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Proposed Middle Rio Grande Guidelines for Review of Water Rights Applications

Note: The information contained in this paper is still considered in DRAFT form and is the collaborative effort of the following Office of the State Engineer staff members: Paul Saavedra, Chief of Water Rights Division; Tom Morrison, Chief of Hydrology Section; D.L. Sanders, Legal Services Division; Jess Ward, Water Rights Division, MRG Basin Supervisor; and John D'Antonio Jr., District I Supervisor.

In New Mexico, the surface water of the Rio Grande has been considered fully appropriated since the Rio Grande Compact was consummated. Accordingly, the state engineer does not allow new Rio Grande surface water appropriations. Since groundwater diversions from aquifers hydrologically connected to the Rio Grande impact the fully appropriated surface flow, the state engineer conjunctively manages the water resources within the Rio Grande Basin to protect existing water rights and to ensure New Mexico's compliance with the Rio Grande Compact.

Accordingly, to protect prior stream appropriators, the state engineer requires Rio Grande Basin appropriators to obtain valid water rights to offset the effects on the flow of the Rio Grande resulting from their groundwater diversions.

When finalized, the guidelines will embody the Water Rights Division's current practice for evaluating pending and future applications for permits in the Middle Rio Grande Administrative Area (MRGAA, shown in Figure 1), to ensure compliance with the Rio Grande Compact, to prevent impairment to existing rights, to limit groundwater level decline rates so the life of the aquifer is extended, and to minimize land subsidence. The stream system within the MRGAA includes the Rio Grande stream system between Cochiti Dam and San Acacia Dam, its irrigation canals and laterals, its drains and wasteways, the underlying aquifers, and the tributaries to the Rio Grande.

Since the declaration of the Rio Grande Underground Water Basin, which includes the area now designated as the MRGAA, groundwater permittees have been required to obtain valid water rights in an amount sufficient to offset the effects of their diversions on the surface flows of the Rio Grande stream system. This requirement protects the surface flows of the Rio Grande stream system from being depleted or reduced by groundwater diversions.

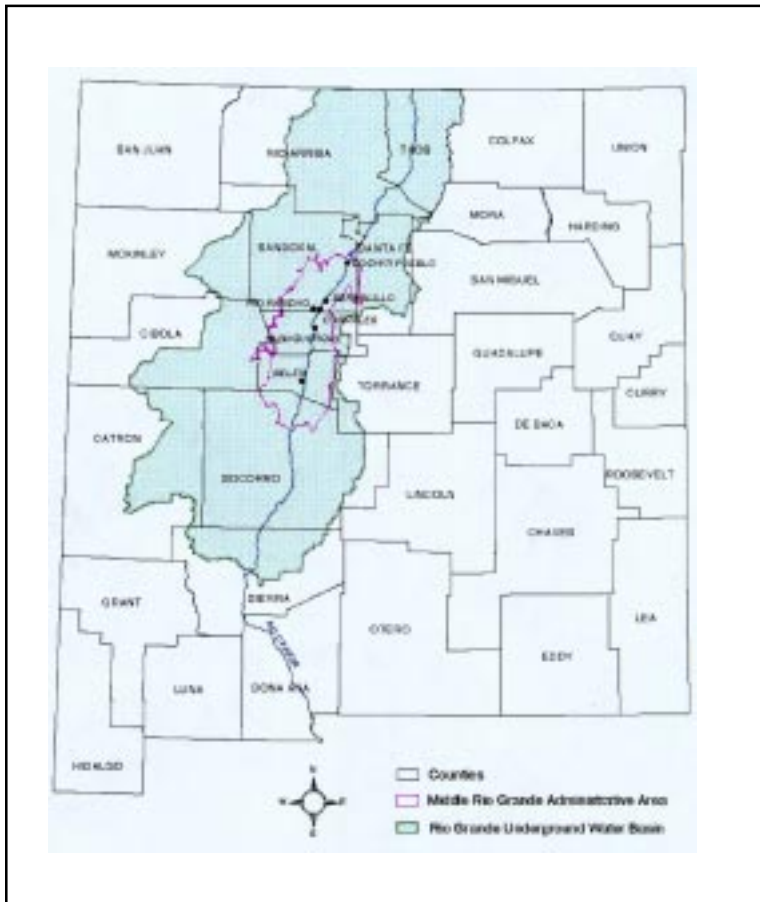


Figure 1. Rio Grande Basin and Middle Rio Grande Administrative Area

Offsetting the effects of groundwater diversions is critical to the conjunctive management of the water resources within the MRGAA. Any existing permittee requiring surface water rights for offset purposes is confronted with finding a seller of valid surface water rights and obtaining a permit from the state engineer to transfer the surface water rights. The transfer of surface water rights within the MRGAA is a complicated and often lengthy process due to the complex interrelationship between the surface and groundwaters, the numerous existing appropriations to be protected, and the diversity of the numerous interests having standing to participate in the administrative process for an application for permit. Because a transfer application can be denied or approved and the decision appealed to the district court, the court of appeals and the state supreme court, the final decision may be far removed from the time the application was filed.

The public welfare of the state is protected only if there is certainty that a permittee will be able to obtain and transfer all necessary valid

surface water rights to prevent adverse effects upon the flow of the Rio Grande. Accordingly, the public welfare is best served by limiting actual diversion to the amount of valid surface water rights transferred or otherwise held by the permittee.

APPLICATIONS TO APPROPRIATE UNAPPROPRIATED WATER

No new applications to appropriate unappropriated water within the MRGAA, other than those permitted under NMSA 72-12.1, will be accepted.

PERMIT LIMIT ON ACTUAL DIVERSION¹

The actual amount of the groundwater diversion will be limited to the valid surface water rights held by the permittee to offset the greater of either:

- total well diversions less any approved offset flow returned directly to the Rio Grande; or
- the net surface water depletion associated with past and present use including

consideration of residual effects of past diversions.

Return flow credits are permitted only upon the state engineer's approval of a permittee's return flow plan.

SURFACE WATER RIGHTS REQUIRED TO OFFSET GROUNDWATER WITHDRAWALS

Any permit approved to appropriate groundwater shall be conditioned to limit the actual diversion of water to the valid surface water rights held as defined below:

- surface water rights water rights transferred by State Engineer permit to groundwater;
- water recovered under an approved Aquifer Storage and Recovery (ASR) Program;
- San Juan Chama project water held by a perpetual contract between the permittee and the Secretary of the Interior²

MRGAA RESTRICTIONS

Applications for wells, other than those under Section 72-12-1, shall be evaluated using the interim MRGAA model to ensure resulting groundwater level decline rates do not exceed 2.75 feet per year in non-critical areas. Such applications may be approved unless:

- The state engineer finds that the granting of the application will impair existing water rights, be contrary to water conservation within the state, or be detrimental to the public welfare of the state; or
- The proposed appropriation combined with the exercise of existing water rights will cause total water level declines in any Critical Management Area model cell to exceed 250 feet from predevelopment conditions to the year 2040.

CRITICAL MANAGEMENT AREAS

An area with excessive water level decline rates shall be closed to additional appropriations and shall be defined as a Critical Management Area (CMA). A CMA shall generally include those model cells in which the predicted water level declines exceed an average rate of 2.50 feet per year through the year 2040 and those cells in which the current observed rate of water level declines exceeds an average of 2.50 feet per year. The current CMA boundary is shown in figures 2 and 3. The boundaries will be modified as the

CMA expands due to hydrologic stresses.

Non-Critical Areas are defined as those model cells that do not fall within any CMA.

CRITICAL MANAGEMENT AREA RESTRICTIONS

No applications will be accepted in a CMA except for applications to replace, repair, deepen, or supplement an original well or for wells under Section 72-12-1 (NMSA). The amount of water previously placed to beneficial use under an existing given permit will be the limit for any new permits to replace, repair, or deepen wells within the CMA. Supplemental wells may be considered if the combined diversion from the supplemental well and primary well does not exceed the maximum amount of water previously placed to beneficial use from the primary well. No alternate points of diversion (i.e., additional or new wells) necessary to appropriate the maximum permitted amount of water may be permitted in the CMA. Owners of declared water rights within a CMA will not be granted any permits to increase their diversion beyond the amount of groundwater already placed to beneficial use.

CALCULATION OF WATER LEVEL DECLINE RATES

Decline rate calculations shall be made by simulating full production of proposed wells beginning in the year the application was filed, through the beginning of year 2040, unless the application includes a pumping schedule. If a schedule has been provided, simulations will be performed in accordance with the schedule. The proposed stresses and full exercise of existing permits will be assumed, including reasonable use of 72-12-1 wells, through the year 2040. Computed decline rates through the year 2040, from existing and proposed uses, shall be divided by the number of years used in the predictive scenario to obtain the average decline rate. If a pumping schedule has been provided, the permit shall be conditioned to limit pumpages in accordance with the schedule. The interim model will be updated to include the new permits so that the cumulative effects are considered in the evaluation of subsequent applications. Any model cell which reaches a predicted average decline of 2.50 feet per year or more due to existing and

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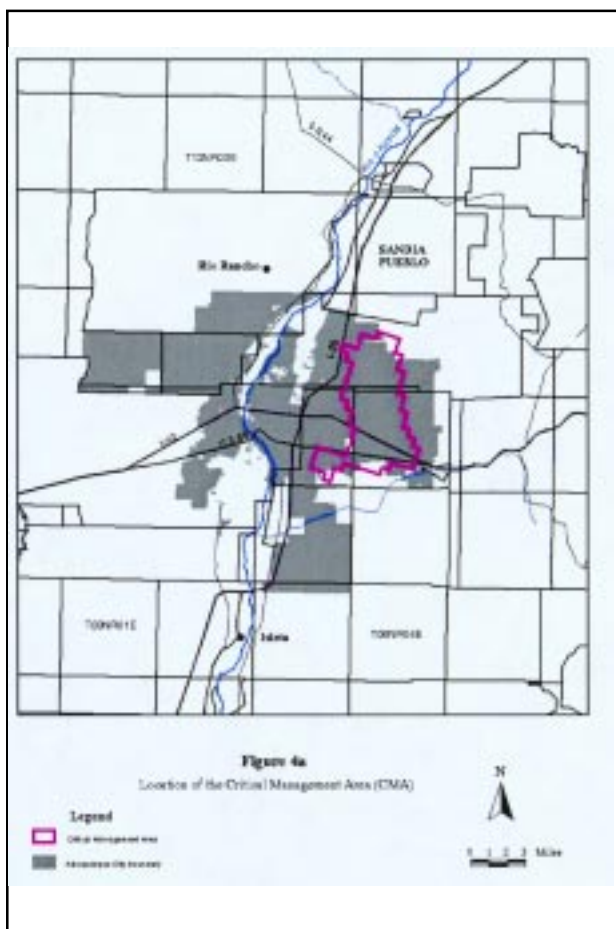


Figure 2. Current Critical Management Area

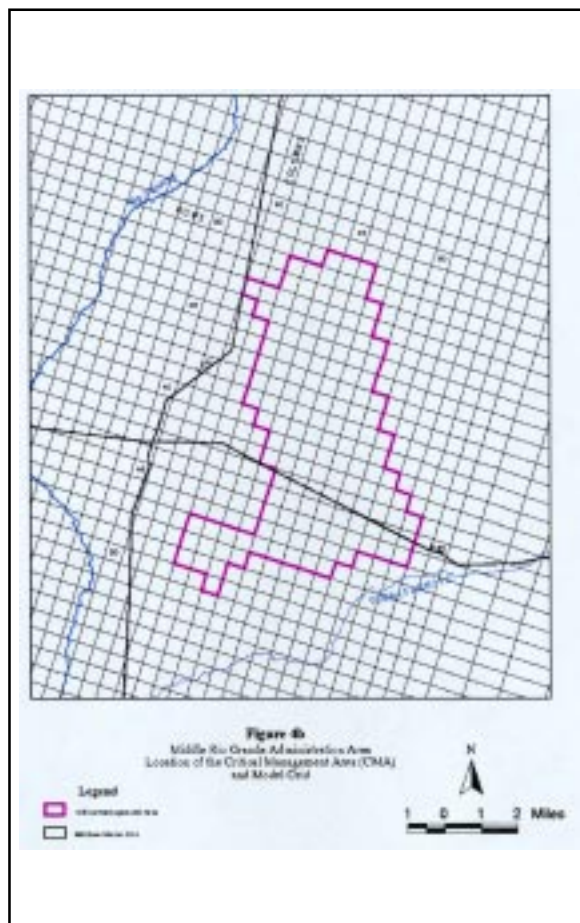


Figure 3. Middle Rio Grande Administration Area.

subsequent permits, and all cells directly above and below that cell, will be designated as a CMA.

SECTION 72-12-1 WELL RESTRICTIONS

New wells within a CMA permitted under Section 72-12-1 (NMSA) may be limited to a total diversion amount of less than the currently designated 3 acre-feet per year. Permits for these wells will most likely be conditioned to require metering.

OTHER CONSIDERATIONS

Permits may be conditioned to require monitoring as deemed necessary by the state engineer. The state engineer will deny any application if he finds that the granting of the application would be contrary to statute and may cancel any permit if the conditions of approval are not met or if the actions of the permittee are not in accordance with the permit.

TRANSFER OF VALID GROUNDWATER RIGHTS

With respect to protecting the flows of the Rio Grande, the transfer of groundwater rights will be processed on a case-by-case basis. **The above discussion is applicable to the transfer of groundwater rights only within the MRGAA.**

¹Pre-basin groundwater right diversions shall be limited by the conditions set forth in permits previously approved by the state engineer.

²The guidelines are not intended to apply to permits for groundwater within the MRGAA, which are in existence at the time of adoption of the proposed guidelines (hereinafter referred to as existing permits); that is, the effects of the groundwater diversion pursuant to an existing permit may continue to be offset with short-term contracts for San Juan/Chama project water. Short-term San Juan/Chama contract water may be used for offset purposes only in the year which the effects occur. Any state engineer action requested by an existing permittee will invoke the application of final guidelines to the existing permit.