

Source Control Beyond the Pretreatment Program



Source Control

Beyond the Pretreatment Program El Paso's Water & The Pretreatment Program

Taking it to the next level

Growing Partnerships

Where we are now

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Pretreatment Program Objectives

Prevent interference

- Prevent pass through
- Improve opportunities to recycle and reclaim

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The Pretreatment Program

- Enforcement through NOV & monetary penalties, other actions
- Provides support to other Departments



Pretreatment Program objectives are accomplished through

Control documents/registrations

Monitoring

Enforcement

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El Paso Water's Pretreatment Program

27 significant industrial users

□ 2,400+ food service establishments

Inspection at least once annually



EPWater Wastewater Treatment Facilities

- Operate under TPDES permits or TCEQ Permit (Fred Hervey)
- Treatment through activated sludge and aeration systems
- Discharge into the Rio Grande, or the Hueco Bolson (Fred Hervey)
- Some effluent used as reclaimed water





Public Education



NN1 Nancy Nye, 7/20/2021



CERTIFICATE OF EXCELLENCE

presented to

The Boeing Company

for Outstanding Performance in Environmental Compliance.

El Paso Water would like to recognize The Boeing Company for achieving 100% compliance with pretreatment regulations during the 2016-2017 pretreatment year. The Boeing Company completed the year without exceeding discharge limits or violating the requirements of their Industrial Wastewater Discharge Permit or the Rules and Regulations of the Public Service Board.

John E. Balliew, P.E. El Paso Water President/CEO





Growing Partnerships



Certificate of Excellence

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Pretreatment Program Objectives

- Prevent interference
- Prevent pass through

Improve opportunities to recycle and reclaim

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Wastewater Treatment Facilities are *Water Resource Recovery Facilities!*





El Paso Water Water Sources

El Paso Water has been delivering reclaimed water to the community since 1963.





El Paso Water Water Sources

And treating wastewater to drinking water quality standards to recharge the aquifer since 1985.

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Potable reuse expands the traditional goals of a Pretreatment Program

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The National Pretreatment Program provides the legal tools for protecting source water quality for potable reuse

Pretreatment regulations est. 1983 (40 CFR 403)

- Requires Publicly Owned Treatment Works (POTWs) to control industrial and commercial discharges into the collection system
- Resulted in successful reduction of pollutants to sewer systems and subsequently to waters of the U.S.

POTWs with pretreatment programs already have in place the legal authority to implement *enhanced* source control.



Pretreatment Program

No regulatory structure or guidance exists for potable reuse program

Program must be expanded to consider direct potable reuse

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Pilot Plant Facility Tours



Pilot Testing – Advanced Water Purification Facility

In early 2016, EPWater completed a pilot test that could lead to a full-scale direct potable reuse facility. The pilot facility, co-located at the Roberto Bustamante Wastewater Treatment Plant, was designed to purify cleaned wastewater through a rigorous four-step process, which included:

Membrane technology

Reverse osmosis

Ultraviolet disinfection with advanced oxidation





Managing Water Recovery

- Update & expand wastewater systems
- Revise standards for incoming industrial streams

El Paso Water is in the process of doing both.



Implementation of Limit for BOD



Enter...monitoring in Real Time

- Early warning notification & source detection for WWTP pollution events
- Operator notification
- Automated sample collection



RR Bustamante

What do these monitoring stations look like?



Kando Clear Upstream Solutions

Parameters are monitored and uploaded to the cloud in real time.





Hierarchical Map of Industrial Customers with discharge into the 60inch line to the Bustamante Wastewater Treatment Facility



Upstream Pollution Events



Hello Nancy EPW,

Kando Clear Upstream would like to notify you that a high pollution event was detected at BUSTAMANTE 60 INCH

Event start time : Jun 02, 2021, 05:50 AM

Sampler was activated at : Jun 02, 2021, 11:12 AM

Click here to learn more about the event

-Kando team-

This is an automatic message, please do not reply to this email. For more info please contact info@kando.eco or your customer success manager.

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Stay tuned for more... Real-time monitoring has already: Enabled 24/7 oversight

Identified previously unknown discharge patterns

Helped target sampling efforts

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Enhanced source control ...

- Results in improved FE quality, which provide opportunity for reuse
- Helps to minimize discharge of harmful chemical constituents
- Protects the WWTP through monitoring in real time



