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Field Operation Division Memorandum

To: **All FOD Staff**

From: **Ana Marie Ortiz, Director FOD**

Date: **November 14, 2003**

Re: **Implementation of Liquid Waste Disposal Regulation, 20.7.3.200.A.6 NMAC; Scrutiny of Permit Applications for Undeveloped Lots Less Than ¾ Acre to Prevent Degradation of Highly Vulnerable Bodies of Water**

The Environment Department is providing new direction to implement the Liquid Waste Regulations in a more holistic manner to ensure that liquid waste permits, for undeveloped lots of less than ¾ acre, are protective of public health and/or the environment. This new direction will also ensure that the Department's mission, to provide the highest quality of life throughout the State by promoting a safe, clean and productive environment, will be met.

While the minimum lot size for conventional septic systems is currently ¾ acre, previously platted lots less than ¾ acre have been "Grandfathered" under the Liquid Waste Disposal Regulations (LWDR). NMED studies have demonstrated that regional pollution of highly vulnerable bodies of ground water have occurred in areas developed with conventional septic systems on lots less than ¾ acre. LWDR 20.7.3.200.A.6 (NMAC) states:

> *" If the Department finds that specific requirements in addition to or more stringent than those provided in Subparts III and IV of this Part are necessary to prevent a hazard to public health or the degradation of* a *body of water, the Department may issue permit conditions with more stringent requirements or additional specific requirements. Such additional or more stringent requirements may apply to system design, siting, construction, inspection, operation and monitoring.*"

Therefore, permit applications for undeveloped lots that are less than ¾ acre, and that are in an area with a highly vulnerable body of water, will be evaluated more carefully pursuant to LWDR 20.7.3.200.A.6 (NMAC). The applicant may be required to install a system other than a conventional system, which may include an advanced treatment system, to ensure there is no degradation of a body of water.

The Department has determined, based on hydrogeologic studies and case investigations in New Mexico, that highly vulnerable bodies of water include the following:

- A water-table aquifer (includes both unconfined and semi-confined conditions) with a vadose zone thickness of 100 foot or less containing no soil or rock formation that would act as a barrier to saturated or unsaturated wastewater flow;
- an aquifer with known anthropogenic anoxic or nitrate contamination;
- an aquifer overlain by fractured bedrock;
- an aquifer in karst terrain; or
- an alluvial aquifer that discharges to a gaining stream located within 200 feet of the proposed disposal-field or seepage-pit location.

The additional scrutiny authorized by LWDR 20.7.3.200.A.6 (NMAC) will not be applied to existing permitted systems on less than ¾ acre, including permit modifications for these systems. Un-permitted systems on developed lots will be required to demonstrate compliance with the LWDR that were in effect at the time the lot was developed, and pay the required permit fee.

Some municipal authorities and the New Mexico Construction Industries (Building and Mobile Home) require a liquid waste permit number before they will approve their respective permits. All builders and installers should plan for the anticipated scrutiny and review to process liquid waste permits on lots that are less than ¾ acres. If the lot in question is less than ¾ acres, and in an area with a highly vulnerable body of water, a traditional septic system may be inappropriate and an advanced treatment system will likely be required pursuant to the Liquid Waste Regulations. The performance standard for advanced treatment is a reduction in total nitrogen to an average of 20mg/l or less. In addition, permit conditions shall include: a supplier's repair and replacement warranty for a minimum of two years, acceptable to the Department; and quarterly monitoring requirements for an initial 2 year period of operation.

Advanced treatment systems are generally more expensive than conventional systems. Buyers of lots that are less than ¾ acre should be made aware of the increase in costs. Advanced treatment systems require more maintenance than conventional systems. The maintenance for advanced systems must be provided by a factory-authorized individual, and has an associated cost. Anyone interested in purchasing a lot or building on a lot that is smaller than ¾ acre, should contact a licensed installer/contractor for the increased costs associated with the installation and maintenance of advanced treatment systems.

The list of current approved advanced systems in New Mexico, which identifies secondary and tertiary treatment is posted on the NMED Liquid Waste web page, here: http://www.nmenv.state.nm.us/fod/LiquidWaste/adv.pdf.