



## Watershed News

May 2016

### State Water Board proposes to revise Waste Discharger Requirements

*By Mike Wackman  
Executive Director*

The East San Joaquin Waste Discharge Requirements under the Irrigated Land Regulatory Program (Order) was appealed by special interest groups to State Water Resources Control Board (State Board) stating that Order was not stringent enough and did not protect either surface water nor groundwater sufficiently. Special interest groups claim that growers need to report all their information on applied fertilizers and pesticides directly to the Central Valley Regional Water Quality Control Board (Regional Board) on a field level.

The State Board agreed with the special interest group's appeal and issued a proposed Order for the East San Joaquin Water Quality Coalition area. Why should we be concerned in the San Joaquin County & Delta Water Quality Coalition? Because the proposed Order is precedent setting for the whole Central Valley and the State. Whatever requirements

the State Board determines for the East San Joaquin Water Quality Coalition, the rest of the Coalitions and growers in the Central Valley and the state will be required to meet.

The State Board agreed with the special interest petitioners that farmers need to report all fertilizer usage on a field level to the Regional Board and enter the data into GeoTracker where all the information is available to the public. Not only is this a massive undertaking, all of this information will then become available to the public exposing individual growers to public scrutiny as well as exposing farmers and landowners to private nuisance lawsuits by special interest groups or individual citizens.

This proposed Order will eliminate the high and low vulnerable areas that the Coalitions developed throughout the Central Valley. The Coalitions and the Regional Board did extensive analysis in their Groundwater Assessment Reports (GAR) to determine the areas of high vulnerability to nutrient and pesti-

cide leaching into the groundwater. This evaluation allowed the Coalitions to focus on those areas that have a higher risk of impacting groundwater quality, and work with those grower/landowners in the high vulnerable areas to improve management practices. The GAR also determined areas in the Delta where groundwater is artesian (moving upward toward the ground surface) and there is no logical connection between nitrogen application and groundwater.

The high and low vulnerable areas have different reporting requirements. Currently members in high vulnerable areas have to certify Nitrogen Management Plans (NMP), report all nitrogen applications on a NMP Summary Report, and submit Farm Evaluation Plans to the Water Quality Coalitions yearly. That information is held by the Coalition, aggregated and summarized and reported to the Regional Board. Growers in low vulnerable areas have to complete NMP, but do not

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#### Reporting Dates & Requirements

*Farm Evaluation Plans*

**June 15, 2016**

*Nitrogen Management Plan Summary Reports*

**June 15, 2016**

*Certification of Nitrogen Management Plans*

**June 15, 2016**

### Nitrogen Application Reporting

*By Mike Wackman  
Executive Director*

All growers in high vulnerable areas for nitrogen leaching to groundwater must report their nitrogen usage for the 2015 growing season. This information is reported to the Coalition on a Nitrogen Management Plan (NMP) Summary Report. These reports were sent out to growers in March of 2016 along with forms to com-

plete the Nitrogen Management Plan (NMP) for 2016. The NMP Summary Report requires grower to report the amount of nitrogen applied to a crop on a per acre basis and the amount of crop removed from the field (yield).

The summary reports for 2015 looks back on last years growing season and analyzes the 2015 Nitrogen Management Plan growers had in place for

the 2015 season. The purpose of the NMPs and the reporting is to insure growers are managing nitrogen applications based on crop need and are informed of the effects of over fertilization on groundwater quality.

Throughout the Coalition, growers of all sizes, from 1/2 acre to thousand of acres must

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# Recurring Water Quality Issues and Next Steps

By Melissa Turner and Richard Newens, MLJ-LLC

## Monitoring Results

The San Joaquin County & Delta Water Quality Coalition (SJCDWQC) began monitoring under its new Order in October 2014, which marked the beginning of the 2015 Water Year. A Water Year (WY) is defined as the 12-month period from October 1, for any given year, through September 30, of the following year. During the 2015 WY, the SJCDWQC monitored at 26 sites; 10 of the 26 sites were new sites with no previous monitoring.

Improvements in water quality have occurred throughout the Coalition region. On December 18, 2015, the SJCDWQC received approval from the Regional Board to complete 20 management plans. Management plans are required for locations where there have been water quality issues more than once

completing 20 management plans, monitoring in the last year has also triggered new management plans for water column toxicity, dissolved oxygen, salts, and chlorpyrifos (e.g. Lorsban).

## Chlorpyrifos and Algae Toxicity Problems

Water quality impairments that occurred in the 2015 WY resulted in 21 new management plans; 18 of the 21 new management plans are for toxicities at new sites. Field parameters, such dissolved oxygen and salts (specific conductivity), accounted for most of the exceedances in the 2015 WY. The most significant impairments, however, were exceedances of chlorpyrifos and toxicity to algae (reduction in growth). There were 8 samples (compared to 0 in 2014) that exceeded the trigger limit for

Watershed	CHLORPYRIFOS EXCEEDANCES	
	2015 WY	2016 WY
Terminus Tract	January	March
Union Island Drain	January	
French Camp Slough	January	March
Temple Creek	January, June	
Duck Creek	April, August	
Mormon Slough	July	

2015, chlorpyrifos exceedances occurred in January (not storm related), April, June, July and August.

For 2016, there have already been 2 exceedances of the chlorpyrifos water quality limit. After a significant storm event in March 2016, two waterbodies had samples with chlorpyrifos exceedances; these same sites had chlorpyrifos issues in January 2015.

Whereas the recent chlorpyrifos exceedances occurred primarily at

Watershed	Site History	ALGAE TOXICITIES	
		2015 WY	2016 WY
Union Island Drain	New	Jan - Feb, April, June - Oct	Dec, Feb, March
Bacon Island	New	February	
East Orwood Tract	New	February, May	
Roberts Island	Previous Outreach	February, May	December, January
Upper Roberts Island	New		January
South McDonald Island	New	February, May	
Terminus Tract	Previous Outreach	February	March
Mosher Creek	New		March
Mokelumne River	Previous Outreach	March, June, July	
Walthall Slough	Previous Outreach	May	December, January

in a three year period. In order to complete a management plan, the SJCDWQC must demonstrate that the water quality issues have been resolved through improved water quality results and evidence of increased management practices. Although there has been success in

chlorpyrifos (e.g. Lorsban); and 18 samples (compared to 9 in 2014) that were toxic to algae. Chlorpyrifos exceedances predominantly occurred at sites where monitoring has been ongoing since 2006 despite previous improvements in 2010 and 2011. In

sites where the Coalition has monitored and conducted outreach previously, toxicity to algae occurred at a mixture of sites throughout the Coalition region including new sites in the Delta and existing sites along the Eastern

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# Sediment and Erosion Control Plans

Many members within the Coalition received Sediment and Erosion Control Plans (SECP). There were three basic reasons you may have received a sediment and erosion control plan to be completed: 1) you filled out the Farm Evaluation Plan and marked "yes" to question 3 in Part A which asked if your farm has the potential to discharge sediment to a surface water way, 2) your farm was determined under the Revised Universal Soil Loss Equation (RUSLE) to have the potential to discharge sediment into a surface waterway, 3) the parcel did not have a Farm Evaluation Plan submitted for it.

Many grower answered yes to question 3 Part A of the Farm



Photo: UCANR Publication 8196

Evaluation Plan. However, it was common that growers misunderstood the intent of the question. Growers

interpreted the question many different ways. Many growers did not understand that the question was trying to determine those parcels that may discharged sediment into waterways of the State. Due to the misunderstanding, the Coalition has provided a process to change the answer on the Farm

Evaluation Plan from yes to no. On the Coalition's website ([www.sjcdeltawaterashed.org](http://www.sjcdeltawaterashed.org)) there is a form a grower can complete that asks several questions which helps the Coalition determine if it is appropriate to change the question from yes to no. Once this form is filled out, the Coalition will evaluate the information and determine if the grower truly needs a SECP completed.

If your farm was determined to have potential to discharge sediment to surface waters under the Revised Universal Soil Loss Equation, a SECP must be completed. However, the RUSLE was used on a broad scale and may have inadvertently captured properties which truly do not have the potential to discharge sediment to a waterway. If a grower believes this is the case, they can call the Coalition or complete a form on the website asking for help in certifying the sediment and erosion control plan. After completing the form on the website or contacting the coalition by phone for help to remove the parcel from having to complete a plan, a representative of the Coalition will evaluate the property via satellite imagery to determine if the grower can remove the parcel from the requirement to have a sediment and erosion control plan. If it cannot be determined by the satellite imagery a field visit maybe necessary.

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## New monitoring strategy

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portion. In the 2015 WY, 11 of the 18 samples toxic to algae were collected from 4 new sites. Similar to chlorpyrifos, toxicity to algae is also a recurring problem in the 2016 WY. Up through March 2016, there were 11 samples that were toxic to algae; six of the 11 samples were collected from new sites. Causes of algae toxicity include applications of herbicides like diuron and simazine and/or applications of copper. The Coalition's Order requires actions by both the Coalition and its members to mitigate water quality issues. Since monitoring began under the new Order in the 2015 WY, the most significant recurring water quality issues include chlorpyrifos and toxicity to algae. The Order requires that water quality issues must be addressed as soon as possible with the process not exceeding 10 years.

In 2016, the SJCDWQC will focus its outreach efforts on recent chlorpyrifos exceedances. Chlorpyrifos also has a TMDL (Total Maximum Daily Load) and is a water quality concern throughout

the Delta and San Joaquin Valley. Recent exceedances are occurring in areas where the Coalition has already conducted outreach and documented changes in management practices implemented by members. Utilizing Pesticide Use Reports, the Coalition will associate recent chlorpyrifos exceedances to applications of products containing chlorpyrifos. Members with applications associated with the exceedances will be asked to attend grower outreach meetings and document additional management practices. The focus of these outreach meetings will be on effective practices to reduce spray drift and tailwater runoff. This process will supplement the annual Farm Evaluation surveys in documenting management practices and efforts to reduce agricultural discharge to both surface and groundwater. The SJCDWQC outreach process will satisfy the requirement in the Order that indicates actions by the Coalition and its members to address water quality impairments; progress and results will be reported annually in the SJCDWQC Annual Reports.

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### State Board Proposed Order *(Continued from page 1)*

have to certify them. Growers in low vulnerable areas also have to complete Farm Evaluation Plans; however, they only have to submit them every 5 years. With the new proposed Order, every grower/landowner would be required to report all the information directly to the Regional Board yearly.

The Nitrogen Management Plans that all growers currently have to fill out and keep on the farm will be changed to an Irrigation & Nitrogen Management Plan (INMP). This new INMP will have to be certified by a license professional who has expertise in nutrient and irrigation management. All growers will have to have their plans certified since the high and low vulnerability determinations have been eliminated. It is currently unclear if the current Nitrogen Self Certification Classes which California Department of Food and Agriculture in cooperation with the Coalitions have been conducting will allow a person to self certify the newly developed INMP.

The information from the new INMP will then be reported to the Coalitions and the Regional Board on a field by field basis. Growers will have to calculate a ratio of the amount of applied nitrogen over the amount of nitrogen removed at harvest. Currently the amount of nitrogen removed at harvest for many crops is not available or data varies by as much as 100%.

Another provision of the proposed ruling states that members of the Coalition must test all domestic wells on their property every year for nitrate levels. If those wells exceed the water quality limit of 10mg/L of nitrogen, the owner of the property would have to provide an alternative source of clean drinking water to the residence of the property, i.e. bottled water. The Coalition's governing board believes this type of drinking water regulations does not belong in the Irrigated Lands Regulatory Program, but is the responsibility of Department of Health and Human Services at the county and state level. This is a renters/landlord issue and not an issue for a regulatory program on fertilizer and pesticide in agriculture.

The State Board will be holding a public hearings on the proposed order **on May 4th in Sacramento at the EPA building, 1001 I Street at 9:00 am and on May 17th in Fresno at the San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg Avenue. Written comments are due May 18th** to the State Board. The Coalition encourages members to make their voices heard by attending the meetings or by making written comments. Please visit our website at [www.sjdeltawatershed.org](http://www.sjdeltawatershed.org) for more information on the ruling.

### Nitrogen Reporting *(Continued from page 1)*

report nitrogen applications and yield. The Coalition will analyze the data and have grower outreach and education in those areas that seem to have excessive fertilization occurring. This process is not to single out individual growers but to educate growers on current industry practices that are protective of groundwater quality and improve nitrogen efficiencies in the field.

NMP Summary reports for the 2015 growing season are due **June 15, 2016**. Growers who do not meet this deadline may risk the Central Valley Regional Water Quality Control Board inspections and possible notices of violation of the current regulations.

The Coalition has staff to help with completing the NMP Summary Report and the NMP. Please call 209-851-4202 or email [info@sjdeltawatershed.org](mailto:info@sjdeltawatershed.org) for assistance. The Coalition cannot certify the Nitrogen Management Plan but we can help in completing the NMP Summary Report and advise you on completing the NMP. Remember every member must complete a Nitrogen Management Plan, but only those in highly vulnerable areas must have their plans certified. We will have self certification classes again this winter so growers can self certify their plans.

### SECP *(Continued from page 3)*

If you did not complete a Farm Evaluation Plan, please complete the plan and submit it to the Coalition. This will help determine the need for a sediment and erosion control plan on the parcels being farmed.

Currently there are a several ways to certify the SECP. A professional engineer who has "appropriate experience with erosion issues on irrigated agricultural lands" can develop and certify a SECP for the parcel. Soil scientist, certain types of hydrologists, Certified Professional Storm Water Quality, and several other types of professionals in soil erosion can certify the plans also.

Another way is to follow the site specific recommendations of a Resource Conservation District or a UC Extension professional for the parcel. The Resource Conservation District (RCD) which operates the Coalition is currently training personnel to be able to evaluate and make recommendations to growers. Growers would then self certify they are following those site specific recommendations of the RCD. However, the RCD will not make recommendations on major sediment and erosion control projects that require engineering; those type of projects will have to be completed by profession engineers or soil scientists. The RCD will be offering these services at a nominal fee to be able to recoup its costs.