

MEMORANDUM

DATE: February 26, 2010
TO: Water Right File 63-32423
FROM: Shelley W. Keen *SWK*
RE: Application review

Application 63-32423 proposes a diversion and use of 5.0 cfs of ground water for municipal purposes in the Dry Creek area of Ada County. The application poses some complex challenges. This memo summarizes the challenges and explains how they can be addressed in a permit.

Prevention of injury to ground water appropriators

The applicant, JMM Dry Creek LLC, did not provide strong evidence to show that the ground water supply in the Dry Creek drainage is sufficient to supply a community of 3500 homes without causing injury to other ground water right holders. Instead, the applicant agreed with the protestants to:

- Limit the annual diversion to 1764 af, the amount authorized collectively by the applicant's existing ground water irrigation rights, which are offered for mitigation
- Monitor ground water levels during the development phase of the permit to be sure declines are reasonable and not injurious to senior ground water appropriators
- Limit the annual volume to 70% of the authorized volume until monitoring demonstrates more can be pumped without causing injury
- Import additional water from United Water Idaho

Permit conditions will describe the combined volume limit and the phased-in volume restriction. A permit condition will also require implementation of the monitoring plan as described in the agreement between the applicant and the protestants.

Mitigation amount

The applicant proposes to establish a new water right for municipal purposes using ground water that is tributary to the Boise River upstream from Star Bridge. Because a municipality could theoretically consume all of its water in industrial processes, municipal water rights are considered fully consumptive. Water in the Boise River upstream from Star Bridge, including tributary surface water and ground water, is fully appropriated. New consumptive uses of ground water are only authorized under four circumstances:

- The ground water is diverted from greater than 200 feet below ground surface, or
- The proposed use is non-consumptive, or
- The proposed use is for domestic purposes, and each domestic unit meets the limitations set forth in Idaho Code § 42-111, or
- Impacts of the proposed use on the Boise River are fully mitigated

In this instance, the application does not fully satisfy any of the first three criteria. First, the water proposed to be diverted is from 100 feet to 300 feet below ground surface. Second, as noted above, municipal use is considered fully consumptive. Third, most of the individual land parcels within the service area will have uses meeting the Idaho Code § 42-111 limitation, but the proposed schools, commercial establishments, and homes on large lots will not.

The applicant proposes to satisfy the fourth criteria -- mitigation. The right holder has a set of ground water rights that historically provided a supply of water to irrigate alfalfa. In this part of the Treasure Valley, alfalfa consumes about 2.7 af per year. The water rights are for 404 acres of irrigation. Therefore, IDWR would normally allow the existing rights to mitigate for only 1090.8 af ($404 * 2.7$) of diversion for municipal purposes. In this case, however, because IDWR would normally approve a domestic use meeting the Idaho Code § 42-111 without mitigation, the applicant has proposed to mitigate the domestic uses at a different rate than the non-domestic uses. The non-domestic uses will be mitigated by the reduction of one acre of irrigation for every 2.7 af of use. The domestic uses, however, will be mitigated by the reduction one acre for every 4.5 af of use (the standard field headgate volume for irrigation in the Treasure Valley). Note that the component of this plan for domestic uses is not really mitigation, but rather a way to convert irrigation to domestic use within the 1764 af combined use limit.

Mitigation timing

The applicant wants to phase in mitigation over time. IDWR usually requires immediate conversion of the mitigation rights to the proposed mitigation activity. In this case, because the proposed development is so large that it must be phased in over time, IDWR will allow the mitigation to be phased in over time as well. Conditions on the permit will require the permit holder to estimate the increase in consumptive use for each year during the authorized development period. Irrigation under the mitigation rights will then be reduced according to the rates described above (1 acre for 2.7 af of non-domestic use and 1 acre for 4.5 af of domestic use) to offset the anticipated consumption. The applicant will be required to notify IDWR of the anticipated consumptive use and the irrigation reduction so that water right records for the mitigation rights can be adjusted each year. Manipulating the mitigation rights annually will be an irregular burden for IDWR staff, but it is a burden the agency can assume in to see a project of this magnitude succeed.

September 18, 2009

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Shelley Keen
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

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Subject: Application for Permit 63-32423 – JMM Dry Creek, LLC

Dear Shelley:

Thank you for your email of September 11, 2009. I greatly appreciate your willingness to discuss processing issues and concerns related to the Dry Creek Ranch application for permit 63-32423.

In your email, you indicated two objectives that you are trying to meet. The first is compliance with the Amended Application Processing Memo No. 59 dated February 22, 2008. The second is to prevent municipal use from depleting the groundwater resource in the Dry Creek area beyond what would be depleted if JMM Dry Creek LLC uses all of its irrigation water rights to their full extent. In this letter, I'll provide some ideas and comments related to the two objectives, and then propose some conditions of approval that I believe will meet these objectives.

First Objective – Amended Memo No. 59. With regard to Amended Memo No. 59, you listed four different criteria that allow issuance of permit. Compliance with any of these four criteria can be adequate for permit approval. As discussed below, we have the ability to meet, at least partially, three of these four criteria.

- Domestic Purposes at Each Unit as Defined by IC 42-111.** In practice, use of municipal system water on nearly all lots within the Dry Creek Ranch planned community is likely to meet the limits of IC 42-111. Irrigation of low-elevation lots and large areas (common areas, parks, schools, etc) will occur from the pressurized irrigation system rather than from the municipal water system. However, there could be a few high-elevation lots that do not meet this definition. In addition, commercial and institutional domestic uses (i.e., schools), or small high-elevation common areas irrigated from the municipal system, will not meet this definition. In total, however, the vast majority (estimated to be more than 90%) of water use proposed under this permit will meet the individual lot limits of IC 42-111. A more definitive description of the proposed uses that meet the definition of IC 42-111 can be provided if needed.
- Mitigation.** As I understand Amended Memo No. 59, mitigation for diversions of groundwater from depths above 200 feet is not required if the uses by each

An estimate is not sufficient for proper administration. Just today I received a call about a subdivision that changed midstream from 40 small lots to 20 larger ones.

individual unit or lot meet the definition of IC 42-111. If a maximum of 10% of the volume diverted under the permit requires mitigation (based on the estimate detailed above), then the proposed mitigation should be adequate. We have proposed a 1 acre-foot reduction in diversion volume of the existing irrigation water rights for every 1 acre foot of diversion under the pending municipal permit. This would provide mitigation of approximately 10 acre feet of existing water right diversion volume for every acre foot of diversion that must be mitigated. This level of mitigation would be more than adequate to meet the intent of Amended Memo No. 59.

*3 premise without evidence
Trying to carve out the part that
doesn't have to be mitigated
and mitigate for the rest.*

- Ground Water Deeper than 200 Feet.** Application 63-32423 seeks a water-bearing zone from 100 to 300 feet. Our target aquifer extends from 58 to 230 feet, based on the well log for well 05N01E36AAB1. The permit holder could complete one well that is screened below 200 feet depth, and a second well that is screened above 200 feet depth. If a portion of the potential municipal permit diversion volume is not fully mitigated by the proposed reduction in irrigation water right volume, that portion could be diverted from the deep well. The portion of the potential diversion that is considered to be fully mitigated (or does not require mitigation) could be diverted from the shallow well.

Thus, I would conclude that the intent of Amended Memo 59 is met through the combination of above items 1 and 2, or items 1 and 3. All three items above, in combination, may exceed the intent and requirements of Amended Memo 59.

Second Objective – Prevent Depletion. With regard to your second objective (prevent municipal use from depleting the groundwater resource in the Dry Creek area beyond what would be depleted if JMM Dry Creek LLC uses all of its irrigation water rights to their full extent), I offer the following comments.

- I presume that you are interested in preventing depletion of the aquifer (i.e., water-level decline and potential injury to senior water rights), rather than preventing additional diversions that do not result in depletion. Although we are providing significant mitigation, the intent of the application was a new appropriation that would not limit the potential diversion of groundwater to historical diversions or consumption. Rather, the diversion limit would be the currently authorized irrigation diversion limit. (We don't know whether consumption will increase, but we assume that an increase in consumption will be acceptable if it does not reduce the water supply to prior rights.)

okay, but prove it

- As you point out, the application materials do not demonstrate the quantity of water that is available for new appropriation in the Dry Creek area. Nonetheless, the application materials and other available data do not indicate there is currently a problem with over use of groundwater in the area. Water levels have historically fluctuated, but do not show chronic long-term decline.

3. The Department's May 30, 2008 approval of permit 63-12217 (Brady) for 35 acres of new irrigation from a water-bearing zone below 200 feet seems to indicate that deeper aquifers in the Dry Creek Valley are not considered over appropriated.
4. We agree with you that wastewater disposal options could become more restrictive in the future. For this reason, the applicant is unwilling to agree to water right conditions that will limit future options for wastewater disposal. We believe that the interim diversion limit and "wait and see" approach provided in the protest resolution is a better option for management of the resource.

Draft Permit Conditions. Based on your objectives and the comments presented above, I propose the following permit conditions for your consideration.

1. **Total diversions from all sources under permit 63-32423 and water rights 63-7123, 63-4086B, 63-17454, 63-4023B and 63-2535 shall not exceed 1792 afa.** *This condition recognizes that total diversion will be limited to the 1792 afa as proposed by the application, and also recognizes that the new appropriation under the permit might (or might not) result in diversion or consumption of more water than was historically diverted under the decreed water rights only.*
2. **Combined instantaneous diversion rate under permit 63-32423 and water rights 63-7123, 63-4086B, 63-17454, 63-4023B and 63-2535 shall not exceed 7.84 cfs.** *This condition recognizes the diversion rate limitation proposed by the application.*
3. **Diversions under permit 63-32423 may be limited based on an agreement between the permit holder and protestant (Instrument No. 109008451, recorded in Ada County on January 26, 2009).** *This condition explicitly recognizes the existence of the agreement and the interim diversion limits provided in the agreement, and implicitly recognizes the protections to existing users provided by the agreement. If the permit holder cannot provide the Department with adequate data to support a finding that the interim limits should be increased, the Department is not obligated to change the interim limits. Thus, the burden is on the permit holder to provide adequate supporting data for an increase above the interim limit. The supporting data that is necessary to support a request to raise (or lower) the interim limit will be generated as water use in the area increases. Since these data are not currently available for Department decision making, it makes sense to have an interim limit until adequate data are available.*
4. **The permit holder shall install instantaneous and totalizing flow meters on diversion points utilized under permit 63-32423 and water rights 63-7123, 63-4086B, 63-17454, 63-4023B and 63-2535, and shall annually report to the Department the monthly diversions under permit 63-32423 and water rights 63-7123, 63-4086B, 63-17454, 63-4023B and 63-2535.** *This condition is needed*

for administration and monitoring of these water rights, and will be necessary data if the permit holder seeks an increase in the interim limits, or if other water users seek a decrease in the interim limits.

Please contact me with your thoughts regarding these comments and proposed conditions. Thanks again for the opportunity to provide input.

Sincerely,

Terry M. Scanlan, P.E., P.G.

Cc: Charlie Potter – Land Baron Investments
Charlie Honsinger – Ringert Law

Deleted: Although we believe the proposed mitigation is adequate, the following additional condition could be considered. We would prefer avoiding this condition because of the high costs associated with construction of an additional well.¶
¶
<#>Diversions under permit 63-32423 and water rights 63-7123, 63-4086B, 63-17454, 63-4023B and 63-2535 shall not exceed 1372 afa from wells completed above 200 feet depth. This condition recognizes that DCR is currently authorized to divert 1764 afa under existing water rights from above 200 feet depth, and theoretically could consume up to 3.5 af of each 4.5 af diverted, for a total consumption of 1372 afa. If the Department determines that municipal use is 100% consumptive, this condition limits the potential consumption of water from aquifers above 200 feet deep to the amount that could theoretically be consumed by the existing water rights.¶
¶

① Do not want to commit IDWR to an interim review of the permit, as suggested in the Water Rights Agreement. It is akin to a field exam without a fee in terms of effort. IDWR does not have the resources. I'm inclined to notify parties that IDWR will not respond to requests under 2(E) of the agreement.

② I'm not willing to rely on an estimate of the number of lots exempt from Memo 59 under C. It seems like a moving target.

Let's decide the depletion thing once and for all right now.

③ No long-term declines, but possibly only because of the non-use by Jekker.

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$$\begin{array}{r} 404 \\ 3.5 \\ \hline 2020 \\ 12120 \\ \hline 14140 \end{array}$$