



# ***Emerging Regulations for Nutrient Management – What's Next?***

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# *Irrigated Lands Regulatory Program*

## ***Program Objectives***

- *Characterize discharge from irrigated agriculture in the Central Valley*
- *Identify potential source(s) of the exceedances*
- *Promote to landowners the implementation of management practices to eliminate water quality problems.*

*Groundwater to be covered in Long Term Program*





# *Impacted Acreage and Costs*

- *7 million irrigated acres in Central Valley*
- *4.8 million acres enrolled in current program*
- *Since 2004 growers have been paying 12 cents per acre to State Water Board to monitor pesticides*
- *In 2012 fees expected to increase to over 53 cents per acre to expand program to include nutrients*
  - *Water/Sediment monitoring*
  - *Reports to Regional Water Board*
  - *Grower Outreach and Education*
  - *Farm Management Plans*
  - *Third Party Certification of Nutrient Management*

## ***Irrigated Lands Regulatory Program***

***2 or more exceedances = Management Plan***

***With Management Plans, Grower coalitions must...***

- ***Identify Sources (uses/crops)***
- ***Determine farming practices through field BMP surveys***
- ***Encourage growers to implement BMPs***
  - ***Outreach: Meetings***
  - ***Landowner mailings***
  - ***Personal visits***

## ***Irrigated Lands Regulatory Program***

***June 2011 Regional Water Board decision:  
Get Started on Orders - Waste Discharge Requirements***

### **Key points**

- ***First Orders to be approved in July 2012***
- ***Nutrient plans in place by 2013***
- ***Use existing coalition structure***
- ***Each coalition gets unique WDR***
- ***Current ILRP participants grandfathered into new program; no need to reapply***
- ***Groundwater included: nitrogen is priority constituents***





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# ***Irrigated Lands Regulatory Program***

## ***General Order/Waste Discharge Requirements: WDR to include***

- ***General regulatory language (consistent among coalitions)***
- ***Revised surface water program (MRP) specific to region***
- ***New groundwater program (MRP) specific to region***
- ***Implementation timelines and performance goals***

## ***WDR documents compiled; put to Regional Water Board for vote***

- ***Will board send back for revisions?***
- ***Will actions be taken by activist organizations?***



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# ***Irrigated Lands Regulatory Program***

## ***Surface Water - Monitoring and Reporting Program Plan (MRP)***

- ***Most of existing SW plan rolls forward***
- ***Review product profile to determine if poses risk***
- ***Begin sampling in 2013***
- ***Issues***
  - ***What are the WQ criteria for the products***
  - ***Are commercial labs capable of economical analysis***



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## ***Irrigated Lands Regulatory Program***

### ***Groundwater :***

***What are “discharges of waste from irrigated lands” to groundwater?  
(waste defined as farm inputs + salt)***

- ***Leaching of waste to groundwater (nitrates/pesticides moving past root zone)***
- ***Backflow of waste into wells (during chemigation/fertigation)***
- ***Waste discharged into unprotected wells***





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# ***Irrigated Lands Regulatory Program***

## ***Groundwater – Management Practices***

***How can we confirm that management practices implemented to improve groundwater quality are working?***

- ***“...properly designed and constructed groundwater monitoring network would be needed”***
- ***“...monitoring well network could be used as part of a special study to evaluate individual management practices. “***
- ***“...modeling combined with some groundwater monitoring to validate the models assumptions and conclusions.”***



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# ***Irrigated Lands Regulatory Program***

## ***Nutrient Management Plan Components***

- ***Testing well water for nitrogen levels (then adjust N applications accordingly)***
- ***Leaf / tissue testing***
- ***Soil testing***
- ***Use N at crop removal rates***
  - ***Dairies regulated to 140% of crop use (N applications)***
- ***Well head protection***
  - ***Grade away from casing***
  - ***Seal abandoned wells***
- ***Back flow preventors when fertigating (fertilizer injection to drip)***
- ***Irrigation management***



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## ***Irrigated Lands Regulatory Program***

### ***Grower Coalition Responsibilities for Groundwater Quality Mgmt Plans***

- ***Identify groundwater quality management areas***
- ***Summarize / assess water quality data for aquifers and parameters***
- ***Identify irrigated agriculture source(s)—general practice(s) or specific location(s)—that may be cause of water quality problem***

***In lieu of conducting additional source analysis, MP can focus on ensuring that all growers are implementing practices that achieve Best Practical Treatment Controls for constituent(s) of concern***