Methods for conducting tests with this organism in water column exposures will soon be available from US EPA and ASTM. Guidance for water testing will appear within the sediment protocols. I reviewed these documents last year, but an unsure of their current status.

The sampling should be of sufficient density (spatially and temporally) to identify general locations of possible pollution. This is recommended rather than sampling at each discharge point. For example, a single measurement point at the downstream discharge of a very large watershed would be insufficient. When/if problems are identified, sampling should move upstream to locate the source of the problem.

Agricultural Expert Panel Report, Pg 41

“The General WDRs must ensure that existing and developing water quality problems are in fact detected and subsequently corrected and must provide for sufficient density of monitoring to achieve that purpose.”

State Water Resources Control Board

"an effective receiving water monitoring program must pursue exceedances in upstream channels and narrow down the source of the exceedances."

State Water Resources Control Board

“This approach may be reasonable in the first couple of iterations of attempts to correct exceedances, although identification of individual sources should be required if improvements are not sufficient.”

State Water Resources Control Board

“we have concerns as to the sufficiency of the monitoring”

State Water Resources Control Board Pgs 56-57 at
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2018/wqo2018_0002_with_data_fig1_2_appendix_a.pdf

Table 79. ESJWQC exceedance tally based on results from 2004-2017 WY.

Sites and constituents are listed alphabetically within each of the following groups: field parameters (F), inorganics (I), bacteria (B), metals (M), pesticides (P) and toxicity (T). Management plan constituents are highlighted blue, grey is removed from management plans, and light grey are reinstated management plans. The tally only includes field duplicate exceedances if no exceedance occurred in the environmental sample. Tally excludes toxicity resampling events.

	F			I				B	M						P																T			
Site Name	Dissolved Oxygen	pH	Specific Conductivity	Ammonia	Nitrate as N	Nitrite as N	Nitrate + Nitrite as N	*E. coli*	Arsenic	Copper Dissolved[1]	Copper Total[1]	Lead	Molybdenum	Zinc	Aldicarb	Carbaryl	Carbofuran	Chlorpyrifos	Cyanazine	DDD (p,p')	DDE (p,p')	DDT (p,p')	Diazinon	Dieldrin	Dimethoate	Diuron	HCH	Malathion	Methomyl	Methidathion	Methoxychlor	Simazine	Thiobencarb	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Ash Slough @ Ave 21			1					3		3	5	2						4																	1	
Bear Creek @ Kibby Rd	2	5						7	1		4							2				1											3		1	
Berenda Slough along Ave 18 ½	7	3						7		17								4								1							1		2	
Black Rascal Creek @ Yosemite Rd	29	3						11			1	2						4															3		1	1
Canal Creek @ West Bellevue Rd	3	3	1	1				4		3																							1	1	1	
Cottonwood Creek @ Rd 20	1[2]	1						22		11	12	3						3	1				1			2						1		1	1	
Deadman Creek @ Gurr Rd	42	8	10	5				41	11	1	4							4				1		1				1					5	9	3	
Deadman Creek @ Hwy 59	23	7						18	6	1								6		1		1				1						1			2	
Dry Creek @ Rd 18	2	12	1					10		30	21	5		1				3					2			3								1		4	
Dry Creek @ Wellsford Rd/ Church St	76	10	1	2				74			3	1						10								2	1						1	2		4	2*
Duck Slough @ Gurr Rd	14	14	9	2			1	30	3	1	9	5					1	3										2					2	7	2	3	6
Hatch Drain @ Tuolumne Rd	55		55	1	13	1		12	12													1			1						1				10	6
Highline Canal @ Hwy 99	6	33	4	7				20		9	7	7						7				1				2		1	1					4		8	
Highline Canal @ Lombardy Rd	4	13	3	1				6		7	5	8		1				6								1		1				1		4	1	7	3
Hilmar Drain @ Central Ave	20	3	67	2	12			20			2							1		1	1					3								1		8	2
Howard Lateral @ Hwy 140	7	9	2				1	3		10								1																		1	
Lateral 2 ½ near Keyes Rd		11	4	1			1	2										4									1									6	
Lateral 5 ½ @ South Blaker Rd	1	8	25	1			16	5																												15	
Lateral 6 and 7 @ Central Ave	7	5	22	1			4																			1										3	
Levee Drain @ Carpenter Rd	27	1	42	4			18	13																										2	1	4	2
Livingston Drain @ Robin Ave	3	21			1			2		9	9	2						4																		3	
Lower Stevinson @ Faith Home Rd	3	15	17				3																													5	
McCoy Lateral @ Hwy 140		7						1		7																											
Merced River @ Santa Fe	11	2*						6			1	2						4				1					1							4		2*	
Miles Creek @ Reilly Rd	20	2						23		2	7	5			1			5					1					1		1				3		3	
Mootz Drain downstream of Langworth Pond[3]	34	2	1	2				25										2								2										2	
Mustang Creek @ East Ave	21		11	1			2	10		13								2			3										2			1		1	1
Prairie Flower Drain @ Crows Landing Rd	56	9	142	18	18	1	62	65	1				22			1		11				1			3	1		1						11	2	23	2*
Unnamed Drain @ Hogin Rd	19		23																						1											
Unnamed Drain @ Hwy 140	3	2						3		1																											
Westport Drain @ Vivian Rd	21	3	26		13			7										2																		3	
Grand Total	**518**	**212**	**467**	**49**	**57**	**2**	**108**	**450**	**34**	**125**	**90**	**42**	**22**	**2**	**1**	**1**	**1**	**92**	**1**	**2**	**4**	**7**	**4**	**1**	**5**	**19**	**3**	**7**	**1**	**1**	**1**	**5**	**3**	**53**	**17**	**126**	**25**

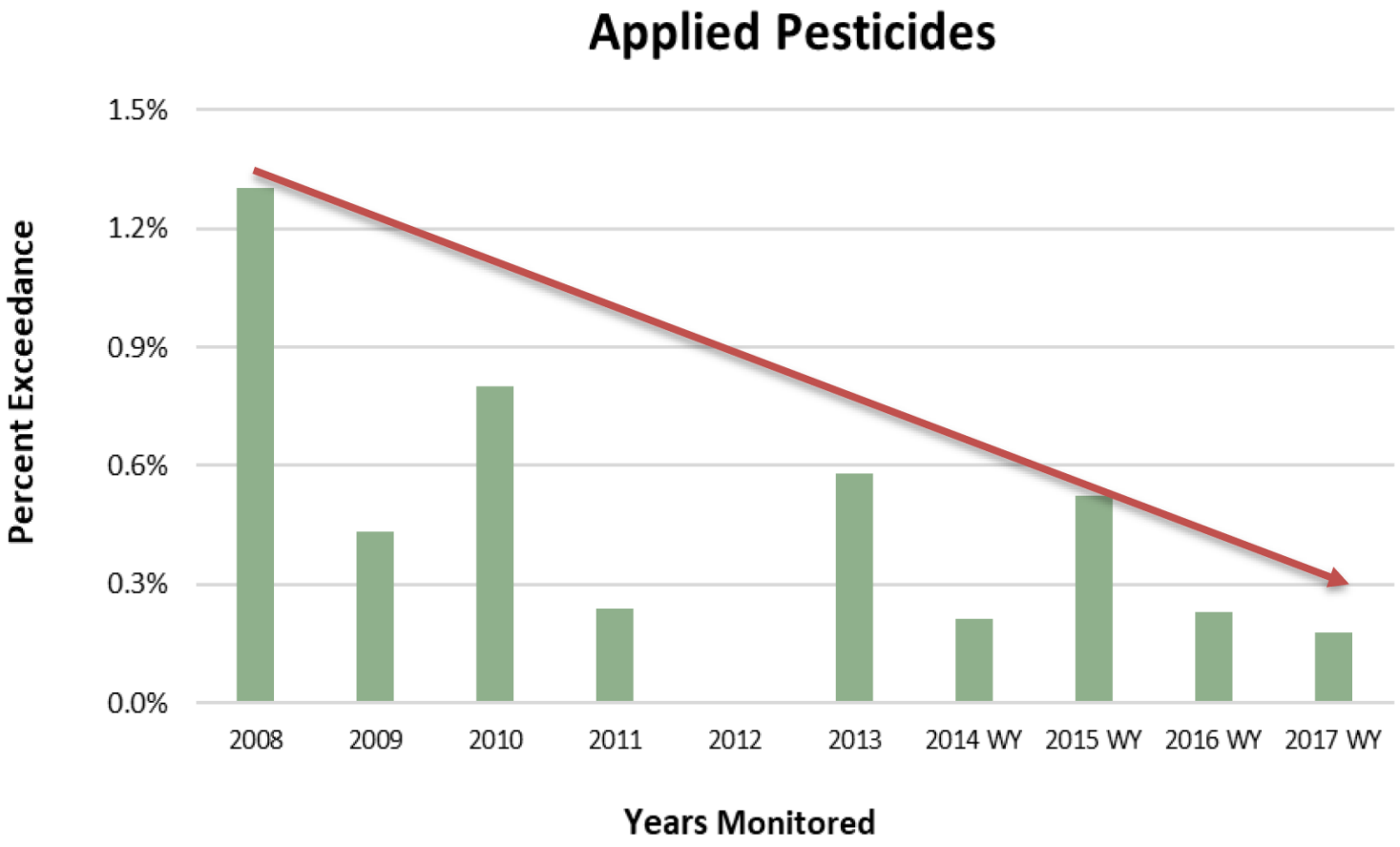
*Not prioritized for MPM; exceedances not within a three-year period.

[1]Exceedances of the hardness based WQTL for dissolved and total copper are evaluated under the same management plan.

[2]Due to the approved lower WQTL for DO (SQMP, approved 11/4/2015) a management plan is no longer required.

[3] Exceedances from Mootz Drain @ Langworth Rd count toward management plan for Mootz Drain downstream of Langworth Pond

Figure 35. Percentages of exceedances of WQTLs for pesticides from 2008-2017 WY in the ESJWQC.
Sample counts include analyzed and dry monitoring events.



“While the available data show trends in some areas for some water quality parameters, such as nitrate concentrations or turbidity, in most cases staff cannot assign a cause to these trends or conclude that overall water quality conditions are changing in such a way that water quality objectives will be achieved or beneficial uses will be protected. Where water quality problems are detected at CCAMP or CMP sites, a higher resolution network of monitoring sites would be needed to determine causality.”

https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2018/march/item4/item4_stfrpt.pdf