



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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From: Kevin G. Rein, Assistant State Engineer *KGR*

**Re: Revised Memorandum: Submittals to the Division of Water Resources for approval of substitute water supply plans and well permits for oil and gas wells that produce ground water while producing oil or gas.**

On March 22, 2010, Governor Ritter signed SB10-165. Section 1 of SB10-165 clarifies that, except for CBM wells producing water – for which wells, water well permits are always required – no well permit is required for an oil and gas well that produces nontributary ground water if the use of the produced ground water is not beneficially used or used only to facilitate or permit the mining of minerals. Sections 2 and 3 of the bill extend the deadline for operators of oil and gas wells that require water well permits or substitute water supply plans to obtain them. I refer you to SB10-165 for the precise language.

As a result of the provisions of this new law, oil and gas wells that produce water are currently allowed to operate without a water well permit and without a plan of augmentation or a substitute water supply plan pursuant to Section 37-90-138(2), C.R.S., which now states:

“(2) If the state engineer finds any well to have been drilled or maintained in a manner or condition or to be withdrawing ground water contrary to any of the provisions of this article or the rules issued under this article, the state engineer shall immediately notify the user in writing of the violation and give the user time as may reasonably be necessary, not to exceed sixty days, to correct deficiencies. If the user fails or refuses to correct the deficiencies within the allowed time, the state engineer is authorized to enter upon the user's land and do whatever is necessary in order that the user comply with this article or rules issued under this article. Prior to August 1, 2010, this subsection (2) does not apply to oil and gas wells. For an oil and gas well in existence on the effective date of this Subsection (2), as amended, for which a well permit is required by this section, a well permit application shall be submitted to the State engineer on or before April 30, 2010. For an oil and gas well To be constructed between the effective date of this subsection (2), as amended, and august 1, 2010, for which a well permit is Required by this section, a well permit application shall be Submitted to the state engineer on or before June 15, 2010. All oil and gas wells to be constructed after august 1, 2010, for which a Well permit is required by this section shall have a well permit prior to producing groundwater.”

and Section 37-92-308(11)(a)(I) which now states:

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“(11) (a) (I) To provide sufficient time to integrate coal bed methane wells into the water court adjudication process for augmentation plans, during 2010, 2011, and 2012 the state engineer may approve annual substitute water supply plans for such wells using the procedures and standards set forth in this subsection (11). Until July 31, 2010, coal bed methane wells may continue to operate without a substitute water supply plan if the oil and gas operator submits a request for approval of a substitute water supply plan pursuant to this subsection (11) by April 30, 2010. Beginning August 1, 2010, and ending December 31, 2012, no coal bed methane well that withdraws tributary ground water and impacts an over-appropriated stream shall operate unless:...”

Therefore, as described in my previous January 25, 2010 memo, with amendments pursuant to the provisions of SB10-165, the following applies:

### **Well Permitting for Coal Bed Methane (“CBM”) Wells**

According to the ruling in *Vance v. Wolfe*, all wells that produce ground water through the CBM extraction process are putting the water to beneficial use and, therefore, require a well permit to be issued pursuant to 37-90-137(2) and, if the water is nontributary, 37-90-137(7). This condition applies whether or not the operator or any other party puts the water to some subsequent beneficial use; and whether the ground water is tributary or nontributary.

### **Replacement Requirements for CBM Wells**

If a CBM well produces nontributary ground water, the well is not subject to administration in the prior appropriation system; therefore, it may operate without a plan of augmentation or substitute water supply plan.

If, however, a CBM well produces tributary ground water that impacts an over-appropriated stream, the well must operate only according to a water court-approved plan of augmentation or a substitute water supply plan approved pursuant to 37-92-308(4), 37-92-308(5), or 37-92-308(11).

### **Well Permitting for non CBM Wells**

All non-CBM wells that put tributary ground water to a beneficial use require well permits to be issued pursuant to 37-90-137(2). In addition, non-CBM wells that put nontributary ground water to a beneficial use require well permits to be issued pursuant to 37-90-137(2) and 37-90-137(7). As allowed by 37-90-137(7), non-CBM wells that produce nontributary ground that is not beneficially used, or used only by the operators within the geologic basin where the ground water is removed, to facilitate or permit the mining of minerals, require no well permit. For the purposes of 37-90-137(7), the condition of ground water being removed to “facilitate or permit the mining of minerals” is further explained in that section.

**Replacement Requirements non-CBM Wells**

As with CBM wells, if a non-CBM well produces nontributary ground water, the well is not subject to administration in the prior appropriation system; therefore, it may operate without a plan of augmentation or a substitute water supply plan.

If, however, a non-CBM well produces tributary ground water that impacts an over-appropriated stream, the well must operate only according to a water court-approved plan of augmentation or a substitute water supply plan approved pursuant to 37-92-308(4) or 37-92-308(5).

**Basis for the SEO's Position on Permitting and Replacement for CBM and Non-CBM Wells**

On April 20, 2009, the Supreme Court issued its ruling in the Vance v. Wolfe case. In that ruling, the Supreme Court clearly stated that the withdrawal of ground water through the CBM extraction process is a beneficial use. As a result, the State Engineer has the administrative responsibility of requiring well permits for all CBM well whether they produce ground water that is tributary or nontributary. However, CBM wells that produce nontributary ground water are not subject to administration in the priority system because of the provisions of 37-92-305(11).

The Supreme Court did not rule that water produced through non-CBM oil and gas wells is a beneficial use, rather the Supreme Court made that ruling specifically for only CBM wells. In its ruling, the Supreme Court clearly distinguished CBM wells from non-CBM oil and gas wells on the question of beneficial use. The Supreme Court stated that "the CBM process 'uses' water -- by extracting it from the ground and storing it in tanks -- to 'accomplish' a particular 'purpose' -- the release of methane gas. The extraction of water to facilitate CBM production is therefore a 'beneficial use' as defined in the 1969 Act." Since the Supreme Court made clear its distinction from non-CBM production, lacking any subsequent application of the ground water to beneficial use beyond the use only by the operators within the geologic basin where the ground water is removed to facilitate or permit the mining of minerals, the State Engineer does not regard non-CBM wells as requiring well permits.

However, the State Engineer does acknowledge the statutory responsibility found in § 37-92-502(2)(a), C.R.S – cited in the dissenting opinion in Vance – to administer the withdrawal of ground water to ensure no injury to senior vested water rights. Therefore, as a result of that statutory responsibility, and because the Supreme Court has directed in Simpson v. Bijou that depletions to a surface stream in an over-appropriated system are presumed to be injurious, the State Engineer takes the position that all oil and gas wells that produce ground water that is tributary to an overappropriated system require a showing to overcome the presumption of injury or must demonstrate their operations are compliant with a court approved augmentation plan or a substitute water supply plan that replaces depletions in time location and amount. Therefore, for the purposes of well permitting and administration of wells, the State Engineer's position is that:

- A. All CBM wells, tributary and nontributary, will require a well permit by virtue of the well's application of the water to beneficial use through the CBM extraction process.
- B. All oil and gas wells, CBM and non-CBM, that produce ground water that is tributary to an overappropriated stream are subject to administration by the State Engineer based

on the fact that according to Bijou all depletions in an overappropriated system are presumed to be injurious.

- C. Non-CBM wells that produce nontributary ground water, but do not put the ground water to beneficial use beyond the original withdrawal of the ground water, or beyond the use by the operator in the same geologic basin to facilitate or permit the mining of minerals, do not require well permits, nor do they require administration in the prior appropriation system.
- D. Non-CBM wells that produce tributary ground water, but do not put the ground water to beneficial use beyond the original withdrawal of the water do not require well permits.
- E. All oil and gas wells that produce ground water and put the ground water to beneficial use beyond the original withdrawal of the ground water require well permits. Note the exception to this in item C.
- F. Oil and gas wells that produce nontributary ground water are not subject to administration within the prior appropriation system and do not require substitute water supply plans or augmentation plans.

These six conditions are shown graphically in the following tables.

Extraction Only		
	Tributary	Nontributary
CBM	Permit?: <b>Yes (A)</b>	Permit?: <b>Yes (A)</b>
	Replace depletions <sup>1</sup> ?: <b>Yes (B)</b>	Replace required?: <b>No (F)</b>
Non-CBM	Permit?: <b>No (D)</b>	Permit <sup>2</sup> ?: <b>No (C)</b>
	Replace depletions <sup>1</sup> ?: <b>Yes (B)</b>	Replace required?: <b>No (C,F)</b>

1. For depletions that impact an over-appropriated stream. No replacement is required for depletions that impact a stream that is not over-appropriated.
2. Includes consideration of the situation where ground water that, in addition to the initial extraction, also is used only by the operator in the same geologic basin to facilitate or permit the mining of minerals.

Use Subsequent to Extraction		
	Tributary	Nontributary
CBM	Permit?: <b>Yes (A,E)</b>	Permit?: <b>Yes (A, E)</b>
	Replace depletions <sup>1</sup> ?: <b>Yes (B)</b>	Replace required?: <b>No (F)</b>
Non-CBM	Permit?: <b>Yes (E)</b>	Permit <sup>2</sup> ?: <b>Yes (E)</b>
	Replace depletions <sup>1</sup> ?: <b>Yes (B)</b>	Replace required?: <b>No (F)</b>

1. For depletions that impact an over-appropriated stream. No replacement is required for depletions that impact a stream that is not over-appropriated.
2. Does not apply to the situation where ground water that, in addition to the initial extraction, also is used only by the operator in the same geologic basin to facilitate or permit the mining of minerals.

**Submittal of well permit and substitute water supply plan applications**

All ground water in the state is presumed to be tributary unless shown to be nontributary and, therefore, is subject to the requirements outlined above. For the purposes of the State

Engineer's application of 37-90-137(7), the Produced Nontributary Ground Water Rules are a showing that ground water is nontributary. In keeping with the provisions of SB10-165 and to allow for the most reliable processing of applications, the State Engineer's Office will act according to the following:

1. The State Engineer's Office will not issue a permit for a well that produces tributary ground water that impacts an over-appropriated stream until that well is subject of a water court-approved plan of augmentation or a substitute water supply plan approved pursuant to 37-92-308(4), 37-92-308(5), or in the case of CBM wells, 37-92-308(11).
2. The staff of the State Engineer's Office is willing to meet with the operators and their representatives prior to the submittal of an SWSP to review all aspects of the submittal. This will allow for a more expeditious submittal and will help expedite the review process by eliminating an iteration of requests for more information by the State Engineer's Office.
3. The Produced Nontributary Ground Water Rules include provisions allowing an operator to petition the State Engineer for a determination of nontributary ground water. Such an action may result in identifying some wells as producing tributary ground water and some nontributary, Acknowledging that, the State Engineer's Office will accept submittals of SWSP requests before the State Engineer has decided on a petition
  - a. If the submittal includes wells with a replacement requirement due to their anticipated tributary status and the wells can subsequently be shown to be producing from a nontributary formation, according to the decision on the petition, the State Engineer's Office will allow those wells to be removed from the substitute water supply plan without requiring an amendment to any associated water court application, if applicable, and without requiring amended notice to the substitute water supply plan notification list.
  - b. If the substitute water supply plan applicant wishes to add wells to the plan the applicant must first amend any associated water court application, if applicable, and give notice of the amended substitute water supply plan as required by 37-92-308.
4. If an applicant for an SWSP has submitted the SWSP to the SEO before March 1, 2010, or immediately after a determination of nontributary ground water through the rulemaking, whichever comes latest, the State Engineer will dedicate available staff to the evaluation and approval or denial of the SWSP before committing staff to curtailment of wells that are subject of the SWSP.
5. Each well permit application must include specific data for that well and must be accompanied by the statutory fee for each well permit issued pursuant to 37-90-137(2). The SEO staff will accept a single GWS-45 application form to represent the submittal for a group of wells.
  - a. Each well in such a group of wells must be
    - i. The subject of the same SWSP or water court decree, or
    - ii. Located in one formation that was the subject of a single determination of nontributary ground water

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- b. The GWS-45 application must be accompanied by
  - i. the correct fee for each individual well
  - ii. a cover letter explaining the GWS-45 application and attachments
  - iii. an attachment in spreadsheet form providing all well permit application information for each well. The SEO staff has made this form available for the applicant's use on its website.
  - iv. an electronic copy of the spreadsheet providing all well permit application information for each well. The SEO staff has made this spreadsheet available for the applicant's use on its website.
  - v. for any well for which there are existing production water wells that are not oil and gas wells within 600 feet of the surface location of the well, the permit numbers, owners' name, and owners' addresses of the production water wells that are within 600 feet of the oil and gas well
  
- 6. Operators should submit well permit applications as soon as possible to ensure timely approval, but only after contacting Kevin Rein or the appropriate permitting Team Leader at the State Engineer's Office. The State Engineer's Office may recommend further discussion at that point.

In any case, the operator must abide by the deadlines in 37-90-138 and 37-92-308(11) as amended by SB10-165. Those deadlines are in the sections of the statute found at the bottom of page 1 and the top of page 2 of this memo.