

Summary of Exceedances (April 2012 - March 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							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	X		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	X
TDS	500 µg/L	R	X	R		X	R	R	X	R		R	
Conductivity	900 µS/cm	X	R	X				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)

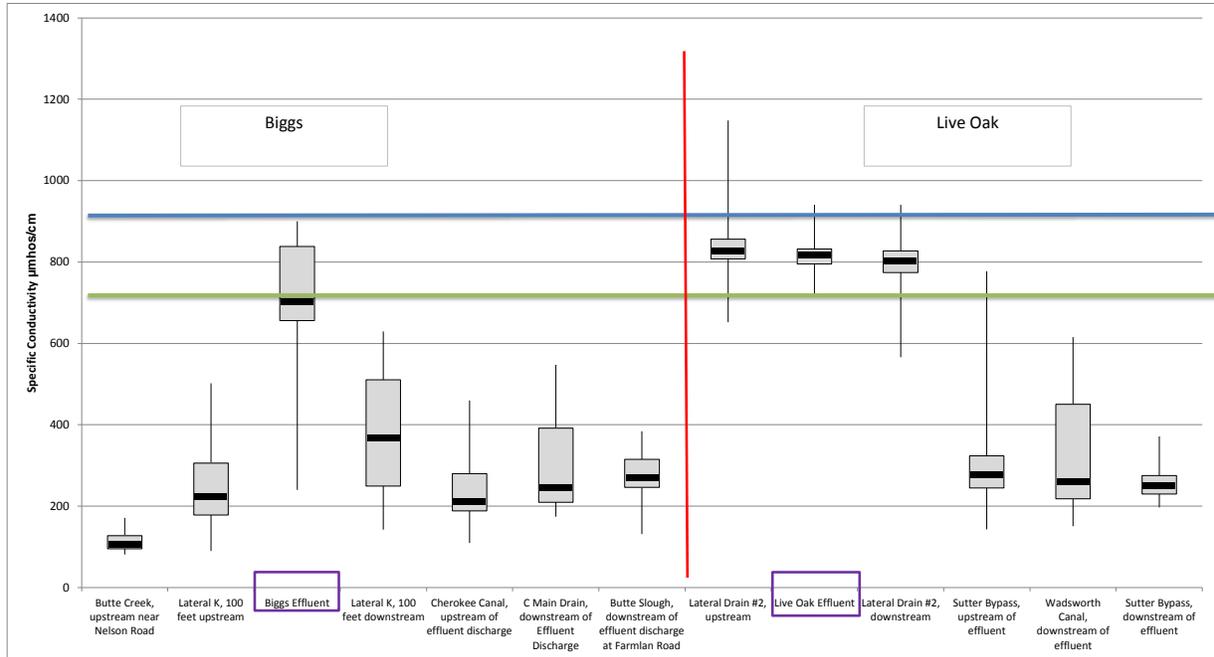
*Sodium criteria is the USEPA Drinking Water Advisory Guideline for individuals on a sodium restricted diet

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

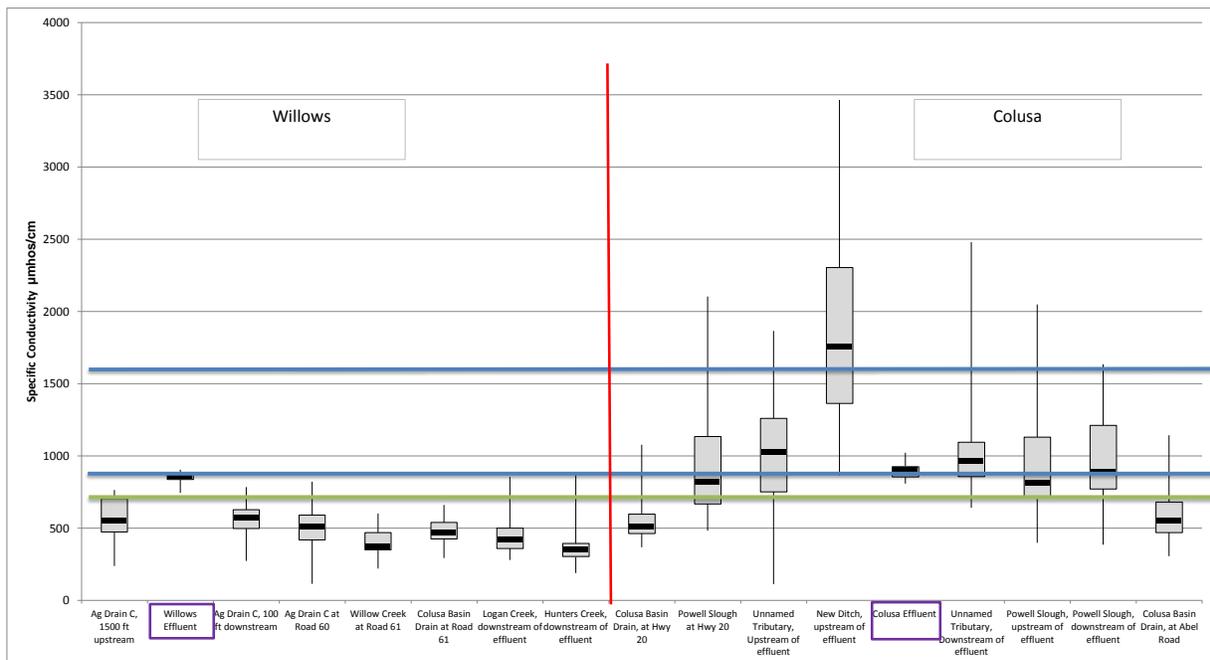
"When the monthly median *E. coli* or fecal coliform density exceeds 200 MPN/100ml, CDPH staff considers requiring additional log reduction" (Draft Staff Report; February 2013. *Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Establish a Drinking Water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

Specific Conductivity Results

East Side (April 2012 - March 2013)



West Side (April 2012 - March 2013)

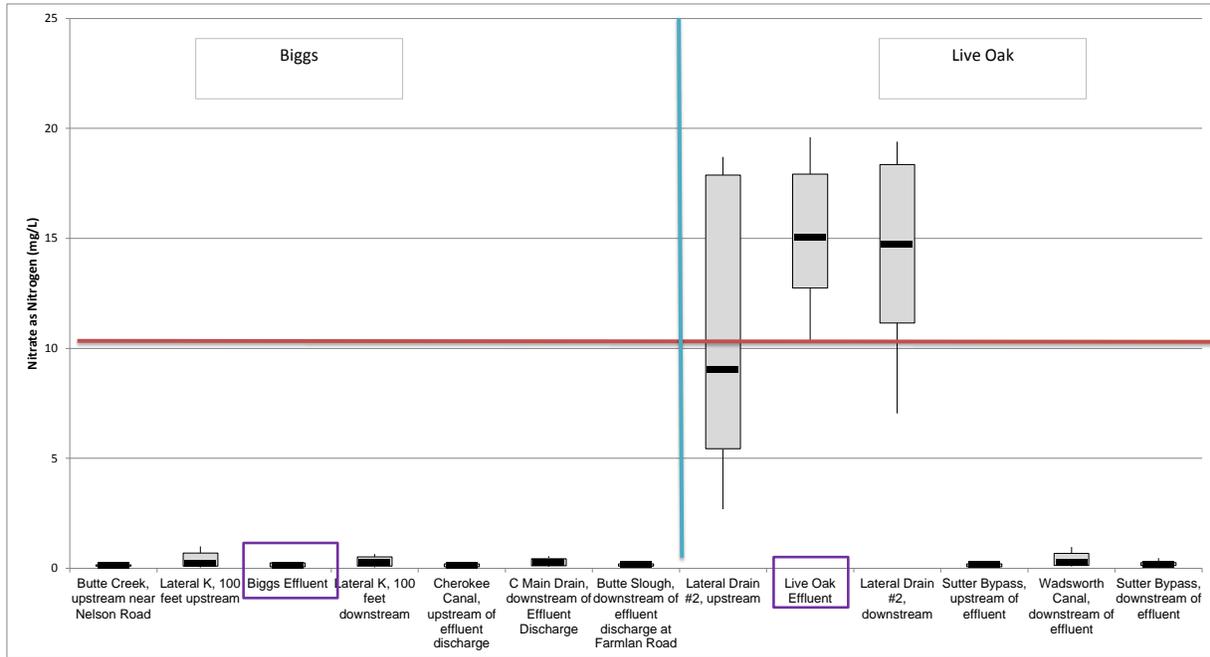


— = Secondary MCL (900 - 1600 $\mu\text{mhos/cm}$)

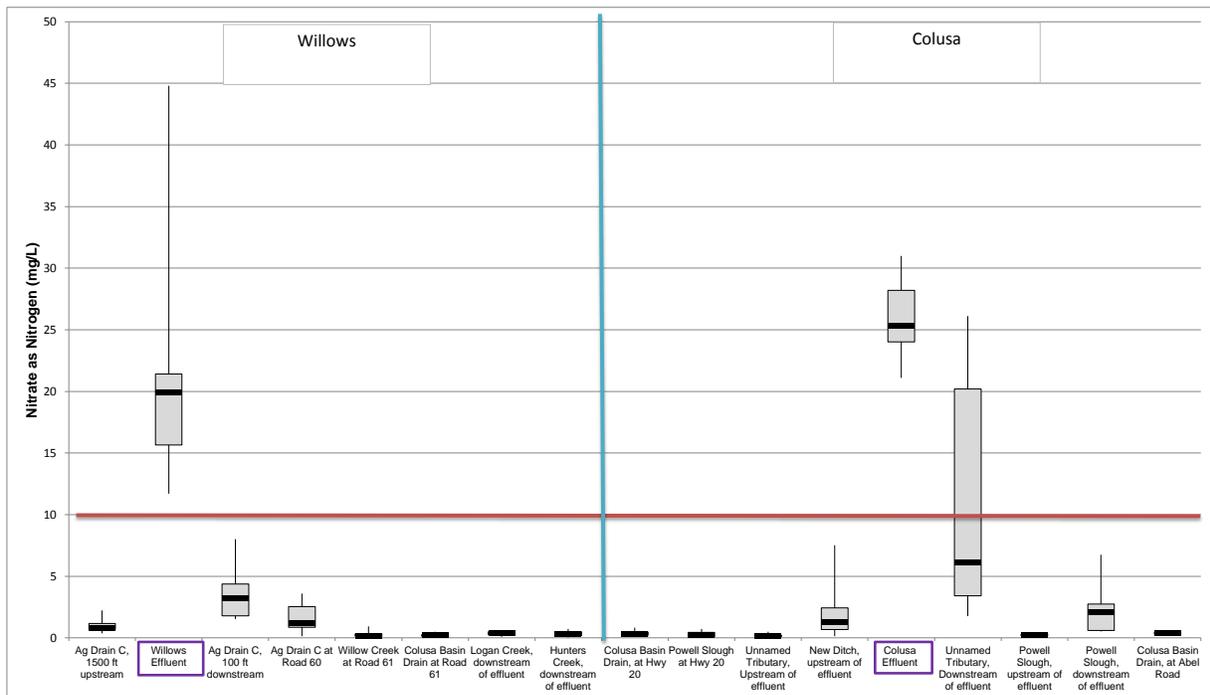
— = AGR (700 $\mu\text{mhos/cm}$)

Nitrate as Nitrogen Results

East Side (April 2012 - March 2013)



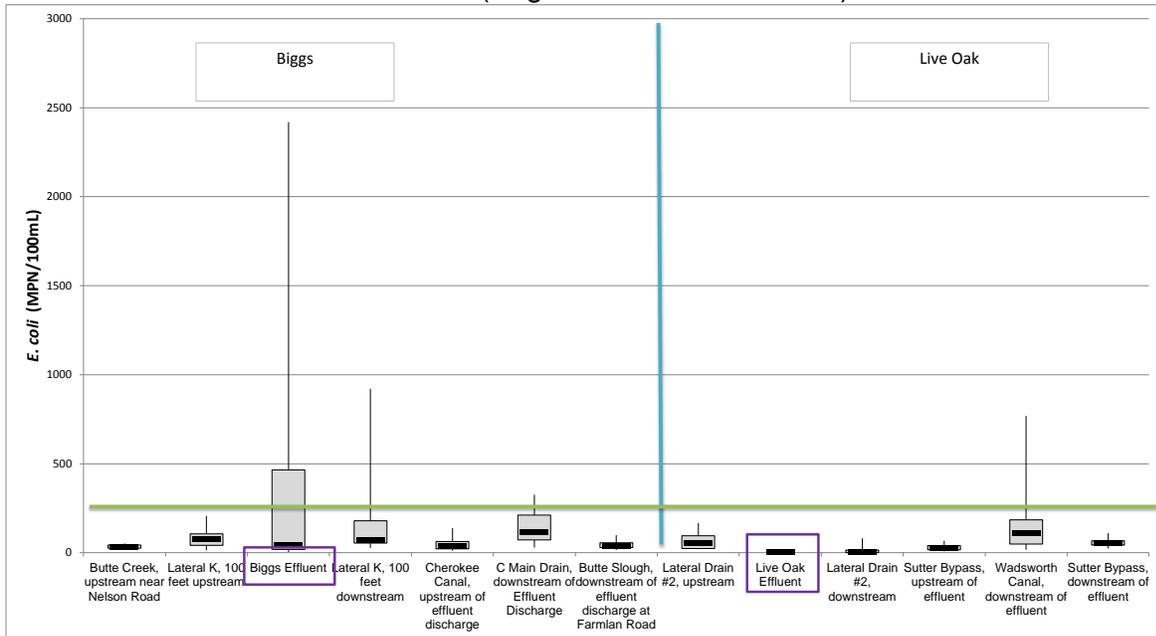
West Side (April 2012 - March 2013)



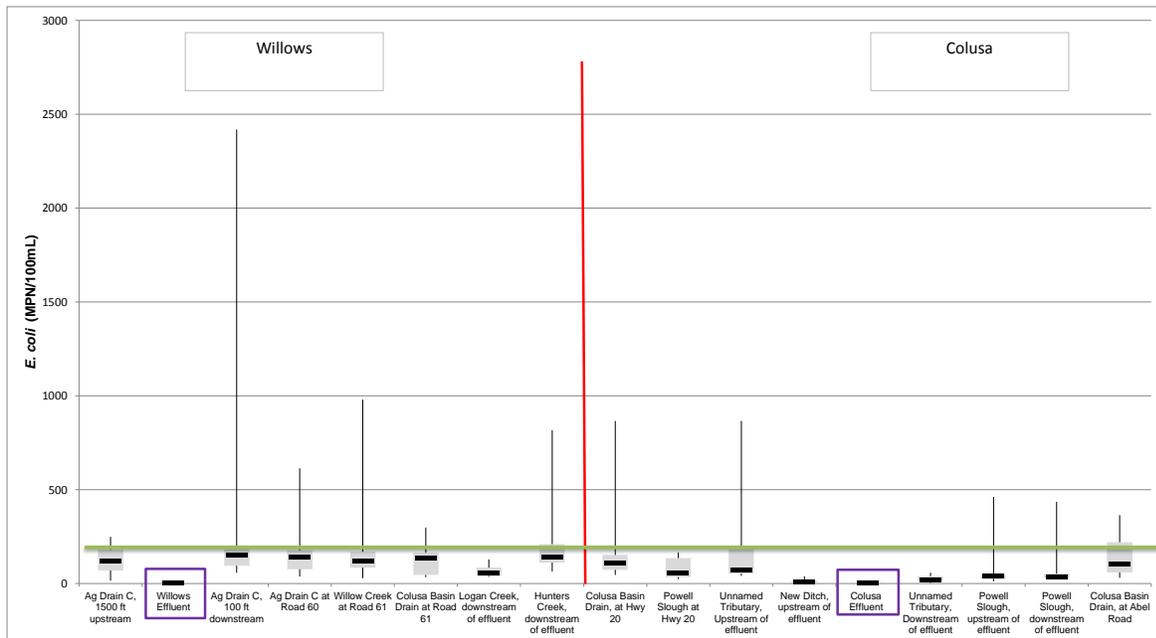
— = Primary MCL (10 mg/L)

E. coli Results

East Side (August 2012 - March 2013)



West Side (August 2012 - March 2013)



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

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)

Monthly Samples

April 2012 - March 2013

Parameter	Frequency	Number of Samples with Exceedances (Total Samples)	Criteria
Arsenic - Total	1/month	31 (256)	10 µg/L
Arsenic - Dissolved	1/month	15 (78)	10 µg/L
Nitrate as N	1/month	55 (338)	10 mg/L
Boron	1/month	4 (356)	1 mg/L
Sodium	1/month	267 (356)	20 mg/L
Hardness	1/month	(270)	N/A
Sulfate	1/month	14 (181)	250 mg/L
Ammonia as N	1/month	15 (46)	1.5 mg/L
Total Dissolved Solids	1/month	59 (181)	500 mg/L
Conductance	2/month	96 (707)	900 µS/cm
Turbidity	2/month	(709)	
pH	2/month	10 (710)	6.5 - 8.5
photos	2/month	(2549)	
DO	2/month	(707)	
Temperature	2/month	(709)	

Quarterly Scans

April 2012 - March 2013

Parameter	Number of Samples with Exceedances (Total Samples)	Criteria
Antimony - Total	0 (93)	6 µg/L
Barium - Total	0 (93)	1 mg/L
Beryllium - Total	0 (89)	4 µg/L
Cadmium - Total	0 (93)	5 µg/L
Chromium - Total	0 (93)	50 µg/L
Copper - Total	0 (93)	1 mg/L
Lead - Total	0 (93)	15 µg/L
Mercury - Total	0 (89)	2 µg/L
Nickel - Total	0 (93)	100 µg/L
Selenium - Total	0 (93)	50 µg/L
Silver - Total	0 (93)	100 µg/L
Thallium - Total	0 (93)	2 µg/L
Zinc - Total	0 (93)	5 mg/L
Perchlorate	0 (89)	6 µg/L
Chloride	0 (181)	250 mg/L
Fluoride	1 (93)	2.0 mg/L
Aluminum - Total	182 (238)	200 µg/L
Aluminum - Dissolved	0 (89)	200 µg/L
Iron - Total	186 (238)	300 µg/L
Iron - Dissolved	1 (89)	300 µg/L
Manganese - Total	181 (238)	50 µg/L
Manganese - Dissolved	16 (89)	50 µg/L
Bromoform	0 (144)	4.3 µg/L
Chloroform	9 (144)	5.7 µg/L
Bromodichloromethane	7 (144)	0.56 µg/L
Dibromochloromethane	6 (144)	0.41 µg/L