



**California Regional Water Quality Control Board**  
**Central Valley Region**  
**Katherine Hart, Chair**



Linda S. Adams  
Acting Secretary for  
Environmental Protection

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Edmund G. Brown Jr.  
Governor

11 February 2011

Mr. Bruce Houdesheldt, Director, Regulatory Affairs  
Northern California Water Association, SVWQC  
455 Capitol Mall, Suite 335  
Sacramento, CA 95814

**COMPLETION OF COON HOLLOW CREEK *CERIODAPHNIA DUBIA* TOXICITY MANAGEMENT PLAN,  
SACRAMENTO VALLEY WATER QUALITY COALITION**

Thank you for your letter dated 23 July 2010 requesting a determination be made that the Coon Hollow Creek *Ceriodaphnia dubia* Toxicity Management Plan is complete. Based on the available information, I have determined that the *Ceriodaphnia dubia* Management Plan is complete and any further actions identified in the Management Plan are not required.

The management plan requirement was originally triggered in 2007 when significant *Ceriodaphnia dubia* toxicity was observed in samples collected from Coon Hollow Creek in the El Dorado subwatershed. Between April 2007 and June 2008, a total of seven significant *Ceriodaphnia dubia* toxicity tests occurred in Coon Hollow Creek samples. Central Valley Water Board staff has prepared a memorandum that summarizes actions taken by the Coalition, as well as the data collected and analyzed for the management plan (see enclosed Staff Memorandum). The determination that the above management plan has been completed is based on the following:

1. Detailed Pesticide Use Report (PUR) data shows that applied pesticides with the highest potential to cause toxicity were monitored and were not detected in sample water.
2. Applied pesticides that were not monitored were unlikely to cause the observed toxicity.
3. One potentially toxic pesticide (carbaryl) was used on only two occasions prior to a toxicity event. It was not used prior to the remaining five toxicity events.
4. The results of six Toxicity Identification Evaluations (TIEs) were inconclusive.
5. The toxicity cannot be attributed to the presence of other monitored constituents (e.g. DDE or metals), as these were either not detected consistently, or were not present in concentrations that cause toxicity.

If you have any questions regarding this approval, please contact Mark Cady at (916) 464-4654, or by email at [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov).

*Original signed by Ken Landau for*

Pamela C. Creedon  
Executive Officer

Enclosures

cc: Valerie Zentner, EDCAWQMC  
Claus Suverkropp, LWA

**California Environmental Protection Agency**



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**TO:** Susan Fregien  
Senior Environmental Scientist  
Irrigated Lands Regulatory  
Program

**FROM:** Mark Cady  
Environmental Scientist  
Irrigated Lands Regulatory  
Program

**DATE:** 9 February 2011

**SIGNATURE:** \_\_\_\_\_

**SUBJECT:** Coon Hollow Creek *Ceriodaphnia dubia* Toxicity Management Plan

On 23 July 2010 the Sacramento Valley Water Quality Coalition (SVWQC) submitted a request to the Central Valley Water Board to determine that the management plan for toxicity to *Ceriodaphnia* on Coon Hollow Creek is complete. That request was based on the conclusion that the source of toxicity repeatedly measured in the Coon Hollow Creek drainage is not a result of agricultural activities. This memo reviews the conditions that led to the management plan requirements, the actions that have been taken by the Coalition since that time, and the data that has been collected and analyzed to better understand this situation. My recommendation is that the Water Board grant the Coalition's request and determine that the management plan is complete.

## Background

Coon Hollow Creek is a small drainage tributary to South Canyon Creek and the South Fork of the American River in El Dorado County near the town of Camino in the Apple Hill area. This area is represented by the El Dorado County Agricultural Water Quality Management Corporation (EDCAWQMC) within the SVWQC. In their 2007 Monitoring Plan, the SVWQC established a monitoring site on Coon Hollow Creek to comply with the requirements of the Irrigated Lands Regulatory Program. This situation remained in place until May 2008 when a request by SVWQC was granted by the Central Valley Water Board to change the monitoring site to a location on North Canyon Creek, which had been the designated monitoring site before 2007.

As described in the Source Evaluation Report submitted by SVWQC to the Central Valley Water Board in March 2010, Coon Hollow Creek is part of the Coloma Drainage. The total acreage of the Coon Hollow Creek drainage is 365 acres, of which 318 are devoted to irrigated agriculture, the dominant crops being tree crops (pome and stone fruits), vineyards and Christmas trees. The Coloma Drainage contains 1629 acres of irrigated agriculture, dominated by the same three crop groups.

There are two monitoring locations that have been used in the Coon Hollow Creek drainage. The main location was first listed as a monitoring site in the SVWQC 2007 monitoring plan. This site was used for most of the monitoring and is near the bottom of

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the drainage. A follow-up site was established about 2100 feet upstream where water from approximately half the drainage flows. This follow-up site was monitored for toxicity twice in 2007 as part of the source evaluation.

### Management Plan History

1. As shown in Table 1, 15 total *Ceriodaphnia* toxicity tests were performed on Coon Hollow Creek samples taken on 13 different days in 2007 and 2008. Attachment A provides additional data from these samples, including field measurements and constituents detected at the time of each positive toxicity result. A Management Plan is required when significant toxicity is detected on at least two occasions within three years. Coon Hollow Creek water was significantly toxic to *Ceriodaphnia* during seven different sampling events over a period of 15 months. On three occasions, sediment was tested for *Hyallela* toxicity when water tested positive for *Ceriodaphnia* toxicity. None of these sediment samples showed toxicity. Coon Hollow Creek water was tested for *Selenastrum* toxicity on ten different occasions in 2007 and 2008. None of these samples showed toxicity to the algae. Chemical and field parameters were tested on 13 different dates during this period. The only other exceedances reported were six detections of legacy organochlorine pesticides.

Table 1: Monitoring record for *Ceriodaphnia d.* toxicity from the ILRP Analysis Database

Station Name	Sample Date	Species Name	Pct Control	Toxicity Results Unit	Significant Effect
Coon Hollow Creek	17-Apr-07	<i>Ceriodaphnia dubia</i>	15	% Survival	YES
Coon Hollow Creek	25-Apr-07	<i>Ceriodaphnia dubia</i>	20	% Survival	YES
Coon Hollow Creek FU Site 1	25-Apr-07	<i>Ceriodaphnia dubia</i>	0	% Survival	YES
Coon Hollow Creek	16-May-07	<i>Ceriodaphnia dubia</i>	100	% Survival	NO
Coon Hollow Creek	19-Jun-07	<i>Ceriodaphnia dubia</i>	10	% Survival	YES
Coon Hollow Creek	23-Jun-07	<i>Ceriodaphnia dubia</i>	16	% Survival	YES
Coon Hollow Creek FU Site 1	23-Jun-07	<i>Ceriodaphnia dubia</i>	105	% Survival	NO
Coon Hollow Creek	18-Jul-07	<i>Ceriodaphnia dubia</i>	100	% Survival	NO
Coon Hollow Creek	22-Aug-07	<i>Ceriodaphnia dubia</i>	58	% Survival	YES
Coon Hollow Creek	18-Sep-07	<i>Ceriodaphnia dubia</i>	80	% Survival	NO
Coon Hollow Creek	29-Jan-08	<i>Ceriodaphnia Dubia</i>	95	% Survival	NO
Coon Hollow Creek	22-Feb-08	<i>Ceriodaphnia dubia</i>	100	% Survival	NO
Coon Hollow Creek	20-May-08	<i>Ceriodaphnia dubia</i>	50	% Survival	YES
Coon Hollow Creek	29-May-08	<i>Ceriodaphnia dubia</i>	100	% Survival	NO
Coon Hollow Creek	18-Jun-08	<i>Ceriodaphnia dubia</i>	30	% Survival	YES

2. In May 2008, EDCAWQMC circulated a draft Coon Hollow Creek Watershed Management Plan. This plan did not move forward on its own, but became a source document for the Coalition's Source Evaluation Report for Coon Hollow Creek.
3. Another result of the EDCAWQMC Management Plan was the completion of the "Coon Hollow Creek Water Quality Investigation and Source Evaluation Report" by Dan Hinrichs, DJH Engineering. Dated 22 December 2008, the report was received by the Water Board on 30 January 2009. The report includes a detailed review of the data that triggered the management plan as well direct observations from the monitoring site,

large amounts of raw monitoring data and site-specific data from the Natural Resources Conservation Service such as maps, areal photographs, descriptions of soils, etc.

EDCAWQMC initially intended this report to be a first step in fulfillment of the management plan referenced in Item 2. However, Central Valley Water Board staff could not accept this report in lieu of the Coalition's approved management plan deliverables. After communicating with Water Board staff, the Coalition stated that the report was provided to the Board for informational purposes only. The Coalition integrated the findings in the report into the approved management plan process.

4. The Coalition submitted a Source Evaluation Report (SER) for the Coon Hollow Creek *Ceriodaphnia* toxicity in March, 2010. This report includes details about the management plan and summarizes essential information about the Coon Hollow Creek drainage including total acreage, major crops, irrigation practices, and potential sources of toxicity. Detailed data is presented on agricultural pesticide use in the drainage one month prior to exceedances in 2007, describing the crops pesticides were applied to, the active ingredients, the pounds of active ingredients, and the acres treated. The applied pesticides with the greatest potential to cause toxicity to *Ceriodaphnia*, were monitored at most sampling events, and were not detected in sample water. Applied pesticides that were not monitored were unlikely to cause the observed toxicity because either they were applied to very limited acreage, or they have limited potential to contribute to *Ceriodaphnia* toxicity due to low toxicity and/or a strong tendency to bind to soil particles (e.g. sulfur, pyraclostrobin, quinoxifen). The only exception is carbaryl, a carbamate pesticide that is highly toxic to invertebrates and highly soluble in water. The PUR shows this pesticide being applied to a total of 19 acres within a month of the April 2007 toxicity events, and to six acres before the May 2008 event. This pesticide is rarely applied in this drainage and because of its short half-life in water, could only have contributed to the toxicity detected in those months—its use was not reported preceding any other toxicity detections.

It is important to note the challenge of selecting the right chemicals to include in water quality analysis. Selection is informed by past pesticide usage as reflected in the Pesticide Use Report (PUR) database. The data is usually made available by the Department of Pesticide Regulation between a year-and-a-half to two years after the actual pesticide applications. Thus the water quality constituents analyzed are based on applications that occurred two seasons prior to the monitoring event.

A table of reported pesticide applications within the Coon Hollow Creek drainage and in the month prior to each toxicity exceedance was created by staff and is included as Attachment B.

5. Six Toxicity Identification Evaluations (TIEs) were performed following toxicity measurements where survival of *Ceriodaphnia* was  $\leq 50\%$  of the control. None of these evaluations conclusively pointed to a cause. In fact, three of the TIE's did not show toxicity in any of the follow-up tests, while the three tests with significant results pointed to different types of toxicants (bound to particles, synergized by PBO, or neutralized by PBO), none of which could be deduced through analysis of detected constituents, or attributed to non-monitored pesticides that had been applied in the drainage.

The SER describes a number of potential sources of the toxicity results including non-agricultural pesticides or other materials coming from agrotourism or apple-handling sites. None of these potential sources can be eliminated or verified with the data collected so far. Another hypothesis is that the “difference between the sample water and the culture water hardness increased the sensitivity or decreased the fitness of the *Ceriodaphnia* in the sample waters.” This supposition seems unlikely, since the toxicity has appeared intermittently, while the reported hardness of the sample water is usually between 25 and 80 mg/L as CaCO<sub>3</sub>. There are sampling events where the hardness is reported in the low end of that range, and no toxicity was detected.

The following conclusion is presented in the SER:

*Specific causes and sources of the toxicity exceedances could not be definitively identified based on the monitoring data, but potential agricultural sources appear unlikely to have caused the toxicity.*

### **Conclusions**

Based upon a thorough review of the data presented by the Coalition in all of the documents reviewed above, and through additional research into the reported pesticide applications and monitoring data submitted by the Coalition over the fifteen-month period that toxicity was detected in monitoring samples, staff concludes that the toxicity was unlikely to have been caused by agricultural activities. Also, it does not appear that the toxicity can be attributed to the presence of legacy pesticides that had been detected in Coon Hollow Creek on six occasions. Significant *Ceriodaphnia* toxicity was detected on three of these six occasions while toxicity was tested but not detected on the other three occasions. Over the 19 months represented in the data, the toxicity detections were frequent but intermittent with no consistent trends linking the events together. The collected data does not point to any consistent toxicity source. Given the likelihood that these toxic events are unrelated to agricultural operations, staff recommends that the management plan for *Ceriodaphnia* toxicity on Coon Hollow creek be considered completed.

Attachment(s)

**Attachment A. *Ceriodaphnia* Toxicity exceedances on Coon Hollow Creek with field measurements and chemical detections**

Sample Date	Species Name	Pct Control/ Result	Tox Results Unit	MDL	RL	Quality Trigger Limit <sup>1</sup>
17-Apr-07	<i>Ceriodaphnia dubia</i>	15	% Survival			
	Boron, Total, µg/L	4		0.9	1	700
	Chromium, Total, µg/L	0.8		0.3	0.5	n/a
	Color, Total, color units	7		15	20	n/a
	DDE(p,p'), Total, µg/L	0.0067		0.001	0.005	0.00083
	Dissolved Solids, Total, mg/L	63		4	10	125
	E. coli, Total, MPN/100 mL	100		2	2	235
	Hardness as CaCO <sub>3</sub> , Total, mg/L	36		6	10	n/a
	Lead, Total, µg/L	0.39		0.1	0.25	0.84
	Nitrate as N, Total, mg/L	1.8		0.006	0.1	10
	OrthoPhosphate as P, Total, mg/L	0.01		0.01	0.01	n/a
	Phosphorus as P, Total, mg/L	0.055		0.01	0.01	n/a
	Suspended Solids, Total, mg/L	30		4	6	n/a
	Total Organic Carbon, mg/L	1.1		0.3	0.5	n/a
	Turbidity, Total, NTU	8.2		0.02	0.05	n/a
	Zinc, Dissolved µg/L	2		0.4	10	54
	Zinc, Total, µg/L	4		0.4	10	55
25-Apr-07	<i>Ceriodaphnia dubia</i>	20	% Survival			
	Atrazine, Total, µg/L	0.066		0.005	0.01	1
25-Apr-07*	<i>Ceriodaphnia dubia</i>	0	% Survival			
19-Jun-07	<i>Ceriodaphnia dubia</i>	10	% Survival			
	Aluminum, Total, µg/L	26		0.6	10	87
	Barium, Total, µg/L	63		0.02	0.1	1000
	Boron, Total, µg/L	7		0.9	1	700
	Chromium, Dissolved, µg/L	0.6		0.2	0.5	n/a
	Chromium, Total, µg/L	0.7		0.2	0.5	n/a
	Color, Total, color units	13		3	3	n/a
	Copper, Total, µg/L	0.7		0.05	0.5	7.7
	Dissolved Solids, Total, mg/L	51		4	10	125
	E. coli, Total, MPN/100 mL	180		2	2	235
	Hardness as CaCO <sub>3</sub> , Total, mg/L	80		15	20	n/a
	Lead, Total, µg/L	0.46		0.05	0.25	2.4
	Nickel, Total, µg/L	0.7		0.09	0.5	43
	Nitrate as N, Total, mg/L	1.9		0.01	0.1	10
	Nitrogen, Total Kjeldahl, mg/L	0.07		0.07	0.1	n/a
	OrthoPhosphate as P, Total, mg/L	0.015		0.01	0.01	n/a
	Phosphorus as P, Total, mg/L	0.032		0.01	0.01	n/a
	Suspended Solids, Total, mg/L	8		2	3	n/a
	Total Organic Carbon, mg/L	0.53		0.3	0.5	n/a
	Turbidity, Total, NTU	6		0.02	0.05	n/a
	Zinc, Dissolved, µg/L	5		0.7	1	98
	Zinc, Total, µg/L	19		0.7	1	99
23-Jun-07	<i>Ceriodaphnia dubia</i>	16	% Survival			
22-Aug-07	<i>Ceriodaphnia dubia</i>	58	% Survival			
	DDE(p,p'), Total, µg/L	0.0031		0.001	0.005	0.00083

Sample Date	Species Name	Pct Control/Result	Tox Results Unit	MDL	RL	Quality Trigger Limit <sup>1</sup>
18-Jun-08	<i>Ceriodaphnia dubia</i>	30	% Survival			
	Dissolved Solids, Total, mg/L	65		4	10	125
	E. coli, Total, MPN/100 mL	6.2		1	1	235
	Hardness as CaCO <sub>3</sub> , Total, mg/L	54		3	5	n/a
	Lead, Total, µg/L	0.29		0.01	0.25	1.5
	Nickel, Total, µg/L	0.6		0.02	0.5	31
	Nitrate as N, Total, mg/L	1.7		0.01	0.1	10
	Suspended Solids, Total, mg/L	8		1	3	n/a
	Total Organic Carbon, mg/L	1.2		0.1	0.5	n/a
	Zinc, Dissolved, µg/L	10		0.6	1	71
	Zinc, Total, µg/L	24		0.2	1	72
* Sample from follow-up site						
<sup>1</sup> From the SVWQC QAPP October, 2008. "n/a" means that there is no Trigger Limit available for the listed constituent.						

**Attachment B. Pesticides applied in the Coon Hollow Creek Drainage one month prior to *Ceriodaphnia* toxicity detections<sup>1</sup>**

Toxicity detection date	Chemical name	Lbs chemical applied	Acres treated	Monitored	Detected	Relative invertebrate toxicity <sup>2</sup>	Solubility in Water <sup>3</sup>
17-Apr-07	AZINPHOS-METHYL	2.00	2	Y	N	Very High	Moderate
	CAPTAN	143.28	49	N		Moderate	Low
	CARBARYL	36.78	19	N		High	High
	DIAZINON	75.00	54	Y	N	Very High	Moderate
	GLYPHOSATE, ISOPROPYLAMINE SALT	37.52	27.2	N		Low	Very High
	MANCOZEB	767.69	156.5	N		Moderate	Low
	MANGANESE SULFATE	3.82	6.5	N		Data Not Avail.	Moderate
	MYCLOBUTANIL	3.38	36.5	N		Low	High
	NAPROPAMIDE	6.00	2.5	N		Low	Moderate
	ORYZALIN	41.73	38.2	N		Low	Low
	SIMAZINE	9.00	2	N		Low	Low
	SULFUR	56.80	23.5	N		Moderate	Very Low
	TRIFLOXYSTROBIN	0.39	5	N		High	Very Low
ZINC SULFATE	0.49	6.5			Data Not Avail.	Very High	
25-Apr-07	AZINPHOS-METHYL	2.00	2	N		Very High	Moderate
	CAPTAN	160.39	58	N		Moderate	Low
	CARBARYL	36.78	19	N		High	High
	DIAZINON	2.00	5	Y	N	Very High	Moderate
	FENARIMOL	0.50	5	N		Low	Moderate
	GLYPHOSATE, ISOPROPYLAMINE SALT	37.52	27.2	N		Low	Very High
	MANCOZEB	399.09	79.5	N		Moderate	Low
	MANGANESE SULFATE	0.95	1	N		Data Not Avail.	Moderate
	MYCLOBUTANIL	9.43	89.3	N		Low	High
	ORYZALIN	29.25	35.7	N		Low	Low
	SULFUR	111.20	58.3	N		Moderate	Very Low
	TRIFLOXYSTROBIN	2.37	41	N		High	Very Low
	ZINC SULFATE	0.12	1	N		Data Not Avail.	Very High
19-Jun-07	ACETAMIPRID	6.94	57	N		Low	Very High
	AZINPHOS-METHYL	36.00	29	Y	N	Very High	Moderate
	BOSCALID	8.32	55.51	N		Low	Low
	GLYPHOSATE, ISOPROPYLAMINE SALT	15.12	22.61	N		Low	Very High
	METHOXYFENOZIDE	1.41	5	N		Low	Low
	MYCLOBUTANIL	1.20	19	N		Low	High
	PYRACLOSTROBIN	4.22	55.51	N		High	Low
	QUINOXYFEN	3.04	41	N		High	Very Low
	SULFUR	514.35	236.51	N		Moderate	Very Low
	TRIFLOXYSTROBIN	1.94	31	N		High	Very Low
TRIFLUMIZOLE	3.55	19.51	N		Low	Moderate	
23-Jun-07	ACETAMIPRID	6.94	57	N		Low	Very High
	AZINPHOS-METHYL	36.00	29	N		Very High	Moderate
	BOSCALID	6.62	38	N		Low	Low
	GLYPHOSATE, ISOPROPYLAMINE SALT	6.00	9	N		Low	Very High
	METHOXYFENOZIDE	1.41	5	N		Low	Low
	MYCLOBUTANIL	1.60	29	N		Low	High
	PYRACLOSTROBIN	3.36	38	N		High	Low
	QUINOXYFEN	3.04	41	N		High	Very Low
	SULFUR	437.90	221.13	N		Moderate	Very Low
	TRIFLOXYSTROBIN	1.94	31	N		High	Very Low
TRIFLUMIZOLE	3.55	19.51	N		Low	Moderate	
22-Aug-07	ABAMECTIN	0.06	5	N		Very High	Low
	ACETAMIPRID	4.31	44.5	N		Low	Very High
	AZINPHOS-METHYL	33.00	33	Y	N	Very High	Moderate
	BOSCALID	0.47	3	N		Low	Low

Toxicity detection date	Chemical name	Lbs chemical applied	Acres treated	Monitored	Detected	Relative invertebrate toxicity <sup>2</sup>	Solubility in Water <sup>3</sup>
	BUPROFEZIN	8.14	15.5	N		Moderate	Very Low
	IMIDACLOPRID	0.14	3	N		Low	High
	MYCLOBUTANIL	0.68	6	N		Low	High
	PYRACLOSTROBIN	0.24	3	N		High	Low
	TRIFLOXYSTROBIN	2.27	30.2	N		High	Very Low
22-Feb-08	MINERAL OIL	136.66	3	N		Data Not Avail.	Very Low
23-Feb-08	NORFLURAZON	11.79	10	N		Low	Moderate
	OXYFLUORFEN	7.70	10	N		Low	Very Low
20-May-08	ABAMECTIN	0.09	5	N		Very High	Low
	ACETAMIPRID	0.87	10	N		Low	Very High
	ATRAZINE	23.81	9	N		Low	Moderate
	AZINPHOS-METHYL	5.00	5	Y	N	Very High	Moderate
	CAPTAN	14.67	5	N		Moderate	Low
	CARBARYL	15.91	6	N		High	High
	COPPER HYDROXIDE	2.15	4	N		Data Not Avail.	Very Low
	CYPRODINIL	0.14	2	N		High	Moderate
	DIAZINON	10.00	4	Y	N	Very High	Moderate
	FENARIMOL	0.56	6	N		High	Moderate
	GLYPHOSATE, ISOPROPYLAMINE SALT	44.08	24	N		Low	Very High
	HEXAZINONE	5.62	9	N		Low	Very High
	METHOXYFENOZIDE	10.74	35	N		Low	Low
	MYCLOBUTANIL	17.48	129.51	N		Low	High
	ORYZALIN	6.24	10	N		Low	Low
	SPINETORAM	5.14	47	N		Low	Moderate
	STREPTOMYCIN SULFATE	1.57	7	N		Moderate	Moderate
	SULFUR	447.20	134.51	N		Moderate	Very Low
	TRIFLOXYSTROBIN	1.56	28	N		High	Very Low
18-Jun-08	ACETAMIPRID	0.13	1	N		Low	Very High
	ATRAZINE	26.46	10.5	N		Low	Moderate
	AZINPHOS-METHYL	55.50	50	Y	N	Very High	Moderate
	BOSCALID	2.57	29.51	N		Low	Low
	CLETHODIM	0.97	4	N		Low	Very High
	DINOTEFURAN	0.79	3	N		Very Low	Very High
	DIPHACINONE	0.00	2	N		High	Very Low
	FENARIMOL	0.27	7.13	N		High	Moderate
	GLYPHOSATE	2.88	5.8	N		Low	Very High
	HEXAZINONE	5.62	9	N		Low	Very High
	METHOXYFENOZIDE	3.53	12.5	N		Low	Low
	MYCLOBUTANIL	15.89	110	N		Low	High
	OXYFLUORFEN	7.97	1.5	N		Low	Very Low
	PARAQUAT DICHLORIDE	6.92	10	N		Low	Very High
	PYRACLOSTROBIN	1.30	29.51	N		High	Low
	QUINOXYFEN	2.88	32	N		High	Very Low
	SPINETORAM	2.95	24	N		Low	Moderate
	STRYCHNINE	0.68	16	N		High	Not Avail.
	SULFUR	706.40	263.51	N		Moderate	Very Low
	TRIFLOXYSTROBIN	0.06	1	N		High	Very Low
	TRIFLUMIZOLE	2.45	16	N		Low	Moderate

<sup>1</sup>Note: Pesticide use data was extracted from the California Pesticide Reporting (PUR) database, for the three PLSS sections most representative of the Coon Hollow Creek Drainage. Some chemical have been omitted from this list such as materials closely related to other chemicals on the list, but reported separately in the PUR, oils, salts and insect pheromones.

<sup>2</sup>Criteria for toxicity rankings were taken from the CVRWQCB report "Relative-Evaluation for Pesticides Used in the Central Valley Pesticide Basin Plan Amendment Project Area." Using 96 hour LC50 or EC50, they are Very High, <1 µg/L; High, 1 to 99 µg/L; Moderate: 100 to 999 µg/L; Low 1 to 99 mg/L.

<sup>3</sup>Criteria for solubility ranking are Very High >1,000 ppm; High, 100-999 ppm; Moderate 10-99 ppm; Low 1-9 ppm; and Very Low <1 ppm.