



# **Regulations for Dairy Wastewater Discharges**

**Bill Olson**

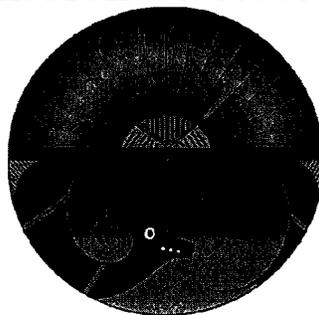
**New Mexico Environment Department**

**Ground Water Quality Bureau Chief**

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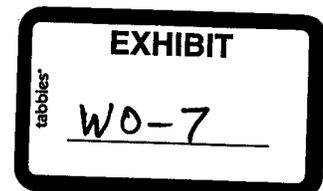


## **Ground Water Quality Bureau Mission Statement**



**Our mission is to preserve, protect, and  
improve New Mexico's ground-water  
quality for present and  
future generations.**

*Industry*





## Why Are We Here Today?

- Initiate process for developing regulations specific to dairy industry
- Provide information on
  - Regulatory process
  - Development of initial regulation discussion draft
- Get initial input, thoughts and comments

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## Why New Regulations?

- Water Quality Act amended during 2009 Legislative Session (Senate Bill 206)
- Industry requested more certainty and detail in ground water discharge permits for dairy facilities.
- Water Quality Control Commission (WQCC) directed to adopt regulations specific to dairy industry.

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## Rulemaking Process: Start

- To initiate development of new regulations:
  - NMED developed discussion draft of dairy regulations
  - May 22, 2009
    - Posted on web
    - Notification provided to DFA, DPNM, WQCC mailing list, dairy permittees, and interested parties list
    - Press release

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## Rulemaking Process: Input

- Development of effective regulations requires input from many stakeholders:
  - Industry
  - Public
  - State and federal agencies
  - Academics

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## Rulemaking Process: Schedule

- Legislators want dairy regulations within one year.
- June 2009: NMED hosts initial meetings with dairy permittees and public.
- Late June-July 2009: NMED meets with advisory committee (established by NMED in accordance with SB 206).
  - "...advise the constituent agency on appropriate regulations to be proposed for adoption by the commission."

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## Rulemaking Process: Schedule

- July-August 2009: Negotiations between NMED, dairy industry, and other stakeholders.
- September 2009: Submit petition for hearing and proposed regulations to WQCC, ask WQCC to set a hearing for November 2009.
- November 2009: Hearing before WQCC.
- March 2010: Adoption of regulations by WQCC.

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## Discussion Draft

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## Basis of Discussion Draft

- Draft regulations were built upon conditions found in recent permits.
- Monitoring data shows the potential for ground water contamination from dairies is significant.
- More than 65% of dairies exceed nitrate-nitrogen standard in ground water.
- In response to industry's request for certainty and consistency, specific and detailed regulations were drafted.

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## Basis of Discussion Draft

- Guidance previously attached to individual discharge permits have been incorporated into these regulations. These include:
  - Monitoring well construction and abandonment specifications
  - Engineering requirements for construction plans and specifications and record drawings

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## Outline of Discussion Draft

These regulations will be the 3200 section series under 20.6.2 NMAC (i.e., 20.6.2.3200 NMAC)

- 3200 Additional permitting requirements for all dairy facilities (title of series).
- 3201 Purpose (of these regulations)
- 3202 Definitions (for these regulations only)
- 3203 Requirements for discharging from all facilities
- 3204 Fees
- 3205 Application requirements for all facilities
- 3206 – 3209 reserved (for possible future use)

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## Outline of Discussion Draft

- 3210 Procedures for requesting public hearings on permitting actions
- 3211 Facility setback requirements
- 3212 Engineering & surveying requirements for all
- 3213 Add'l engineering & surveying requirements for land application
- 3214 Add'l engineering & surveying requirements for evaporative disposal
- 3215 Operational requirements for all
- 3216 Add'l operational requirements for land application

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## Outline of Discussion Draft

- 3217 Add'l operational requirements for evaporative disposal
- 3218 Ground water monitoring requirements for all
- 3219 Monitoring requirements for all
- 3220 Add'l monitoring requirements for land application
- 3221 Add'l monitoring requirements for evaporative disposal
- 3222 Contingency requirements for all
- 3223 Add'l contingency requirements for land application
- 3224 Add'l contingency requirements for evaporative disposal
- 3225 Closure requirements for all

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## Outline of Discussion Draft

- 3226 Add'l closure requirements for land application (reserved)
- 3227 Add'l closure requirements for evaporative disposal (reserved)
- 3228 Record retention requirements for all
- 3229 Transition

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## Caution and Reminder

- The discussion draft is highly detailed and because our goal is to hear your thoughts, ideas, and comments, times does not allow us cover it point by point.
- We encourage everyone to read the discussion draft thoroughly, contemplate alternatives, and submit comments.

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## Discussion Draft

### Highlights of Major Points

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## Ground Water Monitoring

- Because of the importance and for clarity, ground water monitoring has been placed in its own individual section (20.6.2.3218).
- Ground water monitoring is required for all facilities:
  - A minimum of one monitoring well shall be installed hydrologically downgradient and within 50 feet of each potential contamination source.
  - A minimum of one monitoring well shall be installed hydrologically upgradient of potential ground water contamination sources at the facility.

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## Ground Water Monitoring

- Includes requirements for:
  - Monitoring well location proposals.
  - Monitoring well construction.
  - Permanently identifying monitoring wells.
  - How ground water sample collection, preservation, transport and analysis shall be accomplished.

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## Ground Water Monitoring

- Initial and quarterly sampling and analysis of ground water for:
  - nitrate as nitrogen,
  - total Kjeldahl nitrogen,
  - chloride,
  - sulfate, and
  - total dissolved solids.
  - And, other constituents as may be appropriate and required by the department.

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## Ground Water Monitoring

- Initial monitoring well survey and ground water flow determination based upon results of survey and depth-to-water measurements.
- Quarterly ground water flow determinations based on quarterly depth-to-water measurements.

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## Engineering & Surveying

- Developed from guidance previously attached to permits and from recent guidance developed by a professional engineer.
- Engineering Plans & Specs Requirements:
  - Requirement to use licensed NM professional engineer per the NM Engineering & Surveying Practice Act
  - Describes how and when proposed construction plans & specs shall be submitted for:
    - Impoundments (new or improved)
    - New solids separators for new impoundment system (not existing)
    - Flow meter installations

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## Engineering & Surveying

- Engineering Design Requirements:
  - Design requirements for new or improved synthetically lined wastewater and stormwater impoundments.
    - Where depth-to-water is less than 50 feet, new or improved wastewater or wastewater/stormwater combined impoundments are required to be double synthetically lined with leak detection.
  - Surveys of impoundments, monitoring well locations, casing elevations and other survey work products shall be certified by a NM licensed surveyor per the NM Engineering & Surveying Practice Act.

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## Metering of Wastewater & Stormwater

- Facilities will be required to use totalizing meters to measure:
  - Monthly wastewater discharges to the impoundment.
  - All wastewater and stormwater applications to each field in the land application area.
  - Transfers of stormwater to wastewater impoundments.

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## Metering of Wastewater & Stormwater

- Types of meters to be used are specifically described:
  - Pumped (pressurized) flow discharges shall be measured using a closed-pipe velocity sensing totalizing flow meter.
  - Gravity flow discharges shall be measured using an open-channel primary flow measuring device with totalizing capability (i.e., flume, weir).

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## Setback Requirements New Facilities Only

- Wastewater or combination wastewater/stormwater impoundments and any other part of the production area shall be located:
  - greater than 200 feet from:
    - a continuously flowing watercourse;
    - the 100-year flood zone of any other significant watercourse;
    - a lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
  - greater than 350 feet from a private domestic water well or spring that supplies water for human consumption; and
  - greater than 1000 feet from any water well or spring that supplies water for a public water system as defined by Part 20.7.10 NMAC.

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## Setback Requirements

### New Facilities Only

- Any field within a land application area shall be located:
  - greater than 100 feet from:
    - a continuously flowing watercourse;
    - the a 100-year flood zone of any other significant watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
    - a private domestic water well or spring that supplies water for human consumption; and
  - greater than 200 feet from any water well or spring that supplies water for a public water system as defined by Part 20.7.10 NMAC.

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## Application Requirements

- This section requires technical completion of the dairy specific application form provided by the department.
  
- Purpose is to provide certainty to the industry regarding the information necessary for issuance of a permit.

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## Application Requirements

- If an application is technically incomplete a specific procedure is outlined:
  - NMED has 60 days from receipt of the applicant's proof of notice (PN-1) to determine technical completeness.
  - If not complete, a notice of deficiency will be sent.
  - Applicant has 30 days to correct deficiencies and submit to department.
  - If deficiencies are not corrected, the application will not be approved and notice of disapproval shall be sent.

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## Transition Requirements

Transition from current and expired permits to permitting under new regulations.

- Current permits remain in effect and enforceable.
- Monitoring and submittal of reports shall continue until renewed, renewed/modified, or modified permits are issued.
- All draft permits sent out by NMED, but not made final prior to the effective date of these regulations, are withdrawn.
- These regulations shall apply to any permit issued after the effective date of the regulations.

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## Transition Requirements

- Applications submitted prior to effective date of regulations shall be accepted if deemed administratively complete and PN-1 requirements have been satisfied.
  - Because these applications will not likely address all requirements of the regulations, the permittee shall have 90 days from the date of the permit to submit all necessary information and timeframes specified within the regulations shall be extended by 90 days.

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## Review

- Reasons for new regulations
- Rulemaking process
- Discussion draft
  - Quick overview and basis of drafting these regulations
  - Major points
    - Ground water monitoring
    - Engineering & surveying
    - Metering of wastewater and stormwater
    - Setback requirements
    - Application requirements
    - Transition stage

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## Again, why are we here today?

- To encourage you to read the draft regulations thoroughly and contemplate alternatives.
- To solicit your ideas, comments and input on dairy regulations for the protection of ground water quality.

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## Information & Additional Comments

The dairy regulations can be viewed online at [www.nmenv.state.nm.us/gwb](http://www.nmenv.state.nm.us/gwb).

You may contact NMED or submit comments to:

Email: [dairy.regs@state.nm.us](mailto:dairy.regs@state.nm.us)

Mail: **New Mexico Environment Department  
Ground Water Quality Bureau  
P.O. Box 5469  
Santa Fe, NM 87502-5469  
Attn: Comments on Dairy Regulations**

Phone: (505) 827-2900

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