



THE Pipeline

Regional Wastewater Reclamation Department

IWC Tasked with Regulating Dental Amalgam Discharges

by Lilian von Rago

New Environmental Protection Agency (EPA) guidelines restrict the discharge of amalgam containing mercury* and metal alloy (from dental facilities) into the sewer system. Dental amalgam contains a mix normally comprised of copper, zinc, silver, gold, and tin, which are combined with elemental mercury to form a paste used to fill cavities caused by tooth decay.

Dental offices discharge approximately 5.1 tons of mercury each year into publicly owned treatment works (POTWs). Most of that mercury is released into the wastewater stream when new fillings are placed, or old mercury-containing fillings are drilled out. Since treatment plants are not equipped to remove mercury, the old fillings usually end up in effluent, or more often, sludge.

RWRD aims to keep as many of these toxic metals out of the sewer system so they are not found in the environment later on.

RWRD's Industrial Wastewater Control (IWC) section is responsible for the implementation of the federally mandated Pretreatment Program, which regulates industrial discharges to POTWs. Any facility that places



Dental offices face new requirements.

or removes dental amalgam, or works on teeth containing amalgam, should have installed an amalgam separator with a removal efficiency rating of 95% or greater, by October of 2020. IWC should also have received a compliance report and a statement certifying its validity.

Since the October deadline, IWC has contacted dentists and inspected numerous dental facilities to ensure compliance with EPA requirements, and has

found that most are cooperative, although some believe that they do not discharge enough amalgam to warrant the installation expense of a separator. Luckily, the EPA made the rules on this requirement; IWC just enforces them.

Based on some recent sampling data, Pima County does not currently have an issue with mercury in the wastewater system. They are seeing small influent numbers (< 1 part per

[See "DISCHARGES" Page 4](#)

**HEALTH & SAFETY CORNER:
JOB HAZARD ANALYSIS
PROJECT UNDERWAY** PAGE • 3

**SUSTAINABILITY CORNER:
WHAT CAN YOU DO ABOUT
THE DROUGHT?** PAGE • 3

DIRECTOR'S VIEW



It's August, and after months of being stuck at home due to the pandemic, kids, teachers, and staff will soon be back in their classrooms. Things will be different, though.

Some students worry about safety, while others are excited and enthusiastic about learning, and about seeing their friends again. Whatever the case may be, please exercise caution, slow down in school zones, and watch for kids on bikes.

Sadly, we are experiencing

by Jackson Jenkins

another COVID-19 spike locally and nationally, and there is talk about masking again. If you haven't gotten your COVID-19 vaccination yet, it's not too late. If you're still making up your mind, here's a gentle nudge: As part of a larger national effort, Pima County and its partners have already offered various incentives – and more are coming.

All mobile pop-up sites, as well as our standing sites, have Arizona Lottery \$2 scratcher tickets for those receiving their first dose. The lottery tickets have a maximum prize of \$10,000 and

assorted smaller cash prizes with overall odds of getting a winning ticket at 1 in 4. Availability is limited, so get there early!

Find locations near you at pima.gov/covid19vaccine

And last but not least, don't forget the Pillar Talks. They are your chance to ask me anything. They run through August 13, and attendance is highly encouraged. For those of you who are not ready to meet in person yet, these meetings will also be held via MS Teams. Look for a series of calendar invites from **Mona** or see below for entire schedule.

PILLAR TALKS



This month, Director **Jackson Jenkins** will conduct the 2021 Pillar Talk Meetings.

Note that attendance to these meetings is highly encouraged. Please plan to attend one of the eight sessions scheduled.

2021 PILLAR TALK MEETING SCHEDULE

Date	Time	Location
Tuesday, August 3	7:15 - 8:45 a.m.	Conveyance Division Conference Rm.
Tuesday, August 3	2:00 - 3:30 p.m.	Tres Ríos WRF - Lrg. Conference Rm.
Wednesday, August 4	1:00 - 2:30 p.m.	Sub-Regional - Lrg. Conference Rm.
Thursday, August 5	9:30 - 11:00 a.m.	Water Campus - Radon Conference Rm.
Monday, August 9	9:30 - 11:00 a.m.	Public Works Bldg. - Conference Rm. C
Thursday, August 12	7:00 - 8:30 a.m.	Tres Ríos WRF - Lrg. Conference Rm.
Thursday, August 12	2:00 - 3:30 p.m.	Conveyance Division Conference Rm.
Friday, August 13	7:00 - 8:30 a.m.	Mission Road - Building 9 Training Rm.

The Pipeline, an Award-Winning Publication

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MISSION STATEMENT

Our mission is to protect the public health, safety, and the environment by providing quality service, environmental stewardship, and renewable resources.



PIMA COUNTY
WASTEWATER RECLAMATION

BE A CONTRIBUTOR

Is there something happening in your Division? On your team? In your office? We want to read about it! Share it with us by emailing pipeline@pima.gov or call 724-6265.

SUBMISSION DEADLINES

Please submit your stories for the August issue to pipeline@pima.gov by Friday, August 20. If you will be submitting a photo, please send as a separate high-res JPEG attachment.

Job Hazard Analysis Project Underway

Now that the physical description questionnaire (PDQ) project has wrapped up, the Safety Office has begun the Job Hazard Analysis (JHA) project, which many of you have been involved with in the past. The Safety Office is coordinating this effort with RWRD Division Safety Coordinators, Facilities Management staff, and HR-OccMed.

PDQs and JHAs have a direct relationship in that they both seek to identify hazards that workers face before they occur, but look at the hazards from different angles. The PDQ identifies hazards and physical requirements per HR Class Code and Functional Title

(i.e., 2780 - O & M Technician) whereas the JHA identifies hazards associated with a specific task (i.e., Digester Rounds – Treatment).

The JHA focuses on the relationship between the worker, task, tools and environment. It then identifies work practice controls and PPE that reduces or eliminates the hazard. There may be multiple HR class codes involved in each JHA. Needless to say, there are many JHAs, since we conduct a multitude of critical tasks that are associated with the operation of a major utility.

Our goal is to review and revise existing JHAs and create new JHAs for tasks that do not have one. As with the PDQs, we

rely heavily on the expertise of our subject matter experts, and supervisors/managers associated with each task. Each JHA will now be numbered so that they can be easily referenced in PDQs. Finally, each JHA requires that workers involved with a specific task be trained on each JHA, and that training must be recorded.

You may be contacted individually or as part of a group to discuss JHAs associated with the tasks you conduct on a daily or periodic basis. The Safety Office thanks each of you in advance for sharing your expertise and critically analyzing each task. With your help, we continue to make RWRD a safe place to work.

What Can You Do About the Drought?

Let's face it: It's easy to waste water. Most of us go about our day without thinking twice about the water we use. Water is so readily available to most of us, we assume that it will always be there.

But drought teaches us that every drop of water matters. We can't afford to take it for granted. While none of us can singlehandedly bring Arizona's 22-year drought to an end, each of us can do our part to help conserve our precious water resources.

Think of a dripping faucet. According to the [U.S. Geological Survey](#), a faucet that drips only 10 times a minute will waste a gallon of water a day. To save water, always fix leaks right away. Keep an eye on your water bill; if your water use has suddenly increased, it could be due to a leak.

According to the [EPA](#), we use



A rain barrel used to capture monsoon rains.

more water in the bathroom than in any other part of the house. You can reduce water waste by taking shorter showers and turning off the tap while you brush your teeth. If you want to save even more water, try replacing your old showerhead with an

[EPA-approved energy-efficient model](#). If your toilet is old and inefficient, you may want to think about replacing it with a low-flow toilet which uses significantly less water.

While washing dishes, you can cut down on water waste by plugging the sink— or better yet, by installing a modern, energy-efficient dishwasher. Along the same lines, taking your car to a car wash generally uses much less water than washing it at home.

Another action you can take is to collect rainwater and use it to irrigate your lawn. Not only will this help preserve the groundwater supply, but it can also help to keep your water bill low.

If you have a swimming pool at home, use a pool cover. Pools can lose as much as two inches

See "DROUGHT" Page 4

RWRAC MEETING UPDATE

The Pima County Regional Wastewater Reclamation Advisory Committee (RWRAC) held its most recent monthly meeting virtually on June 24, 2021. To begin the meeting, RWRD Program Manager **Barbara Escobar** gave a brief overview of the role of the Compliance and Regulatory Affairs Office, using some recent data to illustrate her presentation.

Next, IWC Permit and Regulatory Compliance Specialist **Steven Valencia** talked about how the County has been working to bring dentists into compliance with the EPA's current rules about amalgam. Since amalgam often contains mercury, dental facilities must install an amalgam separator to prevent toxic materials from being flushed into the sewer system.

Capital Improvement Project (CIP) Subcommittee Chair **Asia Philbin** reviewed the committee's most recent meeting on June 3 and said that the next meeting will be held in January. Senior

by *Justyn Dillingham*

RWRD Planner **Mirela Hromatka** gave a presentation on long-range planning and planning for capacity, including past, current, and future CIP projects.

Financial Subcommittee Chair **Matt Matthewson** reviewed the subcommittee's most recent meeting on June 17 and said that the next meeting will be held in December. Next, FRMD Administration Support Services Manager **Mandy Armenta** provided an expense and revenue summary for Period 11 of the fiscal year 2020/21. Finally, **Alison Jones** of the Citizens Water Advisory Committee provided a summary of the committee's most recent meeting on June 2.

There was no RWRAC meeting during the month of July. The next meeting is scheduled for Thursday, August 26. It will once again be held virtually. To view the agendas, minutes, and videos of previous meetings, visit the RWRAC page on pima.gov/wastewaterreclamation.

COMINGS AND GOINGS

by *Patsy Padilla*

NEW HIRES – Welcome!

Abel Huguez

Utility Locator

Technical Services & Engineering Division

Kanu Matthews

Utility Locator

Technical Services & Engineering Division

Nicole Raygoza

WW Laboratory Technician

Technical Services & Engineering Division

PROMOTIONS – Congratulations!

William Chacon

Equipment Operator/Landfill

Treatment Division

RETIREMENTS – Good-bye!

Robert Layden

WW Conveyance System Monitor

Conveyance Division

Jon Simms

WW Instrumentation & Process

Control Supervisor

Technical Services & Engineering Division

"DISCHARGES" FROM PAGE 1

billion gallons) with mostly non-detectable amounts in the effluent from the treatment plants. Sludge data from Tres Rios shows similar results (< 1 milligram per kilogram).

These small mercury volumes, combined with the installation of the amalgam separators and raising awareness on the subject, should enable Pima County to continue to meet all necessary effluent and sludge disposal limits.

**Dental amalgam has been used for more than 150 years in hundreds of millions of patients around the world. If your fillings are in good condition and there is no decay beneath the filling, the Food and Drug Administration (FDA) does not recommend that you have your amalgam fillings removed or replaced. Removing intact amalgam fillings can result in unnecessary loss of healthy tooth structure and exposes patients to a temporary increase in mercury vapor released during the removal process.*

"DROUGHT" FROM PAGE 3

of water to evaporation a week, and high temperatures can increase that rate. Thus, using a cover will help you reduce needless water loss.

You can also reuse your pool water to irrigate trees, shrubs, and other large plants. Try to use drought-tolerant plants such as creosote bushes or agaves in your yard, as they will not require as much watering.

Whenever possible, use cleaning methods that don't require you to use water. You might, for example, sweep your patio, driveway, and front sidewalk instead of hosing them down. There will be times when you have to use water, of course — but every little bit of conservation helps.

SAFETY SHARE

Monsoon Rains Brings Dangers of Flash Flooding!

- DO NOT drive onto a flooded roadway.
- DO NOT drive through flowing water.
- If you approach a roadway that is flooded, TURN AROUND - DON'T DROWN.



Do you have a Safety Share to share? Email pipeline@pima.gov

