



Purple Pipe

Volume XXVII Fall 2022



VWRA Awarded \$4 Million Dollar Grant

Funding will expand agencies ability to treat food waste and produce RNG



Artists rendering of where the new organics polishing system and storage tank will be located at the ADM delivery area.

CalRecycle has awarded VWRA a nearly \$4 million dollar grant for a new co-digestion and renewable natural gas project. The project will increase the amount of food waste treated at VWRA while also increasing the amount of renewable natural gas (RNG) produced. The VWRA project will include the installation of food waste receiving infrastructure, liquid slurry feedstock storage tanks, and an organics polishing system to expand VWRA's co-digestion of food waste. The organics polishing system will help get rid of inorganic material like glass and plastic in the food waste. The feedstock will be delivered via tanker trucks as a pre-processed food waste slurry, polished to remove contaminants, and then co-digested with wastewater sludge. The project will convert the biogas or methane to RNG and inject it into a Southwest Gas pipeline that runs through VWRA property. Biosolids will be dewatered and dried, then transported off-site for land application. The grant funds will be used to help fund engineer-

ing and construction, community outreach and education, grant administration, and the purchase of a new organics polishing system, receiving station infrastructure, and feedstock storage tanks. The new equipment will complement the existing infrastructure that went online in January. The RNG project at VWRA is part of the effort to meet the requirements of SB 1383 which requires the diversion of 75% of organic waste from landfills by 2025.



An organics polishing system similar to this one will be installed at VWRA.



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Trip Highlights Effects of Climate Change

During a Summer visit to Alaska, VWRA General Manager Darron Poulsen got a firsthand look at how climate change is affecting our environment. During his trip, Poulsen visited Dawes Glacier, a 20-mile ice field near the Alaska/Canada border. Researchers say Dawes Glacier has been retreating about 115 yards per year since 1985. That retreat is due to a lack of ice accumulation at the top of the glacier and melting at the lower elevations. Warming air and water temperatures in the region are blamed.

Scientists say one of the leading factors in climate change and rising temperatures is methane emissions. Methane is a naturally occurring gas created by the breakdown of organic material and is considered a dangerous greenhouse gas. VWRA has taken big steps in helping combat the release of methane in California with its Renewable Natural Gas Project. The project is a partnership

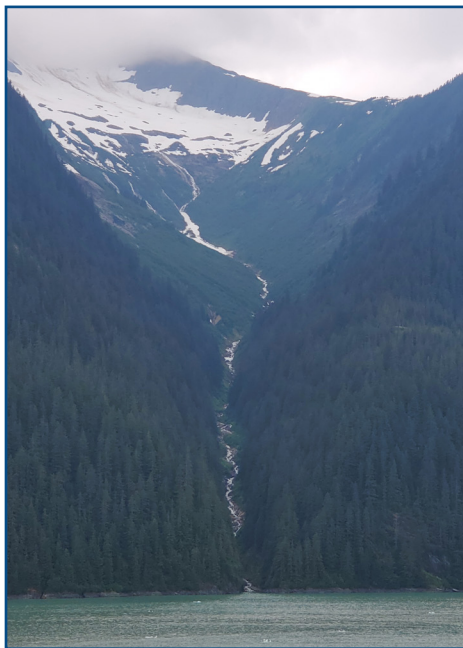


VWRA General Manager Darron Poulsen with the Purple Pipe in front of Dawes Glacier in Alaska

between VWRA, Anaergia, Inc. and Southwest Gas where methane from digested food waste and municipal sewage is captured and converted into renewable natural gas. The scrubbed and cleaned gas is then injected into a Southwest Gas pipeline for use as renewable natural gas. The project is paying big dividends by diverting organic food waste from our landfill and turning it into a clean, useful energy source. Projects like this go a long way in slowing down the effects of global climate change.



Melting ice near the Dawes glacier.



Stream flowing from an Alaskan glacier. Purple Pipe page 2



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VWRA Board of Commissioners

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



Around the plant

Congratulations on New Positions!



Alfredo Garibay
Operator



Chase Cottrell
Operator



Brad Doneff
Purchasing Technician



Cyle Palazzo
Management Analyst



Kalin Westover
Lead Operator



Mauricio Marin
Technology Lead



Richard Swartzell
Maintenance Mechanic III



Allen Dorado
Mechanic in Training

* In addition, Kalin Westover earned his AS Degree in Water Technology and Alfredo Garibay passed the exam for his Grade I Wastewater Operator Certificate.



Photo by James Pasieka

A stunning view of our secondary clarifiers.

Welcome to VWRA!



Audra Anderson
Operations Intern



Juan Alvarez
Utility Worker



Resource Recovery

VWVRA Stats



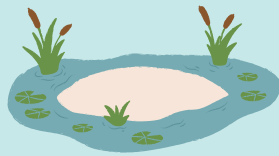
A QUICK LOOK AT
RESOURCE RECOVERY
for June, July and August of 2022

736 million gallons of recycled water sent to the Mojave River



Equivalent to 1115 Olympic size swimming pools

420 million gallons of recycled water sent to percolation ponds



This water soaks into the ground and replenishes the aquifer.

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



Equivalent to 27 Olympic size swimming pools.

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



Enough RNG to supply 3,554 homes for a month.

2,082,098 gallons of slurried food waste received.



This is material diverted from the landfill.

Resource Recovery is our business
VWVRA.com



Five Digesters Operating at VVWRA

For the first time in our 44-year history, VVWRA is operating five anaerobic digesters at the same time. The historic achievement was accomplished in mid-August when final upgrades were made to the 3 original digesters now being used for food waste or ADM. The 3 digesters, built in the late 1970's, had been offline for more than 10 years and, at one point, had been scheduled for demolition. Before that could happen, VVWRA management began exploring ways to re-purpose older infrastructure. With the help of Anaergia Inc., the digesters were refurbished and restarted to help accommodate slurried food waste that is being diverted from landfills as required by SB-1383. Food waste is being brought to VVWRA as part of the new Renewable Natural Gas Project. The biogas or methane created in those digesters and two other digesters treating municipal sewage is piped to a gas conditioning facility run by Anaergia, where it is cleaned, pressurized, and brought up to natural gas standards. The RNG is then odorized and injected into a large Southwest Gas pipeline that runs through VVWRA's main plant. This Summer VVWRA produced enough RNG to supply the equivalent of more than 3500 homes with natural gas.

What is biogas?



Biogas is a mixture of gases, primarily consisting of methane, carbon dioxide and hydrogen sulfide, produced from raw materials such as sewage, green waste, and food waste. It is a renewable energy source.

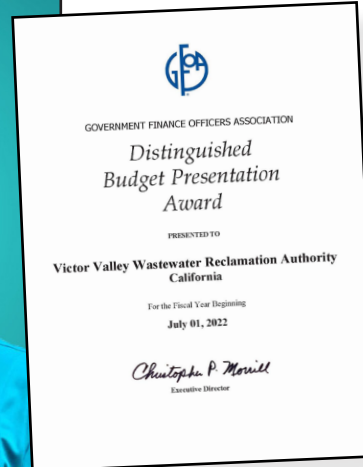
Biogas is produced by anaerobic digestion with organisms inside an anaerobic digester. At VVWRA, biogas is converted into renewable natural gas and injected into a Southwest Gas pipeline that runs through the plant.



VWRA Finance Dept. Wins GFOA Award for the 10th Year



VWRA Finance Dept. staff: front l-r, Chieko Keagy, Controller, Anne Mazzarella, Accounting Technician, back row l-r, Kyle Parker, Accountant, Xiwei Wang Senior Accountant.



For the tenth year in a row, the VWRA Finance Department has been awarded the prestigious Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA). The award is the highest form of recognition in governmental budgeting. Congratulations to our finance team of Chieko Keagy, Xiwei Wang, Kyle Parker and Anne Mazzarella.

Water Legislation: Congressman Jay Obernolte

Recently, I joined members of the California Congressional delegation to cosponsor the Water Optimization of the West Act. It is critical that we increase water supplies to the Inland Empire and the High Desert and ensure that the interests of our community are respected in federal policies relating to water infrastructure and supplies. This legislation includes landmark changes to federal policy such as streamlining the contract renewal process for water districts, expediting water transfers, and ensuring that drought-prone regions like the High Desert receive sufficient water flows during times of shortage.



Rep. Jay Obernolte

I am also the proud coauthor of the Emergency Drought Relief Act providing immediate emergency water supplies across the state of California. This bill ensures that stored water is protected for human needs while lessening regulatory burdens that might prevent the efficient and cost-effective distribution and storage of water.

I have also been working to address the devastating wildfire problems in our state. With more than 2.4 million acres of U.S. land destroyed by fires this year already, the destructive impact of wildfires along with their calamitous effect on air quality and carbon emissions has surpassed an 80-year high. In response to this crisis, I've coauthored the Resilient Federal Forests Act which introduces state-of-the-art science into federal forest management practices, helping to reduce the cost of fire suppression and forest management and improve flexibility and expediency in agency response to forest fires.

To receive regular updates on the progress of this legislation and my other work on behalf of California's 8th Congressional District, please subscribe to my newsletter at Obernolte.house.gov or follow me on social media @JayObernolte.



DAMS Vendor Fair & Training

Wastewater Professionals Gather in Crestline for Annual Event



More than 100 wastewater professionals gathered in September for the annual DAMS Vendor Fair and Training at the historic San Moritz Lodge in Crestline. The event is put on by the Desert and Mountain Section of CWEA. as a training event where staff from different agencies can earn CEU's while learning about new advancements in the field. Workers from VVWRA, the City of

Victorville, the Town of Apple Valley, the City of Barstow, Big Bear, Lake Arrowhead, Henedale CSD and Crestline Sanitation were among those on hand. Representatives from more than 20 industry vendors had booths with information and demonstrations. In addition, this year's event featured the first ever pipe repair competition. You can read more about that on page 7.



A number of VVWRA staff members attended the event.



Upcoming Events



- Southern Safety Day, Oct. 26th
Carson Events Center
- TCP Cert Prep, Nov. 18th
SB Valley College
- DAMS Awards/Holiday Party
December 10th, SVL CC



This 'n that

DAMS Vendor Fair features new competition

Pipe repair was the name of the game at this DAMS Vendor Fair and Training event in Crestline. The event has a long history of industry related competitions. This year, seven teams from various agencies throughout the region competed in a pipe repair contest. The teams of two had to repair a 2-foot section of 8" pipe with clamps. Once the repair was complete, the pipe was pressured tested with water. VVWRA's Kalin Westover and Moises Castro captured second place in what turned out to be a very close competition. A team from Lake Arrowhead CSD took first place.



Lead Operator Kalin Westover (l) and Operator Moises Castro compete in a pipe repair competition at the DAMS Vendor Fair and Training at San Moritz Lodge in Crestline.

Handful of Frogs!



During the heavy Summer rains, it's not unusual for frogs to make a mass appearance at VVWRA's main plant. Operator Daniel Kessell recently managed to rescue these six amphibians and relocate them to one of our recycled water ponds.

LEGO:

Sewer Heroes?



LEGO has debuted a new proposed build called Sewer Heroes: Fighting the Fatberg. But don't rush to the store yet. It's featured on their LEGO Ideas page and if it gets enough support, it could be released for sale. Check it out at ideas.lego.com.

The Back Side...

Take me out to the ballgame!



VVWRA staff spent a Summer afternoon at the ballpark taking in a Dodgers-Angels game at Anaheim Stadium

WHEN YOU WISH UPON
THE PURPLE PIPE?



VVWRA Accountant Xiwei Wang took time to read the Purple Pipe during his vacation to Disney World Magic Kingdom in Florida!

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Hello kitty?

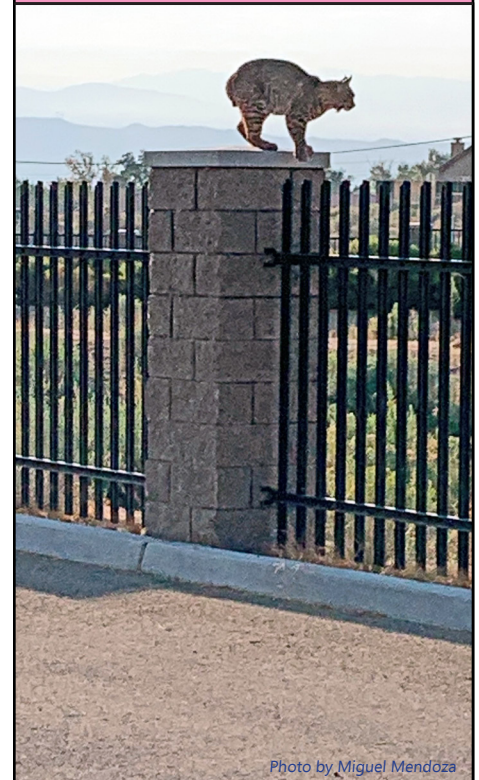


Photo by Miguel Mendoza

A bobcat was spotted perched on a fence column after being chased by a coyote at the Hesperia Subregional Water Recycling Facility.