

**From:** Susan Fregien  
**To:** Chris Jimmerson  
**Date:** 6/7/2011 3:15 PM  
**Subject:** Fwd: Re: ESJWQC E.coli, nutrient, inorganics and metals Exceedance Report-April 2011  
**Attachments:** Prairie Flower Drain @ Crows Landing Rd Exceedances.xls

For the case file...

>>> Rachel West <[rwest@mlj-llc.com](mailto:rwest@mlj-llc.com)> 6/7/2011 2:59 PM >>>

Dear Susan,

Prairie Flower Drain has had a total of eight ammonia exceedances since ambient water monitoring was initiated in 2005. The exceedances of the ammonia WQTL have been related to dairy discharges; the subwatershed also has issues with high nitrates and salts. Of the eight ammonia exceedances, three were associated with water column toxicity to fathead minnow (see attached table of exceedances). We have documentation of lagoon leaks within the subwatershed including January 28, February 4 and February 8 in 2011 as reported to us from Terry Bechtel. Terry Bechtel has been doing some work in the area with dairies and has installed a monitoring sensor upstream of our sample site to monitor specific conductivity, turbidity and pH – he communicates this information to Parry from time to time and Parry forwards it on to us.

We have a more detailed write up in our 2011 Management Plan Update Report regarding Prairie Flower Drain if you'd like to read a bit more about the past exceedances within this subwatershed and the major land uses (mostly dairies and field crops). The 2011 MPUR has an appendix for "High Priority Site Subwatershed Evaluations" and Prairie Flower is one of our first high priority subwatersheds. Ammonia is not a high priority constituent and therefore is not monitored as a management plan constituent; however since Prairie Flower Drain is a core site that rotates into assessment monitoring every third year, ammonia is monitored all 12 months of every year.

Thanks,  
Rachel

On Tue, Jun 7, 2011 at 8:57 AM, Susan Fregien <[sfregien@waterboards.ca.gov](mailto:sfregien@waterboards.ca.gov)> wrote:

Hi Rachel,

Thank you for submitting exceedance information for the ESJWQC April 2011 sampling event.

Since I am new to receiving your reports and not familiar with the history of results at various sites, I would like to ask about the Ammonia exceedance at Prairie Flower Drain. Have there been ammonia exceedances at this site previously? Do you have any idea about the source of the exceedance?

Thank you for any information you can provide.

Susan Fregien, Senior Environmental Scientist  
Monitoring and Implementation Unit  
Irrigated Lands Regulatory Program  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive Suite 200  
Rancho Cordova, CA 95670-6114

phone: 916-464-4813 ( tel:916-464-4813 )

fax: 916-464-4780 ( tel:916-464-4780 )

--

-----  
Rachel C. West  
Environmental Scientist  
Michael L. Johnson LLC  
632 Cantrill Drive  
Davis, CA 95618

Tel: 530-756-5200 ( tel:530-756-5200 )

Fax: 530-756-5225 ( tel:530-756-5225 ) [rwest@mlj-llc.com](mailto:rwest@mlj-llc.com)

Station Name	Season	Sample Date	Oxygen, Dissolved, <7 mg/L	pH, 6.5-8.5 units	Specific Conductivity, >700 µS/cm	Dissolved Solids, >450 mg/L	E. coli, >35 MPN/100 mL	Ammonia, >1.5 mg/L	Nitrate as N, >10 mg/L	Nitrite as N, >1 mg/L	Nitrate + Nitrite as N, >10 mg/L	Arsenic, >10 µg/L	Molybdenum, >25 µg/L	Chlorpyrifos, >0.015 µg/L	Dimethoate, >1 µg/L	Malathion, >10 µg/L	C. dubia, (% control)	P. promelas, (% Control)	S. capricornutum, (% Control)	H. azteca, (% Control)
Prairie Flower Drain @ Crows Landing Rd	Storm	2/15/2005				2561	1600													
Prairie Flower Drain @ Crows Landing Rd	Storm	3/22/2005	6.5		2568	1600	1600													
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/11/2005			3168	1600	500													
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/15/2005			1705	1300	300													
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/13/2005	3.2		1723	1100	1600													
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/17/2005			1779	990	1600							0.029						
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/21/2005	5.22		791	460	500							0.018					83.8	
Prairie Flower Drain @ Crows Landing Rd	Storm	3/1/2006			2419	1600	900													
Prairie Flower Drain @ Crows Landing Rd	Storm	3/16/2006	8.77		2728	1600	300										75			
Prairie Flower Drain @ Crows Landing Rd	Storm	3/24/2006			2782															
Prairie Flower Drain @ Crows Landing Rd	Storm	5/2/2006			2724														88.75	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/18/2006			2958	1700	550													
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/15/2006			2660	1700	1300	21												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/13/2006	5.45	8.85	1560	720	790	18										8		
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/20/2006	6.41		1950													70		
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/10/2006			2302	1800	820	17	1.1											
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/14/2006	6.01		1276	760	2400	11												
Prairie Flower Drain @ Crows Landing Rd	Storm	2/11/2007	6.12		2659	1600	2400	24												
Prairie Flower Drain @ Crows Landing Rd	Storm	3/1/2007	8.57		2592	1500		42												
Prairie Flower Drain @ Crows Landing Rd	Storm	3/7/2007			4798															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	4/17/2007			2127	1700		25												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/15/2007	5.59		2473	1500	920	32											88	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/23/2007			2390															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/19/2007	8.54		2304	1500		41		12										
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/17/2007	4.3		1067	730		13												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/14/2007			1126	700	260	16												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/16/2007			2562															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/28/2007	3.64		1015								0.094						58	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/11/2007	7.86		1097	540	2400									0			16	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/18/2007			2262															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/25/2007			2489															
Prairie Flower Drain @ Crows Landing Rd	Storm	1/24/2008			2371	1500	1100	23											71	
Prairie Flower Drain @ Crows Landing Rd	Storm	1/30/2008			2944															
Prairie Flower Drain @ Crows Landing Rd	Storm	2/26/2008			2722	1600		28											39	
Prairie Flower Drain @ Crows Landing Rd	Sediment	3/4/2008			2639															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	4/22/2008			2548	1700	370	23											29	
Prairie Flower Drain @ Morgan Rd	Irrigation	4/22/2008	3.29		2574			35												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	4/29/2008	5.44		1739														56	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/20/2008			2526	1600	610	26											61	
Prairie Flower Drain @ Morgan Rd	Irrigation	5/20/2008	1.17		2026			22												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/27/2008			2273														88	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/17/2008			2049	1200	1300	2.1	19											
Prairie Flower Drain @ Morgan Rd	Irrigation	6/17/2008			2893				30											
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/22/2008	2.51		1012	620	250	11						2.7						
Prairie Flower Drain @ Morgan Rd	Irrigation	7/22/2008	2.76		1417															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/19/2008	4.93		956	610	440	13					0.024	0.12						
Prairie Flower Drain @ Morgan Rd	Irrigation	8/19/2008	3.63		1300			20												
Prairie Flower Drain @ Crows Landing Rd	Sediment	8/28/2008			1114														87	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/23/2008			2525	1800		33												
Prairie Flower Drain @ Morgan Rd	Irrigation	9/23/2008	3.3		2675			29												
Prairie Flower Drain @ Crows Landing Rd	Sediment	10/2/2008			2449															83
Prairie Flower Drain @ Crows Landing Rd	Fall	10/21/2008			1742	1100	370	27												
Prairie Flower Drain @ Crows Landing Rd	Fall	11/11/2008			2151	1500		39												
Prairie Flower Drain @ Crows Landing Rd	Fall	12/16/2008			2298	2900	1300	40												
Prairie Flower Drain @ Crows Landing Rd	Winter	1/20/2009			2414	1500		43												
Prairie Flower Drain @ Crows Landing Rd	Storm	2/7/2009			2255	1300		31												
Prairie Flower Drain @ Crows Landing Rd	Winter	3/17/2009	8.74		2394	1400		34												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	4/21/2009			2223	1400	410	24												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/19/2009	4.78		2066	1200	>2400	3.2											30	
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/16/2009			2417	1400		1.3												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/21/2009			1366	820		1.8												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/18/2009			1984	1200		22												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/22/2009			2171	1400	1300	35												
Prairie Flower Drain @ Crows Landing Rd	Fall	10/20/2009			2459	1400	1300	25												
Prairie Flower Drain @ Crows Landing Rd	Fall	11/17/2009			2415	1500	>2400	8.8												
Prairie Flower Drain @ Crows Landing Rd	Storm	12/15/2009			2695	1600	2000	36												
Prairie Flower Drain @ Crows Landing Rd	Storm	1/19/2010			1837	1300	2400	43												
Prairie Flower Drain @ Crows Landing Rd	Storm	2/23/2010			2833	1700	440	32											56	
Prairie Flower Drain @ Crows Landing Rd	Winter	3/23/2010			2833	1700	1400	31												
Prairie Flower Drain @ Crows Landing Rd	Storm	4/20/2010			2399	1500	1300	33												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	5/18/2010			2428	1500	460	35												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	6/15/2010	4.25		2703	1600	820	29												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	7/20/2010			2556	1500	260	26												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	8/17/2010			2776	1700	870	24												
Prairie Flower Drain @ Crows Landing Rd	Irrigation	9/14/2010						12												
Prairie Flower Drain @ Crows Landing Rd	Fall	10/19/2010			1795	1100	580	20												
Prairie Flower Drain @ Crows Landing Rd	Fall	11/16/2010			2710	1700	460	42												
Prairie Flower Drain @ Crows Landing Rd	Fall	12/14/2010			2688	1700	>2400	40												
Prairie Flower Drain @ Crows Landing Rd	Winter	1/18/2011	5.35		2951	1800	870	1.9												
Prairie Flower Drain @ Crows Landing Rd	Storm	2/17/2011			2647	1600		33	21										82	
Prairie Flower Drain @ Crows Landing Rd	Winter	3/15/2011			2685	1700		31	19											
Prairie Flower Drain @ Crows Landing Rd	Winter-Sediment	3/17/2011			2643															
Prairie Flower Drain @ Crows Landing Rd	Irrigation	4/19/2011	2.14		1471	800	>2400	12											80	