

# San Joaquin County & Delta Water Quality Coalition

## Watershed News

May 2015

### Reports Due: Farm Evaluation, Nitrogen Management Plans, Sediment and Erosions Control Plans

*By Mike Wackman  
Executive Director*

In March of 2014 the Central Valley Regional Water Quality Control Board (Regional Board) adopted new regulations covering discharges of water from irrigated agriculture. These new regulations are called a "General Order" establishing Waste Discharge Requirements for all owners or operators of irrigated lands with the potential to discharge to surface water or groundwater.

These discharge requirements include the development and completion of Farm Evaluation Plans and Nitrogen Management Plans for all farms as well as Sediment and Erosion Control Plans for farms that have the potential to discharge sediment into the waterways of the State. The requirements for all these plans will differ depending on if you are in a designated High Vulnerable Area or Low Vulnerable Area for both surface water or groundwater discharges.

After extensive analysis of hydrologic conditions, soil types, groundwater quality information and other factors, the Coalition has completed its Groundwater Assessment Report which delineates the high and low vulnerable areas for groundwater discharges. This report has been submitted to the Regional Board for approval. The Coalition will be sending information out to those growers in high vulnerable areas informing them of the reporting requirements.

#### Farm Evaluation Plans

All growers must complete a Farm Evaluation Plan and submit it to the Coalition. The Farm Evaluation Plans are currently due to the Coalition. All plans must be turned in no later than June 15, 2015 or else a grower will be considered in violation of the regulation and could be subject to actions by the Regional Board. Growers that are within high vulnerability areas for either surface water or groundwater will have to update the Farm Evaluation Plan every

year. Growers in low vulnerability areas will have to re-submit the plan every 5 years. The plans must also remain at the farming operation headquarters for possible inspection by Regional Board staff.

#### Nitrogen Management Plans – due June 15, 2015 for high vulnerability areas for groundwater

All growers must prepare a Nitrogen Management Plan. Growers in high vulnerability areas for nitrate discharges to groundwater must prepare their first plan by June 15, 2015, and update it each year.

Growers in high vulnerability areas will be receiving Nitrogen Management Plans that they will have to complete and file at their farming headquarters for the 2015 growing season. These plans need to be updated yearly and starting in 2016, certification of these plans by a licensed profession or by self-certification must occur. These plans

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#### Reporting Dates & Requirements

*Farm Evaluation Plans*

**June 15, 2015**

*Nitrogen Management Plans*

**June 15, 2015**

*Certification of Nitrogen Management Plans*

**June 15, 2016**

*Attend a grower education class*  
**Annually**

### Financial update - fees to decrease to \$5/acre

*By Mike Wackman  
Executive Director*

Your Coalition remains in good financial health and the San Joaquin County Resource Conservation District Board (RCD), responsible for operating the Coalition, remains prudent on expenditures and operation of the Coalition. Due to all the new requirements by the Central Valley Regional Water Quality Control Board (Regional Board) and the unknown of the cost to implement the new requirements, the fees

for the Coalition increased substantially last year.

The Coalition is able to decrease membership fees due to the increase in enrolled acres. The increase in acres enrolled does not increase our operating costs but allows the Coalition to spread the expenses over more acres. Our expenses for this year will actually decrease slightly but not significantly, even with the increase in acres covered.

The Coalition had used a por-

tion of its reserves to prepare for the implementation of the new program prior to the 2014/15 fiscal year. In fiscal year 2014/15 the Coalition was able to build back up those reserve funds. The RCD Board uses the reserve fund for those unexpected expenses the Regional Board might have the Coalition incur, legal expenses and for operating expenses if needed.

The Coalition budget is available on the Coalition's website.

# New Order, new monitoring strategy and focus on nitrates

By Melissa Turner, MLJ-LLC

## Monitoring Strategy Updates

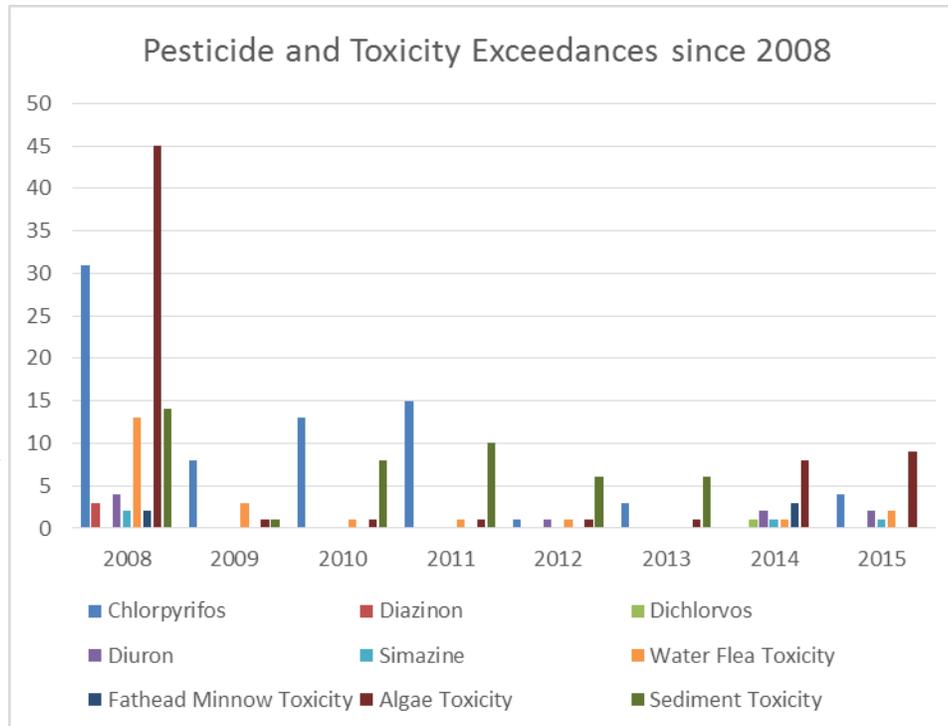
The San Joaquin County & Delta Water Quality Coalition (Coalition) began monitoring under its new Order as of October 2014 which is the beginning of the 2015 Water Year. Each year the Coalition submits to the Central Valley Regional Water Quality Control Board (Regional Board) a list of monitoring locations and a set of parameters that will be monitored throughout the upcoming Water Year (October through September).

The Coalition has a set of “core” locations that it monitors. These core sites are used to evaluate trends in water quality throughout the Coalition region. The core sites represent zones and if there is a water quality issue at a core site, the Coalition evaluates whether additional sites should be monitored within the same zone for the same water quality issues. These additional sites are “represented” sites and have been selected to represent the various waterbodies within each zone.

The Coalition decides if a represented site needs monitoring based on 1) water quality problems at the core site in the same zone, 2) the past 3 years of pesticide use information and 3) past monitoring if applicable. For example, if there have been exceedances of the water quality limit for chlorpyrifos (e.g. Lorsban) at the core site, the

Coalition will evaluate the represented sites within the same zone for chlorpyrifos use. If the represented site has parcels where there has been chlorpyrifos applied in the last 3 years, the Coalition will monitor this location. If the represented site has already been monitored for chlorpyrifos, and there have been no issues, then the

dichlorvos (e.g. DDVP, Vapona), two exceedances of the herbicide diuron and one exceedance of the herbicide simazine. In addition, there were 3 samples that were toxic to fathead minnows, 8 samples that were toxic to algae, and 1 sample toxic to the water flea. It is likely that the water flea toxicity was due to insecticides like dichlorvos and the



algae toxicities were due to herbicides like simazine and diuron. The fathead minnow toxicities were unusual for the Coalition. The percent survival of the fish was relatively high although statistically the survival was different from the control. At this point it is unclear what caused the reduced fathead

minnow survival. Coalition does not monitor at the represented site since it has been demonstrated that chlorpyrifos is not a problem.

Because of this new monitoring strategy, the Coalition is now monitoring new sites that have never been monitored before. If there are no monitoring issues at the new sites, the Coalition will be able to stop monitoring there after 2 years. The Coalition developed this strategy so that when water quality is good, monitoring costs can be reduced by decreasing the number of sites and parameters that need to be monitored.

### Surface Water Quality in 2014

In 2014 there was a single exceedance of the insecticide

minnow survival.

When comparing water quality within the Coalition from 2014 to 2008, there has been an improvement, especially for chlorpyrifos. However, in 2015 there have already been 4 exceedances of the chlorpyrifos water quality limit and 9 algae toxicities. Three of the 4 chlorpyrifos exceedances occurred at locations that the Coalition has been sampling since 2008.

It remains important for growers to continue to implement management practices to reduce runoff of irrigation and storm water that contain pesticides, nutrients and metals as well as manage spray

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# Nitrogen Management Plans Required in 2015

*By Terry Prichard*

*C.E. Water Management Specialist  
Hydrology, LAWR, UC Davis,  
Emeritus*

With the approval of the new Waste Discharge Requirements (March 2014), the Coalition is now required to monitor agricultural discharges to groundwater. The most common pollutants that have the potential to move to groundwater are pesticides and nitrates. Both have similar pollution pathways to groundwater through unprotected or improperly sealed wells, lack of well backflow prevention devices or leaching of excess applied nitrogen fertilizers. In order to insure over application of nitrogen fertilizers does not occur,

preparation of a nitrogen management plan (NMP) will be required for all grower crop management units within the Coalition area as well as reporting of nitrogen application amounts in high vulnerable areas. Crop management unit is a term used to describe a group of parcels that are managed in the same way in regards to nitrogen applications.

Growers will be required to document in the NMP the amount of nitrogen-based fertilizer and other nitrogen containing material applied to a crop management unit. Farmers must then contrast the nitrogen available to the crop to the amount removed from the field by the crop.

## How will all this work?

A groundwater assessment was performed for the Coalition region to determine the vulnerability of areas to leaching of nitrates and pesticides to groundwater.

For members who farm in the high vulnerability areas, the Coalition will be sending a NMP worksheet to grower/members in the first week of May. For those in low vulnerable areas the NMP will need to be completed in 2017. These worksheets provide the basis for planning nitrogen applications and other related activities for the coming season. For this season (2015), the worksheet should be filled out and maintained at the members farming operations headquarters or primary place of business. The member must provide the NMP to Regional Board staff, if requested or, should an inspection of the farming operation be conducted. For next season (2016) the member must prepare and implement a certified NMP. Growers with lands in the low vulnerability areas will not need the NMP to be certified.

## NMP Certification

The NMP must be certified in one of the following ways:

Certified by a nitrogen management plan specialist as defined in the coalition's General Order. These include professionals certified by the American Society of Agronomy: Certified Crop Advisors with a nitrogen management certificate, or Certified Soil Scientists or Agronomists.

Self-certified by the member who attends a California Department of Food and Agricultural (CDFA) or other Regional Board Executive Officer approved training program for nitrogen plan certification.

## Who are the Certified Professionals?

The certification agency is the

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## New Monitoring Strategy

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drift that can find its way into nearby waterbodies.

### Next Steps with Water Quality

The Coalition will continue to do monitoring at core and represented sites based on the new monitoring strategy. As water quality issues occur, sites will need to have management plans that address these water quality problems including actions taken by members to prevent the continuation of water quality issues.

Management practices implemented by members are now being recorded annually on Farm Evaluation Plan surveys. This information is reported on a township level to the Regional Board and is also useful in demonstrating how members are taking steps to further reduce agricultural discharge to both surface and groundwater. In areas with continued water quality problems, the Coalition will need to work more closely with members to better understand the sources of the water quality impairments and document any additional changes in

practices that may occur as growers become aware of the water quality problems in nearby waterbodies.

The Coalition has focused much of its outreach efforts on informing members about pesticide and toxicity water quality issues. There is additional focus on nitrogen management throughout the central valley. Coalition members will be required to complete Nitrogen Management Plans yearly which document the amount of nitrogen being applied to irrigated crops. This additional documentation of nitrogen use is due to concerns about the level of nitrates in groundwater which may be used for drinking water.

The Coalition will be working with other central valley coalitions to conduct studies and summarize existing research regarding crop specific nitrogen use and the potential for nitrogen to move into groundwater. In the upcoming years it will be important for the Coalition to be able to demonstrate that its members are not only applying and managing pesticides efficiently but also nitrogen.

## SAN JOAQUIN COUNTY & DELTA WATER QUALITY COALITION

Mailing Address: P.O. Box 2357, Lodi, CA 95247-2357  
 Physical Address: 3290 North Ad Art Road, Stockton, CA 95215  
 Phone: (209) 472-7127 E-mail: info@sjdeltawatershed.org.  
 Website: www.sjdeltawatershed.org.  
 Office Hours: Tuesday, Wednesday & Thursdays 9 am to 2 pm

## Reporting Requirements

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are NOT submitted to the Coalition.

### Nitrogen Management Plan Summary Reports for high vulnerable areas

Growers in high vulnerability areas must also prepare a "Nitrogen Management Plan Summary Report" annually beginning June 15, 2016. The Nitrogen Management Plan Summary Report will report your nitrogen use for the previous year. The Summary Report must include the amount of nitrogen applied to the previous year's crop, the crop uptake of nitrogen, any residual nitrogen and a ratio to determine the effectiveness of the application.

### Growers in low vulnerability areas.

Growers in areas with low vulnerability areas for nitrates must prepare their first Nitrogen Management Plan by June 15, 2017 and update it annually. Certification of the plans is not required in low vulnerability areas. The Nitrogen Management Plans must be kept at the farming operations headquarters and be available in case of inspection by the Regional Board. Growers in low vulnerable areas are NOT required to complete a Nitrogen Management Plan Summary Report.

### Sediment and Erosion Control Plans - due Fall 2015

The Coalition is currently determining which areas are vulnerable to erosion or have the potential for discharging sediment to the waterways of the State. This determination is being based on slope, soil types, and possibility of runoff into waterways. Those areas will have to implement Sediment and Erosion Control Plans in 2015. The exact due date will be determined after the areas are identified.

Sediment and Erosion Control Plans must be designed and certified by individuals with the proper credentials and kept at the farming operation's headquarters for inspection by the Regional Board. Individuals who have the ability to sign the Sediment and Erosion Control Plans include California registered professional civil engineers, geologists, engineering geologists, landscape architects, NRCS Certified Conservation Planners, professional hydrologists and certified soil scientists.

The Coalition is in the process of negotiating with the Regional Board what must be contained in the template for the Sediment and Erosion Control Plans. These templates will be the minimum of what a grower must have in their plans.

The Coalition will send out more information about each of these required reports and hold workshops to assist growers with each step in the process.

## New Office Location for the Coalition

The San Joaquin County and Delta Water Coalition has relocated to the 3290 North Ad Art Road, Stockton, CA 95215. The Coalition is renting office space from the San Joaquin Farm Bureau Federation.

The new office space will allow the staff of the Coalition to better serve its members and have the ability to maintain communication with growers. There will be space for meetings with growers on an individual basis and the ability to hold smaller grower meetings.

The office will be open from 9 am to 2 pm Tuesday through Thursday or by appointment to help growers with their membership needs.

The Resource Conservation District office will remain in the USDA Service Center located at 3422 W Hammer Lane, Stockton, CA.

## Nitrogen Management Plans

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American Society of Agronomy for which the Certified Crop Adviser (CCA) program was established in 1992 for any adviser that spends the majority of their time advising growers on agronomic practices. The purpose of the program is to protect the public and the profession. It is a voluntary professional enhancement that requires the individual to pass two comprehensive exams, meet the experience requirement of two years after the attainment of a bachelor degree in an agronomy related field, or three years' experience with an Associate's degree in agronomy, or 4 years' experience with no degree. Additionally, a California Nitrogen Management Certification is required by the CCA to certify NMP's. There are currently near 1100 CCA's in California of which 728 have attended the Nitrogen Management Certification Training. Many of the holders of a pest control advisors license are also CCA's.

### The Grower Self-certification Program

Currently a Grower Self-certification Program is being developed by CDFA and UC Davis in cooperation with the Coalition. The grower program will focus on the fundamentals of nitrogen fertilizers, the crop nitrogen use cycles and details a grower would need to complete a nitrogen management plan for the crop land they own or operate. This certification will not enable a grower to offer a professional service for crops or fields they do not own or operate. The training will be available in the fall of 2015 so the 2016 NMP can be certified. After successful completion of the 4 hour training session a grower/member will be able to self-certify the NMP. To retain the self-certification ability, members would be required to attend 1 hour of continuing education classes each year.