Appendix G

Guide to Colorado Well Permits

Monitoring and Observation Wells – These types of well permits are for the construction of a well to be used for the purpose of locating water, pump or aquifer testing, monitoring ground water, or collection of water quality samples. A monitoring and observation well may be converted from an existing monitoring and observation hole and permitted for the uses as stated above, or as a recovery well or a dewatering system (see discussion on *Monitoring and Observation Hole, Recovery Well, and Dewatering System*). A well constructed under a monitoring and observation well permit may be converted by permit to other uses. Use Form GWS-46 in applying for this type of permit.

Replacement Wells - These types of well permits are for the purpose of replacing or deepening an existing well. The uses allowed under the original well transfer over to the new well. In some areas of the state, replacing the new well or deepening the existing well to a different water source (or aquifer), could affect the uses allowed on the new well, or the ability to get a new permit for production from a different water source. Use Forms GWS-44, 45, or 46, depending on the use of the original well, in applying for this type of permit.

Non-Exempt Wells

Any type of use other than those described above are usually for non-exempt purposes. In over-appropriated areas of the state, new non-exempt wells are required to replace any out-of-priority stream depletions in time, place, amount, and quality by having augmentation water available. A plan for augmentation must be approved by the water court to prevent injury to senior water right holders by replacing the amount of water consumed by the non-exempt uses. Development of plans for augmentation usually require the services of a water resource consulting engineer and water attorney (see section of this guide titled, *"What is an Augmentation Plan?"*). Non-exempt well permits typically allow pumping rates and annual withdrawals of ground water in excess of those allowed by exempt well permits. New non-exempt wells are required to be located more than 600 feet from any other production well not owned by the applicant. Additionally, they must be constructed for withdrawal of ground water from the same water source as the proposed well unless the State Engineer, after a hearing, finds that circumstances in a particular instance warrant issuing the permit, or after proper notice has been given to other well owners as outlined in the Colorado State Statutes (see section of this guide titled, *"If My Proposed Non-Exempt Ground Water Well is Within 600 Feet of an Existing Well, What Happens?"*).

Recovery Wells – These types of well permits are issued for wells to be used for the purpose of removing contaminants from, or otherwise remediating, ground water. In over-appropriated areas of the state, a plan for augmentation would be required if the consumptive use of ground water for the entire recovery project exceeds 1/30 of an acre-foot (10,862 gallons) per year (see Policy Memorandum 94-5 for more detailed information). Use Form GWS-45 in applying for this type of permit.

Test Holes (that penetrate through a confining layer) – These holes are any excavation or other ground penetration for the purpose of geotechnicial, geophysical or geologic investigation, or collecting soil or rock samples. A test hole that penetrates through a confining layer must submit proper notice before construction. A test hole shall not remain open longer than twenty days, and must be abandoned in accordance with the Rules. An Abandonment Report (Form GWS-9) must be submitted within sixty days after abandoning any test hole that penetrates through a confining layer. Use Form GWS-51 when providing Notice of Intent to Construct this type of structure.

Dewatering Wells – These wells are any excavation or other ground penetration for temporary dewatering purposes exclusively related to construction projects. A dewatering well may be constructed only after proper Notice, and must be plugged and abandoned within one year of being constructed. Upon written request for variance, and as warranted by project considerations, the one-year abandonment requirement may be extended. For non-construction projects or when long term dewatering is required, application can be made for a dewatering system using Form GWS-45. Use Form GWS-62 when providing Notice of Intent to Construct this type of structure.

Dewatering Systems – These types of well permits are for a permanent well, drain, sump or other excavation constructed for the purpose of keeping the water table below a desired level. A dewatering system may be converted by permit from a monitoring and observation hole, dewatering well, or recovery well. Use Form GWS-45 in applying for this type of permit.

Monitoring and Observation Holes – These are temporary holes constructed after proper notice and in accordance with the Water Well Construction Rules. A Well Construction and Test Report (Form GWS-31), referencing the acknowledged notice number, is required to be submitted within sixty days after constructing the hole. A monitoring and observation hole must either be abandoned in accordance with the Rules within one year of construction or converted by permit to a monitoring and observation well, recovery well, or dewatering system. If abandoned, a Well Abandonment Report (Form GWS-9) must be submitted within sixty days after abandoning the hole. A monitoring and observation hole cannot be converted to a production well other than a recovery well or a dewatering system. Use Form GWS-51 when providing Notice of Intent to Construct this type of structure.

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September 29, 1999

M E M O R A N D U M

TO: Legislative Interim Committee on Oil and Gas

FROM: Hal D. Simpson, State Engineer

RE: Executive Summary of State Engineer's October 5, 1999, Presentation about Groundwater from Coal Bed Methane Wells in Las Animas County

The Division of Water Resources ("DWR") has been asked to examine and analyze the water rights issues related to the use of water withdrawn from wells used to dewater geologic formations during coal bed methane extraction (hereinafter "CBM wells"). Use of water from CBM wells, until recently, has been limited by water quality concerns. At least three different state agencies (the Colorado Oil and Gas Conservation Commission ("COGCC"), DWR, and the Water Quality Control Division ("WQCD") of the Colorado Department of Public Health and the Environment ("CDPHE")) have authority as it relates to the withdrawal, use, and/or disposal of water from a CBM well, and the interrelationship between the Constitutional provisions, statutory language, and various rules is extremely complex. Nevertheless, this Executive Summary attempts to provide a general overview of the jurisdictional boundaries and explain where conflicts may exist now and in the future. In particular, this summary concentrates on situations where a person wants to beneficially use the water withdrawn from a CBM well.

COGCC has authority over all oil and gas operations including the generation, transportation, storage, treatment, or disposal of exploration and production wastes. Water removed from a CBM well is considered a waste. Pursuant to COGCC rules promulgated in accordance with the COGCC Act, an operator may dispose of water from a CBM well in one of the following four ways: 1) inject it (by pumping the water back down another well); 2) place it in a properly permitted lined or unlined pit for evaporation and or percolation; 3) dispose of the water at permitted commercial facilities; or 4) dispose of the water by roadspreading on lease roads outside sensitive areas for produced waters. But, an operator can only discharge the water into "waters of the state" (as defined by the Water Quality Control Act) if the operator has a discharge permit. The COGCC statute ("COGCC Act") grants certain authority to COGCC to promote oil and gas conservation, and rescinds any authority of any other agency as it relates to the conservation of oil or gas.

CBM wells are not "wells" as defined in the Water Well Construction and Pump Installation Contractors statutory provisions, and operators do not need to obtain a permit from DWR to withdraw water from these wells. However, if water from a CBM well is put to beneficial use then DWR may have certain

jurisdiction over the water and the well. But if water from a CBM well is not put to beneficial use, DWR does not have authority over the water and the well.

DWR has jurisdiction over all appropriations of water. An "appropriation" is defined as the application of a specified portion of the waters of the state to a beneficial use pursuant to the procedures prescribed by law. "Waters of the state" in this context means all surface and underground water tributary to natural streams, except designated ground water as designated by the Colorado Ground Water Commission. The statutory and case law vests DWR with jurisdiction over water withdrawn from a CBM well that is beneficially used.

If an operator or another person wants to beneficially use water from a CBM well, that operator or person must comply with the Water Right Determination and Administration Act and the Ground Water Management Act ("Water Rights Acts"). The person could apply for a water right in water court and/or file for well permit. If the person applies for a well permit for water from a CBM well, that water is presumed tributary, but the person may submit evidence, or engineering documentation that the water is nontributary. Regardless of whether the water withdrawn from a CBM well is nontributary or tributary, there are certain statutory requirements that the water user must meet before he may obtain a well permit and/or a water court decree. Any water discharged into "waters of the state" (as defined by the Water Quality Control Act) are subject to appropriation under the Water Rights Act.

Whether a use is beneficial is a question of fact and depends on the circumstances of each case. However, the following uses can be recognized as beneficial uses: agriculture, mining, domestic, manufacturing, stockwatering, wildlife watering, irrigation, industrial, mechanical, commercial, municipal, recreation, minimum stream flows, fire protection, evaporation, and dust suppression.

DWR has never asserted authority over water withdrawn from a CBM well that was reinjected; allowed to evaporate or percolate in pits; or used on roads for dust suppression. DWR does not have jurisdiction over these uses of water from a CBM well because those uses are not considered beneficial uses under those circumstances and because the COGCC Act rescinds any authority of any other agency as it relates to the conservation of oil or gas. The COGCC Act controls over any claims made under the Water Rights Acts.

If water from a CBM well is not beneficially used, then the operator of the CBM well is not required to get a permit from DWR. In addition, DWR does not have any jurisdiction over the withdrawals from the CBM well. DWR would only have jurisdiction over a situation where a water user could prove to the satisfaction of a District Court: 1) that the CBM well is causing injury to his vested water right; and 2) that the Water Rights Acts controls over the COGCC Act.

DWR is aware of the overlapping jurisdictional issues between COGCC and WQCD of CDPHE. The CDPHE rules provide that no person shall discharge any pollutant into any state water from a point source without first having obtained a permit from WQCD for such discharge. It is our understanding that an MOA currently exists between WQCD and COGCC, but that they are also in the process of developing additional MOAs as necessary, to better define their jurisdictional boundaries. DWR takes no position with regard to these discussions.