

# SARS-CoV-2 in El Paso wastewaters and COVID-19 cases

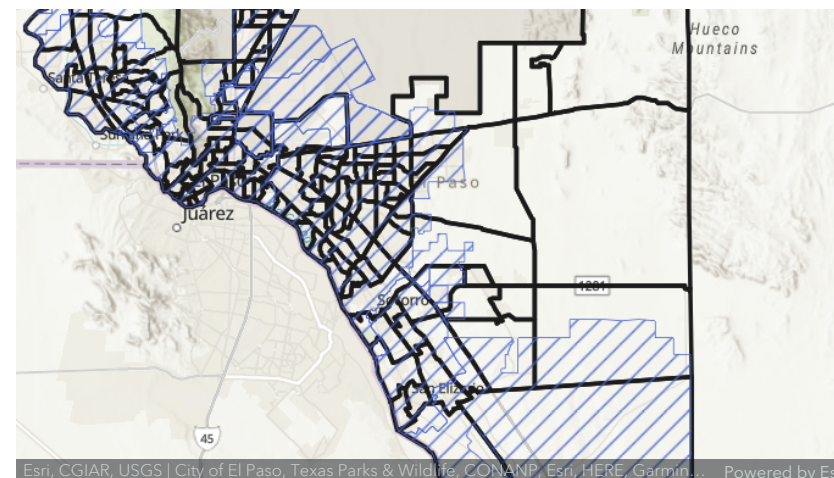
RT-qPCR Testing of wastewater samples from four facilities,  
(Fred Hervey, Haskell, R. Bustamante, John T. Hickerson)

Carlos Chavarria  
October 14, 2021

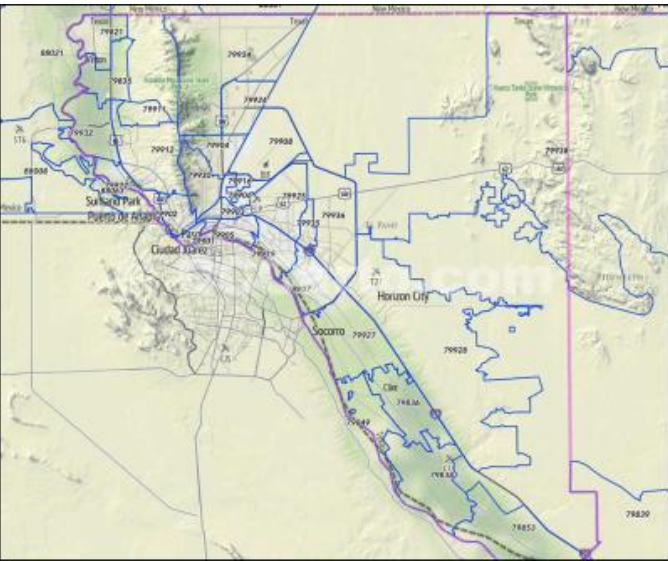
## Social Vulnerability

**Social vulnerability** refers to the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss.

**The CDC/ATSDR Social Vulnerability Index (CDC/ATSDR SVI)** uses 15 U.S. census variables to help local officials identify communities that may need support before, during, or after disasters. Scale of 0 to 1.

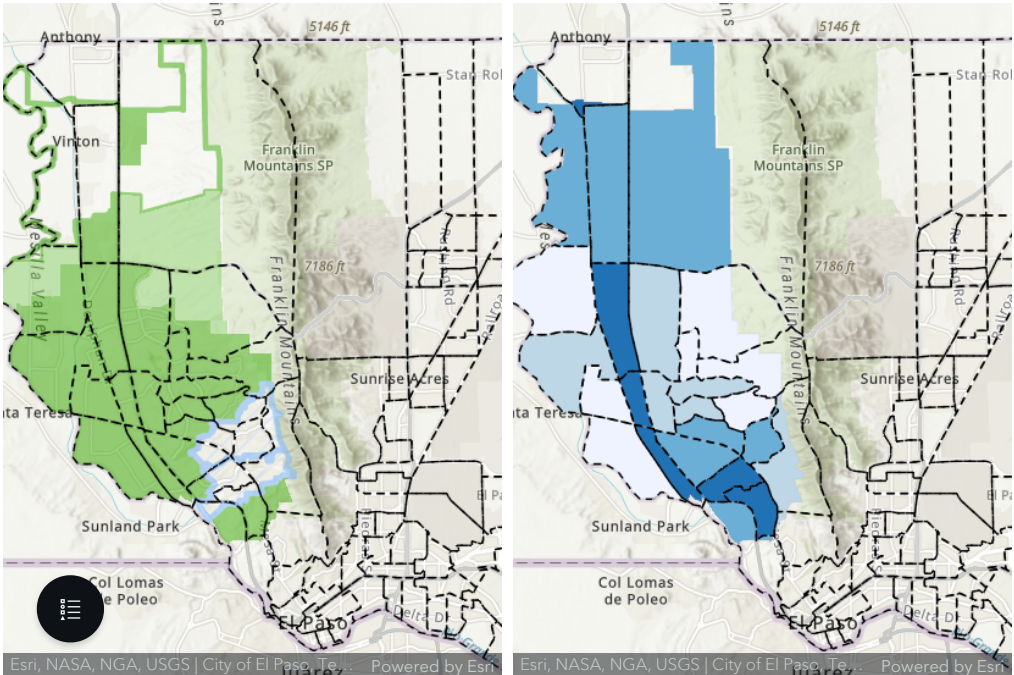


Full-Service Area of El Paso Wastewater in El Paso County



Zip codes of El Paso County (Source: Census Tiger 2021)

Full-Service area of Wastewater facilities Fred Hervey, Haskell, R. Bustamante, John T. Hickerson by census tracts in El Paso, Texas. Followed by Zip Code map of El Paso County, Texas.

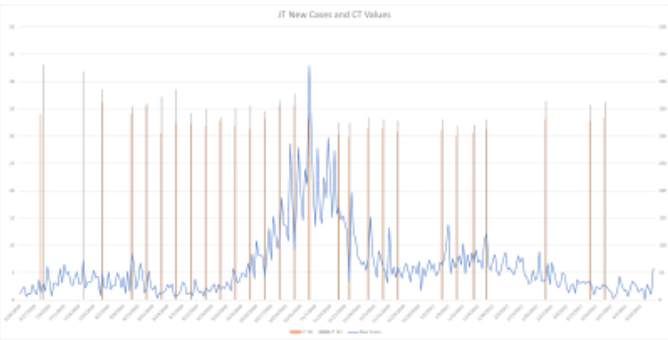


**JT/Northwest WW Plant**

Treats 17.5 million gallons per day

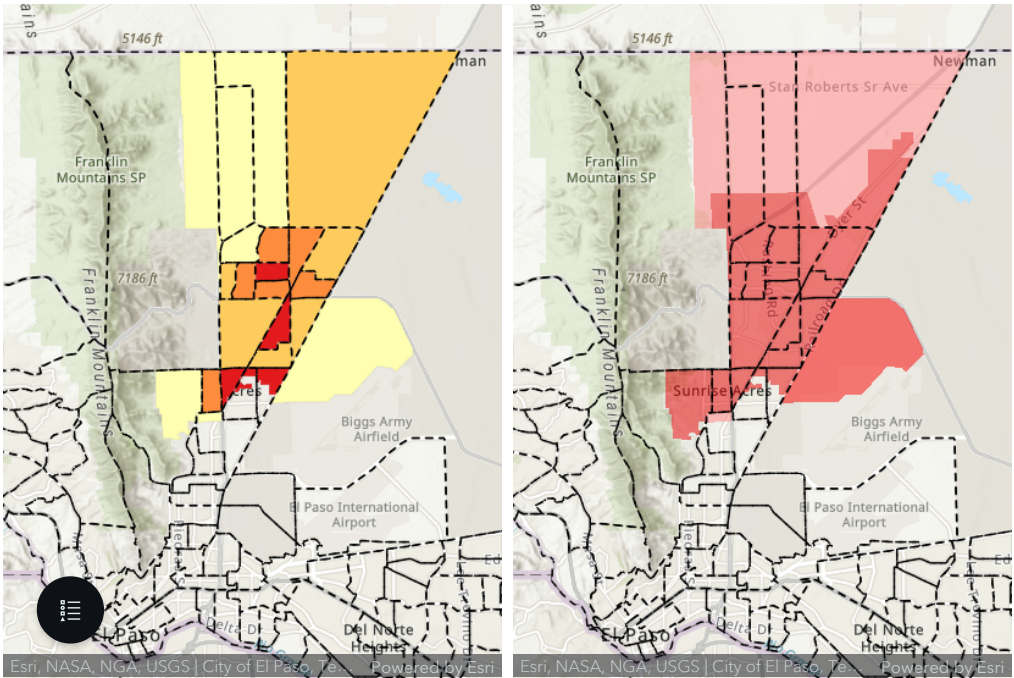
**Zip Codes**

- 79821
- 79835
- 79911
- 79912
- 79922
- 79932



JT/ Northwest WW Plant New COVID-19 Cases by CT Values

Swipe Map to the right represents JT/Northwest service areas vs the SVI Score by census tract, (Bottom left button on map opens legend)

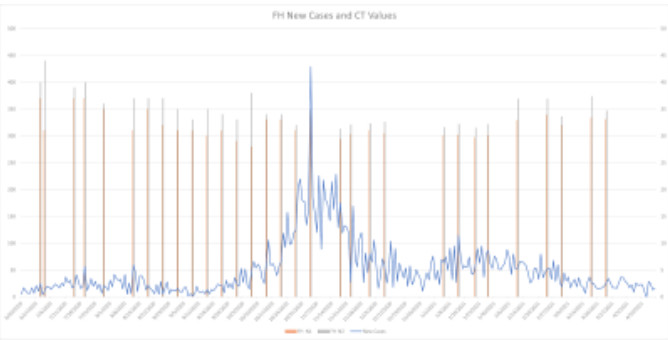


**Fred Hervey WW Plant**

Treats 12 million gallons per day

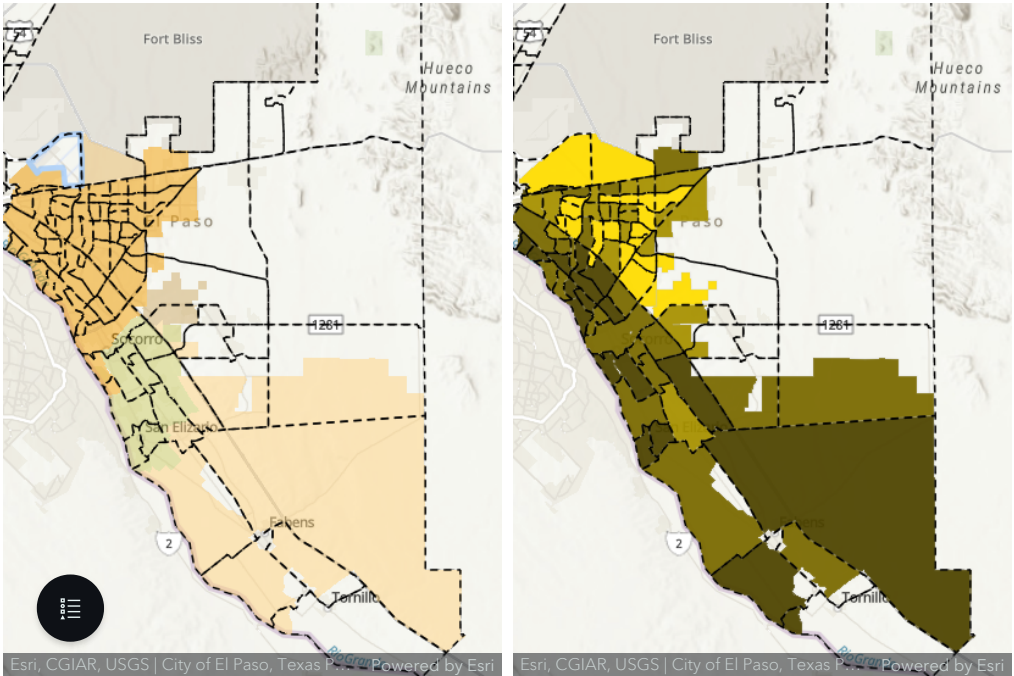
Zip Codes

- 79904
- 79924
- 79934



Fred H. WW Plant New COVID-19 Cases by CT Values

Swipe Map to the right represents Fred H. service areas vs the SVI Score by census tract.

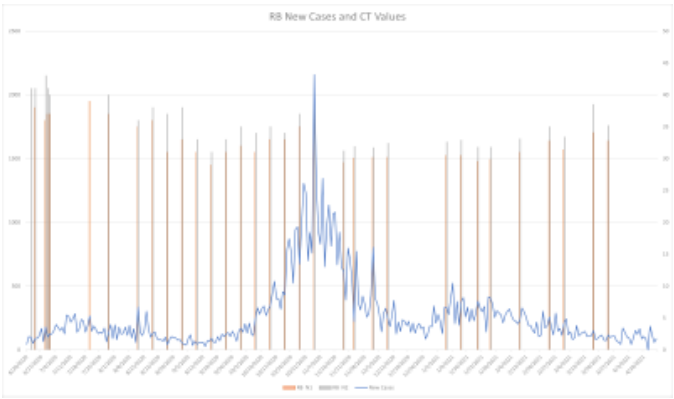


**R. Bustamante WW Plant**

Treats 39 million gallons per day

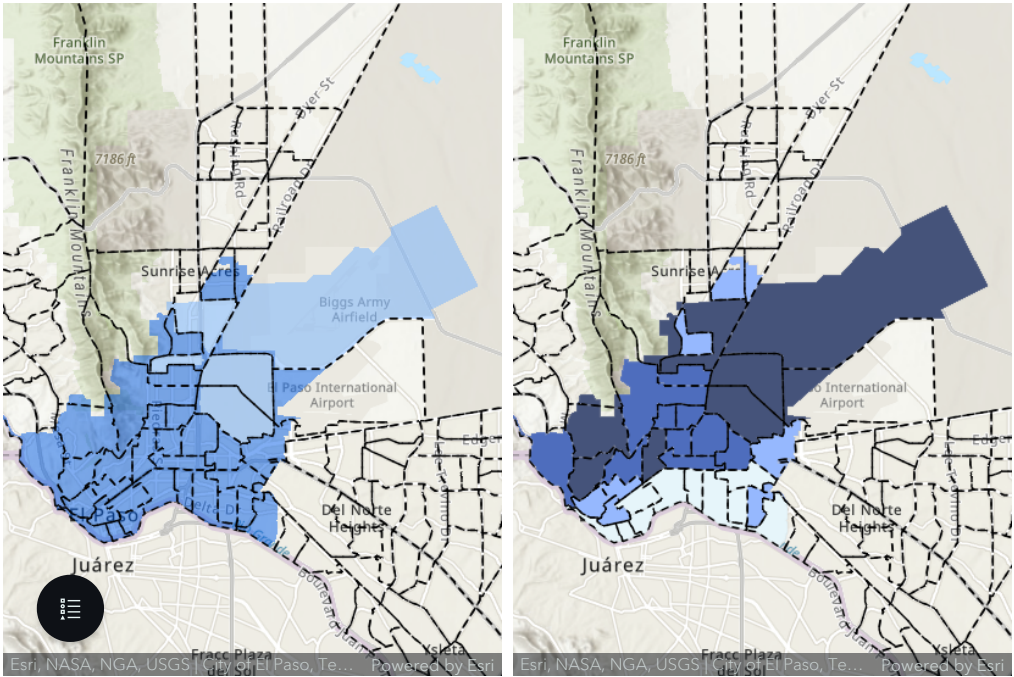
Zip Codes

- 79836
- 79838
- 79849
- 79853
- 79907
- 79915
- 79925
- 79927
- 79928
- 79935
- 79936
- 79938



Robert B. WW Plant New COVID-19 Cases by CT Values

Swipe Map to the right represents Robert B. service areas vs the SVI Score by census tract.



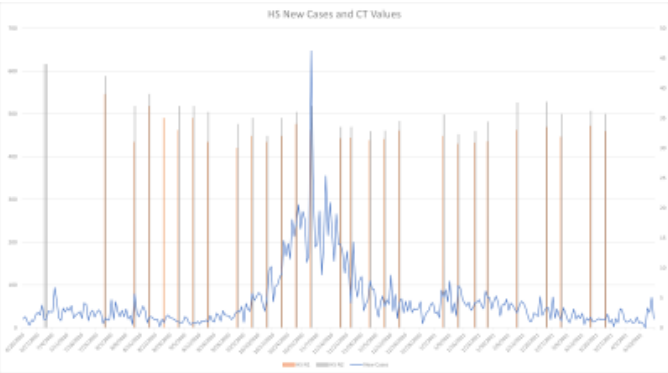
### Haskell WW Plant

Treats 27.7 million gallons per day

#### Zip Codes

- 79901
- 79902
- 79903
- 79904
- 79905
- 79930





Haskell WW Plant New COVID-19 Cases by CT Values

Swipe Map to the right represents Haskell service areas vs the SVI Score by census tract.

**Future Plans**

Zip Code Resolution Data - Finding relevant data for El Paso County to further incorporate ArcGIS, (Dr. Ramphul, Luis)

Possible collaboration with El Paso Public Health Department for real time COVID Data at a higher resolution - neighborhood, protected data (server protected)

Updates on El Paso Wastewater samples, more samples, consistent testing, etc. in preparation for the next wave.

Possible Census Tract data instead of Zip data on COVID cases to match SVI data.