

**From:** Melissa Turner <mturner@mlj-llc.com>  
**To:** 'Jelena Hartman' <JHartman@waterboards.ca.gov>, 'Rachel West' <rwest@mlj...>  
**CC:** 'Michael Johnson' <mjohnson@mlj-llc.com>, 'Parry Klassen' <pklassen@unwi...>  
**Date:** 2/17/2012 5:37 PM  
**Subject:** RE: Mgt Plan Constituent Removal Request  
**Attachments:** ESJ\_AdditionalInfo\_ConstituentRemoval\_021712.xls; ESJ\_MPCConstituentRemoval\_PURDataRequest\_12\_0216.xlsx

Hi Jelena,

Rachel is out of the office today but will be in on Monday. It appears that in the Table 2 that Rachel sent that the data were being counted rather than summed for 2008. I've updated the file you sent and added an "Updated Table 2" to the first tab. I also included the years 2007, 2008, 2009, 2010 and what we have of 2011 as additional reference in case you are looking at use over time.

I've attached a separate workbook that includes the PUR data for the subwatersheds and constituents listed below for the date range >12/31/2006 and <1/1/2012. The first tab is the pivot table and the second includes the raw data. The third tab has some charts that I quickly pulled together for the subwatersheds/constituents you mentioned – there are many caveats to using the PUR data especially preliminary data.

Feel free to call next week to discuss or email with any additional questions especially when evaluating PUR data in context of exceedances. It might help to have some discussion regarding your concerns and then we can compile the appropriate data and/or supply additional rational.

Have a good weekend,

Melissa

**Table 1.** Summary of monitoring results: number of tests, detections and exceedances in the fourth quarter of 2011 and in 2012.

Station Name	Analyte	Oct-Dec 2011			2012****		
		Tests	Detections	Exceedances	Tests	Detections	Exceedances
Cottonwood Creek @ Rd 20*	diazinon	3	0	0	1	NA	NA
	diuron	3	0	0	2	NA	NA
Duck Slough @ Gurr Rd**	chlorpyrifos	3	0	0	1	NA	NA
	chlorpyrifos	3	0	0	3	NA	NA
Highline Canal @ Hwy 99***	chlorpyrifos	3	0	0	2	NA	NA
	diuron	3	0	0	2	NA	NA

\*Cottonwood Creek @ Rd 20 was dry in November 2011, December 2011, January 2012, and February 2012

\*\*Duck Slough @ Gurr Rd was dry in December 2011 and January 2012

\*\*\*Highline Canal @ Hwy 99 was dry in December 2011

\*\*\*\*Tests reflect the number of samples scheduled to be analyzed for constituent in 2012 (only January and February 2012 monitoring has occurred to date; next ESJWQC event is scheduled 3/13/12)

NA-Not available; analysis results have yet to be received from lab

Table 2. PUR data

Station Name	Analyte	2008 PUR data (provided on 2/14/12)		2010 PUR data (provided with the request)	
		Total Amount Applied (lbs Active Ingredient)	Total Acres Treated	2010 Total Amount Applied (lbs AI)	Total Acres Treated
Cottonwood Creek @ Rd 20	diazinon	32	761	197	107
	diuron	50	1,943	1,109	969
Dry Creek @ Wellsford Rd	diuron	13	586	688	1,770
Highline Canal @ Hwy 99	chlорpyrifos	87	3,848	9,334	6,423
Mustang Creek @ East Ave	chlорpyrifos	24	3,363	9,104	5,257
Prairie Flower Drain @ Crows Landing Rd	chlорpyrifos	12	790	80	134

Updated Table 2. Submitted February 16, 2012.

WATERSHED	CHEMICAL	2007		2008		2009		2010		2011	
		lbs AI	Acres								
ESJ_CottonwoodCreek@Rd20	DIAZINON	950	488	818	761	427	215	197	107	181	91
ESJ_CottonwoodCreek@Rd20	DIURON	2044	2389	2340	2183	1887	2001	1176	1016	1235	941
ESJ_DryCreek@Wellsford	DIURON	1077	1353	298	586	409	1335	688	1770	765	480
ESJ_HighlineCanal@Hwy99	CHLORPYRIFOS	18201	10826	10971	7460	10741	6817	9593	6562	3290	2214
ESJ_MustangCreek@East	CHLORPYRIFOS	8547	4804	5526	3363	9029	4694	9104	5257	2129	1311
ESJ_PrairieFlowerDrain@C	CHLORPYRIFOS	376	750	1463	1501	239	310	222	274	147	193

WATERSHED	CHEMICAL_NAME	2007		2008		2009		2010		2011	
		Sum of POUNDS_CHEMICAL_APPLIED	Sum of AMOUNT_TREATED								
ESJ_CottonwoodCreek@Rd20	DIAZINON	950	488	818	761	427	215	197	107	181	91
	DIURON	2044	2389	2340	2183	1887	2001	1176	1016	1235	941
ESJ_DryCreek@Wellsford	DIURON	1077	1353	298	586	409	1335	688	1770	765	480
ESJ_HighlineCanal@Hwy99	CHLORPYRIFOS	18201	10826	10971	7460	10741	6817	9593	6562	3290	2214
ESJ_MustangCreek@East	CHLORPYRIFOS	8547	4804	5526	3363	9029	4694	9104	5257	2129	1311
ESJ_PrairieFlowerDrain@CrowsLanding	CHLORPYRIFOS	376	750	1463	1501	239	310	222	274	147	193
ESJ_DeadmanCreek@Gurr	COPPER HYDROXIDE	4871	4406	3215	1737	5146	3471	3200	2957	5233	4838
	COPPER SULFATE (BASIC)	353	36			173	244	4940	1262	3880	1003
	COPPER OXIDE (OUS)			2885	1068	584	557	4194	698	505	97
	COPPER OXYCHLORIDE									151	492
ESJ_DeadmanCreek@Gurr Total		5223	4442	6100	2805	5909	4272	12334	4917	9769	6230
ESJ_DuckSlough@Gurr	CHLORPYRIFOS	2221	2772	2947	5166	646	1473	4217	4483	1064	2026

From: Jelena Hartman [mailto:JHartman@waterboards.ca.gov]  
 Sent: Friday, February 17, 2012 3:33 PM  
 To: Rachel West; Susan Fregien  
 Cc: Michael Johnson; Melissa Turner; Parry Klassen  
 Subject: Re: Mgt Plan Constituent Removal Request

Hi Rachel,

The information you supplied has been very helpful for processing the constituent removal request. I have a couple of additional questions about the PUR data.

The Coalition has provided the PUR data for the mid 2000's and for 2010 to support the request to remove monitoring requirements for specific constituents from selected site subwatersheds. The PUR data are valuable for giving a context for the past exceedances and the current amount of pesticides applied and acreage treated. Could you provide similar data (e.g. use in 2008 and 2010) that would assist in evaluating the request to remove copper from the Deadman Creek @ Gurr Rd, and chlорpyrifos from the Duck Slough @ Gurr Rd management plans?

Looking at the information in Table 2 (sent on 2/14/12) and PUR data included with the request, it appears that the total amount of AI is much greater in 2010 than in 2008 (up to 3 orders of magnitude in the case of chlorpyrifos in the Highline Canal @ Hwy 99 and Mustang Creek @ East Ave subwatersheds, please see the attached spreadsheet). What do you make of the PUR data summarized in Table 2? Does the information sound right, or is it possible that 2008 and 2010 queries had different search criteria (perhaps a different area)?

Thank you,

Jelena

Station Name	Analyte	2008 PUR data (provided on 2/14/12)		2010 PUR data (provided with the request)	
		Total Amount Applied (lbs Active Ingredient)	Total Acres Treated	2010 Total Amount Applied (lbs AI)	Total Acres Treated
Cottonwood Creek @ Rd 20	diazinon	32	761	197	107
	diuron	50	1,943	1,109	969
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Highline Canal @ Hwy 99	chlorpyrifos	87	3,848	9,334	6,423
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>>> Rachel West <[rwest@mlj-llc.com](mailto:rwest@mlj-llc.com)> 2/14/2012 7:46 AM >>>

Hello Susan and Jelena,

We have provided answers to your questions concerning the Management Plan Constituent Removal Request below. The attached excel file contains the tables you requested. Please let us know if you need further explanation or information.

1. In May 2009 lead sampling was reduced to a single event of high TSS, and lead was added back to monitoring in July 2010. Are any data available for lead at Ash Slough @ Ave 21 since 2006?

· No data are available for lead at Ash Slough @ Ave 21 since 2006. The most recent lead data from Ash Slough @ Ave 21 are from the 2006 irrigation season since Ash Slough was dry in 2007, 2008 and most of 2009. The only time that Ash Slough was not dry was in May 2009 and April 2010 when the Coalition was not monitoring for lead.

2. Was MPM for diuron conducted at Dry Creek @ Wellsford Rd in 2009?

· Management Plan Monitoring for diuron was not conducted at Dry Creek @ Wellsford Rd in 2009. The Coalition's original management plan strategy did not address storm exceedances due to the difficulty in sourcing those exceedances. Some exceedances may occur because of storm runoff or they may occur due to the use in that month. In addition, at the time of the development of the management plan strategy the Coalition was not monitoring monthly (only storms and irrigation months). Starting in 2010 the Coalition began monitoring for management plan constituents during the storm month that they occurred regardless of a rain event.

3. Monitoring for dissolved copper started in 2008 (e.g. Deadman Creek site subwatershed). Are 2008 and 2009 data on dissolved copper available for Dry Creek @ Wellsford Rd, and Highline Canal @ Hwy 99?

· No copper (dissolved) data are available from 2008 and 2009 for Dry Creek @ Wellsford Rd and Highline Canal @ Hwy 99 since they were sampled for Core Monitoring constituents as per the approved MRPP. The Coalition began MPM for copper (total and dissolved fractions) in 2010.

4. Water column toxicity to *S. capricornutum* in April persisted into May 2008 at Duck Slough @ Hwy 99. Was the month of May included in the MPM schedule for 2009 and 2010?

· No, May is not included as month for MPM at Duck Slough @ Hwy 99 for algae toxicity. There have been two instances of toxicity to *S. capricornutum* at Duck Slough @ Hwy 99; the first was on 7-12-2005 and the second was on 4-29-2008 (the 5-7-2008 toxicity occurred during a resampling event). Under the 2006 MRP, if a sample was determined to be toxic, the Coalition collected a "resample" the following week to test for persistence of the original toxicity. When reviewing past toxicities at any sampling site, the Coalition considers a toxic sample and its subsequent resample to be a single event. If toxicity occurred in the resample, the resample is not counted as a "second" toxicity—the resample is still considered to be part of the first event. Hence, the Coalition only considers the month during which the initial toxic sample was collected as the month of a past exceedance for scheduling MPM.

5. Toxicity to *C. dubia* (0% survival) was reported at Prairie Flower Drain @ Crows Landing Rd in August 2011. What were the results of TIE for *C. dubia* - was the source of toxicity identified?

· A TIE was conducted on 8-11-2011 on the samples that were collected from Prairie Flower Drain @ Crows Landing Rd on 8-9-2011. The results from the TIE indicated that pyrethroid insecticides were the cause of the toxicity to *C. dubia*.

6. Are PUR data available for copper at Deadman Creek @ Gurr Rd, and chlorpyrifos at Duck Slough @ Gurr Rd?

Yes, PUR data are available for copper at Deadman Creek @ Gurr Rd and for chlorpyrifos at Duck Slough @ Gurr Rd. All PUR data are summarized over multiple years starting in 2004 in the site subwatershed sections of the MPUR submitted annually. All high priority subwatersheds' PUR data are analyzed in the MPUR Site Subwatershed Appendix to be submitted on April 1, 2012. In addition, PUR data related to exceedances are submitted with the AMRs (March 1, 2012). We have a large database that we maintain to house data obtained from CalPIP (DPRs online database which is current through 2010) and preliminary data obtained from the county Ag Commissioners. If you need PUR graphs of copper and chlorpyrifos from the MPUR 2012 that we are currently preparing for our April 1, 2012 report, please let us know and we can send you those as they are created in house before the April 1 report submittal.

7. The request states that Assessment Monitoring at Bear Creek @ Kibby Rd is scheduled for 2025 and 2026, and Table 10 in 2010 MRP Plan indicates the period 2023-2024. Has there been an update that moved the Assessment Monitoring at Bear Creek @ Kibby Rd back?

Yes, the dates listed in Table 10 of the 10-20-2010 MRPP (approved 2-23-2011) are correct. Bear Creek @ Kibby Rd will rotate into Assessment Monitoring in 2023-2024. There was a typo in the letter.

8. Summary table in the request letter lists DO at Highline Canal @ Lombardy Rd but no mention is made in the text. Does the Coalition want to include DO at Highline Canal @ Lombardy Rd in the request?

There has only been one exceedance of DO at Highline Canal @ Lombardy Rd on 3-4-2008. Therefore, DO is not in an active management plan at the site and should not have been in the summary table; this was a typo.

Thank you,

Rachel

On Fri, Feb 10, 2012 at 5:04 PM, Melissa Turner <mturner@mlj-llc.com> wrote:

Hi Susan and Jelena,

Mike and I are away in meetings all day Monday and Tuesday. I have forwarded this to Rachel and will have her respond as many of your questions below as she can. If she is unable to answer any of the below questions, I will respond as soon as possible (possibly Monday evening).

In addition, should we be sending exceedance report to Jelena instead of Chris Jimmerson?

Thanks,

Melissa

From: Susan Fregien [mailto:sfregien@waterboards.ca.gov]  
Sent: Friday, February 10, 2012 3:43 PM  
To: Mike Johnson; Melissa Turner; pklassen@unwiredbb.com  
Cc: Jelena Hartman  
Subject: Mgt Plan Constituent Removal Request

Dear Parry, Mike and Melissa,

Staff is in the process of reviewing the constituent removal request submitted by the ESJWQC in January. In order to make a determination regarding specific constituents at selected site subwatersheds, additional information would be useful. Could you provide more information for the questions listed below, and fill in the blanks for the shaded columns in Tables 1 and 2?

Jelena Hartman (our new Unit staff person) compiled the questions and tables that will help in our evaluation of your request. Please coordinate with Jelena to provide the requested information. Feel free to email (jhartman@waterboards.ca.gov) or call Jelena (464-4628) if you need any clarification on the questions or tables.

Questions:

1. In May 2009 lead sampling was reduced to a single event of high TSS, and lead was added back to monitoring in July 2010. Are any data available for lead at Ash Slough @ Ave 21 since 2006?
2. Was MPM for diuron conducted at Dry Creek @ Wellsford Rd in 2009?
3. Monitoring for dissolved copper started in 2008 (e.g. Deadman Creek site subwatershed). Are 2008 and 2009 data on dissolved copper available for Dry Creek @ Wellsford Rd, and Highline Canal @ Hwy 99?
4. Water column toxicity to *S. capricornutum* in April persisted into May 2008 at Duck Slough @ Hwy 99. Was the month of May included in the MPM schedule for 2009 and 2010?
5. Toxicity to *C. dubia* (0% survival) was reported at Prairie Flower Drain @ Crows Landing Rd in August 2011. What were the results of TIE for *C. dubia* - was the source of toxicity identified?
6. Are PUR data available for copper at Deadman Creek @ Gurr Rd, and chlorpyrifos at Duck Slough @ Gurr Rd?
7. The request states that Assessment Monitoring at Bear Creek @ Kibby Rd is scheduled for 2025 and 2026, and Table 10 in 2010 MRP Plan indicates the period 2023-2024. Has there been an update that moved the Assessment Monitoring at Bear Creek @ Kibby Rd back?
8. Summary table in the request letter lists DO at Highline Canal @ Lombardy Rd but no mention is made in the text. Does the Coalition want to include DO at Highline Canal @ Lombardy Rd in the request?

Table 1. Summary of monitoring results: number of tests, detections and exceedances in the fourth quarter of 2011 and in 2012.

Station Name

Analyte

Oct-Dec 2011

2012

tests

detect

exceed

tests

detect

exceed

Cottonwood Creek @ Rd 20

diazinon

diuron

Duck Slough @ Gurr Rd

chlorpyrifos

Highline Canal @ Hwy 99

chlorpyrifos

diuron

Table 2. PUR data for 2008 when majority of exceedances or detections occurred.

Station Name

Analyte

Amount Applied

Acres Treated

Cottonwood Creek @ Rd 20

diazinon

diuron

Dry Creek @ Wellsford Rd

diuron

Highline Canal @ Hwy 99

chlorpyrifos

Mustang Creek @ East Ave

chlorpyrifos

Prairie Flower Drain @ Crows Landing Rd

chlorpyrifos

Regards,

Susan

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