East San Joaquin
WATER QUALITY COALITION
1201 L Street Modesto, CA 95354
www.esjcoalition.org

June 27, 2011

Susan Fregien
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Dear Ms. Fregien,

As requested by Regional Board staff, the East San Joaquin Water Quality Coalition (ESJWQC or Coalition) is submitting an amendment to the 2011 Management Plan Update Report (MPUR) with a summary of the interim results for Performance Measure (Performance Goal) 3.1 for the second set of high priority subwatersheds (2010-2012). The MPUR 2012 will contain the final and complete summary of results for performance measure performance goal) 3.1 for the second set of high priority site subwatersheds and will be submitted on April 1, 2012.

This amendment includes updated information on second priority member contacts (meetings, emails and mailings) to assess implemented management practices as outlined in Performance Goal 3 (Table 10, page 37) of the 2011 MPUR. The 2011 MPUR 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 on April 1, 2011.

Submitted respectfully,

Parry Klassen
Board Chairman
East San Joaquin Water Quality Coalition

Management Plan Update Report Amendment

Interim Summary of Implemented Management Practices for Second Priority Subwatersheds

January – December 2010

Amendment submitted on June 27, 2011

Irrigated Lands Regulatory Program

Central Valley Regional Water Quality Control Board

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

SUMMARY OF IMPLEMENTED MANAGEMENT PRACTICES AMENDMENT

The East San Joaquin Water Quality Coalition (ESJWQC or Coalition) was asked to submit an amendment to its Management Plan Update Report submitted on April 1, 2011 (hereafter referred to as 2011 MPUR) to include a summary of the interim results of newly implemented management practices for the Coalition's second priority subwatersheds Bear Creek @ Kibby Rd, Cottonwood Creek @ Rd 20, Duck Slough @ Gurr Rd and Highline Canal @ Hwy 99.

As noted in the 2011 MPUR (Table 10, page 37), the Coalition conducted follow up meetings with growers within the four second priority subwatersheds between February 1 and April 30, 2011 to record newly implemented management practices from the previous year, 2010. A majority of the targeted growers could not attend follow up meetings initially scheduled in early February 2011. The Coalition rescheduled the follow up meetings for April 26, 2011 (Cottonwood Creek @ Rd 20) and April 28, 2011 (Bear Creek @ Kibby Rd, Duck Slough @ Gurr Rd and Highline Canal @ Hwy 99); close to half of all targeted growers were able to attend the meetings and report newly implemented management practices. Growers who did not attend the follow up meetings were contacted by mail or by email.

The 2011 MPUR includes a summary of the implemented management practices and recommended management practices for the four second priority subwatersheds (pages 81-102). The following is an interim summary of newly implemented management practices based on follow up surveys returned between April 26 and June 27, 2011. As of June 27, 2011 the Coalition has received follow up surveys from 50 of the 52 members for which follow up information is required (96% complete). A final summary of newly implemented management practices in the four subwatersheds will be included in the 2012 MPUR to be submitted April 1, 2012 (Table 10, page 37 of the 2011 MPUR).

SECOND PRIORITY SUBWATERSHEDS

Implemented Management Practices (2010)

The Coalition has conducted follow up contacts within the second priority subwatersheds via three methods: follow up group meetings, follow up mailings, and follow up emails. As a part of each contact, growers completed individual contact follow up surveys to record newly implemented management practices. Table 1 lists the questions listed on follow up surveys.

Table 1. Targeted grower follow up survey questions for second high priority subwatersheds (2010 -2012).

TARGETED GROWER FOLLOW UP QUESTIONS – 2ND PRIORITY SUBWATERSHEDS
01) Did you have irrigation drainage in 2010?
02) Any changes in crop type? (switched from row crops to orchards)?
In 2010, did you implement the following management practices:
03) Microirrigation system implemented after meeting?
04) Sprinkler irrigation system implemented after meeting?
05) Reduce Amount of Water Used in Surface Irrigation after meeting?
06) Laser Leveled Fields after meeting?
07) Drainage Basins/Sediment Ponds To Capture & Retain Runoff after meeting?
08) Recirculation/ Tailwater Return System implemented after meeting?
09) Used Polyacrylamide(PAM) to Increase Water Infiltration & Reduce Furrow Erosion after meeting?
10) Added control device to discharge (storm drainage) after meeting?
11) Vegetation Allowed to Grow in Drain Ditches after meeting?
12) Added Filter Strips Around Field Perimeter At Least 10' Wide after meeting?
13) Grass Row Centers added after meeting?
14) Adjusted spray nozzles to match canopy profile since visit?
15) Began to shut off outside Nozzles when Spraying Outer Rows Next To Sensitive Areas after meeting?
16) Began to use nozzles that provide largest effective droplet size to minimize drift?
17) Spray areas close to waterbodies when wind is blowing away since visit?
18) Use electronic controlled sprayer nozzles since visit?
19) Use air blast applications when wind is 3-10mph and upwind of sensitive site since?
20) Did you implement new practices based on information from contact with Coalition representatives?
21) Did you implement additional practices not listed?
22) Did you wish to receive quarterly water quality information from the Coalition?
23) Would you like to receive additional information regarding funding for management practice implementation?
24) Are you interested in setting an appointment for the calibration instrument?

The Coalition has completed follow up contacts with 96% of targeted growers within the second priority subwatersheds (Table 2). Members of the second priority subwatersheds who have yet to complete their follow up surveys will be contacted by phone (two growers in Cottonwood Creek). A final summary of 2010 and 2011 implemented management practices will be included in the 2012 MPUR.

Table 2. Tally of growers contacted for follow up in second high priority subwatersheds (2010-2012).

	Bear Creek @ Kibby Rd	Cottonwood Creek @ Rd 20	Duck Slough @ Gurr Rd	Highline Canal @ Hwy 99
Completed Individual Survey	14	25	6	10
Follow Up Not Required	0	1	0	2
Total Follow Ups Required	14	24	6	8
Attended Follow Up Group Meeting	3	14	4	3
Participated in Follow Up Mail Survey	4	5	1	1
Participated in Follow Up Email Survey	7	3	1	4
Planned Phone Call Follow Up	0	2	0	0
Follow Ups Complete as of 6/27/11	**14**	**22**	**6**	**8**
Percent Complete as of 6/27/11 (based on growers with required follow ups)	**100%**	**92%**	**100%**	**100%**

Bear Creek @ Kibby Rd

Fourteen targeted growers within the Bear Creek @ Kibby Rd subwatershed have filled out initial contact surveys and all have completed a follow up survey (Table 2). Three growers attended the follow up meeting on April 28, 2011, four were mailed follow up surveys on May 11, 2011 and seven were emailed follow up surveys on May 20, 2011.

Recommended management practices in relation to newly implemented management practices in 2010 are compared in Table 4 for Bear Creek. Recommended practices included recirculation/tailwater return system and drainage basins (sediment ponds) (Table 4). The majority of practices were recommended to be implemented on parcels with irrigation drainage (995 acres, Table 4).

There were two newly implemented management practices within Bear Creek to date: 1) installation of a microirrigation system and 2) reducing the amount of water used during surface irrigation. Sixty-six percent of the acreage with a newly implemented practice had a new microirrigation system and 34% had a reduction in surface water use (Figure 1). These practices were implemented over 611 acres with irrigation drainage (Table 4). Coalition representatives did not specifically recommend these two management practices to growers in the subwatershed (Table 4). Ten management practices were specifically recommended to growers representing 995 acres; however, none of recommended practices were implemented in 2010 (Table 4).

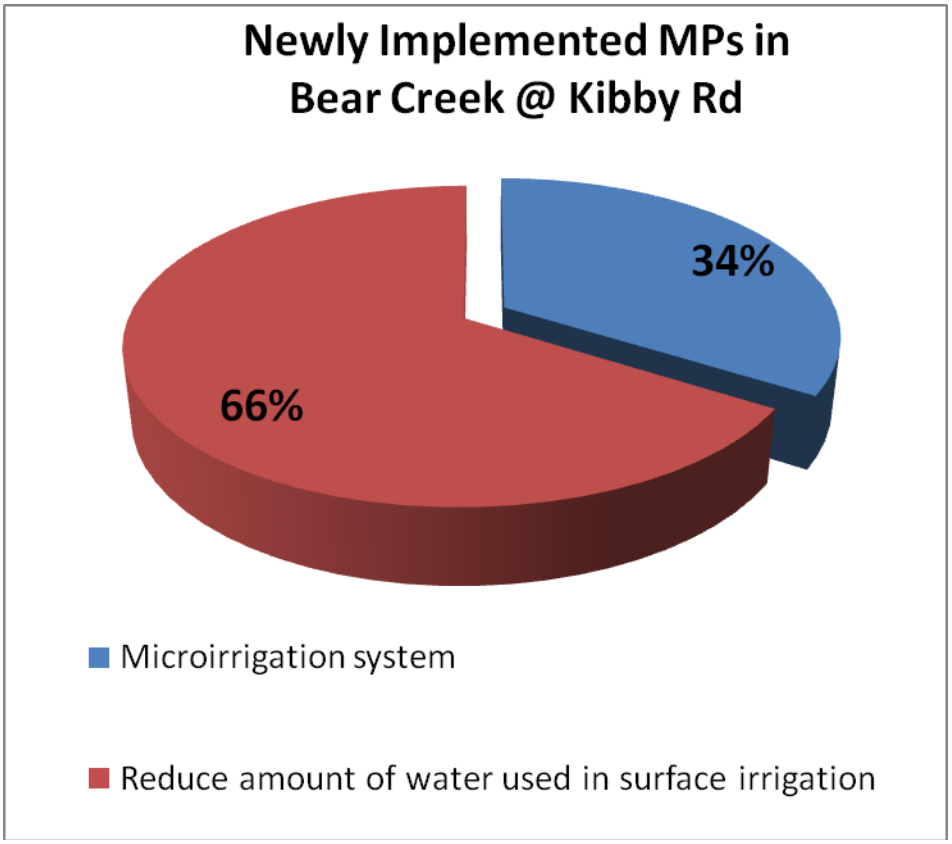
One grower farming 45 acres with irrigation drainage does plan to install a recommended recirculation / tailwater return system in 2011 (Table 3). At the time of completing the follow up survey, the grower was waiting on equipment and plans to install as soon as possible. Other growers cited various reasons for not implementing recommended practices, but the most common explanation was a lack of available resources to do so.

Table 3. Comparison of recommended MPs and implemented MPs in Bear Creek @ Kibby Rd subwatershed.

Management Practice (Separated by No Drainage vs Drainage)	Acreage: Recommended Practices	Acreage: Implemented Practices	Percent of Recommended Acreage with Implemented Practices
No irrigation drainage from property			
Recirculation - Tailwater return system	10	0	0%
Total (no drainage)	**10**	**0**	**0%**
Yes, irrigation drainage from property			
Drainage Basins (Sediment Ponds)	387	0	0%
Recirculation - Tailwater return system	608	0	0%
Microirrigation system	0	207[1]	NA
Reduce amount of water used in surface irrigation	0	404[1]	NA
Total (drainage)	**995**	**611**	**0%**
Total Acreage with 1 or more Recommended Practices			**1005**
Total Acreage with 1 or More implemented Practices			**611**
Percent Acreage with 1 or More Implemented Practices			**61%**

[1]Management practice not specifically recommended by Coalition representative for grower's operation.
NA – Not applicable; no recommendations for the management practice in the subwatershed.

Figure 1. Percentage of acreage represented by newly implemented (2010) management practices (MPs) for Bear Creek @ Kibby Rd. All members that implemented new practices have irrigation drainage.



Twenty-five targeted growers participated in initial individual contacts in the Cottonwood Creek @ Rd 20 subwatershed. A single grower has since sold their parcel and consequently 24 targeted growers require follow up contacts. Fourteen growers attended the follow up meeting on April 26, 2011. Of the ten that did not attend six were mailed follow up surveys on May 11, 2011 and four were emailed follow up surveys on May 20, 2011. As of June 27, 22 follow up surveys have been received for the Cottonwood Creek subwatershed (Table 2).

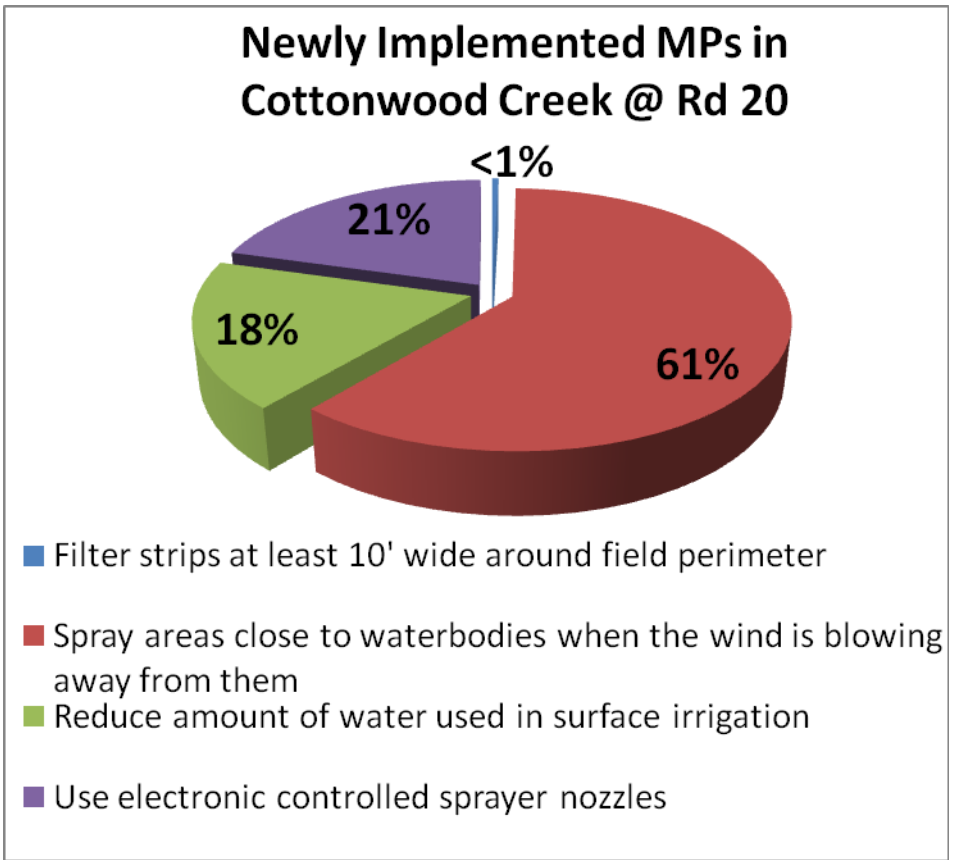
The Cottonwood Creek @ Rd 20 subwatershed has little irrigation drainage due to raised levees along a majority of the creek. Only parcels with irrigation drainage were recommended to implement additional practices (Table 4). Surveys received to date indicate that growers implemented all recommended practices as well as some practices that were not specifically recommended for their operations (Table 4). Newly implemented management practices in 2010 in the Cottonwood Creek subwatershed include the addition of filter strips at least 10 feet wide around field perimeters (<1 % of acreage), spraying areas close to waterbodies when the wind is blowing away from them (61% of acreage), using electronic controlled sprayer nozzles (21%), and using less water during surface irrigation (18%) (Table 4, Figure 2).

Table 4. Comparison of recommended MPs and implemented MPs in Cottonwood Creek @ Rd 20 subwatershed.

Management Practice (Separated by No Drainage vs Drainage)	Acreage: Recommended Practices	Acreage: Implemented Practices	Percent of Recommended Acreage with Implemented Practices
No irrigation drainage from property			
Filter strips at least 10' wide around field perimeter	8	8	100%
Spray areas close to waterbodies when the wind is blowing away from them	1107	1107	100%
Use electronic controlled sprayer nozzles	0	375[1]	NA
Reduce amount of water used in surface irrigation	0	333[1]	NA
Total (no drainage)	**1115**	**1823**	**100%**
Total Acreage with 1 or more Recommended Practices			**1115**
Total Acreage with 1 or More implemented Practices			**1823**
Percent Acreage with 1 or More Implemented Practices			**163%**

[1]Management practice not specifically recommended by Coalition representative for grower's operation.
NA – Not applicable; no recommendations for the management practice in the subwatershed.

Figure 2. Percentage of acreage represented by newly implemented (2010) management practices (MPs) for Cottonwood Creek @ Rd 20. All members that implemented new practices have no irrigation drainage.



One hundred percent of members with initial management practice surveys within the Duck Slough @ Gurr Rd subwatershed have returned follow up surveys (6 of 6 members, Table 2). Four growers attended the follow up meeting on April 28, 2011, one was mailed a follow up survey on May 11, 2011 and one was emailed a follow up survey on May 20, 2011.

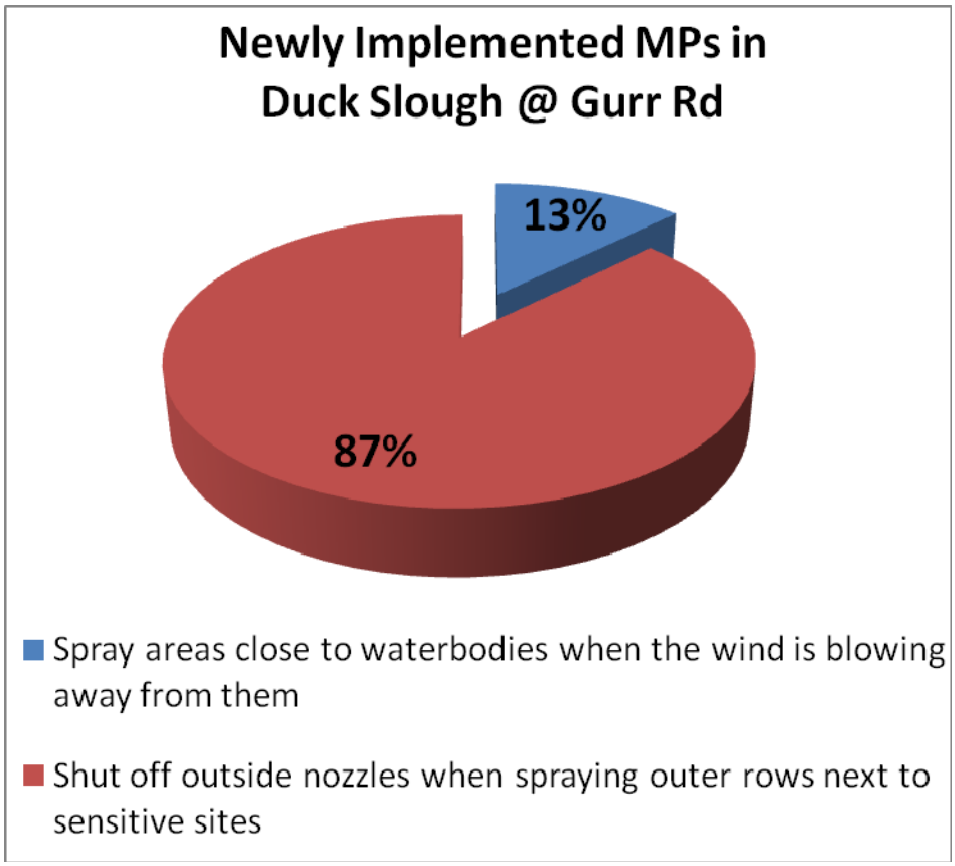
The majority of recommended practices affect fields with irrigation drainage (1811 acres, Table 5). Recommended practices included spray drift management (spray areas close to waterbodies when the wind is blowing away from them and shut off outside nozzles when spraying outer rows next to sensitive sites), drainage basins (sediment ponds), recirculation /tailwater return system and using polyacrylamide. In 2010 growers implemented management practices that focused on spray drift management including spraying areas close to waterbodies when the wind is blowing away from them and shutting off outside nozzles when spraying outer rows next to sensitive sites (Table 5, Figure 3). Growers implemented recommended practices as well as practices that were not specifically recommended for their operations; implemented practices account for 713 acres of land with and without irrigation drainage in the Duck Slough @ Gurr Rd subwatershed (Table 5). All growers who did not implement recommended management practices indicated they had no available resources to do so. The Coalition will continue to notify its members about funding available including AWEP, NRCS and Proposition 84 money.

Table 5. Comparison of recommended MPs and implemented MPs in Duck Slough @ Gurr Rd subwatershed.

Management Practice (Separated by No Drainage vs Drainage)	Acreage: Recommended Practices	Acreage: Implemented Practices	Percent of Recommended Acreage with Implemented Practices
No irrigation drainage from property			
Spray areas close to waterbodies when the wind is blowing away from them	91	91	100%
Total (no drainage)	**91**	**91**	**100%**
Yes, irrigation drainage from property			
Drainage Basins (Sediment Ponds)	811	0	0%
Recirculation - Tailwater return system	811	0	0%
Use Polyacrylamide (PAM)	189	0	0%
Shut off outside nozzles when spraying outer rows next to sensitive sites	0	622[1]	NA
Total (drainage)	**1811**	**713**	**20%**
Total Acreage with 1 or more Recommended Practices			**1902**
Total Acreage with 1 or More implemented Practices			**713**
Percent Acreage with 1 or More Implemented Practices			**37%**

[1]Management practice not specifically recommended by Coalition representative for grower's operation.
NA – Not applicable; no recommendations for the management practice in the subwatershed.

Figure 3. Percentage of acreage represented by newly implemented (2010) management practices (MPs) for Duck Slough @ Gurr Rd (combination of parcels with and without irrigation runoff).



Highline Canal @ Hwy 99

Of the 10 targeted growers who participated in initial individual contacts in the Highline Canal @ Hwy 99 subwatershed, one grower dropped their Coalition membership and one grower no longer enrolls parcels within the Highline Canal subwatershed. Consequently, eight growers required follow up contacts and all have completed their follow up surveys (Table 2). Three growers attended the follow up meeting on April 28, 2011, one was mailed a follow up survey on May 11, 2011, and four were emailed follow up surveys on May 20, 2011.

Recommended practices pertained to parcels with and without irrigation drainage and focused on spray management practices (Table 6). Highline Canal is a raised canal and direct drainage into the canal occurs on only a few parcels. Newly implemented management practices in 2010 in the Highline Canal @ Hwy 99 subwatershed include spraying areas close to waterbodies when the wind is blowing away from them, using air blast applications when wind is between three and 10 mph and upwind of sensitive sites, using nozzles that provide largest effective droplet size to minimize drift, and using less water during surface irrigation. Of the parcels with irrigation drainage and new management practices, 60% had reduced water use during surface irrigation (Figure 4). For parcels with irrigation drainage, half of the acreage had reduced water use during irrigation and the other half utilized nozzles that provided the largest effective droplet size (Figure 5).

Table 6. Comparison of recommended MPs and implemented MPs in Highline Canal @ Hwy 99 subwatershed.

Management Practice	Acreage: Recommended Practices	Acreage: Implemented Practices	Percent of Recommended Acreage with Implemented Practices
No irrigation drainage from property			
Spray areas close to waterbodies when the wind is blowing away from them	25	25	100%
Use air blast applications when wind is 3-10mph and upwind of sensitive sites	25	25	100%
Reduce amount of water used in surface irrigation	0	76[1]	NA
Total (no drainage)	**50**	**126**	**100%**
Yes, irrigation drainage from property			
Use nozzles that provide largest effective droplet size to minimize drift	121	121	100%
Reduce amount of water used in surface irrigation	0	121[1]	NA
Total (drainage)	**121**	**242**	**100%**
Total Acreage with 1 or more Recommended Practices			**171**
Total Acreage with 1 or More implemented Practices			**368**
Percent Acreage with 1 or More Implemented Practices			**215%**

[1]Management practice not specifically recommended by Coalition representative for grower's operation.
NA – Not applicable; no recommendations for the management practice in the subwatershed.

Figure 4. Percentage of acreage represented by newly implemented (2010) management practices (MPs) for Highline Canal @ Hwy 99 for parcels with no irrigation drainage.

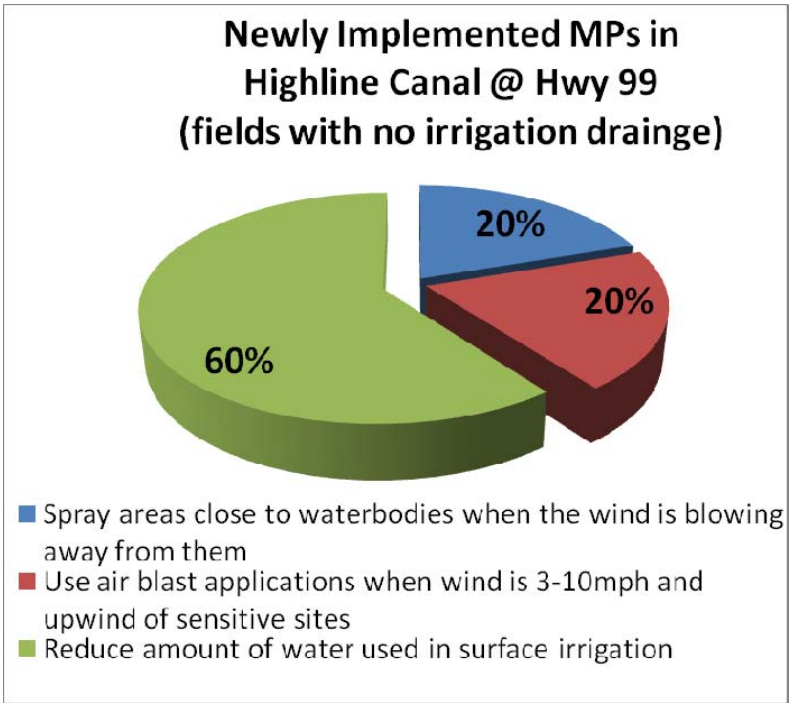
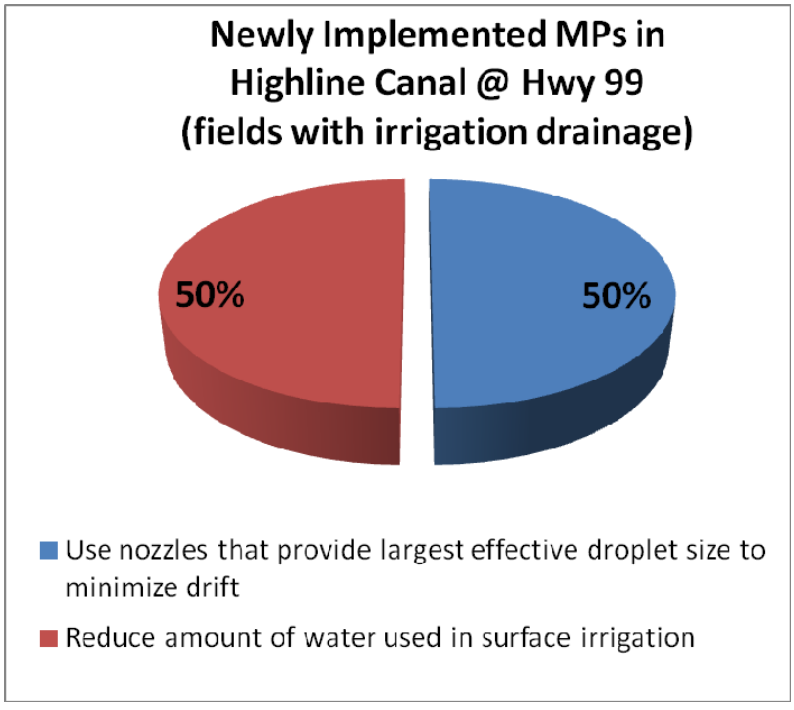


Figure 5. Percentage of acreage represented by newly implemented (2010) management practices (MPs) for Highline Canal @ Hwy 99 for parcels with irrigation drainage.



This interim summary documents the management practices implemented in 2010 as documented in follow up surveys received as of June 27, 2011. The Coalition will continue obtaining information regarding practices implemented in 2010 as well as 2011 and include a final summary in the 2012 MPUR. In addition, the Coalition will continue to provide members with additional information regarding funding opportunities for management practice implementation and encourage the growers to take advantage of the opportunities. The Coalition will send another mailing in the fall to all growers in second priority subwatersheds detailing the available AWEP funding opportunities and application process and encouraging growers to apply prior to the fourth round application deadline. In addition, growers that indicated on their follow up surveys that they are interested in receiving additional information about funding will be contacted directly by a Coalition representative to assist in their individual operation's needs.