


Requirements And Strategies For Manure And Nutrient Management On Dairies

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Impact on irrigated lands



- Surface and ground water quality regulated
- Waivers or Waste Discharge Requirements (WDR) issued by Regional Water Quality Control Boards




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Nitrogen Management Overview

- Regulatory process to protect water resources
- Impacts on irrigated lands
- Implementation of the Dairy General Order
- The importance of water

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Irrigated Lands Programs




- Existing conditional waivers expired January 1, 2003 (SB 390)
- Los Angeles, Central Coast, Central Valley, and San Diego adopted comprehensive conditional waivers; modifications continue

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Water Quality Concerns

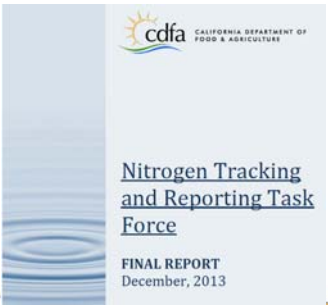


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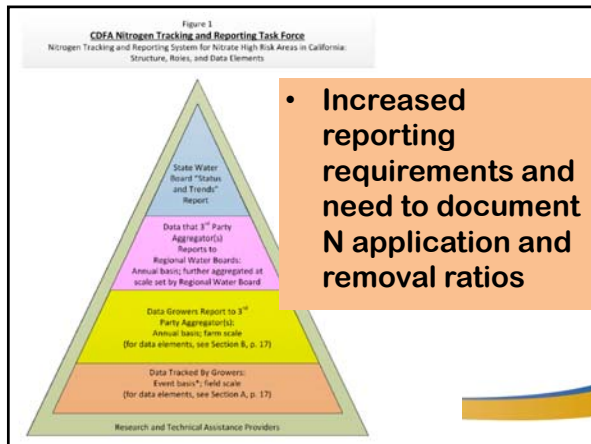


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- State Nitrogen Task Force ripple effects



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Nutrient Management Plan

- ✓ Maps
- ✓ Field identification information
- ✓ Wastewater agreements
- ✓ Sampling and analysis plan
- ✓ Nutrient budget
- ✓ Setbacks, buffers, and other alternatives to protect surface water
- ✓ Field risk assessment
- ✓ Record-Keeping
- ✓ Nutrient Management Plan Review

Implementation of the Dairy General Order

Issued May 3, 2007
MRP modified February, 2011
GO reissued October 3, 2013

Discharge Requirements General Order	1
Findings	1
Prohibitions	13
General Specifications	15
Pond Specifications	16
Production Area Specifications	20
Land Application Specifications	21
Ground-water Limitations	23

Each land application area is like a castle surrounded by a moat:

Nutrient Management Plan

ATTACHMENT C

Contents Of A Nutrient Management Plan
And
Technical Standards For Nutrient Management
For
Existing Milk Cow Dairies

nmp


- Develop plan by 7/1/09
- Complete modifications by 7/1/11

Calculate what was applied—

- Amount
- Concentration
- Area

➤ Pounds of Nutrient Applied per Acre



Facility inspections



- Occur approximately every three years
- Increased scrutiny on record keeping results and physical infrastructure
- Violation notices are sent if violations exist

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Challenges with drought

- Less or no water means
 - Less cultivated land
 - Less feed grown for cattle
 - Less land available for nutrient uptake
 - Economic challenges
- Yet, the cows are still there
 - Alternative opportunities for manure

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CDQAP

- California Dairy Quality Assurance Program
- Instrumental in educating dairy producers on how to comply
- Provided tools for compliance

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Thanks




Questions?

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As dairy goes so will irrigated lands



- Attention to record keeping and nitrogen application rates is increasing
- Numerous groups are interested in protecting groundwater quality (including growers)

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