

WATERSHED COALITION

INFORMATION FOR CENTRAL VALLEY AGRICULTURE

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WDR Approved for Southern San Joaquin Valley

The Regional Water Board on September 13 approved the second Waste Discharge Requirements (WDR) for Central Valley coalitions when it passed the South San Joaquin Water Quality Coalition WDR. The SSJWQC is the second of seven Central Valley water quality coalitions to receive a WDR for potential discharges into surface and groundwater. The first was adopted on December 13, 2012 for the East San Joaquin Water Quality Coalition. The regulations adopted for the south valley differs only slightly from the ESJWQC version, primarily deadlines for growers to submit farm evaluations, nitrogen management plans and sediment and erosion control plans. The existing coalition in the South Valley and other interested parties have 30 days to apply to the Regional Water Board to represent growers in the region bounded by the San Joaquin River and Fresno County on the north to the Tehachapi Mountains

and Kern County in the south. There are three or possibly more regional entities that may emerge as coalitions that encompass the watersheds of the Kings, Tule, Kaweah and Kern Rivers. The remaining five Central Valley WDRs will have similar requirement where the existing coalition will need to reapply, and meet certain qualifications, to be authorized by the Regional Water Board to represent growers in a region or watershed. The next vote for a coalition WDR is set for January 9, 2014 when WDRs are up for a vote for the Westside San Joaquin River Watershed Coalition and the Westlands Water District. That meeting will be held in Los Banos. At the March 11-12, 2014 board meeting, WDRs will be considered for the San Joaquin County and Delta Coalition, the Sacramento River Water Quality Coalition and the California Rice Commission. ☛

Nitrogen Reporting Delayed One Year

The new requirement for reporting nitrogen fertilizer applications to cropland has been delayed one year, a result of developments stemming from a report to the legislature about nitrate contamination in groundwater. The East San Joaquin Water Quality Coalition had its first nitrogen reports due in March 1, 2104. That deadline has been extended to March 1, 2105, a date approved at the October 3 meeting of the Regional Water Board.

The extension was prompted by recommendations contained in what is being called the "Harter Report," a University of California study sponsored by the State Water Board. The report resulted in recommendations to the legislature on steps to address increasing nitrate levels in groundwater in the San Joaquin and Salinas Valleys. Two of 15 recommendations in the report focus on agricultural uses of nitrogen fertilizers. The first charged the California Department of Food and Agriculture to create a "Task Force"

to develop a nitrogen "tracking and reporting system" for high risk agricultural areas of the state and to determine appropriate nitrogen mass balance approaches for the same areas. The second recommendation charged the State Water Board to convene an "Expert Panel" to advise the state on several technical issues including identifying methodologies for determining nitrate movement into groundwater.

The CDFA Task Force held four day-long meetings in August and September and a draft report was being finalized in late November. The 30 member task force was made up of several coalition managers, representatives from the Central Valley and Central Coast Regional Water Boards, the University of California, the environmental justice community and agricultural trade organizations, among others. The State Water Board has yet to convene its Expert Panel. ☛

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Regional Water Board Begins Enforcement Against Growers Not Covered by Waste Discharge Requirements

The Regional Water Board was preparing in mid-October to send the first Administrative Civil Liability (ACL) notices to growers who did not sign up to participate in the ESJWQC or pursue an individual WDR. The ACL indicates a fine of up to \$8,600 could be levied against the growers for not choosing one of the WDR coverage options. The ACL notices are sent to growers in the ESJWQC region who have not responded to a Regional Water Board Directive to Obtain Regulatory Coverage (13260 order) and ignored a subsequent

Notice of Violation. An estimated 1500 landowners or growers with 100,000+ acres of irrigated land in the region have not joined ESJWQC or sought an individual permit and will eventually be contacted by the Regional Water Board to begin the enforcement process. As of mid-October, 2370 landowners with 144,500 acres have been contacted and subsequently joined ESJWQC to gain coverage under the coalition's WDR since the deadline. 🌱

State Agrees To Hear Petition on East San Joaquin WDR

The State Water Board on November 8 agreed to consider a petition filed in January against the WDR adopted for the East San Joaquin Water Quality Coalition. The petition, filed in January 2013 by several ag coalitions and activist groups, is asking the State Board to overturn the WDR because it is based on a deficient CEQA document and does not meet the State's antidegradation requirements. Once the public comment period ends on December 8, the State Board will set a date for hearings, likely in February or March.

In July, a superior court judge overturned a lawsuit against the Irrigated Lands Regulatory Program Environmental Impact Report (EIR) filed in May 2012

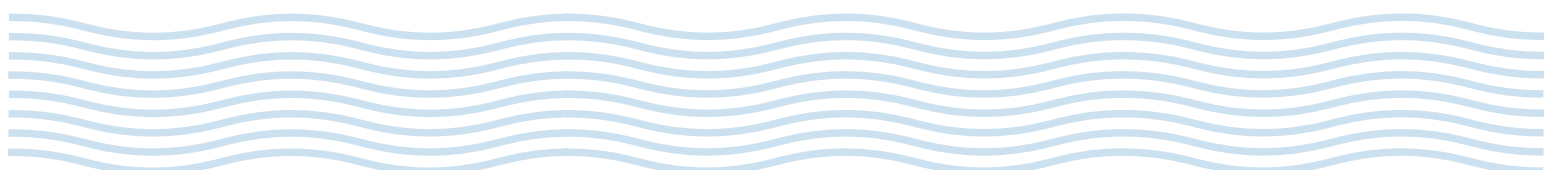
by several watershed coalitions and activist groups. The judge reversed an earlier tentative ruling and found the EIR to be adequate for continuing the current program. The same EIR underpins the WDR adopted in December 2012 for the ESJWQC. With that decision in place, the Regional Board resumed development of WDRs for the remaining six water quality coalitions in the Central Valley. The judge did not change his position on the State Water Board antidegradation policy and the nonpoint source (NPS) policy compliance as it applies to the Regional Water Board's short term renewal. The Regional Board must show compliance with antidegradation and the NPS for the other coalition WDRs yet to be adopted. 🌱

Rollout Begins for Farm Evaluation Plan Survey

Water quality coalition leads and commodity groups from the Central Valley met frequently over the last ten months to prepare a Farm Evaluation Plan template. Language in the East San Joaquin WDR gave coalitions the option of developing the template rather than the having one handed down by the Regional Water Board. Each agricultural operation in the Central Valley will eventually need to complete a farm evaluation to be in compliance with the WDR. During development, much attention was paid to requesting consistent information on management practices used to protect surface and groundwater. Also important was keeping the survey concise. The final farm evaluation plan approved in late November is three pages long and contains two sets of questions: one for the overall farm operation; the second, field-specific questions. The expectation is each member will complete the overall farm survey just once. A field survey will be need for each field or fields with like crops. Additional surveys would be required if crops or other practices differ. Completed surveys are compiled by the coalition into township or larger reporting areas. Use of practices will be summarized as will crop acreage and water sources. Members of the East San Joaquin will begin receiving surveys in December, with the deadline for completion set for March 31, 2014. In subsequent years, the surveys will need to be updated annually if practices are changed, although frequency for reporting may decrease over time. The ESJWQC is currently developing a web-based system for members with the capability to complete the survey online. Other coalitions are expected to develop similar online systems. 🌱

Hearing Dates for Coalition WDR

COALITION	MEETING DATE
WESTSIDE SAN JOAQUIN RIVER WATERSHED COALITION	JANUARY 9, 2014
WESTLANDS WATER DISTRICT	JANUARY 9, 2014
SAN JOAQUIN COUNTY AND DELTA COALITION	MARCH 11-12, 2014
SACRAMENTO RIVER WATER QUALITY COALITION	MARCH 11-12, 2014
CALIFORNIA RICE COMMISSION	MARCH 11-12, 2014



Groundwater Assessment Reports Determine Vulnerability to Ground and Surface Water Contamination

Each Central Valley Coalition will be required under its WDR to develop a Groundwater Assessment Report (GAR). This comprehensive document is a compilation of all groundwater information for each coalition region including depth to groundwater and known nitrate and pesticide levels in wells. Data is gathered from all existing sources. The East San Joaquin GAR is due in January 2014 when Regional Water Board staff will evaluate the report and decide if they agree with the designations proposed by the coalition.

A requirement in the report is to propose which areas will be designated as either low or high vulnerability to water contamination. Determining threat to groundwater may be done using several approaches covering numerous constituents. The vulnerability rankings describe the potential risk of discharges of sediment or farm inputs (fertilizers or pesticides) to either surface water or groundwater. Areas will be defined as high threat/vulnerability areas if there is enough data for a given constituent to indicate that irrigated agriculture is causing or contributing to a water quality problem. Requirements for these lands will include completing a farm evaluation, nitrogen management plan certified by a qualified individual, erosion and sediment control practices and participation in regional water quality management plans. The coalition will then monitor efforts to evaluate management practice effectiveness and water quality trends, and encourage members to implement improved practices when needed.

Non Coalition Members Get Individual Option

New Waste Discharge Requirements (WDR) for individuals who chose not to join a coalition was adopted by the Regional Water Board on July 26. Based on a comparison to the third party WDR, it appears to be a high cost alternative to coalition membership. If farm fields are in high vulnerability areas, many of the requirements mirror what coalitions will be performing under the third party program including performing on-farm surface and groundwater monitoring. Landowners in high vulnerability areas may also be required to drill monitoring wells on their property in addition to monitoring irrigation supply and domestic

Examples of vulnerability include:

- An area may have a problem with nitrates in groundwater and be designated high threat/vulnerability;
- Pathogens in surface water with an unknown agricultural contribution would be designated unknown threat and vulnerability;
- No pesticide residues in groundwater would be low threat/vulnerability.
- Some irrigated lands will be defined as low threat/vulnerability areas where it has been demonstrated that agriculture is not causing or contributing to a water quality problem for a given constituent in an area.
- Some irrigated lands will be defined as unknown threat/vulnerability areas where there are not enough data for a given constituent to determine whether there are water quality problems or if there are problems that are attributed to irrigated agriculture. If studies demonstrate no agricultural contribution, then low threat vulnerability requirement would apply. If studies demonstrate an irrigated agricultural contribution, then high threat/vulnerability requirements would apply.

Before approving a GAR, the Regional Water Board will seek comments from growers, coalition representatives and the public as it develops its recommended approach. 🐾

drinking water wells. Individual permit holders will have to pay a yet to be disclosed state permit fee.

As with coalition members, individual permit holders will need to develop farm water quality plans and farm specific nitrogen management plans. However, rather than be compiled by the township level, reports will contain information on each specific farm enrolled in the individual permit. Should surface or groundwater monitoring identify problems, a grower would need to develop a Surface Water Exceedance Plan or Groundwater Exceedance Plan. 🐾

Coalitions Must Re-Apply To Represent Growers

In 2003, seven agricultural coalitions and one commodity group stepped forward to represent growers under the newly adopted Irrigated Lands Regulatory Program. Each time the Regional Water Board adopts new Waste Discharge Requirements (WDRs) for a region, the coalition group that represented growers in the past must apply to again play that role. Language in the WDR also enables other entities to apply for that role. The reapplication is mandated because under the new program, the Regional Water Board changed the roles and responsibilities of third-parties or coalitions. According to the Board's website, the change was made to "increase accountability and transparency of this process to the growers and Board." In each WDR, the responsibilities of the third party include:

- assess fees;
- conduct education and outreach to inform growers of requirements and practices to protect water quality;
- prepare and implement regional water quality management plans and regional water quality monitoring plans; and
- report to the Board on the results of the monitoring efforts and the effectiveness of the plans.

After the first WDR was adopted in December 2012, the East San Joaquin Water Quality Coalition applied and was accepted as the third party to represent growers in its region. After the WDR for southern San Joaquin Valley passed in September, there were reportedly three or four groups that were considering representing growers in the region based on the unique watersheds in the south valley. Coalitions in the remaining regions of the Central Valley are expected to keep the same or similar organizational structures for the new program.



Coalition to Facilitate Water Sampling and Analysis

The ESJWQC has begun efforts to assist members interested in testing their own wells for nitrates or hiring firms to perform the sampling and analysis. As a first step, the coalition contacted numerous laboratories to gather basic information about the firms and price ranges for various services. The firms come in various forms: consulting firms specializing in geology or engineering that offer additional groundwater mapping services and those specializing in agricultural consulting and offering advice on nitrogen budgets, plant tissue and soil nutrient management services. The coalition recently requested information from dozens of Central Valley laboratories asking about the cost for well testing and water analysis for its members. An overview of well testing and reference list can be found in "Testing Wells for Nitrates" posted at: <http://www.esjcoalition.org/wellTesting.pdf>

Testing your irrigation or drinking water well for nitrates is not a requirement of the new WDRs. However, the ESJWQC Board of Directors recommends that all its members test their wells for nitrates. Two important reasons: 1) Sampling of groundwater by State and Federal agencies in our coalition region over the last 10 years found a high percentage of wells above the drinking water standard for nitrates (10 mg/l). 2) If an irrigation well has nitrate levels above 5 mg/l, the nitrate in the water should be considered in your annual nitrogen fertilizer budget for a crop. For example, if well test results show 50 mg/l nitrate, a grower who uses three acre/feet of water per acre each season is applying the equivalent of 100 units of nitrogen in that irrigation water each season. Even if plant uptake is only 50% efficient, that is 50 lbs/acre of nitrogen that does not need to be bought and applied.

Costs vary for a nitrate analysis of a water sample. Like everything, it depends. A basic analysis for nitrate can range from \$6 to \$65 per sample, depending on the lab. Independent consulting firms and full-service laboratories can charge from \$45-\$250 per well or have daily rates of \$1000/day; or \$50 to \$75 per hour including travel time. Many labs will provide bottles and sampling instructions so that growers can easily sample their own wells and deliver the bottles to the laboratory.

There are two ways to estimate total nitrogen in irrigation water. Have a lab perform a "nitrate test" or a "total nitrogen analysis". The former is less expensive and can

give adequate information for nitrogen crop budgeting. Most laboratories will perform additional water analysis such as pH, specific conductance, calcium, magnesium, chloride and sodium. Some laboratories are registered with the State to provide nitrate tests (method EPA 300.0) for potable drinking water wells. For nitrogen budgets, it is not necessary to use a State certified laboratory when analyzing well water for nitrogen.

Nitrate can be reported two ways: Nitrate as N (aka NO3-N) or Nitrate as NO3. It is important to know what is being reported when using nitrate concentrations in a budget:

1 mg/L Nitrate as N (NO3-N) = 4.5 mg/L Nitrate as NO3. For more information.

CV Salts Seeking Changes in Salt/Nitrate Regulations

Central Valley coalitions are actively participating in CV-SALTS, an organized effort to change how the Central Valley Water Board's Basin Plan deals with salts and nitrates in surface and groundwater. The state's Recycled Water Policy, adopted in 2009, mandates that each Regional Water Board update its Basin Plan to accommodate recycled water from cities and industry. Basin Plans are foundational documents used by the Regional Water Boards to regulate water quality in each basin in the state. Current salt standards limit recycled water uses so the Central Valley Regional Water Board and regulated community, including cities and agriculture representatives, are working to change the Basin Plan through the Central Valley

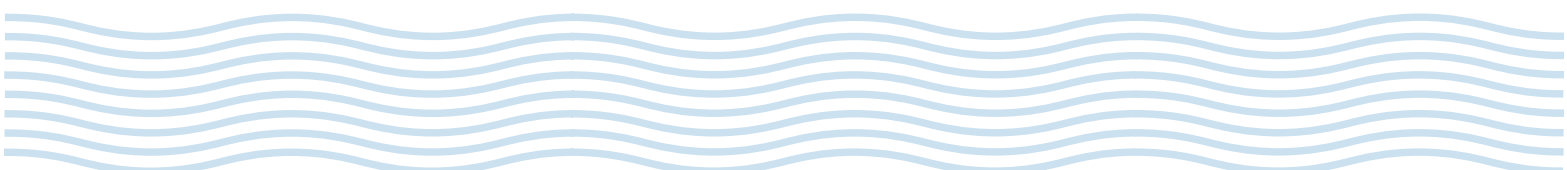
Salinity Alternatives for Long-Term Sustainability (CV-SALTS). The group set out in late 2006 to organize this multi-year effort which is expected to cost more than \$8 million to pay for the technical studies, economic analysis and implementation plans. Completion of a comprehensive Salt and Nitrate Management Plan is anticipated in 2016 with Regional Board consideration in 2017. The revised Basin Plan will contain mandates for cities and agriculture that address increasing salt levels in ground and surface water. Plans to deal with nitrates in groundwater will also be a major component of the revised regulations. Entities involved in the CV-SALTS working group include the agriculture coalitions covering East San Joaquin, Westside San Joaquin, South San Joaquin, Sacramento River, California Rice Commission plus waste water dischargers, the California Urban Water Agencies, California League of Food Processors and many others. More information is available at: www.cvsalinity.org.



State Hikes Acreage Fees

The State Water Board again raised acreage fees it charges landowners and growers who participate in water quality coalitions throughout California. The vote on September 24th increased the fees to 75 cents per acre from the current level of 56 cents per acre. Dairies covered by an individual WDR also saw a

dramatic increase in fees. Acreage fees collected by the State Water Board are distributed to the Regional Water Boards to cover costs to staff the irrigated lands programs. The fee increase was attributed to adding staff for basin planning and other programs related to agriculture.



Irrigated Agriculture and Water Board Regulations

In preparing the Waste Discharge Requirements for individual discharger permits in the Central Valley region, the Regional Water Board stated several “findings,” including a description of the region. Following are excerpts of those findings.

- In the Central Valley, approximately 7,800,000 acres of cropland is under irrigation and approximately 35,000 individuals and operations with “waste discharges from irrigated lands.”
- Approximately 567,000 acres are regulated under the Water Board’s General Order for Existing Milk Cow Dairies (R5-2007-0035).
- Most of the remaining acres will be enrolled under WDRs administered by a third-party group (third-party WDRs). However, those Dischargers whose discharges are not regulated under third-party WDRs must comply with Porter-Cologne by obtaining WDRs. In lieu of issuing potentially hundreds of individual WDRs, a general WDR is necessary and appropriate for those individual Dischargers not governed by third-party WDRs.
- The Central Valley Region contains 84 groundwater basins and 135 groundwater sub basins (34 and 76, respectively, that are overlain by irrigated agriculture).
- The Central Valley contains approximately 34,000 linear miles of surface water courses (including approximately 5,000 linear miles of named surface water courses) that are, or could be, affected by discharges of waste from irrigated lands. This does not include many thousands of miles of surface water courses in the foothill and mountainous regions, where there are few irrigated lands operations.
- Discharges of waste from irrigated lands could adversely affect the quality of the “waters of the state”.
- Within the Central Valley Region, there are approximately 1.3 million acres of irrigated lands within Department of Pesticide Regulation (DPR) Groundwater Protection Areas (GWPA). DPR identifies these areas as vulnerable to groundwater contamination from the agricultural use of certain pesticides, based upon either pesticide detections in groundwater or upon the presence of certain soil types (leaching and/or runoff) and a depth to groundwater shallower than 70 feet.


- Of the 1.3 million acres, approximately 580,000 acres of the irrigated lands are within DPR GWPA that are characterized as vulnerable to leaching of pesticides (leaching areas), approximately 660,000 acres are within GWPA that are characterized as vulnerable to movement of pesticides to groundwater by runoff from fields to areas where they may move to groundwater (runoff areas), and 30,000 acres of irrigated lands are characterized as both leaching and runoff areas.
- For leaching areas, certain water soluble pesticides are carried mainly with excess irrigation water or rainwater through the soil profile and potentially to the underlying aquifer.
- For runoff areas, certain water soluble pesticides are carried mainly with runoff over the land surface to potential conduits to groundwater. However, DPR has not established or analyzed the GWPA with fertilizers and nitrate contamination in mind, and its GWPA are established based upon detections of certain pesticides, many of which are of lower solubility. Solubility is one factor that can lead to groundwater contamination.
- Depending on the frequency of application and amount applied, certain water soluble constituents, such as nitrate, may share pathways to groundwater with soluble pesticides.
- Approximately 280 water bodies encompassing 6,500 linear miles of surface water courses within the Central Valley Region have been listed as impaired pursuant to Clean Water Act Section 303(d).
- The 303(d) list of impaired water bodies identifies agriculture as a potential source of constituents that impair beneficial uses of some waters within the Central Valley Region and threaten the quality of waters of the state. Approximately 83 of those water bodies are listed with agriculture as an identified potential source of the impairment. Many other water bodies are listed with an unknown source of impairment. 🌱

East San Joaquin Sees Member Increase After WDR Passage

Included in the WDR adopted for the East San Joaquin Water Quality Coalition is a provision called the “new member holiday” where growers not in the coalition could join without first applying to the Regional Water Board and paying a fee. After the membership holiday ended on May 13, ESJWQC membership roles stood at 706,336 acres, up from 519,000 acres before the new program was adopted. Since May, the Regional Board has been in the process of identifying growers who had not joined the coalition nor applied for an Individual WDR to cover discharges from their

irrigated lands. As of late November, that enforcement effort brought in another 3000-plus acres, raising the ESJWQC participant level to 704,403 acres and 3,971 members. The Regional Water Board uses Assessors Parcel Numbers (APNs) in its non-member tracking process, mapping all parcels using GIS technology to develop a list of growers and parcels that did not appear on coalition roles when the ESJWQC member list was submitted on July 1, 2013. Drive-by inspections by Water Board staff were then made of those parcels to confirm the land was irrigated cropland. 🌱





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Watershed Coalition

Ask The Water Board

Watershed Coalition News asks readers to pose questions to the Regional Water Board. The questions in this edition are from the Board's website and its Frequently Asked Questions section of the Irrigated Lands Regulatory Program. Follow the link at the end of the section for more questions and answers.

How can the Water Board claim that my farm operation is discharging waste?

The Water Board's authority to regulate waste discharges that could affect the quality of the waters of the state, which includes both surface water and groundwater, is found in the Porter-Cologne Water Quality Control Act (California Water Code Division 7). The Water Board has used this statute to find that all commercial irrigated lands operations have the potential to affect water quality, either through discharges to land/groundwater or surface waters.

How have the program requirements been enforced?

There have been two primary areas that have been the focus of our enforcement efforts: 1) ensuring growers who are required to have regulatory coverage have proper coverage; and 2) addressing site-specific water quality problems. Through public outreach and use of enforcement tools, the Water Board has identified growers and ensured they are properly regulated by joining a coalition. Site-specific water quality problems have been addressed by working with coalitions and using the Water Board's enforcement authority. In one case, discharges of sediment resulted in a settlement requiring a landowner to pay a \$300,000 fine.

Will growers have any direct interaction with the Water Board?

Growers who are currently members of third-parties or coalitions, and are complying with Water Board requirements, will have little or no direct interaction with the Board. Growers who are not currently enrolled in a coalition will need to apply to the Board to join. For example, growers who do not have surface water runoff would need to join a coalition since the new requirements address discharge to groundwater. Irrigating a crop typically results in water going past the crop root zone to the underlying groundwater aquifer. The results of farm self-evaluations may be reported to the Board, if an electronic data submittal system is established. Any growers who are not part of a coalition or do not meet their obligations in the coalition will be directly regulated by the Board.

How do I stay informed about the new Waste Discharge Requirements proposed as part of the Long-term Program and other ILRP-related news?

You can receive ILRP-related notifications, updates and other correspondence by email. Subscribe on-line to our electronic mailing list:

http://www.waterboards.ca.gov/resources/email_subscriptions/reg5_subscribe.shtml

Irrigated Lands Program staff can be reached via phone at **(916) 464-4611**, or via e-mail at lrrlands@waterboards.ca.gov. If you call, you will be asked to allow up to two business days for staff to return your call. More FAQs at:

http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/new_waste_discharge_requirements/ilrp_faq.pdf

