

Summary of Exceedances (April 2012 - June 2013)

Parameter	Criteria	Colusa			Willows			Live Oak			Biggs		
		Upstream	Effluent	Downstream									
Aluminum - Total	200 µg/L	X		X	X		X	R		X	X		X
Arsenic - Total	10 µg/L	R		R				R	X	X			
Arsenic - Dissolved	10 µg/L	A						R	R	R			
Iron - Total	300 µg/L	X		X	X		X	R		X	X	R	X
Iron - Dissolved	300 µg/L						S						
Manganese - Total	50 µg/L	X		X	R		X	X		X	R		X
Manganese - Dissolved	50 µg/L	R		R			R				R		R
Nitrate as Nitrogen***	10 mg/L		X	X		X		R	X	X			
Sodium*	20 mg/L	X	X	X	X	X	X	X	X	X	R	X	R
TDS	500 mg/L	R	X	R		X	R	R	X	R		R	
Conductivity	900 µS/cm	X	R	X	A	A	A	R	R	R		R	
Boron	1 mg/L	R											
Fluoride - Total	2 mg/L			S									
Sulfate	250 mg/L	R		R									
Ammonia as Nitrogen	1.5 mg/L											X	R
Chloroform	5.7 µg/L					X							
Bromodichloromethane	0.56 µg/L					X							
Dibromochloromethane	0.41 µg/L					X							
<i>E. coli</i> **	200 MPN / 100 mL	R		R	R		R			R	R	R	R

S	= Exceedances observed in samples taken during Storm Season (Oct 2012 - Jan 2013)
R	= Exceedance observed in Random samples (Varied times throughout year)
X	= Exceedance observed in all samples taken (April 2012 - March 2013)
A	= Exceedance observed in April 2013 - June 2013 sampling period only

*Sodium criteria is the USEPA Drinking Water Advisory Guideline for individuals on a sodium restricted diet

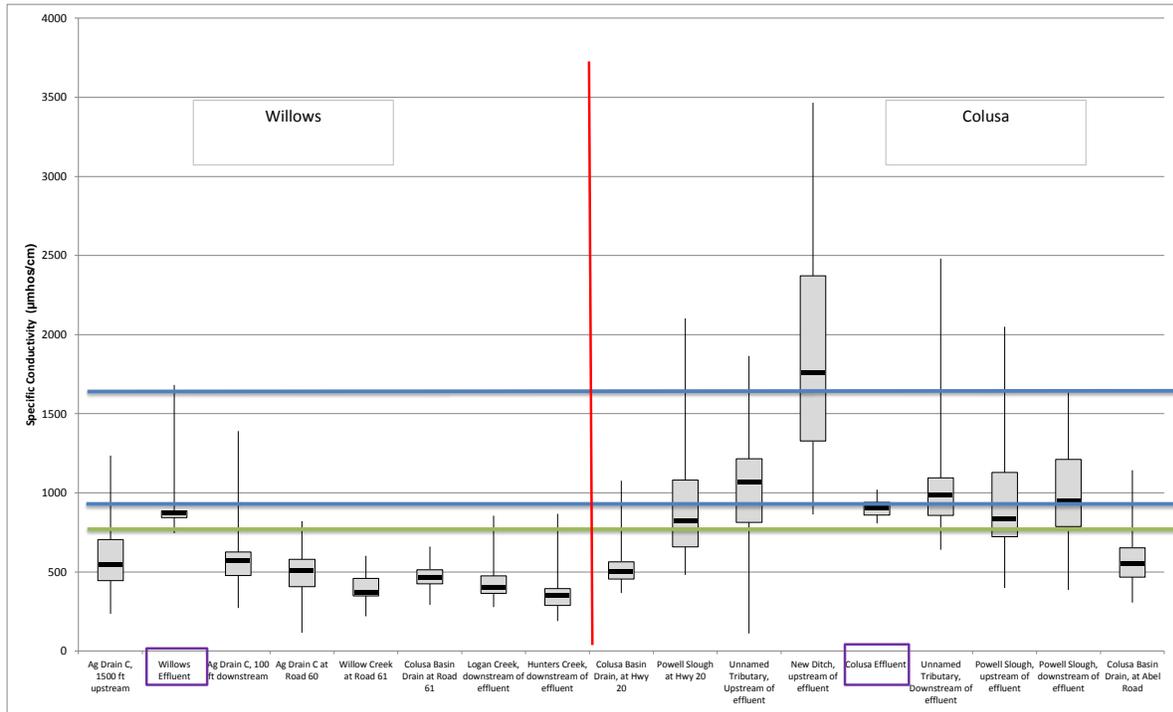
***E. coli* criteria is a possible CDPH trigger for reduction in pathogen levels.

"When the monthly median *E. coli* or fecal coliform density exceeds 200 MPN/100ml, CDPH staff considers requiring additional log reduction" (Draft Staff Report; February 2013. *Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Establish a Drinking Water Policy for Surface Waters of the Sacramento-San Joaquin Delta and Upstream Tributaries*; pp.31)

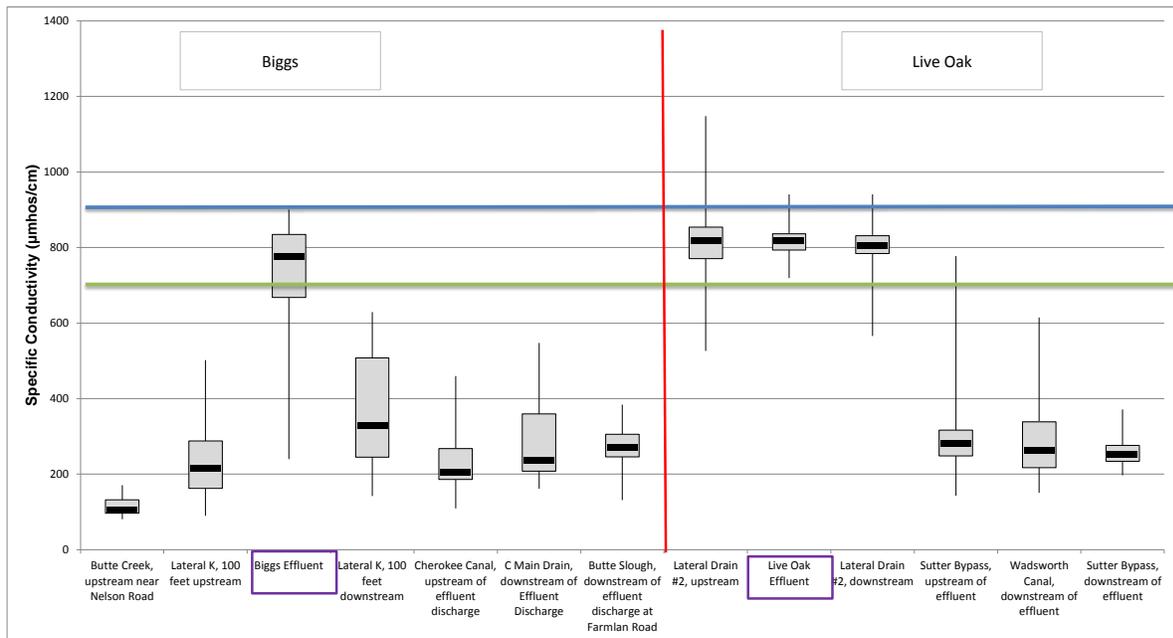
***Nitrate as Nitrogen exceedances were observed only up to 200 feet downstream in the immediate receiving water body. No downstream water bodies had exceedances for Nitrates.

Specific Conductivity Results

West Side (April 2012 - June 2013)



East Side (April 2012 - June 2013)

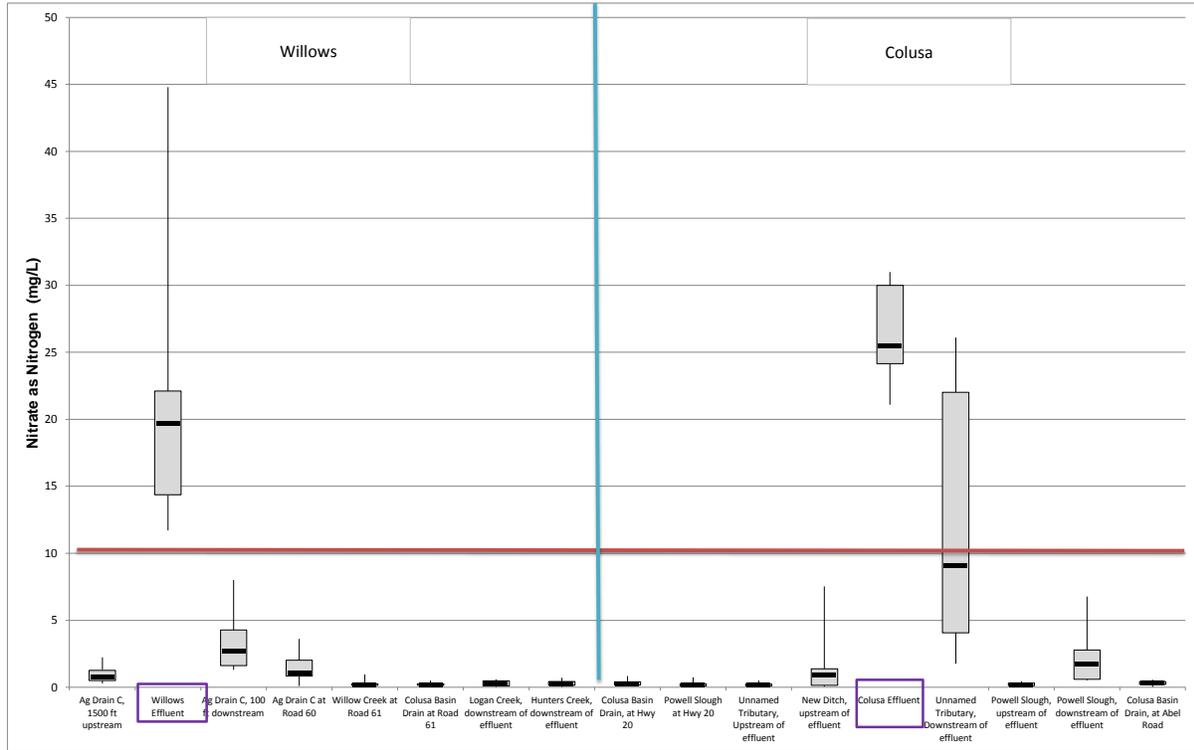


— = Secondary MCL (900 - 1600 µmhos/cm)

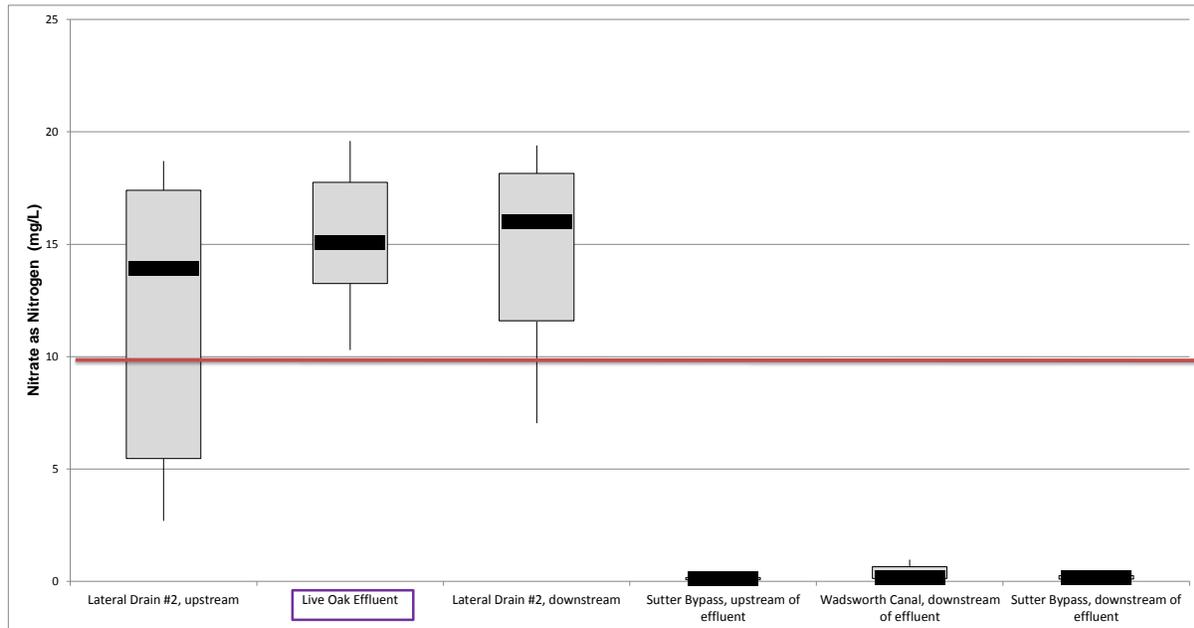
— = AGR (700 µmhos/cm)

Nitrate as Nitrogen Results

West Side (April 2012 - June 2013)



Live Oak Study Area (April 2012 - June 2013)

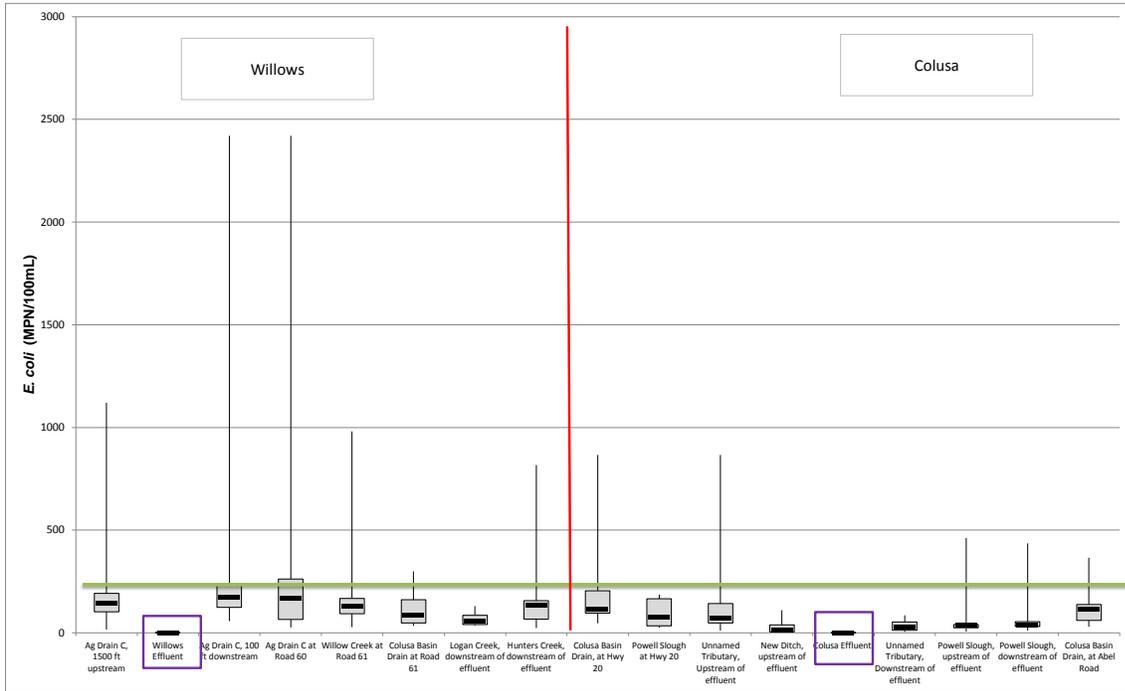


— = Primary MCL (10 mg/L)

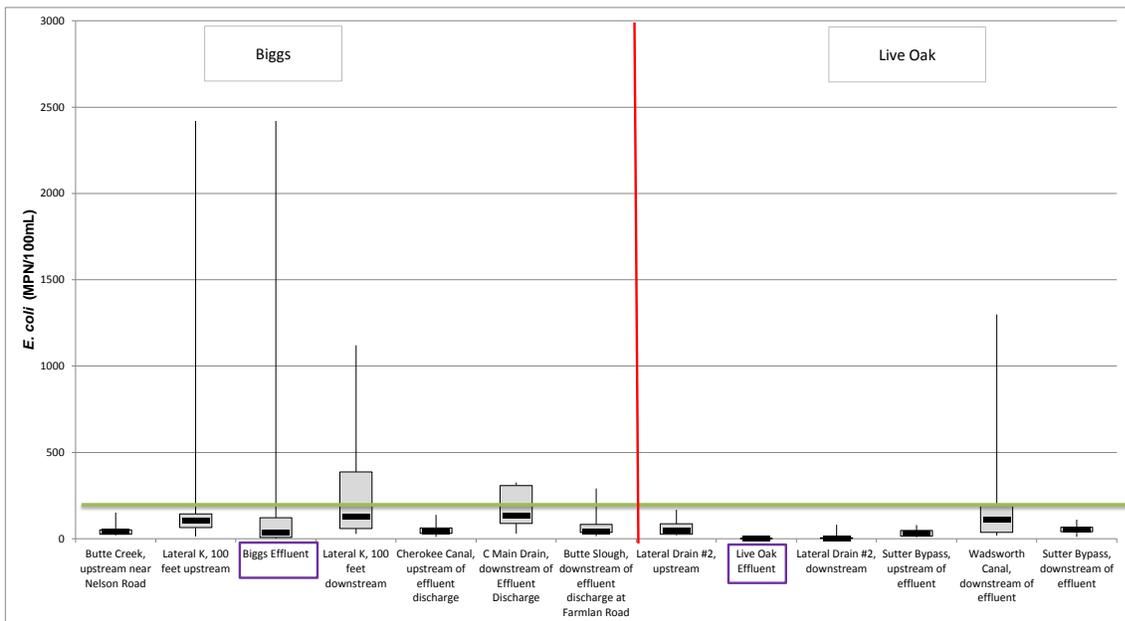
*Nitrate samples were discontinued for (April 2013 - June 2013) due to recent quarterly review

E. coli Results

West Side (August 2012 - June 2013)



East Side (August 2012 - June 2013)



— = *E. coli* criteria is a possible CDPH trigger for reduction in pathogen levels

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Monthly Samples

April 2012 - June 2013

Parameter	Frequency	Number of Samples with Exceedances (Total Samples)	Criteria
Arsenic - Total	1/month	46 (344)	10 µg/L
Arsenic - Dissolved	1/month	28 (166)	10 µg/L
Nitrate as N	1/month	72 (405)	10 mg/L
Boron	1/month	4 (381)	1 mg/L
Sodium	1/month	324 (444)	20 mg/L
Hardness	1/month	(360)	N/A
Sulfate	1/month	17 (269)	250 mg/L
Ammonia as N	1/month	18 (67)	1.5 mg/L
Total Dissolved Solids	1/month	83 (269)	500 mg/L
Conductance	2/month	110 (775)	900 µS/cm
Turbidity	2/month	(807)	
pH	2/month	10 (781)	6.5 - 8.5
photos	2/month	(2823)	
DO	2/month	(810)	
Temperature	2/month	(813)	

Quarterly Scans

April 2012 - June 2013

Parameter	Number of Samples with Exceedances (Total Samples)	Criteria
Antimony - Total	0 (123)	6 µg/L
Barium - Total	0 (123)	1 mg/L
Beryllium - Total	0 (119)	4 µg/L
Cadmium - Total	0 (123)	5 µg/L
Chromium - Total	0 (123)	50 µg/L
Copper - Total	0 (123)	1 mg/L
Lead - Total	0 (123)	15 µg/L
Mercury - Total	0 (119)	2 µg/L
Nickel - Total	0 (123)	100 µg/L
Selenium - Total	0 (123)	50 µg/L
Silver - Total	0 (123)	100 µg/L
Thallium - Total	0 (123)	2 µg/L
Zinc - Total	0 (123)	5 mg/L
Perchlorate	0 (119)	6 µg/L
Chloride	0 (211)	250 mg/L
Fluoride	1 (123)	2.0 mg/L
Aluminum - Total	205 (268)	200 µg/L
Aluminum - Dissolved	0 (119)	200 µg/L
Iron - Total	209 (268)	300 µg/L
Iron - Dissolved	1 (119)	300 µg/L
Manganese - Total	201 (268)	50 µg/L
Manganese - Dissolved	17 (119)	50 µg/L
Bromoform	0 (148)	4.3 µg/L
Chloroform	10 (148)	5.7 µg/L
Bromodichloromethane	8 (148)	0.56 µg/L
Dibromochloromethane	7 (148)	0.41 µg/L

*Quarterly Scans in 2012: June, September

*Quarterly Scans in 2013: January, March, June, September