

MEMORANDUM

TO: Water Right Files 37-22252, 37-22313, 37-22318, and 37-22323
FROM: Aaron Marshall 
DATE: January 28, 2010
SUBJECT: Application for Transfer No. 74449 and Application for Permit No. 37-22252

On December 29, 2009, IDWR received a petition for reconsideration and request for hearing from Travis Thompson ("petitioner") on behalf of the applicant, Dry Lot LLC. On January 7, 2010, IDWR staff met with the petitioner and representatives of the applicant to review the petition. On January 8, 2010, IDWR withdrew preliminary orders for permit no. 37-22252 and transfer no. 74449.

On January 19, 2010, IDWR received a report from Brockway Engineering providing an evaluation of the impacts resulting from a modified recharge schedule. The modified recharge schedule proposes using 96.3 acre-feet of water from the Big Wood River for ground water recharge from April 15 through June 30, a 77-day period. The evaluation shows there would be no significant change in impact to ground water levels or flow in the Big Wood River caused by the compressed seasonal recharge period.

In the petition, the petitioner explained that, "Since no irrigation system is 100% efficient, IDWR must account for that fact and authorize Dry Lot to use sufficient water to meet the "full season consumptive irrigation requirement" at the new place of use, plus sufficient water to account for any irrigation inefficiency."

In my memo dated November 24, 2009, I computed a historic seasonal weighted average consumptive use volume for rights 37-22313, 37-22318, and 37-22323 of 51.3 acre-feet per year. This computation takes into consideration curtailment of the Big Wood River rights in 18 out of 61 years, which is essential to ensure there is no enlargement of the rights authorized by the transfer. An additional volume of water should be authorized recognizing that some losses occur in water delivery. In the revised narrative in support of the Dry Lot LLC water right applications, dated July 21, 2009, Brockway Engineering explains, "If a more efficient method of irrigation such as "sprinkler irrigation" is employed, which is probable, then the irrigation efficiency would be raised to 75%..." Using the historic consumptive use volume and Brockway's estimate of irrigation system efficiency, rights 37-22313, 37-22318, and 37-22323, when combined, should be limited to an annual diversion volume for ground water recharge of 68.4 acre-feet (51.3 af/75%).

Rights 37-22318 and 37-22323 will be limited by diversion rate during the 200 day irrigation season to 63.5 acre-feet and 67.4 acre-feet respectively.

Brockway's modified recharge schedule proposed diverting the entire annual volume for ground water recharge by July 1 to ensure some chronological distribution and benefit of the recharge lasting through the irrigation season. To achieve this goal and allow some flexibility in the use of water, the recharge should be limited to a diversion volume of 26.6 acre-feet during any 30-day period (68.4 af / 77 days x 30 days).

The following summary describes the changes made to the original transfer and permit approvals.

Transfer No. 74449

37-22313	1.33 cfs, 68.4 af, Ground Water Recharge
37-22318	0.16 cfs, 63.5 af, Ground Water Recharge
37-22323	0.17 cfs, 67.4 af, Ground Water Recharge

Combined Limits: 68.4 af annually, 26.6 af per 30-day period, 1.06 cfs for recharge, 0.10 cfs in Hiawatha Canal, 0.50 cfs in Big Wood River

Changes (in bold) to Conditions of Approval for Transfer No. 74449, all rights

2. Rights 37-22313, 37-22318, and 37-22323 mitigate for the depletion of water resulting from the diversion and use of water under Right 37-22252. To prevent injury to other water right holders, the right holder shall cease diverting **0.50 cfs** of these rights from the Big Wood River. The watermaster shall also deliver 0.10 cfs of these rights into the Hiawatha Canal where it shall remain **for conveyance losses**. The amount of water delivered into the Hiawatha Canal pursuant to these rights shall not exceed the amount delivered into the recharge facility by more than 0.10 cfs. The combined diversion and use of water under rights 37-22313, 37-22318, and 37-22323 for ground water recharge is limited to a diversion rate of **1.06 cfs, a diversion volume of 26.6 acre-feet in any thirty (30) day period, and a maximum annual diversion volume of 68.4 acre-feet as measured at the point(s) of recharge.**
4. Prior to diversion and use of water under this right pursuant to Transfer approval 74449, the right holder **shall comply with requirements governing the construction and use of injection wells.** (*IDWR Underground Injection Control program staff confirmed that the recharge facilities, as designed, qualify as shallow injection wells.*)
5. Prior to diversion and use of water under this right pursuant to Transfer approval 74449, and in accordance with Department specifications, the right holder shall install, **if necessary**, and maintain:
 - a) A measuring device(s) and lockable controlling works at the point(s) of diversion from the Big Wood River,
 - b) A measuring device(s) and lockable controlling works at the point(s) water is conveyed from the Hiawatha Canal, and
 - c) A measuring device(s), including datalogger(s), at the point(s) of **recharge** to determine the **daily volume of water recharged**. The right holder shall report the information to the Department by December 31 each year.

Permit No. 37-22252

37-22252 0.52 cfs, Irrigation, 27.5 acres

Changes (in bold) to Conditions of Approval for Permit No. 37-22252

1. Proof of application of water to beneficial use shall be submitted on or before **February 1, 2015**.
4. This right is limited to the irrigation of 27.5 acres **of turf grass** within the place of use described above in a single irrigation season.
5. The annual volume of water diverted under this right shall not exceed the annual volume of water delivered into the infiltration basin(s) for ground water recharge under rights 37-22313, 37-22318, and 37-22323 as measured at the point(s) of **recharge**.
7. **The use of water under this right is mitigated by rights 37-22313, 37-22318, and 37-22323.** The water right holder shall maintain control of rights 37-22313, 37-22318, and 37-22323 for mitigation purposes pursuant to Transfer 74449.
8. **This right is subject to curtailment under the March 24, 1883 priority date of rights 37-22313, 37-22318, and 37-22323.**