



# Environmental Justice for ALL!

Good Morning, My name is Linda Shosie, I come from the Tucson, Az area. I'm here today to provide my perspective about the PFAS contamination of groundwater in the geographic area of, Tucson, Arizona, in Pima County District.

I am also going to take you on a virtual tour through my community to show you first hand of how the PFAS- crisis has disproportionately impacts Historical Environmental Justice Communities, and disadvantaged communities of color.

I am honored to be here in Wilmington, NC, 2022 PFAS Conference at a historical moment for the EJ Movement!

This presentation is  
Dedicated to My  
Daughter Tianna M.  
Shosie

- Born August 2, 1985- died  
March 28, 2007



# In Memory of Princess Mia

Princess Mia- asked her mom during Radiation- "Mommy Why Am I Not Pretty anymore?" Her mom replied to her, saying, "you are beautiful" you will always be my Princess Mia.





## Who Are we! (1 min)

- I am the Owner & Founder of the EJ Organization the Mothers for Safe Air- Safe Water Force- a community based grassroots environmental organization led by affected citizens which formed when we heard that the DOD- has been permitting military contractors to discharge numerous of quantities of PFAS- Containing Firefighting Foams around the Tucson International Airport.



We believe that all  
People have the  
Human Right to the  
Enjoyment of Living  
in a Safe, Clean,  
Healthy and  
Sustainable  
Environment.

# My Story (3 min)

In 2007- my 19 year old child Tianna died from a rare auto immune disease that I believe was caused by the historical drinking water contamination. Soon after her death, my other two children were diagnosed with similar kidney diseases and lupus. In 2017 Princess Mia my niece only five years old died of a rare childhood brain cancer known as D.I.P.G. After her Radiation Treatment she began to blow up. She asked her mom, Mommy Why am I not pretty anymore? In 2019 my husband was diagnosed with prostate cancer and continues treatment and health monitoring for it. My husband does not have health insurance he has to pay out of pocket for his treatment.

In 2017, Tucson Water officials admitted that they had mistakenly sent untreated water laced with PFAS to over 600,000 customers.... Last year Tucson Water Officials announced that they had to shut down the Tucson Airport Remediation (TARP/AOP) Water Treatment Plant and numerous production wells. After state investigations found concentrations of 70,000 ppt, in the Tucson northwest and central groundwater areas. Since then, the state has authorized the City of Tucson Water Officials to get the plant back in operation. The plan is going to permit Tucson Water Officials to dispose of large quantities of PFAS into the Santa Cruz River Outfall- from the TARP/AOP Plant.

# The Crime

Since 1940's the military and aeronautic industries have been contaminating the City of Tucson's Water with hazardous wastes and somehow it just keeps happening.

The Tucson contamination site known as the Tucson International Airport Area Superfund Site has been contaminated for decades and is currently undergoing cleanup. The Tucson Airport Remediation Plant (TARP/AOP) Water Treatment Facility started in 1994 to remove TCE contamination in the regional aquifer through an Air Stripper Mobile. The TARP Water Treatment Facility consists of a Remediation well field. The Remediation well field includes the South Well Field (SWF) of five extraction wells, and the North Well Field (NWF) of four extraction wells. Piping from these extraction wells go to the groundwater treatment plant. **The Treated water from the TARP treatment plant is delivered to the Tucson Water Distribution system.** In 2010 two emerging contaminants of concern were discovered in Tucson groundwater. **The old treatment plant was not capable of treating Emerging COC- effectively, so a newly designed Advance Oxidation Process (AOP)** was built to replace the original air stripper but did not start up until 2014. In 2012, PFOA and PFOS were discovered in numerous "Public Water Systems" during a systemwide microconstituents testing period. Again in 2013, PFOA and PFOS were detected at lower concentrates during the drinking water compliance and UCMR-3 period. In 2017- thru 2018 Tucson Water began testing of PFAS- at the TARP/AOP Remediation Wells during an investigation period that shows higher concentrates. **In 2019- Tucson Water started adding treatment capacity to the TARP/AOP facility to treat PFAS.**



# The Results

- Generations of local residents from the predominate Hispanic, poor and minority low-wealth neighborhood drank the water from contaminated city and private wells.

Many people affected lack the financial resources they need to combat the negative environmental, health, and socio- economic effects they face from this crisis and health- threatening situations.

- This contamination and the resulting illnesses were not an "ACT of GOD" but resulted from careless and criminal industrial practices, lax governmental response, oversight and funding, weak regulations, poor enforcement and callous indifference to human suffering because of environmental racism.



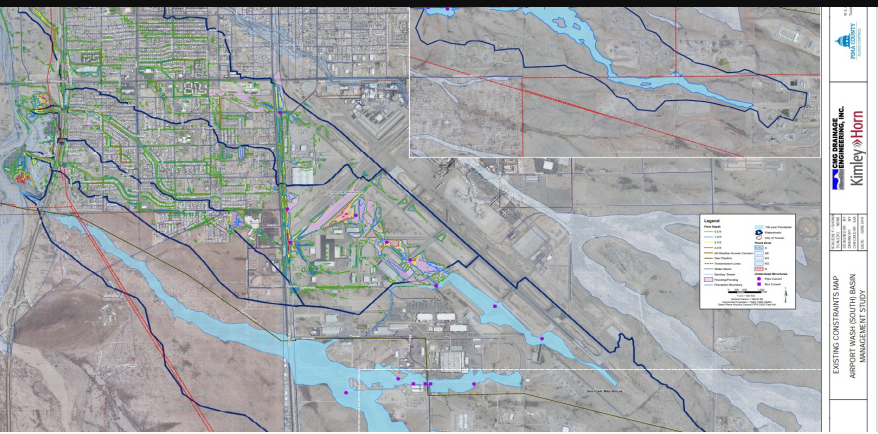


I am using this map to show you how PFAS releases in the environment can become a very serious problem to surrounding communities as follow:

- **From 2017 thru 2019**, AFFF leaks were observed in unlined ditches and drainage areas on base sites and off base sites, originating from fire training and operations, and personnel activities at the AANG.

**In this case I want you to see how PFAS- can potentially move into Environmental Justice Communities, from the Airport Wash South Basin and Drainage Areas, as follows:**

- 1) The water flow is moving from the Airport Wash South Basin and Drainage Areas- to the northwest side of the Santa Cruz River Basin and surrounding EJ Communities.
- 2) The PFAS- pollution leads to negative effects on the health of communities surrounding the sites, including homes and land of Hispanic and Native Americans.
- 3) All project site areas are located within 1 mile or at close proximity to poverty locations or low-income and minority communities.



Here is another plume map of six separate projects and three separate toxic plumes- located northeast and northwest of the Tucson International Airport Superfund Site/Landfills.

**The Question is "Who is Drinking the Water from TARP/AOP Water Treatment Plant?"**

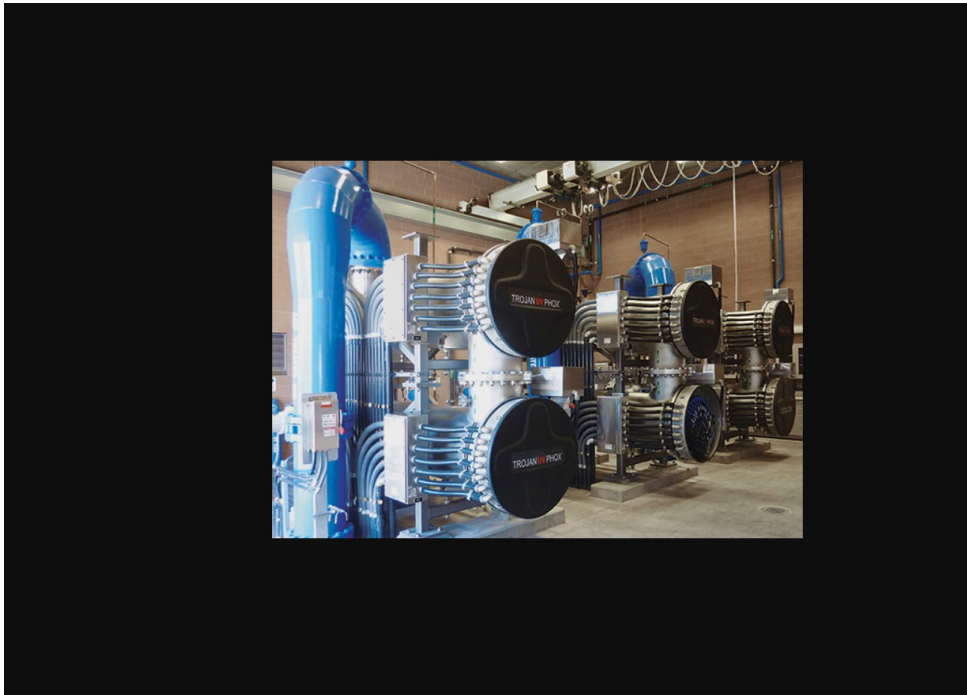
The answer is, that the people residing north of the Arizona Air National Guard Site (see blue arrows) are receiving the treated or untreated drinking water from the TARP/AOP Water Treatment Plant.

- 1) All three toxic plumes are located in EJ Communities, Predominate Hispanic, poor and minority neighborhoods.
- 2) All six projects are located in EJ Communities, poor and minority neighborhoods.
- 3) All people who live in the neighborhood who rely on public and private water systems are at a much greater risk of exposure, adverse health effects, and social economic effects.
- 4) All the project sites, and toxic plumes are moving from one place to another into EJ Communities, poor and minority neighborhoods.



Here are slides to walk you through the TARP/AOP Water Treatment Plant. Remember in 2017 Tucson Water admitted that they sent untreated water laced with PFAS- to over 600,000 costumers.

**There is currently no safe way to dispose PFAS at scale. All "Current" PFAS Treatment and Disposal Technologies- are built to fail in their design and the health of the community gets put at risk, mostly poor and minority neighborhoods. So, we need to find equitable and effective solutions. All current "disposal" technologies do not contain or break down PFAS and they only move the toxic chemicals to new places and concentrate "inequitable" waste releases in EJ Communities.**



By Devin Dwyer, Stephanie Ebbs, and Jacqueline Yoo, ABC News | Aug 10, 2021 | 3:13 PM



ABC News

# Here I am taking you on a Tour through two TARP/AOP North Wells- R-8B and R-9B.

Where people live work, play, pray and go to school.

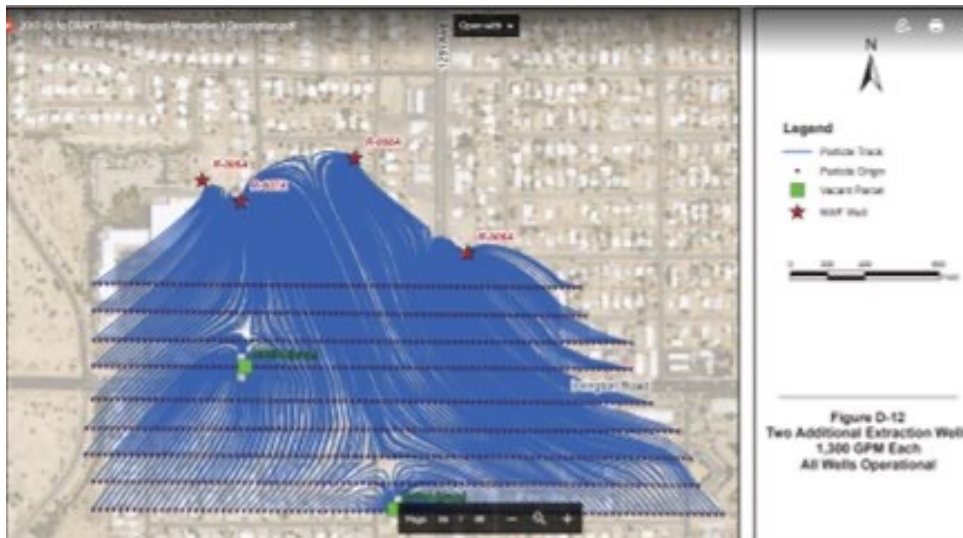


Monitoring Well

- City Owned Monitoring Well B-85: 10 feet away from the fence line next door neighbors.

Well R-008B: 14 feet away from the fence line neighbor.

Well R-009B: 17 feet away from homes, and at close proximity to Mexican owned businesses and schools.





The Tour through the TARP Upgrade System to Remove PFAS

# In Oct, 2021- The TARP/AOP Water Treatment Plant- is permitted to dump PFOA/PFOS into the Santa Cruz River Outfall.

Here you can see how toxic chemicals are dumped into the Santa Cruz River from the TARP/AOP Plant. You can also see how the PFAS- and other hazardous wastes move from one place to a another.



## TARP/AOP Operations



## TARP/AOP Operations



## TARP/AOP Operations



# Where are PFAS Not Found?

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- In the Foothills. A Predominate White upper-class populated neighborhood.

