Santa Ana River
Regional Monitoring Program

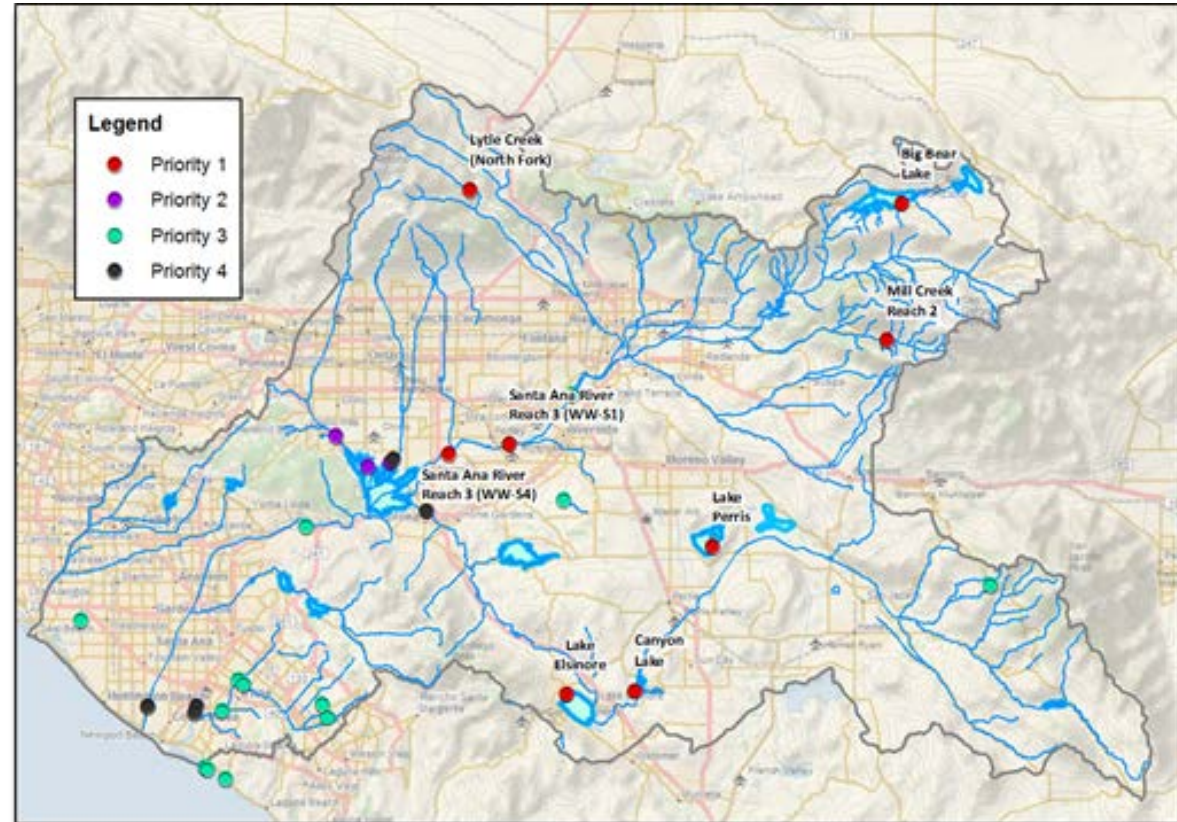## Proposed Updates for 2019-2020

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Outline

- Delisted Waters
- Cucamonga Creek Antidegradation Target
- Statewide Bacteria Provision
- Other Monitoring Considerations

Delisted Waters

Removing SAR Reach 2 & Fulmor Lake

- Both sites were delisted from the 2014/16 303(d) List
  - Reach 2 based on repeated compliance with WQOs – large flow upstream of SAR diversions for groundwater recharge
  - Lake Fulmor listing was noted as erroneous and corrected in this cycle

- Regional Board approved removal of both sites from RMP activities

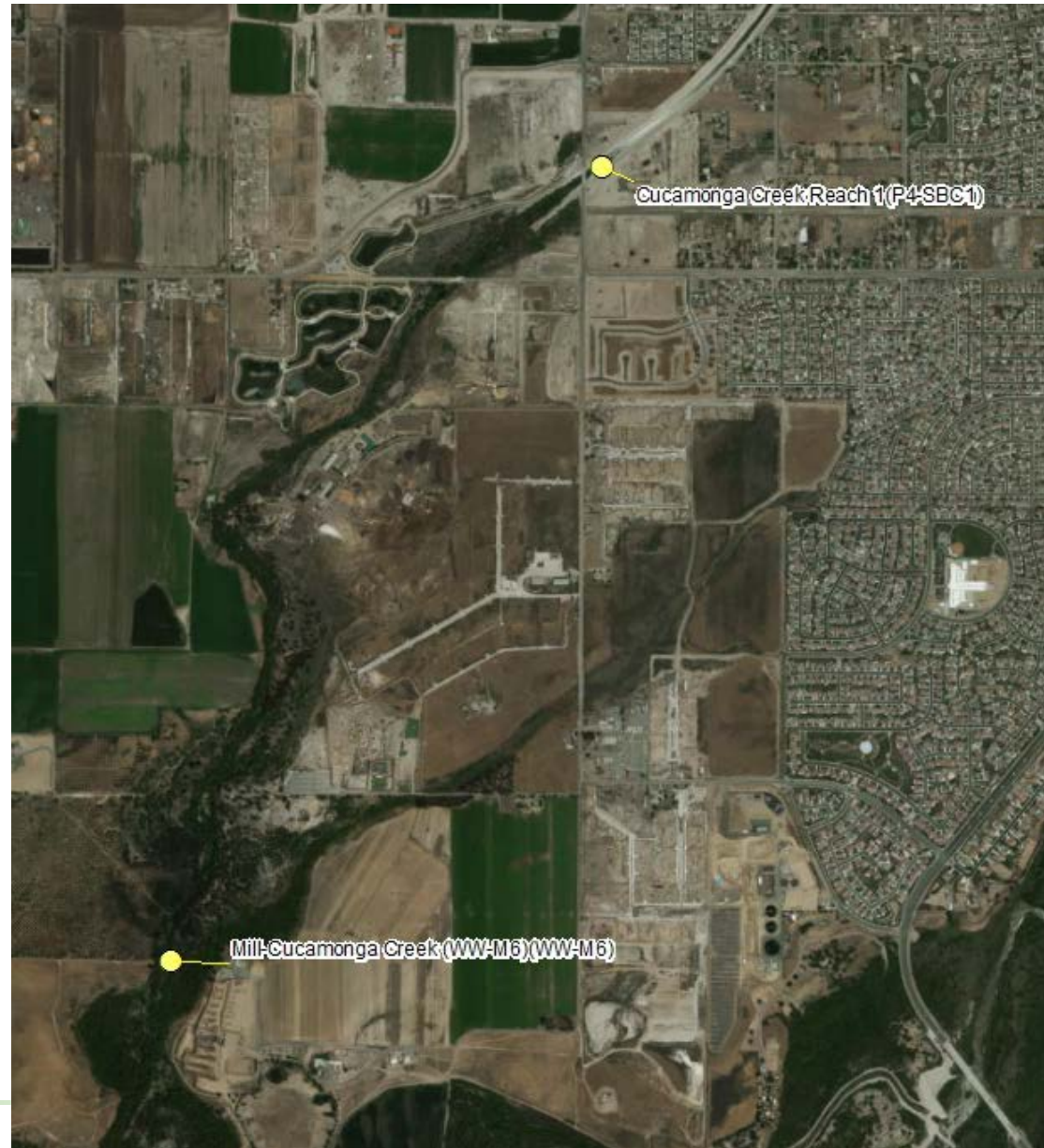- No sampling will occur in 2018-2019 dry season
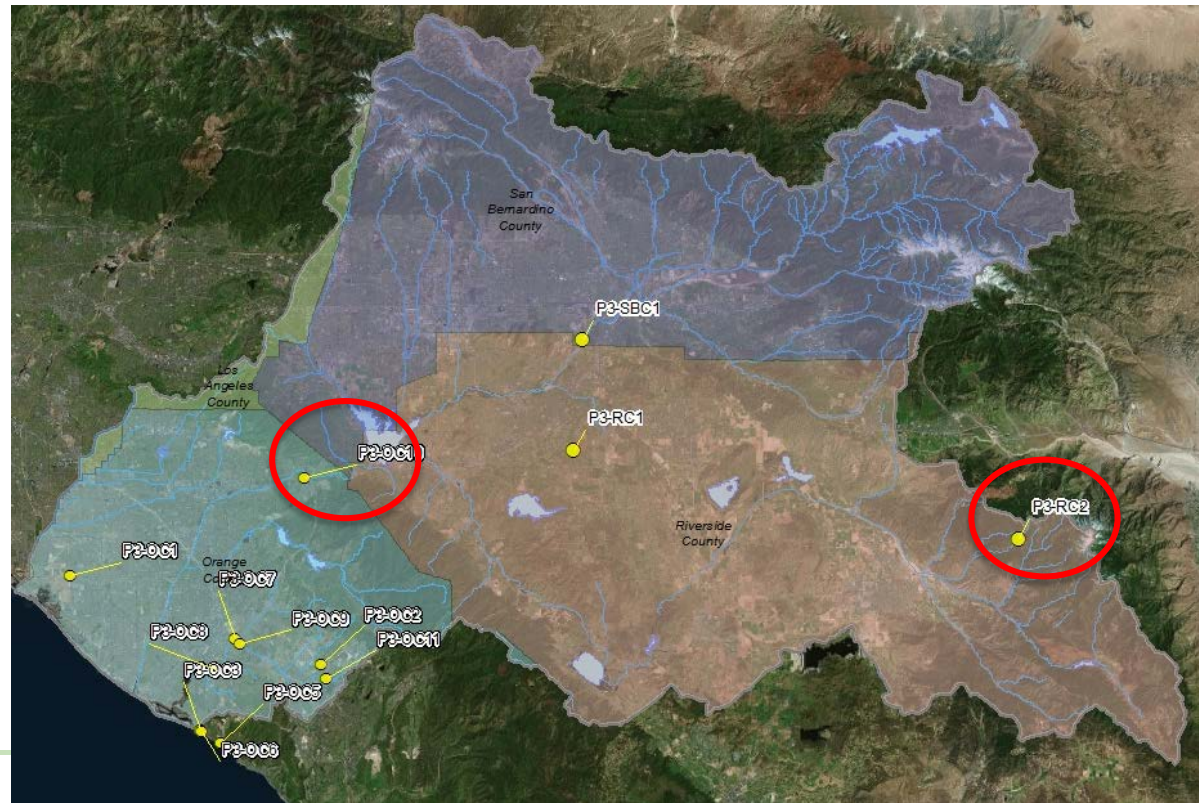
Cucamonga Creek

Cucamonga Creek

- Priority 2 site for MSAR TMDL (WW-M6)

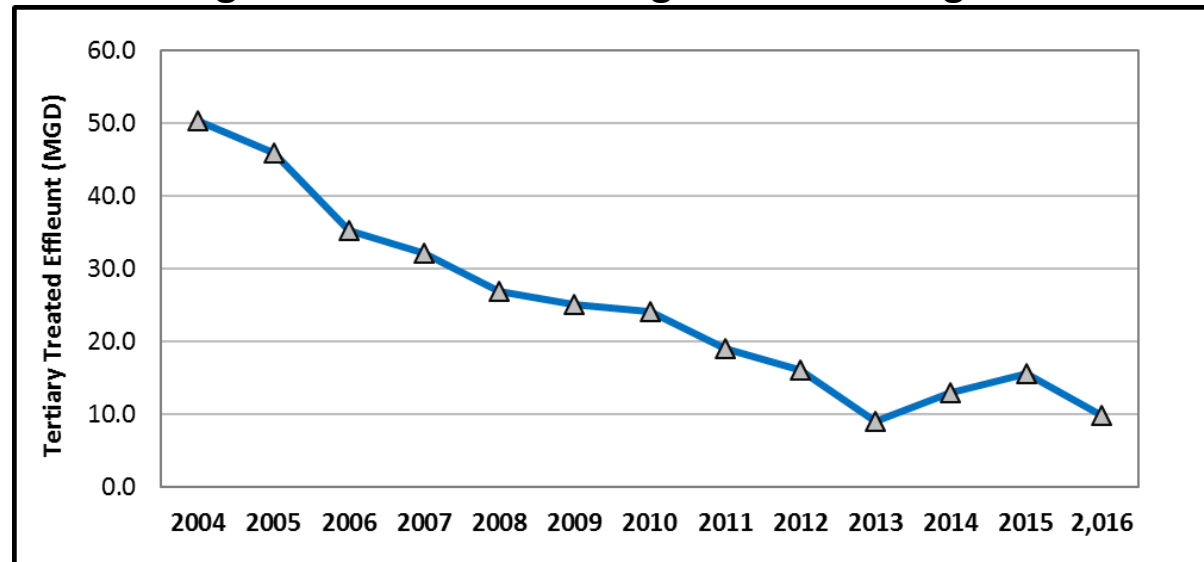- Priority 4 site on upstream REC2 segment (P4-SBC1)

Cucamonga Creek

- UAA for concrete lined section resulted in removal of REC1, leaving REC2 with an anti-degradation target based on historical site data

2005 (start of BPA process)

2018 (the new normal)

6:44 JUN/21/2018
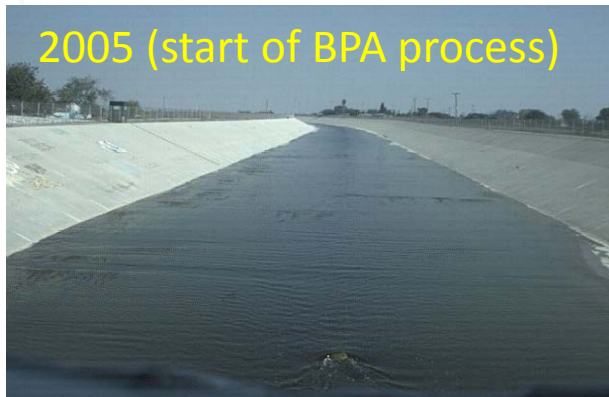
Average Annual RP1 Discharge to Cucamonga Creek

Cucamonga Creek Antidegradation Target

- Current target is 1,385 MPN/100 mL

- Computed as 75th %ile of log-normal distribution from historical data pooled from two sites
  - Chino-Corona Road station: 2002 – 2011 (n=145)
  - Above RP1 discharge near Hwy 60: 2002-2008 (n=52)

- P4-SBC1 (Hellman Ave) sample collected for 2018-2019 (330 MPN/100 mL) met the antidegradation target

- Recommend increasing data collection at Hellman Ave site to allow for eventual revision of the target at the same site and for a new normal for RP1 discharge

Statewide Bacteria Provisions

Change to Geomean WQO for *E. coli*

- A six consecutive week averaging period for computing geomeans, lower WQO to 100 CFU/100 mL

- More data points in average should tend to reduce geomeans

- Weighed against lower WQO, there is sharp increase in the frequency of exceedance, shown for SAR at Pedley site below

Monitoring Year	SAR at Pedley Ave Exceedance Frequency (5-Week GM 126 cfu/100ml)	SAR at Pedley Ave Exceedance Frequency (6-Week GM 100 cfu/100ml)
2017-2018	53%	92%
2018-2019	13%	100%

Plots of Rolling Geomeans
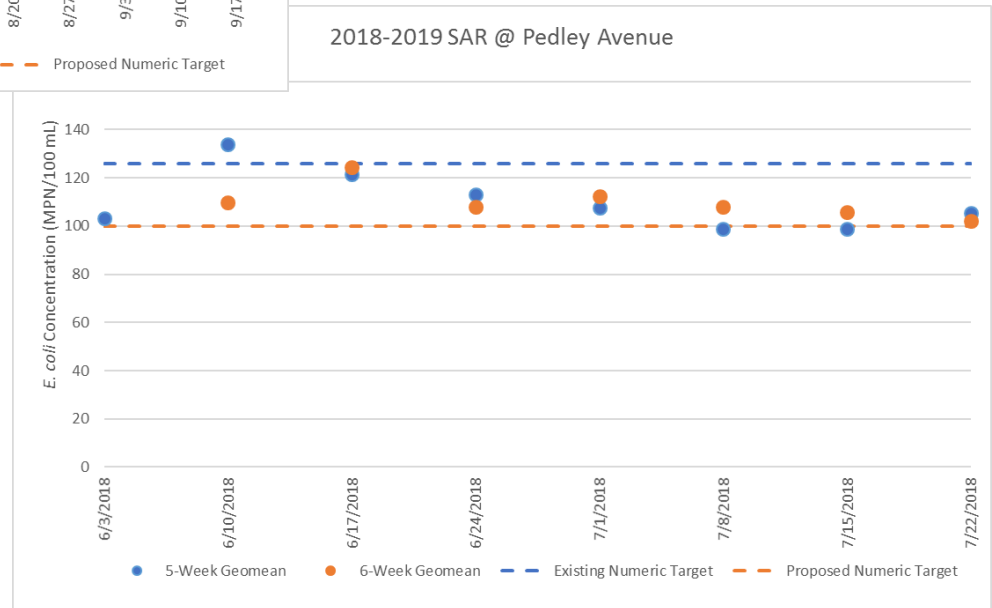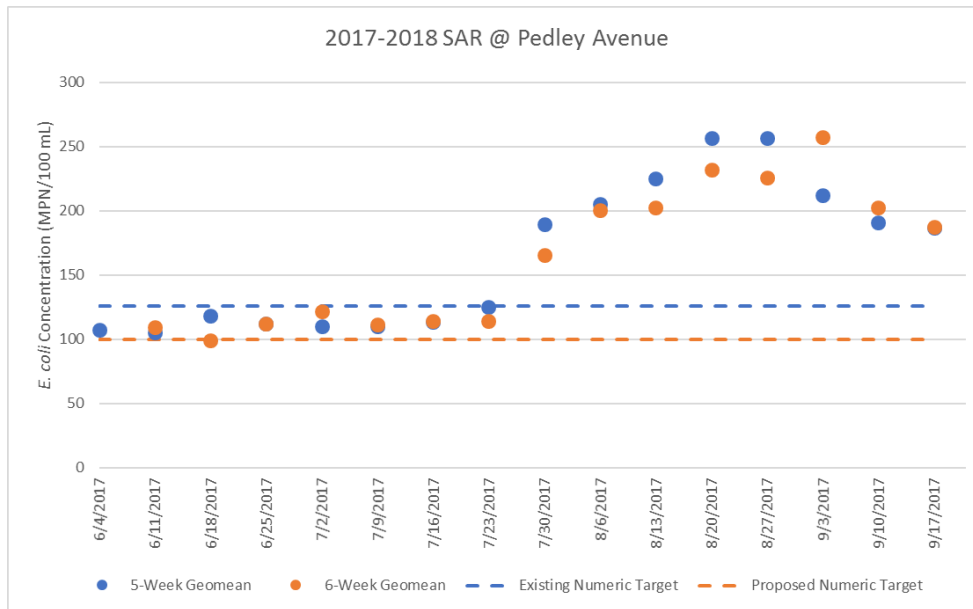
Change to Geomean WQO for *E. coli*

- Recommend extending sample collection by one week to collect sufficient data for a single 6-week geomean at all Priority 3 sites

- Close to no impact to samples collected after removing two Priority 3 sites
  - 13 site * 5 weeks = 65 samples
 - 11 sites * 6 weeks = 66 samples

Other Monitoring Considerations

Data Needs for TMDL Revision and CBRP Update

- New data at MS4 outfalls after effectively implementing CBRP for five years (34 Tier 1 sites cover all outfalls – even more expected to be in 'no dry weather flow' grouping in 2020)

- Flow measurement

- Fecal bacteria indicators

- Source tracking analysis with most up to date methods
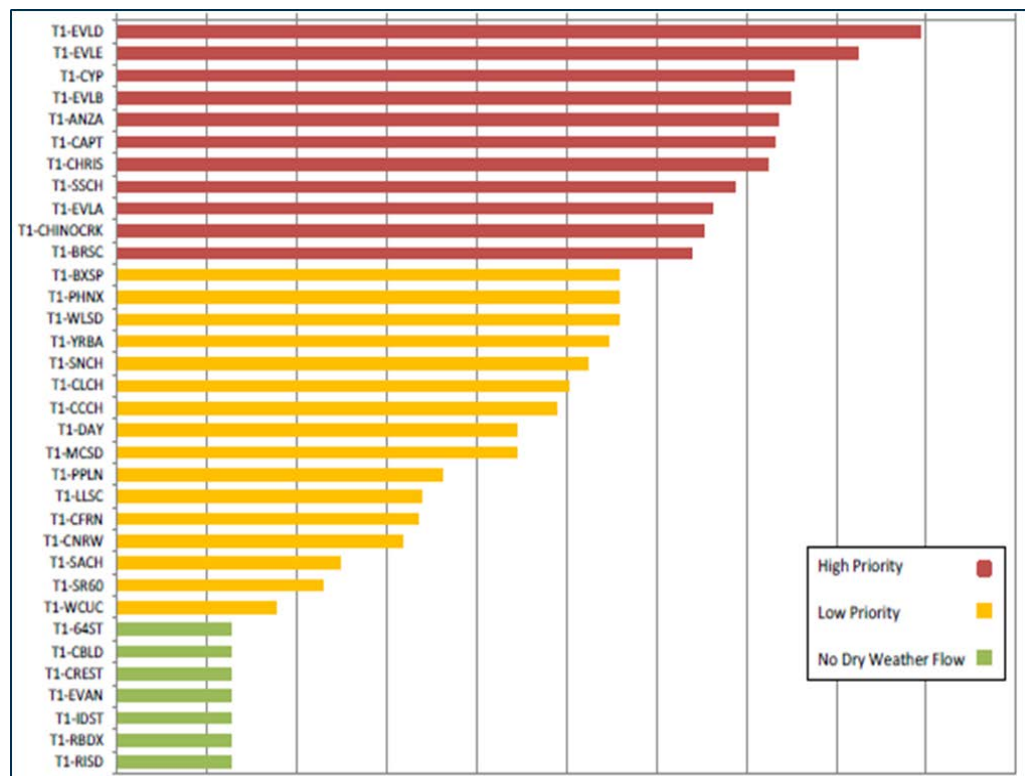
from 2013 Triennial Review; Tier 1 report

Data Needs for TMDL Revision and CBRP Update

- Reference site for developing a new robust fecal bacteria dataset on flows not influenced by any MS4 inputs

  - Santa Ana River Reach 4 site (P3-SBC1) downstream of RIX/Rialto effluent, no MS4 inflows upstream

  - Natural 04 site from RCFC&WCD Uncontrollable Bacteria Source Study

  - Distance traveled within SAR riparian area – 1.5 miles