



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



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Acting Secretary for
Environmental Protection

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Edmund G. Brown Jr.
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7 February 2011

Mr. Joseph McGahan
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**WESTSIDE SAN JOAQUIN RIVER WATERSHED COALITION – FOCUSED WATERSHED
MANAGEMENT PLAN II – WESTLEY WASTEWAY, DEL PUERTO CREEK, AND ORESTIMBA
CREEK**

Thank you for submittal of the Westside San Joaquin River Watershed Coalition (Coalition) revised Focused Watershed Management Plan II (Focused Plan II or Plan), which was dated 15 December 2010. The Plan describes intensified efforts in the high-priority watersheds of Westley Wasteway, Del Puerto Creek, and Orestimba Creek. Staff of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) has determined that the Coalition's Plan and associated actions meet management plan requirements in Monitoring and Report Program Order Number R5-2008-0831 and the Coalition's approved Management Plan. Based on the following information, I am granting approval of the Coalition's Focused Plan II.

The Coalition's Focused Plan II identifies actions to reduce pesticide and sediment discharges, and aquatic and sediment toxicity, in the three high priority watersheds. The Coalition has already determined that agriculture is a significant contributor to the water quality concerns related to the observed water quality impairments. The Coalition is currently evaluating their data to identify specific agricultural practices that may be contributing to these problems.

The Coalition's Plan describes the management practices that are known to be effective and will be applicable in the three high-priority watersheds. Interim performance goals and completion dates are provided. Specific performance goals and any additional management practices will be determined following an evaluation of the management practice survey data collected from Coalition members. The Coalition will submit the Management Practice Performance Goals and Schedule by 15 June 2011.

If you have any questions regarding this approval, please contact Susan Fregien at (916) 464-4813, or by email at sfregien@waterboards.ca.gov.

for 
Pamela C. Creedon
Executive Officer

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

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December 16, 2010

Pamela Creedon, Executive Officer
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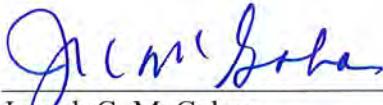
Subject: Westside San Joaquin River Watershed Coalition – Focused Watershed
Management Plan II – Westley Wasteway, Del Puerto Creek and Orestimba Creek

Dear Pamela,

Attached is the December 15, 2010 revision to our Focused Watershed Management Plan II for Westley Wasteway, Del Puerto Creek and Orestimba Creek for Ingram and Hospital Creeks.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations.

If you should have any questions on the information submitted in this report, please give me a call directly at 559-582-9237.



Joseph C. McGahan
Watershed Coordinator
Westside San Joaquin River Watershed Coalition

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

**Westside San Joaquin River Watershed Coalition
Focused Watershed Management Plan II
Westley Wasteway, Del Puerto Creek, Orestimba Creek**

February 18, 2010

Revised December 15, 2010

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Section 1: Background and Need

In accordance with the Westside San Joaquin River Watershed Coalition (Westside Coalition or Coalition) Management Plan-General Approach dated October 23, 2008, a focused water quality improvement plan has been developed within specific subwatersheds. This focused effort will address Tier 1 Management Plan Priorities (aquatic toxicity, pesticides, sediment toxicity and sediment discharge) at three priority watersheds (Westley Wasteway, Del Puerto Creek, and Orestimba Creek). The focused effort will address the specific details for eight requirements listed below for Management Plans identified in the (MRP) Order R5-2008-0831. These requirements are addressed generally, in the Management Plan – General Approach, and are being addressed in a more specific and complete way for the Focused Watershed Management Plan II (Focused Plan II) described here.

1. Identify irrigated agriculture source -- general practice or specific location that may be the cause of the water quality problem, or a study design to determine the source.
2. Identify management practices to be implemented to address the exceedances.
3. Develop a management practice implementation schedule. Implementation may occur through another Regional Water Board (Regional Board or Board) regulatory program designed to address the specific exceedances.
4. Develop management practice performance goals with a schedule.
5. Develop a waste-specific monitoring schedule.
6. Develop a process and schedule for evaluating management practice effectiveness.
7. Identify the participants and Coalition Group(s) that will implement the Management Plan.
8. Identify a routine schedule of reporting to the Regional Water Board.

The focused effort includes (1) a detailed watershed map of the subwatersheds, (2) determinations of pesticide use, (3) determination of management practice (MP) implementation, (4) intensified outreach to growers, (5) approach to implement additional MPs to address exceedances, and (6) monitoring to determine MP effectiveness.

Westley Wasteway, Del Puerto Creek and Orestimba Creek: The second focused watershed management plan will be developed for the Westley Wasteway, Del Puerto

Creek, and Orestimba Creek subwatersheds to address water column and sediment toxicity, suspended solids, as well as pesticide exceedances. In accordance with Section 6 of the Westside Coalition's Management Plan – General Approach, the focused plan for these subwatersheds is to be implemented in 2010. **Table 1** shows the count of various exceedances for each of the subwatersheds. A map of the subwatershed boundaries is included as **Figure 1**.

Table 1: Count of Exceedances

Constituent	Westley Wasteway	Del Puerto Creek	Orestimba Creek
Water Flea Toxicity	0	1	10
Algae Toxicity	3	1	3
Sediment Toxicity	5	5	3
DO	1	1	13
pH	3	5	12
E. Coli	5	11	36
Boron	2	5	0
Selenium	0	0	5
TDS + EC	29	52	77
Chlordane (gamma)	0	0	1
Chlorpyrifos	2	1	12
DDD	0	1	1
DDE	16	14	36
DDT	3	2	7
Diazinon	0	1	0
Dimethoate	1	0	1
Diuron	1	2	3
Malathion	0	0	1
Methamidophos	0	1	0
Permethrin	0	2	2

The data presented in **Table 1** was compiled from Westside Coalition monitoring results from January 2007 through September 2009. For Del Puerto and Orestimba creeks, the data represents the sum of the exceedance counts for the two monitoring sites on each creek.

Section 2: Source Identification

With respect to the water quality concerns regarding pesticides, aquatic and sediment toxicity, it is clear that agriculture is a significant contributor. The specific agricultural

parcels that may be contributing to these problems will be identified by the Coalition to focus mitigation efforts. The specific identity of these parcels will be identified to the Regional Board only if the watershed approach for implementing management practices does not prove to be effective. Water quality exceedances for other measures, such as DO, pH, and nutrients may improve as reductions in pesticide and sediment loadings also are reduced. Monitoring results subsequent to new and additional management practice implementation will help determine if other sources beyond agriculture need to be considered. This information will be reported and shared with the Regional Board on a semi-annual basis.

Exceedances for E-coli (a Tier-2 constituent) will be further evaluated by conducting watershed specific field surveys to identify whether or not agriculture practices in these subwatersheds are contributing to what may be a natural 'background' level of bacteriological contamination (not caused by agriculture). These surveys would also include locating potential human sources of contamination such as septic systems or direct waste discharges. Existing data will also be reviewed for potential spatial and temporal trends over the available data set. These results will be reported to the Regional Board so that additional actions or modifications to the management plan approach can be determined.

Section 3: Identification of Management Practices to be Implemented

- **Pesticide Use:** Pesticide use, including metal-based pesticides or fungicides (such as copper salts), within the watershed will be obtained from the Stanislaus County Agriculture Commissioner and/or the Department of Pesticide Regulation. The primary and highest-priority pesticides for evaluation will be those which have exceeded water quality triggers in the watersheds (chlorpyrifos, diazinon, dimethoate, diuron, Malathion, methamidophos, and permethrin). Some of these pesticides have been identified through previous monitoring data evaluations as the primary sediment and water flea toxicants in the watershed. Generally this data is available approximately three months in arrears. Growers will also be asked about their pesticide use and application methods through management

plan surveys. This data will be used to develop a background inventory of applied materials and help determine which changes in pesticide use practices would be most appropriate and focus outreach efforts where most beneficial. Baseline pesticide use for these priority subwatersheds will be included in the Management Plan semi-annual reports to the Regional Board.

- **Baseline Management Practice Inventory:** A grower survey will be distributed to all growers in the priority subwatersheds. If members are not in attendance at meetings, the surveys will be mailed to their residences, or delivered to them on site. The survey results will be used to develop a management practice inventory. This inventory will document current MPs implemented within the focused subwatersheds. Data will be collected from water districts, government agencies as well as individual growers. The goal will be to characterize as accurately as possible the current level of MP implementation within the subwatershed areas but not necessarily to document the specific locations of every MP implemented. A description of the completeness or overall response of the survey to date, with summary information, will be included in the Management Plan in semi-annual reports. Completion of the MP survey shall be considered a condition of membership with the Coalition, and every effort will be made to assist the growers in completing the survey. The Coalition sets the goal of 100% completeness for the survey returns, and failure to meet this completeness goal will be discussed with the Regional Board staff. The information to be gathered is shown in **Figure 2**. This information will be used to determine what practices are currently in place, so that identification of additional MPs necessary to improve water quality can be clarified and later evaluated.

Section 4: Management Practice Implementation

Once a baseline of management practices is determined, and the recommended changes to management practices are identified, the Coalition will begin/continue the process of communicating, implementing and documenting the use of new or additional management practices. The semi-annual reports will include an ongoing and updated,

detailed description or table documenting individual parcels that are known, or likely, to be contributing to water quality issues in the focused subwatersheds, known or anticipated new management practices, historical practices, and changes to the previous update, including a summary of affected acres, and may include other pertinent information such as crop type, irrigation type or other details. It is anticipated that by December 30, 2010, the Coalition will have obtained and summarized the baseline information. Therefore by **January 31, 2011**, the Coalition will begin/continue the outreach to growers and other activities that are necessary to implement additional management practices. The result of these activities will be updated, summarized and reported semi-annually to the Regional Board.

- Outreach to Growers: The Westside Coalition will work through the member districts to outreach to the growers. Member districts in these three watersheds include West Stanislaus Irrigation District, Del Puerto Water District and El Solyo Water District. Outreach will occur primarily as organized meetings through the districts, but also as individual field meetings and/or by utilizing mail-out information to resident growers in the subwatershed areas. The Coalition will maintain records of attendance through sign in sheets and meeting notes. This information will be included in the appropriate section of the SAMR. The Coalition will prioritize contact with individual growers that are likely or potential contributors to exceedances (such as growers that routinely discharge tail water) as the highest priority.

Outreach will take the form of group meetings (based on location or specific commodity groups, such as alfalfa growers) and “tailgate” meetings, which will be one-on-one meetings between the Coalition and individual growers. For both meeting types, the discussion will focus on the circumstances specific to each audience. For example, discussions with alfalfa growers will focus on chlorpyrifos exceedances, irrigation timing, and tailwater control. A tailgate discussion will focus on the water quality issues specific to that individual growers subwatershed and a review of management practices that may result in

improvements. Appropriate outreach topics and the correct audience list for the information will be finalized subsequent to the initial baseline survey information collected. This is expected to be completed by December 31, 2011, and will be communicated to the Regional Board staff and included in semi-annual monitoring reports.

- **Implementation Strategy:** Based on the findings from the MP inventory which are expected to be completed and reviewed by December 31, 2010, the Westside Coalition will determine which management practices will be appropriate for specific locations within the priority watersheds, and will develop an approach to ensure that the MPs are implemented and develop the plan by January 31, 2011. Part of this approach will include the pursuit of funding sources to assist growers and districts with the capital resources that may be necessary for specific constructed management practices. These funding sources may be specific to sub-watersheds or generally applicable to the entire coalition. This approach will be described and communicated to the appropriate Coalition members and reported to the Regional Board in the semi-annual monitoring report.
- **Management Practices:** A management practice “toolbox” has been developed for growers within the subwatersheds. The tools included are focusing on reducing the amount of silt discharged from irrigated fields through proven and practical means. These include the application of PAM to reduce the suspension of sediment in tailwater, and the construction and maintenance of sedimentation ponds to settle out silt before tailwater is discharged. Information regarding pesticide application methods, equipment calibration and communications with aerial applicators will also be described to the appropriate growers and landowners. It is anticipated that by removing silt from tailwater discharge, and by controlling the potential for pesticide overspray, sediment and water quality within the subwatersheds will improve. The Coalition is in the processes of mapping the location of tailwater ponds and irrigation methods within the focused

subwatershed and will update this information in the appropriate section of the SAMR.

Section 5: Management Practice Performance Goals and Schedule

The performance goals for this management plan are both water quality based and MP implementation based. The MP implementation performance goal will hinge on the information that is derived regarding baseline MPs currently being implemented. Therefore the specific performance goals – other than achievement of water quality goals – will be determined and scheduled by January 31, 2011. This determination and schedule will be provided to the Regional Board and included in the following semi-annual monitoring reports. Additional MPs to be implemented will be identified, and this information will be continuously updated, and periodically reported to the Regional Board in the ongoing semi-annual reports. Generally speaking these goals will be as follows.

- Implement additional use of PAM to address sedimentation discharge.
- Reduce use of pesticides, or incorporate use of pesticides that are less likely to be transported to the waters of the State, or which breakdown quickly and are less likely to impact water quality.
- Calibrate spray rigs utilized on farmed acres to address possible overspray.
- Address potential aerial overspray by identifying the sensitive regions for all aerial applicators.
- Increase size of vegetated buffer zones along the perimeters of drain that discharge into Westley Wasteway and Del Puerto and Orestimba creeks.
- Construct sediment basins to intercept direct tailwater discharges.
- Install high-efficiency irrigation systems such as sprinkler or drip irrigation, tailwater recirculation, gated pipes, shorter runs, etc, where warranted by the crops that are grown.

It must be noted that these are long term goals, and the most appropriate measures will be finalized subsequent to the initial management practice survey findings. The Focused Plan will be a living document that will be re-evaluated in conjunction with the

Regional Board staff, and re-prioritized as effectiveness of the activities are re-evaluated.

The water quality goals for Tier 1 of the Focused Plan in subwatersheds are as follows.

- Eliminate aquatic toxicity.
- Eliminate sediment toxicity.
- Eliminate detection of pesticides.

Progress toward meeting performance goals will be evaluated by the Coalition and Regional Board staff at meetings held quarterly and reported in the SAMR. Any necessary changes to the strategy, activities or goals of the Focused Watershed Management Plan will be identified at these meetings. The notes of the meetings will be recorded and archived.

Performance goals for the Focused Plan will be based on implementation of management practices. More details will be developed for MP implementation following completion of the survey and survey assessment which will describe the baseline MP information. Focused Plan Interim Performance Goals are presented in **Table 2**.

Table 2: Focused Plan Interim Performance Goals

Focused Plan Step	Outcome	Completion Date
1. Development of survey document	Survey form that inquires about MPs relevant to Tier 1 parameters	31 July 2010
2. Completion of grower survey	Submittal by 100% of growers	15 March 2011
3. Finalize survey findings	Report on MP Baseline and summary of existing management activities.	30 June 2011
4. Determine effective MPs and develop next steps	Detailed plan for next steps in Focused Plan	31 January 2011
5. Collect and report monitoring data results.	Semi-annual Monitoring Reports	Twice Annually – June 15 th and November 30 th .
6. Collect and report pesticide use data.	Included in the Semi-annual Monitoring Reports.	Twice Annually – June 15 th and November 30 th .

Section 6: Constituent Specific Monitoring

The Westside Coalition has implemented a Monitoring and Reporting Program for the purpose of complying with the Irrigated Lands Waiver program and to support the activities of the Management Plan, including the focused plan. This monitoring and reporting plan includes flexible provisions for Special Project Monitoring that will allow the Coalition to adapt to changing field conditions, by submitting revisions to the Management Plan (which must be approved by the Executive Officer) that can document changes in the frequency, locations, or constituents related to Special Project Monitoring. Additionally, more frequent, qualitative monitoring, such as field turbidity measurements at key locations, may be implemented. These results will provide input on the impact of specific management activities. The monitoring schedule for the Focused Plan will be addressed through the Westside Coalition MRP Order routine monitoring.

Section 7: Process for Evaluating Management Practice Effectiveness

The effectiveness of management practices implementation will be conducted through the measures identified in on **Table 2**, along with the interim performance goals. Subsequent to completion of Focused Plan Step # 4 (**Table 2**) additional performance goals related to MP implementation will be identified. The ultimate goal of this Focused Plan is to meet the water quality goals identified for the Irrigated Lands Regulatory Program, which will be reflected in the water quality results reported in the Semi-annual Monitoring Report.

Section 8: Identification of Implementing Participants

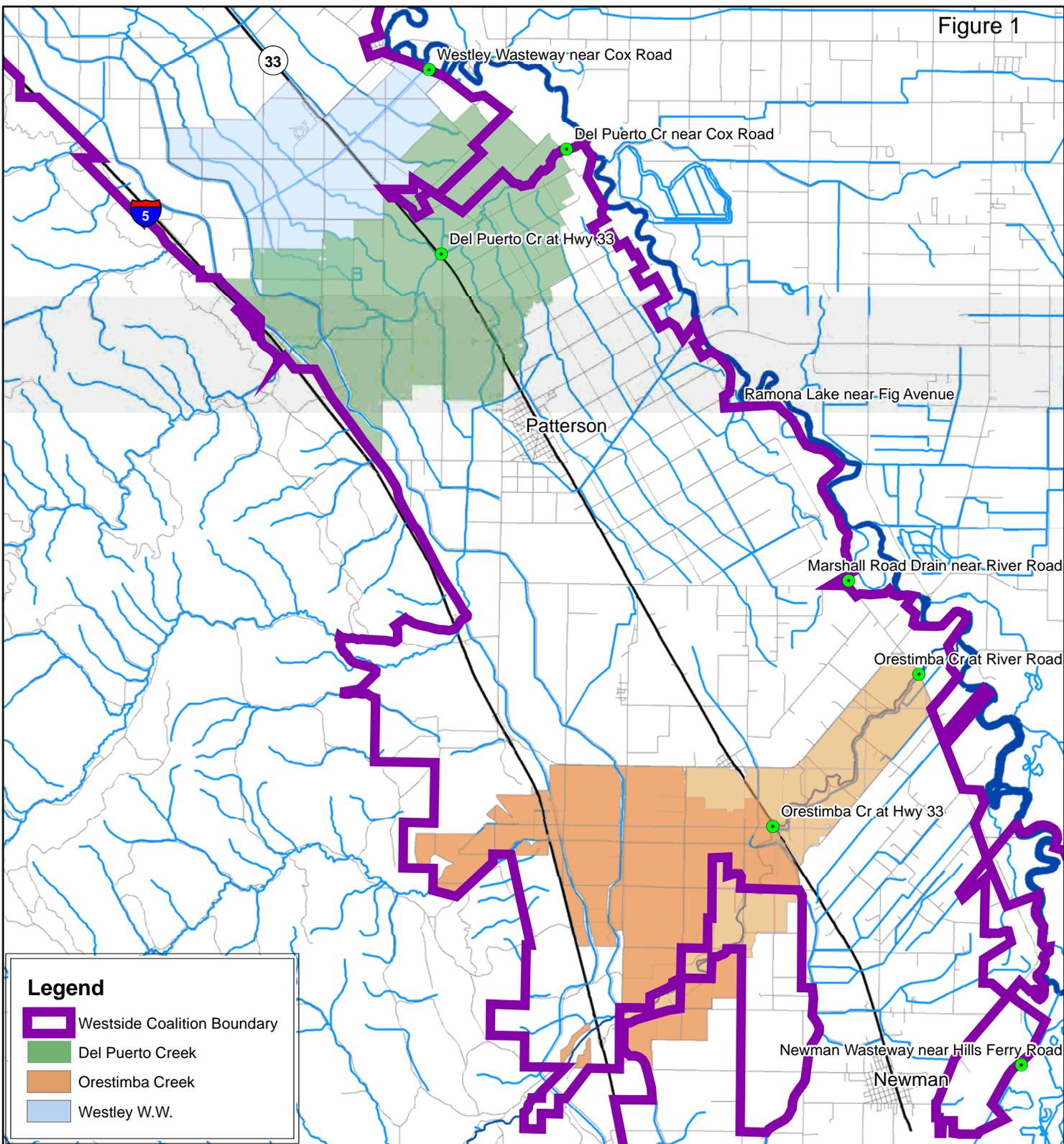
The Westside Coalition will work through the member districts for grower outreach. Member districts in these subwatersheds include West Stanislaus Irrigation District, Patterson Irrigation District, Del Puerto Water District, and Central California Irrigation District. Individual growers will be expected to cooperate with the MP recommendations that will be provided to them. Cooperation by growers in the efforts to achieve water quality goals is a condition of Coalition membership.

Section 9: Schedule for Reporting

All reports to the Management Plan and Focused Watershed Plan will be included within the Westside Coalition's semi-annual monitoring reports. Quarterly meetings will be held with Regional Board staff to discuss ongoing activities and to make decisions regarding necessary changes to the Management Plan approach. The Semi-annual Monitoring Reports will include a discussion of the Focused Watershed Plan activities, including:

- A summary of the Management Practice Survey Results
- Updated subwatershed maps
- Activities related to the CVSALTS, Dissolved Oxygen Study, the San Joaquin River Chlorpyrifos and Diazinon TMDL program, and other related Basin Plan programs.

Figure 1



Legend

- Westside Coalition Boundary
- Del Puerto Creek
- Orestimba Creek
- Westley W.W.



Westside San Joaquin River Watershed Coalition Sub-watersheds and Monitoring Sites within the Patterson Subarea

Subwatershed area provided by NRCS
Basemap provided by DWR

Figure 2
Westside San Joaquin River Watershed Coalition

Management Practice Survey

Please use 1 page per Parcel

Parcel Number (APN): _____ **Acreage:** _____

Owner/Operator Information

Company Name: _____ Contact Name: _____
 Phone Number: _____ Fax: _____
 Mailing Address: _____ Email: _____
 Watershed/
 Receiving Waterbody: _____ District: _____

Management Practices Information

Irrigation Practices:

Crop: _____ Acreage: _____ Irrig Method: _____
 Crop: _____ Acreage: _____ Irrig Method: _____
 Crop: _____ Acreage: _____ Irrig Method: _____

Please circle any of these materials that you expect to use in the next 12 months:

Dimethoate (Cygon 400, Dimet) Diuron (Direx, Karmex) Diazinon Malathion
 Cholorpyrifos (Lorsban, Lock-on, NuPhos, Govern, Scout, Empire, Dursban) Deltamethrin (Decis)
 Bifenthrin (Brigade, Capture, Leverage) Cyfluthrin (Baythroid) Cypermethrin (Ammo, Cymbush)
 Lambda-cyhalothrin (Karate, Warrior or Warrior II w/ zeon) Permethrin (Ambush, Pounce)
 Esfenvalerate (Asana XL) Fenvalerate (Pydrin)
 Resmethrin (Crossfire)
 Other: _____

Do you have a
 Sedimentation Pond? Yes No If Yes, How many acres does the pond drain: _____
 Does the pond have a return system: Yes No
 How frequently is the pond cleand out: _____

Does the property include a tile (subsurface) drainage system? Yes No
 Does the property include a septic tank/system? Yes No

Do you use PAM: Yes No If Yes, How many acres: _____

Do you apply a dormant spray: Yes No If Yes, How many acres: _____
 If Yes, do you apply a pesticide every year: _____
 If Yes, do you apply a horticultural oil: _____

Do you apply a berm spray: Yes No If Yes, What material do you use: _____

Do you apply Manure? Yes No If Yes, How many acres: _____
 If Yes, What kind: _____

What other practices do you implement to manage your tail water:

Does tailwater leave your porperty? Yes No
 Does stormwater leave your property? Yes No

Completed by: _____

Questions: Contact Joe McGahan or Chris Linneman at 559-582-9237
 version 2009.3