



1201 L Street Modesto, CA 95354
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June 5, 2009

Pamela Creedon, Executive Officer
Joe Karkoski, Assistant Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Dear Ms. Creedon,

The East San Joaquin Water Quality Coalition is submitting a request to update Management Plan schedules included in the Management Plan that was approved on November 25, 2009. The Management Plan was submitted as required by the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands Resolution Order No. R5-2006-0053, Monitoring and Reporting Program Order No. R5-2008-0005.

If necessary, we can schedule a meeting to discuss this request at your earliest convenience.

Submitted respectfully,

Parry Klassen
Board Chairman
East San Joaquin Water Quality Coalition

Per discussion between the East San Joaquin Water Quality Coalition (ESJWQC or Coalition) and Regional Water Board staff on May 5, 2009, we are requesting a revision of the following schedules listed in the Management Plan submitted on September 30, 2008 (approved November 25):

1. Management Plan tracking schedule (Table 16 in the Management Plan, Table 12 in the Management Plan update)
2. Proposed schedule for addressing each site subwatershed with a detailed, focused management plan approach (Table B in the Management Plan addendum submitted on November 21, 2008, Table 6 in the Management Plan update)

Of the six actions described in the Management Plan tracking schedule submitted in the September 30, 2008 Management Plan, the Coalition is requesting the completion dates to be extended for four of those actions due to a delay in completing individual contacts within the first high priority subwatershed. The Coalition has not been able to conduct grower group contacts as anticipated within the three high priority subwatersheds and is working as efficiently and effectively as possible to visit individually with growers to determine additional management practices that can be implemented to improve downstream water quality.

The following request describes:

- 1) Actions listed in the Management Plan tracking schedule,
- 2) Original and new proposed timelines for completing those actions,
- 3) A general review of the status of the Management Plan process to recommend management practices to growers and to track implementation of new management practices, and
- 4) An explanation for why the original schedules have not been met. The Coalition updated the time schedules listed in each of the original tables submitted in the Management Plan that was approved on November 17, 2008, and in the Management Plan update (submitted on April 1, 2009). Both the original and updated tables are included in the following document.

In addition, this letter includes Attachment I which further describes the rationale for the Management Plan Monitoring schedule submitted in the April 2009 Management Plan update.

Revised Management Plan Tracking Schedule (Table 16 of the ESJWQC Management Plan submitted on September 30, 2008)

The ESJWQC submitted in its Management Plan update (submitted on April 1, 2009) a revised Management Plan Tracking schedule (Table 16 in the original Management Plan, Table 12 in the Management Plan update). Activities outlined in the original Management Plan tracking schedule table (Table 16 of the Management Plan submitted on September 30, 2008) included: 1) reporting associated baseline survey responses with member APNs, 2) determining the number/type of management practices currently in place, 3) conducting Grower Group contacts, 4) conducting individual contacts, 5) tracking implementation of new management practices, 6) assessing the number/type of new management practices implemented, and 7) evaluating the effectiveness of new management practices. These are discussed below.

- 1. Associate baseline survey responses with member APNs.**
- 2. Determine the number/type of management practices currently in place.**

The Coalition compiled general survey responses outlining management practices used by members within the Coalition area. The results were summarized in a General Survey Summary Report which was submitted to the Regional Board on January 30, 2009. The Coalition associated general survey responses with individual parcels enrolled in the Coalition which enabled the Coalition to determine the number/type of management practices currently in place in all subwatersheds monitored by the Coalition. The Coalition therefore met the scheduled time frame to complete both of these actions for all three high priority subwatersheds by the end of January 2009.

- 3. Grower Group Contacts**
- 4. Individual Contacts**

The ESJWQC Management Plan includes the process by which the Coalition conducts outreach to and education of growers. The process includes county meetings and mailings through which growers are informed of exceedances of water quality trigger limits and are given information on pertinent management practices. In high priority

subwatersheds, the Coalition is conducting additional outreach through Grower Group Contacts and Individual Contacts. Depending on the size of the watershed and the water quality concerns within that watershed, the Coalition may initiate either type of contact (either Grower Group or Individual) or a combination of both. Table 16 listed general dates for Grower Group Contacts to be conducted during the winter season of 2008/2009 (October 2008-February 2009) for all three priority subwatersheds. It was difficult to estimate when the process of contacting individuals would be completed because the proposed dates were established prior to initiating the contacts. Consequently, a range of dates for completion were included for all three subwatersheds. In addition, the Coalition anticipated conducting individual contacts from December 2008 to April 2009 for all three subwatersheds, again not knowing how many individual contacts would need to be made.

Between the time the Management Plan was approved (November 25, 2008) and the time the Management Plan update was submitted on April 1, 2009, the Coalition assessed the 2008 exceedances and established a process for identifying targeted growers. The targeted growers would receive individual contacts and/or belong to grower groups for which additional contacts would be made. As outlined in the approved ESJWQC Management Plan, the Coalition focused first on Dry Creek @ Wellsford to conduct individual contacts as a “pilot” area to assess whether or not this process would be 1) time efficient, 2) a good allocation of resources, 3) allow the Coalition to track management practice implementation, and 4) be well received by members in the area.

The Coalition identified targeted growers within the Dry Creek site subwatershed by selecting a subset of parcels within the subwatershed that had a high potential of drainage directly to the creek, and/or the potential for spray drift to reach the waterway and/or grew a crop labeled for chlorpyrifos and/or had used the insecticide in the last four years (based on Pesticide Use Reports).

The Coalition created Individual Contact Packets containing:

- member information (including parcel APN, TRS and crop type),
- subwatershed water quality trigger exceedances,
- pesticide applications based on TRS for which the grower **may** have been responsible and were associated with a water quality trigger limit exceedance

- a list of potential management practices that were already being used or could be adopted, based on the general survey (an example of a packet was included in the Management Plan update submitted on April 1, 2009).

The Coalition then contacted these targeted growers to set up individual meetings. Coalition representatives (Parry Klassen and Wayne Zipser) met with the grower, land owner and sometimes the Pest Control Advisor (PCA) on the grower's farm to assess possible drainage from the field to the creek, review farm operating procedures and current management practices, discuss water quality trigger limit exceedances (mostly focused on chlorpyrifos and copper) and to suggest additional management practices. These visits typically take one to two hours for each farm. All information was recorded within the Individual Contact Packet which was then entered into an Access database.

The Coalition was able to conduct individual visits with eight out of 23 targeted members between December 2008 and April 2009 in the Dry Creek @ Wellsford Rd subwatershed accounting for 79% of the targeted acreage of the subwatershed. As of April 2009, the Coalition contacted 28% of the targeted growers in the Dry Creek subwatershed (Performance Measure 1.1 requires that the Coalition contact 100% of targeted growers).

The number of target growers per subwatershed may change as the Coalition begins creating packets which include maps of the parcels, member information and pesticide use information down to the township, range and section level. Member parcels were originally selected based on possible drainage to the water body (using both mapping and creek walk data if available) and those parcels are then compared to pesticide use report histories. The Coalition may omit members and their associated parcels from the targeted list if the crop type enrolled does not have any applicable pesticide use (i.e. irrigated pasture) and/or if it is determined through contact with the landowners or from other sources that the parcel does not actually drain into the water body. The latter case occurred within the Prairie Flower Drain subwatershed where the Coalition obtained additional information regarding which growers are allowed to discharge in the drain by Turlock Irrigation District (required to pay additional fees). Parcels not allowed to drain were omitted from the targeted list.

In addition, since the time to contact and visit Dry Creek targeted members took longer than anticipated, the Coalition was unable to conduct Duck Slough or Prairie Flower

Drain members by the scheduled deadline of April 2009. However, all members in these subwatersheds have been contacted by one or more of the following methods:

- county annual member meetings,
- grower group meetings for the specific subwatershed,
- specific chlorpyrifos management practice mailings and
- mailed general surveys to be completed and returned.

The Coalition conducted various grower group meetings within the high priority subwatersheds in November, February and March 2009 in addition to the annual county wide meetings that the Coalition conducts each year in December. All grower group meetings are highlighted in the Management Plan update submitted April 1, 2009. These meetings included a grower group meeting for the Dry Creek subwatershed on November 12, 2008, a Modesto Irrigation District Grower Meeting (Dry Creek site subwatershed) on March 2 and March 4, and a grower group meeting for the Duck Slough site subwatershed on March 26, 2009.

The Coalition anticipated holding a grower group meeting for the Prairie Flower Drain subwatershed in April 2009 however due to the small number of member parcels within this subwatershed the Coalition has decided individual contacts would be a more effective method for reaching those landowners.

In the Management Plan update submitted on April 1, 2009 the Coalition submitted an amended Management Practice tracking schedule (Table 12) which updated the time frames for individual contacts for Dry Creek @ Wellsford (February – April 2009), Duck Slough @ Hwy 99 (April 2009 – April 2010), and Prairie Flower Drain @ Crows Landing Rd (April 2009 – April 2010). The Coalition anticipated that all contacts would be completed within the Dry Creek subwatershed by April 2009 but due to difficulties with schedules and the beginning of the farming season, the visits were delayed. This was discussed at the ESJWQC quarterly meeting with Regional Board staff. The Coalition originally reported to the Regional Board that 25 targeted growers in the Dry Creek subwatershed (April 1, 2009) which was reduced to 23 targeted growers by May 5, 2009 due to the removal of four members based on crop information (pasture or grass with no applied pesticides) and the addition of two new members. As of May 29, 2009 there are 25 targeted growers for the Dry Creek subwatershed due to three new members (one of which was already dropped and two are on hold due to missing membership information).

The Coalition was able to meet with three growers in the Duck Slough subwatershed in May and has identified 24 growers to be contacted (three members from the original targeted list were dropped due to crop type and four members were added despite a lack of pesticide use due to the proximity of the parcels to the creek). To date, the Coalition has identified 12 growers in Prairie Flower Drain and one has been contacted. Originally the targeted list included 14 members however one member was omitted since the parcel in question does not drain to Prairie Flower and another member was dropped based on the crop type.

Table 1. Status as of May 29, 2009 of individual contacts within all three priority subwatersheds.

Performance Measures	Dry Creek @ Wellsford	Duck Slough @ Hwy 99	Prairie Flower Drain @ Crows Landing
# Targeted Growers	25	24	12
# Individual Contacts	12	3	1
% Individual Growers Contacted	48%	13%	8%
Acreage of Individuals To be Contacted	7570.13	7711.71	1012.94
Acreage of Members Contacted	6836.37	888.72	39.7
% of Acreage of Members Contacted	90%	12%	4%

The Coalition submitted priority site subwatershed performance goals for Dry Creek @ Wellsford Rd in the Management Plan addendum (Table C). These performance goals are listed below:

- Performance Goal 1: Individually contact members on adjacent properties to waterways where discharges have been identified during winter 2008/2009.
 - To be completed by August 15, 2009
- Performance Goal 2: Establish current practices by April 2009, on adjacent properties to waterways or where discharges are identified.
 - To be completed by September 30, 2009
 - Summary of practices that may be implemented by the grower will be included in the April 2010 Management Plan update

- Performance Goal 3: Encourage growers to implement additional management practices based on water quality results.
 - To be evaluated in both April 2010 and April 2011 Management Plan updates due to delays in contacts and therefore delays in possible implementation of management practices
- Performance Goal 4: Evaluate effectiveness of the new management practices implemented during 2009.
 - To be evaluated in both the April 2010 and April 2011 Management Plan updates by evaluating water quality monitoring results from 2009 and 2010
- Performance Goal 5: Consult with CVRWQCB at least once during 2008/2009 to discuss Management Plan activities and consider if changes need to be made in Management Plan strategy for high priority water bodies.

Performance measures and outputs were associated with the Performance Goals submitted in Table C of the Management Plan addendum to evaluate progress. Performance goals 1 and 2 included measures and outputs to be completed by April 2009. As described above, the Coalition did not meet all of its stated objectives and the following table outlines the current status of those measures as of May 29, 2009. Performance goals 3 and 4 include measures that will be evaluated in the April 2010 update and performance goal 5 does not have any associated measures/outputs; therefore, these goals are not listed below. Both performance goal 3 and 4 have been updated to allow practices to be implemented during 2009 and 2010. During individual contacts, the Coalition discusses the entire farming operation with the grower. Consequently, the first opportunity to implement new management practices to eliminate discharges may be in 2010. An updated Table C is included at the end of this letter based on the new schedules proposed for Dry Creek @ Wellsford.

Performance goals for Dry Creek @ Wellsford Rd with status update (Table C of the Management Plan addendum).

	Performance Measure	Outputs	Status as of May 29, 2009
Performance Goal 1	Performance Measure 1.1. – 100% of targeted growers contacted.	Report ratio of individual contacts made versus total growers identified with discharges.	12 of 25 (48%)
	Performance Measure 1.2 – Contact owners/operators representing at least 1,000 acre of membership acreage in the site subwatershed.	Report ratio of acreage represented by individual contacts versus total subwatershed acreage.	90%
Performance Goal 2	Performance Measure 2.1 – Obtain current management practice information from 100% of targeted growers.	Completed individual contact checklists recorded in an Access database.	11 of 12 (92%)
	Performance Measure 2.2 – Document current management practices of the targeted growers during individual contacts and encourage the adoption of new practices not currently implemented.	Record of management practices used that may reduce agricultural impact on water quality.	Completed for contacted growers
	Performance Measure 2.3 – Document management practices targeted grower was encouraged to implement.	Summary of management practice evaluations on a site subwatershed level in the Management Plan update (April 2009).	Incomplete- to be summarized in the April 2010 update.

The Coalition originally considered hiring a consultant to help in conducting the individual contacts with growers but has concluded that it will be difficult to find a person knowledgeable of the Coalition and water quality issues, with the expertise in management practices, understanding of current farming conditions and has the time to commit to performing the visits in a timely basis. All of these components have been necessary for gaining the trust of the growers which allows the Coalition representatives to evaluate the property with an eye to potential discharges, candidly discuss water quality issues and discuss management practices. Both Parry Klassen (Executive Director of the Coalition for Urban/Rural Environmental Stewardship and Chairman of the ESJWQC) and Wayne Zipser (Executive Manager of the Stanislaus County Farm Bureau and Co-Chairman of the ESJWQC) have extensive knowledge of the farming practices within the ESJWQC region and have a history as growers that allow them to communicate effectively with targeted growers. In addition, both Parry and Wayne have been involved with the Coalition since its inception and therefore have a working knowledge of the ILRP requirements, Regional Board enforcement strategies and the history of the Coalition’s monitoring strategy.

It is the primary objective of the individual contacts to encourage adoption of practices that will result in a reduction of chlorpyrifos exceedances. However, many of the management practices that will reduce runoff of chlorpyrifos will also result in the reduction of runoff of other constituents (e.g. converting to drip irrigation, spray nozzle calibrations, increased buffer zones). In addition, during the individual contact interviews all water quality issues are addressed. Each individual contact packet includes a table of downstream water quality exceedances, relevant pesticide use information (not just for chlorpyrifos), and a checklist specific to overall pest management, irrigation water management, dormant spray management and erosion/sediment management. Although growers are targeted based on chlorpyrifos use, all subwatershed water quality issues are discussed (see Appendix I of the April 2009 Management Plan update for an example of an individual contact packet).

The alternative to individual contacts would be to discuss management practices with several growers at once. The Coalition has held multiple small grower group meetings and still finds the same water quality issues within these priority subwatersheds. During an individual contact, the Coalition representatives meet on the member's property, tour the farm, discuss current agricultural practices and pest issues and review water quality monitoring data all in relation to one another. Therefore the overall process is more effective in persuading the grower to implement new management practices than a meeting with multiple members where the specific farm practices cannot be evaluated. In addition, the individual contact packets are filled out by one of the Coalition representatives during the meeting and therefore all questions are answered allowing for consistency in the information collected. Important practices that a grower should consider are also discussed and recorded. This is not the case when surveys are mailed and returned or filled out at grower meetings (a further description of the limitations of previous surveys is described in the ESJWQC General Survey Summary Report).

The Coalition believes that the current process is the most effective for obtaining the goal of management practice implementation. However, this process is slow and has taken longer than anticipated. Now that the Coalition has conducted sixteen interviews with individual members, the Coalition has developed more efficient ways of arranging the meetings and conducting the visits. The Coalition now mails (or emails) an announcement to the targeted growers notifying the member that they will need to contact a Coalition representative to set up a time to discuss current management practices. If the member does not contact the Coalition within a week, a Coalition

representative will contact the member to schedule an appointment. This will free up time that Wayne and Parry have spent in scheduling the individual contacts and instead allow them to use this time to conduct the interviews. Based on these changes to the current contact process, the Coalition anticipates contacting approximately four members a week in June, July and August. There are currently 45 targeted members that have yet to be contacted; based on the schedule of four members for three months, the Coalition anticipates being able to contact all of the targeted members (even with possible additions due to new member information) by September.

The Coalition still anticipates hiring an additional person(s) to help conduct individual contacts, however due to the small period of time between the Management Plan approval and the Management Plan update (four months including winter holidays), the Coalition has been unable to conduct an extensive search for an appropriate person. The Coalition staff has instead begun the process of individual contacts and continues to search for an additional person(s) to aid in contacts in the future.

The Coalition will complete individual contacts with targeted growers within the Dry Creek subwatershed by August 15, 2009, and within the Duck Slough and Prairie Flower Drain subwatersheds by September 30, 2009. These dates are four months (five months for Duck Slough) after the originally scheduled completion dates listed in Table 16 of the Management Plan schedule submitted on September 30, 2008. To ensure that the Coalition is on schedule to meet these deadlines, the Coalition will submit updates to the Regional Board on the status of the contacts on July 10, August 4 and September 10, 2009. If the Coalition appears to be falling behind in its goal of four members per week, it will adjust the schedules to do additional contacts the following weeks. If the Coalition encounters members who are not cooperating in scheduling individual contacts, the Coalition will work with the Regional Board to identify a process that will be effective in convincing the grower to cooperate with the Coalition.

5. Implementation of new management practices.

6. Assess number/type of new management practices implemented.

7. Evaluate effectiveness of new management practices.

The Coalition originally anticipated implementation of new management practices between April 2009 and February 2010 based on the completion of individual and grower group contacts by April 2009. However the Coalition has no control over what

management practices are implemented by growers; it can only provide information on practices for growers to consider, explain options and identify resources for implementing them and encourage rapid adoption of practices to eliminate the exceedances.

The Coalition has also explained to Regional Board staff that some management practices cannot be implemented within a couple of months, even a year, (i.e. sediment pond, pressurized irrigation systems) due to the monetary resources required. In addition, the Coalition has been anticipating funds from Proposition 84 money to aid growers in implementing structural management practices. Due to the current status of grant funds, the Coalition is unable to offer growers this additional resource and therefore can only encourage growers to contact their local NRCS office to obtain information regarding additional funding for installing structural management practices.

The Coalition updated its schedule for management practice implementation for all three subwatersheds to extend to April 2011 with the exception of Dry Creek @ Wellsford (Table 12 in the Management Plan update submitted on April 1, 2009). Since the Coalition is focusing on Dry Creek first, it anticipates contacting targeted growers between October 2009 and March 2010 to determine which of the recommended practices were implemented. Due to the delays in contacting individual growers in the Duck Slough and Prairie Flower subwatershed, the Coalition has extended the schedule to assess the number/type of new management practices to April 2011. The evaluation of the effectiveness of new management practices will be assessed using water quality monitoring results from 2009 and 2010. This time frame will allow the Coalition to obtain two years of water quality monitoring results (in addition to additional monitoring conducted in 2007 and 2008 in Management Plan subwatersheds) to assess the effectiveness of new practices. This will also allow time for the Coalition to determine which practices were implemented (additional contacts with targeted growers) during 2009 and 2010 that may reduce the amount of agricultural runoff. The Coalition will include this evaluation in the Management Plan update due on April 1, 2011. In the interim, all progress will be discussed with the Regional Board during quarterly updates and water quality results will be evaluated in the Annual Monitoring Reports (due March 1 of each year) and the interim Management Plan updates (due April 1 of each year).



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Management Plan tracking schedule (Table 16 in the Management Plan submitted on September 30, 2008).

Priority Subwatershed Evaluation of Management Practices	Dry Creek @ Wellsford Rd	Duck Slough @ Hwy 99	Prairie Flower Drain @ Crows Landing Rd
Associate baseline survey responses with member APNs.	December 2008	December 2008	December 2008
Determine number/type of management practices currently in place.	January 2009	January 2009	January 2009
Group Grower Contacts ¹	October 2008 – February 2009	October 2008 – February 2009	October 2008 – February 2009
Individual Contacts	December 2008 – February 2009	January 2009 – March 2009	February 2009 – April 2009
Implementation of new management practices.	April 2009 – February 2010	April 2009 – February 2010	April 2009 – February 2010
Assess number/type of new management practices implemented.	October 2009 - February 2010	October 2009 - February 2011	October 2009 - February 2011
Evaluate effectiveness of new management practices ² .	April 2009 – February 2010	April 2009 – February 2010	April 2009 – February 2010

¹Grower Group Contacts are outlined in the Site Subwatershed Management Plans and may not be applicable for all constituents.

²Evaluating effectiveness will be dependent on the type of management practice implemented. This is general guideline to be used for practices that can be assessed without special study monitoring.

Updated Management Plan tracking schedule (Table 12 in the Management Plan update submitted on April 1, 2009).

Priority Subwatershed Evaluation of Management Practices	Dry Creek @ Wellsford Rd	Duck Slough @ Hwy 99	Prairie Flower Drain @ Crows Landing Rd
Determine number/type of management practices currently in place.	January 2009	January 2009	January 2009
Group Grower Contacts ¹	NA	March 26, 2009	April 2009
Individual Contacts	February – April 2009	April 2009 – April 2010	April 2009 – April 2010
Implementation of new management practices.	April 2009 – February 2010	April 2009 – April 2011	April 2009 – April 2011
Assess number/type of new management practices implemented.	October 2009 - February 2010	October 2009 - April 2011	October 2009 - April 2011
Evaluate effectiveness of new management practices ² .	April 2009 – February 2011	April 2009 – February 2011	April 2009 – February 2011

¹Grower Group Contacts are outlined in the Site Subwatershed Management Plans and may not be applicable for all constituents.

²Evaluating effectiveness will be dependent on the type of management practice implemented. This is general guideline to be used for practices that can be assessed without special study monitoring.

NA – not applicable; group grower contacts were not conducted since individual contacts were already initiated.

Revised proposed schedule for addressing each site subwatershed with a detailed, focused management plan approach (Table B of the Management Plan addendum submitted on November 21, 2008).

In response to Regional Board staff comments regarding the ESJWQC Management Plan (submitted on September 30, 2008), the Coalition submitted an addendum to the Management Plan which specifically addressed TMDL constituents and included a table providing dates when each management plan subwatershed would reach priority status, and outlining specific performance measures for Dry Creek @ Wellsford site subwatershed. The proposed schedule for addressing each site subwatershed with a detailed, focused management plan approach (Table B of the addendum) was submitted as part of the approved ESJWQC Management Plan and was based on water quality results available to January 2008. The Coalition and Regional Board discussed that the prioritization of all subwatersheds and the years for which the focused approach would need to be updated in the Management Plan update (scheduled for April 1 of each year) based on the previous year's water quality results and status of outreach efforts. Since the Coalition has been unable to meet the original schedule for contacting growers within the three priority subwatershed for reasons stated above, the Coalition submitted a revised Table B in the Management Plan update submitted on April 1, 2009 (Table 6). The updated schedule moved the beginning date for the focused approach for the next set of prioritized subwatershed from 2009 to 2010. This will allow the Coalition to further refine its process for conducting individual contacts and also bring on additional personnel to conduct additional contacts. Therefore the overall schedule has been adjusted by a single year.



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Proposed schedule for addressing each site subwatershed with a detailed, focused management plan approach (Table B in the Management Plan addendum submitted on November 21, 2008).

Site Subwatershed	Site Subwatershed Name	Year for focused approach
1	Dry Creek @ Wellsford Rd	2008-2010
2	Duck Slough @ Hwy 99	2008-2010
3	Prairie Flower Drain @ Crows Landing Rd	2008-2010
8	Cottonwood Creek @ Rd 20	2009-2011
12	Duck Slough @ Gurr Rd	2009-2011
14	Highline Canal @ Hwy 99	2009-2011
16	Hilmar Drain @ Central Ave	2009-2011
4	Ash Slough @ Ave 21	2010-2012
6	Berenda Slough along Ave 18 1/2	2010-2012
11	Dry Creek @ Rd 18	2010-2012
17	Livingston Drain @ Robin Ave	2010-2012
5	Bear Creek @ Kibby Rd	2011-2013
7	Black Rascal Creek @ Yosemite Rd	2011-2013
9	Deadman Creak @ Hwy 59	2011-2013
10	Deadman Creek (Dutchman) @ Gurr Rd	2011-2013
13	Hatch Drain @ Tuolumne Rd	2012-2014
15	Highline Canal @ Lombardy Rd	2012-2014
18	Merced River @ Santa Fe	2012-2014
19	Miles Creek @ Reilly Rd	2012-2014
20	Mustang Creek @ East Ave	2013-2015
21	Silva Drain @ Meadow Dr	2013-2015
22	South Slough @ Quinley Rd	2013-2015
23	Westport Drain @ Vivian Rd	2013-2015
Re-evaluate All Site Subwatersheds and Revise Schedule		Annually

Proposed schedule for addressing each site subwatershed with a detailed, focused management plan approach (Table 6 in the Management Plan update submitted on April 1, 2009).

Site Subwatershed Name	Year for focused approach
Dry Creek @ Wellsford Rd	2008-2010
Duck Slough @ Hwy 99	2008-2010
Prairie Flower Drain @ Crows Landing Rd	2008-2010
Cottonwood Creek @ Rd 20	2010-2012
Duck Slough @ Gurr Rd	2010-2012
Highline Canal @ Hwy 99	2010-2012
Hilmar Drain @ Central Ave	2010-2012
Ash Slough @ Ave 21	2011-2013
Berenda Slough along Ave 18 1/2	2011-2013
Dry Creek @ Rd 18	2011-2013
Livingston Drain @ Robin Ave	2011-2013
Bear Creek @ Kibby Rd	2012-2014
Black Rascal Creek @ Yosemite Rd	2012-2014
Deadman Creak @ Hwy 59	2012-2014
Deadman Creek (Dutchman) @ Gurr Rd	2012-2014
Hatch Drain @ Tuolumne Rd	2013-2015
Highline Canal @ Lombardy Rd	2013-2015
Merced River @ Santa Fe	2013-2015
Miles Creek @ Reilly Rd	2013-2015
Mustang Creek @ East Ave	2014-2016
Silva Drain @ Meadow Dr	2014-2016
South Slough @ Quinley Rd	2014-2016
Westport Drain @ Vivian Rd	2014-2016
Re-evaluate All Site Subwatersheds and Revise Schedule	Annually

Individual contacts will continue to be made within the three high priority subwatersheds as efficiently and effectively as possible following the process outlined above. The completion of these contacts was originally estimated to be April 2009 however the Coalition has realized that a more realistic timeline will be to complete individual contacts in all priority subwatersheds by the fall of 2009. The Coalition anticipates contacting the remaining Dry Creek growers by the August 15, 2009 and all of the Duck Slough and Prairie Flower Drain growers by September 30, 2009. The Coalition has conducted multiple grower group meetings in two of the priority site subwatersheds (Dry Creek and Duck Slough) and, as described above, has decided to conduct only individual contacts within the Prairie Flower Drain subwatershed. Since the individual contacts will not be completed as anticipated by February/March 2009 (Table 16 of the Management Plan submitted on September 30, 2008) the Coalition cannot expect that recommended practices will be implemented by 100% of the growers during the irrigation and dormant season of 2009. Therefore, the Coalition anticipates implementation to occur during both 2009 and 2010 and is requesting an additional year for growers to implement practices and for the Coalition to evaluate the effectiveness of the new management practices by February 2011.

As a result of the shift in the original high priority subwatershed Management Plan tracking schedule, the Coalition is requesting an amendment to the dates when the remaining site subwatersheds will reach high priority status. This proposed schedule was included in the April 1, 2009 Management Plan update and is also included above (Table 6 in the Management Plan update). The next set of subwatersheds will reach priority status in 2010 -2012. The Coalition will establish a list of targeted growers during the fall/winter of 2009 and will use the fall of 2009 to schedule individual contacts with growers starting January 2010. The Coalition will establish a schedule of contacts to ensure that it will be able to contact all targeted growers within the next three high priority subwatersheds during 2010 (from January through September) which will allow for implementation of practices in 2011 and evaluation by 2012. Targeted grower lists will be created for the next three high priority subwatersheds (2011-2013) during the fall of 2010 such that those contacts will begin in January of 2011. This process will continue until all subwatersheds are addressed at a high priority site subwatershed level.

The following table, Management Plan tracking schedule update request, includes the original timelines/schedule submitted to the Regional Board on September 30, 2008 and

an additional column with the status of the actions and new timelines (if the action has not been completed) which have been proposed and described in detail earlier in this document.

The Coalition finds that the current strategy of conducting individual contacts is the most efficient way to educate growers about available management practices and current downstream water quality issues and most importantly, convince growers to implement additional recommended practices. Although this method is costly in both time and Coalition financial resources, the Coalition anticipates that the results of this process will include an extensive database that will track management practice implementation and improvement in downstream water quality.

To date all members contacted have been willing to meet with Coalition representatives, review current farm practices as they tour their farm, and discuss implementation of additional practices. Willingness to meet Coalition representatives has not been a problem. If the Coalition finds a member not willing to meet and discuss practices, the Coalition will emphasize the responsibility of the grower, as a member of the Coalition, to maintain practices that will not degrade downstream water quality. If the member still does not agree to meet with Coalition representatives, the Coalition will send them the enforcement action letter written by the Regional Board which outlines the potential enforcement actions for not cooperating with the Coalition to identify and implement management practices necessary for preventing water quality degradation due to agricultural practices.



Management Plan tracking schedule update request. Original schedule refers to dates/times that were submitted in the Management Plan approved on November 24, 2008.

Priority Subwatershed Evaluation of Management Practices	Dry Creek @ Wellsford Rd		Duck Slough @ Hwy 99		Prairie Flower Drain @ Crows Landing Rd	
	Original Schedule	Status / New Date	Original Schedule	Status / New Date	Original Schedule	Status / New Date
Associate baseline survey responses with member APNs.	December 2008	Completed	December 2008	Completed	December 2008	Completed
Determine number/type of management practices currently in place.	January 2009	Completed	January 2009	Completed	January 2009	Completed
Group Grower Contacts	October 2008 – February 2009	Completed	October 2008 – February 2009	Completed	October 2008 – February 2009	No grower group contact scheduled
Individual Contacts	December 2008 – February 2009	February – August 15, 2009	January 2009 – March 2009	February – September 30, 2009	February 2009 – April 2009	February – September 30, 2009
Implementation of new management practices.	April 2009 – February 2010	October 2009 – April 2010	April 2009 – February 2010	October 2009 – April 2011	April 2009 – February 2010	October 2009 – April 2011
Assess number/type of new management practices implemented.	October 2009 - February 2010	October 2009 - February 2010	October 2009 - February 2010	October 2009 - February 2011	October 2009 - February 2010	October 2009 - February 2011
Evaluate effectiveness of new management practices ² .	April 2009 – February 2010	April 2009 - February 2011	April 2009 – February 2010	April 2009 - February 2011	April 2009 – February 2010	April 2009 - February 2011



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Updated performance goals for Dry Creek @ Wellsford Rd based on revised contact schedules (Table C of the Management Plan addendum).

Performance Goal/Performance Measure	Outputs	Who
<i>Performance Goal 1: Individually contact members on adjacent properties to waterways where discharges have been identified during winter 2008/2009.</i>		
Performance Goal 1 Update: Individually contact members on adjacent properties to waterways where discharges have been identified from February to August 2009.		
Performance Measure 1.1 – 100% of targeted growers contacted.	Report ratio of individual contacts made versus total growers identified with discharges.	Parry Klassen
Performance Measure 1.2 – Contact owners/operators representing at least 1,000 acre of membership acreage in the site subwatershed.	Report ratio of acreage represented by individual contacts versus total subwatershed acreage.	MLJ LLC
<i>Performance Goal 2: Establish current practices by April 2009, on adjacent properties to waterways or where discharges are identified.</i>		
Performance Goal 2 Update: Establish current practices by August 15, 2009, on adjacent properties to waterways or where discharges are identified.		
Performance Measure 2.1 – Obtain current management practice information from 100% of targeted growers.	Completed individual contact checklists recorded in an Access database.	Parry Klassen
Performance Measure 2.2 – Document current management practices of the targeted growers during individual contacts and encourage the adoption of new practices not currently implemented.	Record of management practices used that may reduce agricultural impact on water quality.	Parry Klassen
Performance Measure 2.3 – Document management practices targeted grower was encouraged to implement.	Summary of management practice evaluations on a site subwatershed level in the Management Plan update (April 2010).	MLJ LLC
<i>Performance Goal 3: Encourage growers to implement additional management practices based on water quality results.</i>		



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Performance Goal/Performance Measure	Outputs	Who
Performance Measure 3.1 – By February 2011, document additional management practices implemented by targeted growers.	Summary of management practices implemented as a result of individual contacts.	Parry Klassen
<i>Performance Goal 4: Evaluate effectiveness of the new management practices implemented during 2009.</i>		
Performance Goal 4 Update: Evaluate effectiveness of the new management practices implemented during 2009 and 2010.		
Performance Measure 4.1 – Assess water quality results from Coalition monitoring location within the priority site subwatershed.	Summary of 2009 and 2010 water quality data from site subwatershed (April 2010 and 2011).	MLJ LLC
<i>Performance Goal 5: Consult with CVRWQCB at least once during 2008/2009 to discuss Management Plan activities and consider if changes need to be made in Management Plan strategy for high priority waterbodies.</i>		



Attachment 1

ESJWQC Management Plan Sampling – 2009 to 2011

As described in the ESJWQC Management Plan Update (submitted on April 1, 2009), the Coalition will conduct Management Plan Monitoring between 2009 and 2011 for the high priority constituents listed in the current Management Plan. As outlined in the flow diagrams in the ESJWQC Management Plan (Figure 2 and 3), the Coalition conducted additional Management Plan Monitoring during the first year that a site subwatershed was included in the Management Plan, and upstream Management Plan Monitoring during the second year (if there were continued exceedances during the first year).

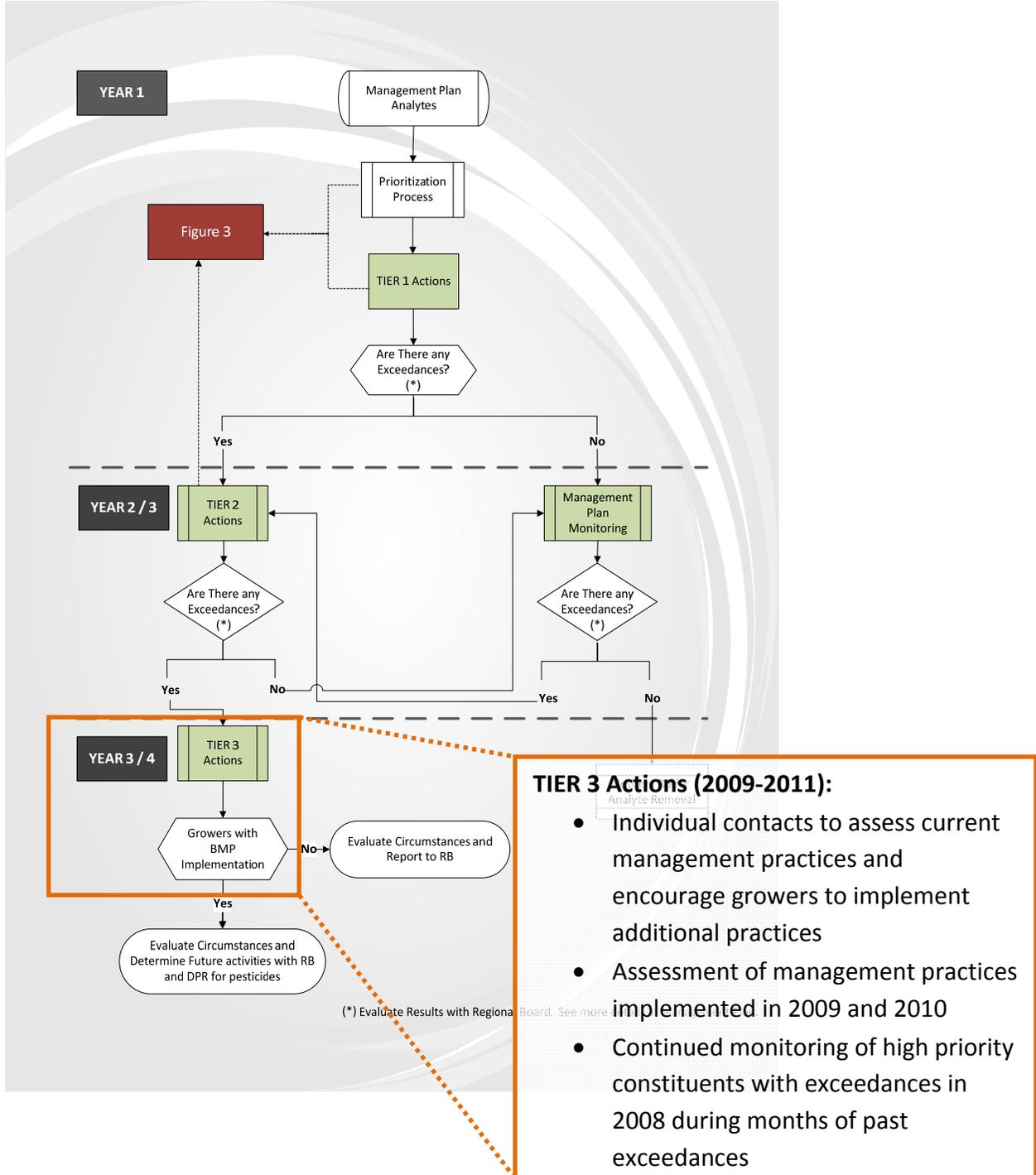
Each tier in the flow chart includes actions for sourcing, outreach and evaluation and in order for a site subwatershed/constituent to move into Tier 3 requires three consecutive years of exceedances (Figure 2 of the ESJWQC Management Plan). Tier 3 actions center on management practice implementation and evaluation (Figure 3 of the ESJWQC Management Plan) and the Coalition is currently focusing on three high priority subwatersheds to document management practice information including current practices, possible practices that will be implemented in 2009 and 2010 and the eventual documentation of implemented practices in 2009 and 2010. The following figure illustrates where in Figure 2 (ESJWQC Management Plan) which actions in TIER 3 the Coalition will be conducting between 2009 and 2011. While the Coalition is documenting management practice implementation information with intensive individual contacts, the Coalition will continue to monitor for high priority management plan constituents during the months where past exceedances occurred if there continued to be exceedances in 2008.

Constituents of highest priority within the Coalition area are chlorpyrifos, diazinon, copper, and diuron. In addition, the Coalition has prioritized toxicity that has been associated with an exceedance of an applied pesticide. During the first year of the Management Plan (2007), the Coalition conducted additional sampling for prioritized constituents to assess whether outreach activities had an effect on water quality within Management Plan subwatersheds. In subwatersheds where exceedances continued to occur, upstream sampling was conducted during the second year of the Management Plan (2008) to gain additional information regarding possible agricultural sources of water quality exceedances. During the third year of the Management Plan (2009), the Coalition will intensify its outreach efforts within high priority

subwatersheds (Dry Creek, Duck Slough, and Prairie Flower Drain) as well as continue monitoring for priority constituents during months in which past exceedances occurred.

Sites monitored during the third year of the Management Plan have been divided into two groups, those being sampled during the irrigation and storm season of 2009/2010, and those being sampled during the irrigation and storm season of 2010/2011. This Management Plan monitoring strategy focuses monitoring efforts on half of the Management Plan subwatersheds during the first time period and refocuses the same effort on the second group of sites during the second time period. Splitting the sites into two groups allows the Coalition to allocate its resources to additional outreach and education yet maintain baseline water quality information to evaluate improvements in water quality over time. For lower priority constituents, the Coalition focuses on outreach at the county, site subwatershed, and grower group levels. Additional sampling is not conducted for lower priority constituents.

Figure 2 from the ESJWQC Management Plan including current status of management plan site subwatershed/constituents (orange box).



Management Plan Monitoring Sites: April 2009- April 2011

2009

Deadman Creek @ Hwy 59
Dry Creek @ Oakdale Rd (upstream of Merced River)
Dry Creek @ Waterford Rd
Dry Creek @ Wellsford Rd^C
Duck Slough @ Hwy 99
Highline Canal @ Hwy 99^C
Highline Canal @ Lombardy Rd
Hilmar Drain @ Central Ave
Merced River @ Santa Fe Dr^C
Miles Creek @ Reilly Rd
Prairie Flower Drain @ Crows Landing Rd^C

2010

Bear Creek @ Kibby Rd
Cottonwood Creek @ Rd 20^C
Deadman Creek @ Gurr Rd^A
Deadman Creek @ Hwy 59
Dry Creek @ Oakdale Rd (upstream of Merced River)
Dry Creek @ Wellsford Rd^C
Duck Slough @ Gurr Rd^C
Hatch Drain @ Tuolumne Rd
Highline Canal @ Hwy 99^C
Highline Canal @ Lombardy Rd
Livingston Drain @ Robin Ave
Merced River @ Santa Fe Dr^C
Miles Creek @ Reilly Rd
Mustang Creek @ East Ave^A
Prairie Flower Drain @ Crows Landing Rd^C
Silva Drain @ Meadow Dr
South Slough @ Quinley Rd
Westport Drain @ Vivian Rd

2011

Bear Creek @ Kibby Rd
Dry Creek @ Rd 18
Hatch Drain @ Tuolumne Rd
Livingston Drain @ Robin Ave
Westport Drain @ Vivian Rd

A – Assessment Monitoring location
C – Core Monitoring location

A detailed monitoring schedule for Management Plan locations was submitted in the April 1, 2009 Management Plan update and included the locations, year/month to be sampled and the constituents that would be analyzed for. Below is a description of each Management Plan site subwatershed (listed alphabetically) and the background for the Management Plan Monitoring that will be conducted between April 2009 and April 2011.

Ash Slough @ Ave 21

As an assessment site, Ash Slough @ Ave 21 is scheduled to be sampled once per month in 2009 and 2010 for all constituents. In both 2007 and 2008, Ash Slough was scheduled for additional monitoring of chlorpyrifos (2 additional samples each year) and for copper (5 additional samples each year); however the site was dry at every visit after September 12, 2006. Chlorpyrifos and copper will be analyzed as part of normal assessment monitoring conducted in 2009 and 2010.

Bear Creek @ Kibby Rd

Bear Creek @ Kibby Rd is scheduled to be an assessment site in 2025 and 2026. Water quality data from this location includes two exceedances of the chlorpyrifos WQTL (one in 2006 and one in 2007), four exceedances of the copper WQTL (one in 2007 and three in 2008), three samples toxic to *Ceriodaphnia dubia* (one in 2005, 2006, and 2007), toxicity to *Selenastrum capricornutum* and *Hyalella azteca* in 2008 (both toxicities were persistent a week later). Since

there was no toxicity to *C. dubia* nor exceedances of the chlorpyrifos WQTL in 2008, only copper will be monitored in 2010/2011 during two management plan sampling events.

Berenda Slough along Ave 18 ½

Berenda Slough along Ave 18 ½ will be an assessment site in 2011 and 2012. Water quality issues from this location include toxicity to *S. capricornutum* (a single event which was persistent a week later), three exceedances of the chlorpyrifos WQTL, and toxicity to *C. dubia*. In 2008, upstream Management Plan Monitoring was conducted for *S. capricornutum* and chlorpyrifos resulting in no exceedances or toxicity. However, it should be noted that this location was dry for all events except for one. With no new exceedances recorded in 2008, no Management Plan Monitoring is scheduled for 2009/2010. All constituents will be sampled at this location starting 2011.

Black Rascal Creek @ Yosemite Rd

Black Rascal Creek @ Yosemite Rd is scheduled to be an assessment site in 2027 and 2028. Water and sediment quality data include toxicity to *C. dubia* in 2007 including two months in which toxicity was persistent one week later, four exceedances of the chlorpyrifos WQTL (three in 2007 and one in 2006), single toxicities to *S. capricornutum* and *H. azteca* in 2008, one exceedance of the copper WQTL in 2008, and two exceedances of the lead WQTL in 2008. The chlorpyrifos exceedance (associated with *C. dubia* toxicity) in 2007 was believed to be an isolated incident and appears to have been resolved after contacting the grower and discussing management practices and downstream water quality issues. In 2008, in addition to normal monitoring, four samples were collected for chlorpyrifos analysis and three samples were collected for analysis of toxicity to *C. dubia* during months of past exceedances however no additional exceedances/toxicity occurred. No monitoring will be performed in 2009 due to improved water quality in 2008.

Cottonwood Creek @ Rd 20

As a core site, Cottonwood Creek @ Rd 20 is monitored for a limited suite of constituents each month (see the ESJWQC MRPP for a list of core monitoring constituents). In addition to the core monitoring constituents, the Coalition monitors for *Pimephales promelas*, *S. capricornutum* and *H. azteca* toxicity as a result of at least one sample testing toxic to one of these species in the past. Exceedances of the copper WQTL (based on total copper) occurred in 12 samples since 2006 (four in 2008) and two exceedances of the chlorpyrifos WQTL occurred in 2008. Additional Management Plan Monitoring was conducted three times in 2007 and in 2008 five copper samples were collected upstream at Hwy 145 in an attempt to further identify copper sources. One of upstream samples contained an exceedance level of copper, but no corresponding amount was detected at the downstream locations (Cottonwood Creek @ Rd 20). During 2008, the Rd 20 site recorded an additional exceedance of the copper WQTL that was not detected at the upstream site on Hwy 145. Based on the additional and upstream Management Plan Monitoring it has been determined that copper is a problem throughout the entire Cottonwood Creek subwatershed and is not specific to a few months. Therefore additional sampling is not necessary to further identify sources. Cottonwood Creek @ Rd 20 will be reassessed for all assessment constituents in 2011 and 2012 during which time copper will be monitored for monthly. Monitoring in 2011 and 2011 will allow the Coalition to assess the effectiveness of grower outreach. Due to exceedances in 2008 of the chlorpyrifos WQTL, chlorpyrifos will be monitored for during the storm season and will also be monitored monthly starting in 2011.

Deadman Creek @ Gurr Rd

As an assessment site, Deadman Creek @ Gurr Rd will be sampled once per month in 2009 and 2010 for all constituents. Deadman Creek @ Gurr Rd was monitored under the ESJWQC Management Plan in 2008 for copper (two additional samples) and *P. promelas* (two additional samples). The 2008 monitoring schedule was based on four exceedances of the copper WQTL between 2007 and 2008 and two samples testing toxic to *P. promelas*, one in 2006 and the second in 2007. In early 2008, a second sample was toxic to *S. capricornutum*, and in 2006 a single exceedance of the chlorpyrifos WQTL was recorded. Since all Management Plan

constituents are monitored monthly at this site (see Table 13 in the MRPP) the Coalition will not conduct any additional Management Plan Monitoring.

Deadman Creek @ Hwy 59

Deadman Creek @ Hwy 59 will be an assessment site in 2011 and 2012. Toxicity to *S. capricornutum* occurred twice in 2008, as well as a resample indicating that the toxicity was persistent one week later. In 2008, additional Management Plan Monitoring for chlorpyrifos occurred and both samples contained exceedance levels of chlorpyrifos. As a result of these recent exceedances, during the irrigation season of 2009 and the storm season of 2010, Deadman Creek @ Hwy 59 will be monitored for *S. capricornutum* toxicity (two samples) and chlorpyrifos (two samples).

Dry Creek @ Road 18

Dry Creek @ Rd 18 will be an assessment site in 2013 and 2014. In 2007 and 2008 extensive Management Plan Monitoring was conducted to address persistent exceedances of the copper WQTL, including five additional samples in 2007 and eight upstream samples in 2008. In 2008, upstream Management Plan Monitoring was also conducted for chlorpyrifos; no exceedances occurred during the irrigation season of 2008. Copper persists at a generally stable concentration in the water and exceedances of the WQTL (total copper) have been recorded at every visit where metals were analyzed, both at the Rd 18 site and at upstream sites (21 exceedances at Rd 18, six at Rd 22, and one at Rd 28 ½). Instead of additional monitoring, the Coalition will refocus its efforts on outreach and assess this effectiveness of outreach when the site becomes an assessment site in 2013.

Dry Creek @ Wellsford Rd

Dry Creek @ Wellsford Rd is a core site and continues to be monitored in 2009 and 2010. The Coalition performed additional sampling at Dry Creek @ Wellsford Rd in 2007 for chlorpyrifos and *C. dubia* toxicity during months of previous exceedances. There has been no additional

toxicity to *C. dubia* since 2006, but two exceedances of the chlorpyrifos WQTL in 2007 and another in 2008 indicate that this is an ongoing issue in the watershed (previously there was one exceedance in 2005 and two in 2006). In 2008 exceedances of the chlorpyrifos WQTL occurred once at the Wellsford Rd location as well as twice in the upstream sampling location. This subwatershed is the first high priority subwatershed where the Coalition is focusing outreach efforts and due to the inconsistencies of exceedances (exceedance upstream but not downstream) the Coalition will continue to monitor upstream at Wellsford during July and August (months of past exceedances). This information will be used to evaluate the effectiveness of new management practices implemented within the Dry Creek subwatershed in 2009.

Duck Slough @ Gurr Rd

Duck Slough @ Gurr Rd is a core site and therefore a limited suite of constituents is monitored monthly. As per Table 13 in the MRPP several additional constituents are monitored including organophosphates and metals. Additional Management Plan Monitoring conducted in 2007 for chlorpyrifos, thiobencarb, and copper; only copper was detected above the WQTL in 2007. In 2007 a second sample was toxic to *S. capricornutum* and therefore upstream Management Plan Monitoring was conducted in 2008 for copper and *S. capricornutum* toxicity. There were no exceedances of the copper WQTL or toxicity to *S. capricornutum* in 2008. Duck Slough will continue to be monitored for organophosphates (chlorpyrifos), carbamates and metals (total and dissolved) every month in 2009 due to past single exceedances as explained in the ESJWQC MRPP.

Duck Slough @ Hwy 99

Duck Slough @ Hwy 99 is scheduled to be an assessment site in 2013 and 2014. The Coalition performed additional Management Plan Monitoring at this location during the 2007 irrigation season as well as upstream Management Plan Monitoring at Whealan Rd to further determine possible sources of exceedances of the chlorpyrifos and copper WQTLs. Continued exceedances and detections of both chlorpyrifos (one exceedance at Hwy 99) and copper (two exceedances at Hwy 99 and three at Whealan Rd) have supplied the Coalition with additional

information regarding the timing of exceedances and where the Coalition needs to focus outreach efforts. A second sample was toxic to *S. capricornutum* in 2008 triggering a management plan for this constituent in the Duck Slough @ Hwy 99 site subwatershed. In 2009 copper, chlorpyrifos and *S. capricornutum* will be monitored at Duck Slough @ Hwy 99 to aid the Coalition in evaluating the effectiveness of new management practices implemented. All constituents will be monitored for starting in 2013.

Hatch Drain @ Tuolumne Rd

Hatch Drain @ Tuolumne Rd will be an assessment site in 2025 and 2026. It was a new site in 2007 and in 2008 six samples were toxic to *S. capricornutum*. In 2007 and 2008 three samples were toxic to *H. aztec*. The Coalition will monitor for toxicity to *S. capricornutum* in 2010 to determine if *S. capricornutum* toxicity continues to be a problem within this subwatershed. *H. azteca* toxicity is not a high priority constituent under the ESJWQC Management Plan.

Highline Canal @ Hwy 99

Highline Canal @ Hwy 99 is a core site and therefore limited constituents are monitored until this site undergoes assessment monitoring. In 2007 additional Management Plan Monitoring was conducted for toxicity to *C. dubia*; no toxicity to *C. dubia* occurred in 2007. In 2008, no upstream Management Plan Monitoring was conducted since Highline Canal @ Lombardy Rd (upstream of Hwy 99) was also sampled during the same events. However, due to additional exceedances in 2007, additional Management Plan Monitoring was conducted again in 2008 for copper and chlorpyrifos and for toxicity to *C. dubia*; exceedances of WQTLs occurred in 2008 for chlorpyrifos and copper. In addition, three samples collected in 2008 caused toxicity to *S. capricornutum*. Therefore monitoring at Highline Canal @ Hwy 99 in 2009 will include *S. capricornutum*, chlorpyrifos, and copper during months of past exceedances. As with the Lombardy Rd site upstream of Hwy 99, water quality in the Highline Canal continues to be an issue since inputs to the canal are not well documented and may include groundwater seeping through the sandy bed of the canal.

Highline Canal @ Lombardy Rd

Highline Canal @ Lombardy Rd will be an assessment site in 2011 and 2012. This location is currently under a management plan for toxicity to *S. capricornutum* and *C. dubia* and exceedances of the chlorpyrifos and copper WQTLs. Additional Management Plan Monitoring was conducted in 2007 for toxicity to *C. dubia* and *S. capricornutum*; no samples were toxic. As a result of additional exceedances, additional Management Plan Monitoring was conducted for chlorpyrifos and copper in 2008 as well as *C. dubia* and *S. capricornutum*; exceedances of the WQTLs occurred in 2008 for chlorpyrifos and copper and there was toxicity to *C. dubia*. During the irrigation season of 2009 and the storm season of 2010, Highline Canal @ Lombardy Rd will be monitored for toxicity to *S. capricornutum* and *C. dubia*, copper and chlorpyrifos. Due to a typo, the monitoring schedule included in the Management Plan update (April 1, 2009) did not include chlorpyrifos Management Plan Monitoring in July and August; however both of these months will include monitoring for chlorpyrifos. As with the Hwy 99 site downstream of Lombardy Rd, water quality in the Highline Canal continues to be an issue since inputs to the canal are not well documented and may include groundwater seeping in through the sandy bed of the canal.

Hilmar Drain @ Central Ave

Hilmar Drain @ Central Ave is scheduled to become an assessment site in 2021 and 2022. Monitoring at this location resulted in five samples that were toxic to *S. capricornutum* (three in 2008) including several that were persistent, three exceedances of the diuron WQTL including one in 2008, two exceedances of the copper WQTL (one in 2007 and one in 2006) as well as a single exceedance of the chlorpyrifos WQTL and toxicity to *C. dubia* in 2006 and 2005, respectively. This site was not under a management plan until 2008. Additional Management Plan Monitoring for diuron was conducted in 2008; there was a single exceedance of the diuron WQTL in 2008. Upstream Management Plan Monitoring was conducted to further identify sources of nitrate, ammonia, copper and the cause(s) of toxicity to algae. This subwatershed has dairies upstream and the Coalition attempted to use water quality monitoring during July 2008 to assess whether dairies were an issue. Exceedances of the ammonia and copper WQTLs did not occur again in 2008 however exceedances of the nitrate WQTL occurred at the Hilmar Drain @ Central Ave site (three exceedances) and at the upstream Mitchell Ave site (one

exceedance). The Coalition has determined that the extra sampling conducted in 2008 has aided in determining sources of water quality problems and will focus on outreach efforts to encourage growers to implement new management practices. To assess overall water quality, the Coalition will continue to assess toxicity to *S. capricornutum* during months of past exceedances in 2009.

Howard Lateral @ Hwy 140

This is currently an assessment site in its first year of monitoring; it does not currently require a management plan.

Lateral 2 1/2 near Keyes Rd

This is currently an assessment site in its first year of monitoring; it does not currently require a management plan.

Livingston Drain @ Robin Ave

Livingston Drain @ Robin Ave will be an assessment site in 2023 and 2024. Additional Management Plan sampling occurred at Livingston Drain @ Robin Ave in 2008 during its first year under a management plan for copper; five exceedances of the copper WQTL occurred in 2008. In addition to copper, water samples collected from Livingston Drain in 2008 contained exceedance levels of chlorpyrifos and lead and three samples caused toxicity to *S. capricornutum*. Livingston Drain @ Robin Ave will be monitored for chlorpyrifos, *S. capricornutum*, and copper in 2010 during months of past exceedances.

Merced River @ Santa Fe Dr

Merced River @ Santa Fe Dr is a core site. The high load associated with one of the three prior exceedances of the chlorpyrifos WQTL and the concomitant toxicity to *C. dubia* (the third since 2004) initiated an effort to source the chlorpyrifos including a review of pesticide use reports

and meetings with growers in the subwatershed. Based on information gained from these efforts, the Coalition has decided to collect upstream samples in 2009 during months of past chlorpyrifos exceedances in the Merced River; the Coalition will also collect samples for chlorpyrifos at the downstream location during the same events. It is believed that the chlorpyrifos is entering the Merced River via Dry Creek (not Dry Creek @ Wellsford Rd) several miles upstream. Since the toxicity to *C. dubia* was associated with chlorpyrifos in the water, the Coalition is focusing its efforts in further identifying the sources of the chlorpyrifos which will aid in future outreach within this large subwatershed.

Miles Creek @ Reilly Rd

Miles Creek @ Reilly Rd is scheduled to be an assessment site in 2015 and 2016. Until then, the only monitoring that will be done at this site is Management Plan Monitoring. Miles Creek @ Reilly Rd was a new site in May 2007, and 2009 will be the first year that this site will be included in the ESJWQC Management Plan. In 2008, toxicity occurred for the second time to *S. capricornutum* and *C. dubia* and exceedances of WQTLs occurred twice for chlorpyrifos and four times for copper. During the irrigation season of 2009 and the storm season of 2010, Miles Creek will be monitored for *S. capricornutum*, *C. dubia*, copper, and chlorpyrifos. Management Plan Monitoring in 2009 will help determine whether these constituents represent an ongoing problem in the site subwatershed.

Mootz Drain @ Langworth Rd

This is currently an assessment site in its first year of monitoring; it does not currently require a management plan.

Mustang Creek @ East Ave

As an assessment site, Mustang Creek @ East Ave will be monitored for all constituents in 2009 and 2010. Among the constituents scheduled to be monitored will be chlorpyrifos and simazine. These samples were originally defined in the management plan schedule, but they will be monitored under normal monitoring so additional sampling under the management plan

is redundant. Both exceedances of each constituent that triggered inclusion in the Management Plan occurred during storm season 2008.

Prairie Flower Drain @ Crows Landing Rd

Prairie Flower Drain @ Crows Landing Rd is a core site. In 2007, additional Management Plan Monitoring was implemented at the Prairie Flower Drain monitoring site for chlorpyrifos and *P. promelas* toxicity. Additional monitoring occurred during the months in which exceedances of priority constituents or toxicity were detected during the previous year at this site. Additional monitoring during the 2007 irrigation season was designed to increase the temporal coverage of monitoring during the months when exceedances had occurred in the past, especially as they co-occurred with applications of relevant pesticides in the site subwatershed. Management Plan Monitoring occurred for toxicity to *P. promelas* in July and for chlorpyrifos in August and September of 2007. Chlorpyrifos was detected in samples collected in July and August of 2007. There was no toxicity to *Pimephales* in any of the samples collected in 2007, nor were additional instances of toxicity detected in 2008. Efforts were also made in 2008 to narrow the potential source(s) of the persistent elevated nitrate concentrations in this watershed. Upstream Management Plan Monitoring was conducted in 2008 for chlorpyrifos, nitrate, *C. dubia* and *P. promelas*. Only exceedances of the nitrate WQTL occurred at the upstream location and exceedances of the nitrate, chlorpyrifos WQTLs and toxicity to *S. capricornutum* occurred at Prairie Flower Drain @ Crows Landing Rd. In 2009 Management Plan Monitoring will include chlorpyrifos and toxicity of *S. capricornutum* sampling during months of past exceedances; it is clear that nitrate is a watershed problem and additional sampling is not necessary.

Silva Drain @ Meadow Dr

Silva Drain will be an assessment site in 2029. Samples from this location include toxicity to *C. dubia* including one period of toxicity in 2008 that was persistent, three exceedances of the copper WQTL all of which were in 2008, and six exceedances of the chlorpyrifos WQTL including three in 2008. Additional Management Plan Monitoring was conducted for chlorpyrifos in 2007 and 2008 during months of past exceedances; since Silva Drain is such a small subwatershed

there was no need to do upstream sampling. Chlorpyrifos, copper and toxicity to *C. dubia* will be sampled in 2010 during months of past exceedances.

Westport Drain @ Vivian Rd

Westport Drain @ Vivian Rd will be an assessment site in 2027 and 2028. It was a new site in 2007, and a single exceedance of the chlorpyrifos WQTL occurred and a single sample was toxic to *S. capricornutum*. In 2008 another exceedance of the chlorpyrifos WQTL occurred and two more samples were toxic to *S. capricornutum*. A single sediment sample was toxic to *H. azteca*. Toxicity to *S. capricornutum* and chlorpyrifos will be sampled at Westport Drain @ Vivian Rd in 2010 during months of past exceedances.