond shaped laterals. The cloth media captures solids on the outside while the clean filtrate flows through the inside of the laterals to an exit chamber. The water then flows to a nearby building for disinfection in the UV light channels before being discharged into the Mojave River.



Tertiary basin filtering recycled water after the installation.



Making aeration more efficient



Operations and maintenance staff combined forces to replace the membranes.

VWRA staff recently undertook the big task of replacing the air diffusers at the bottom of several of our aeration basins. Air is a hugely important part of the wastewater treatment process. More than 90% of the wastewater treatment at VWRA occurs in our aeration basins where hungry micro-organisms eat organic matter suspended in the water. And just like humans, these micro-organisms need oxygen to stay active. So VWRA uses large blowers to blow air into the basins. The circular diffusers have small holes that help create millions of small oxygen bubbles in the water. VWRA operates a total of aeration basins. Plans are being made to replace the diffusers in the other basins later this year.



Mechanic David Sharp gives a thumbs up as the job nears completion.

Congratulations on their new positions!



Alfredo Garibay
Operator-in-Training



Chase Cottrell
Operator-in-Training



Daniel Enriquez
Environmental Compliance
Inspector



Cyle Palazzo
Asset Management Clerk



This 'n that

VWVRA Plant Tours Resume



Students from Mojave High School in Hesperia recently toured our facility.

Interested in a tour, contact David Wylie at dwylied@vwvra.com.

After a two-year hiatus due to construction and the pandemic, VWVRA has resumed offering public tours of our main plant in Victorville. The tours highlight the wastewater treatment process from the time it arrives at VWVRA to the point where clean recycled water is discharged into the Mojave River. During the two year time-out, an exciting new process has been added to our facility. VWVRA, in partnership with Anaergia, Inc. and Southwest Gas, has begun operating a renewable natural gas facility. It is the first such facility in the California to take food waste and convert it into useable natural gas. There is plenty to see, hear and smell here at VWVRA. And you'll learn some cool stuff too. The tours have been popular for years with local schools, clubs and service groups. If your group is inter-

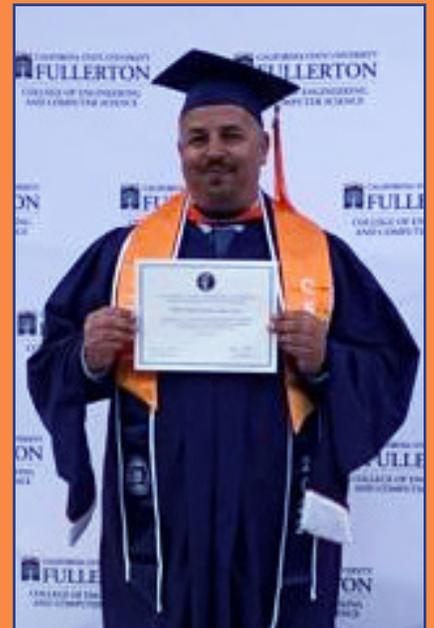
New Weather Station Provides Real Time Data



Weather station installation.

VWVRA has installed a new SCADA Siren weather station to give our staff real-time information at our exact location. The weather station connects into our SCADA system in our control room. The weather influences wastewater treatment at VWVRA. Since our treatment process is mostly biological, temperatures make a big impact on the efficiency of our treatment. Warm temperatures can cause microbial activity to double, which means faster degradation and the need for more oxygen. Cooler temperatures slow down microbial activity. Having accurate weather information is another tool our operators use to make decisions when adjusting the treatment process.

Masters!



Congratulations to Business Applications Manager Latif Laari who earned his Master's Degree in Environmental Engineering from California State University at Fullerton.

The Back Side...

MOON OVER VVWRA!



This eerily spectacular shot of the moon overlooking the VVWRA plant and the Oro Grande cement plant was taken by Operator Julio Espinoza.

DAMS **B**OWLING Event a Strike!



The Desert and Mountain Section of CWEA recently hosted a member appreciation bowling event at Victor Bowl in Victorville. The event attracted CWEA/DAMS members from VVWRA, City of Barstow, Crestline Sanitation, Inland Empire Utilities, Woodard and Curran and West Coast Safety and Supply. DAMS offers a variety of training and social events throughout the year to enhance members professionally. Coming up, DAMS will be hosting their Officer Installation Luncheon at the SVL Country Club on June 29th and the Vendor Fair Training in Crestline on September 14th.

Getting it done!



Mechanic in training James Hunsaker has his hands full while laying out a flat hose.