

# **CAP Water Quality**

## **An East Valley Perspective**

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Map courtesy of CAP



# Current CAP Water Quality

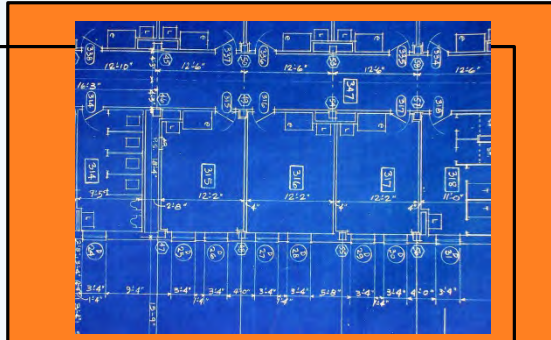
\* Low levels of contaminants

\* Very consistent

Analyte	Units	Average Result	Range of Results	Drinking Water MCL or Limit
Nitrate	mg/L	0.27	ND - 0.38	10
Arsenic	ug/L	3.3	2.3 - 5.4	10
TDS	mg/L	649	610 - 700	500 (secondary)
Dissolved Organic Carbon	mg/L	3.2	2.7 - 4.2	None
Turbidity	NTU	1.48	0.27 - 5.70	1.0

\*Data from CAP 2015 Annual Water Quality Report

# Considerations for Changes in Water Quality



Design



Expense



Risk

# Considerations for Drinking Water Treatment

## Design

- \* Existing water treatment plant (WTP) designs were based on current CAP water quality specifications
- \* Operation of drinking water systems were also designed with current CAP water quality in mind
- \* Possible that systems might have to treat or shut down groundwater sources

# Considerations for Drinking Water Treatment

## Expense

- \* Changes in water quality will make it more expensive to treat the water
  - \* Chemical usage
  - \* Solids handling
- \* If the change is severe enough, WTP upgrades may be necessary
  - \* Very expensive
  - \* Time consuming

# Considerations for Drinking Water Treatment

## Risk

- \* The water provider is responsible for meeting MCLs
- \* Some contaminants that will compromise our systems have no MCL
- \* Detention time through Santan Vista WTP is 15 minutes
  - \* Little time to adjust to incoming water quality changes



# Opportunities

- \* The current WTP design may be able to handle some decreased water quality
- \* There is a range in which the WTPs and drinking water systems can tolerate
- \* To determine feasibility would require:
  - \* Canal water quality modeling
  - \* Engineering studies

# Opportunities

- \* Ongoing, an increase of data resolution on the canal would be needed to monitor WQ changes
- \* If operators can see what is coming down the canal
  - \* Can prepare for adjustments
  - \* WTPs will be more flexible

# Thank You



# Questions?