

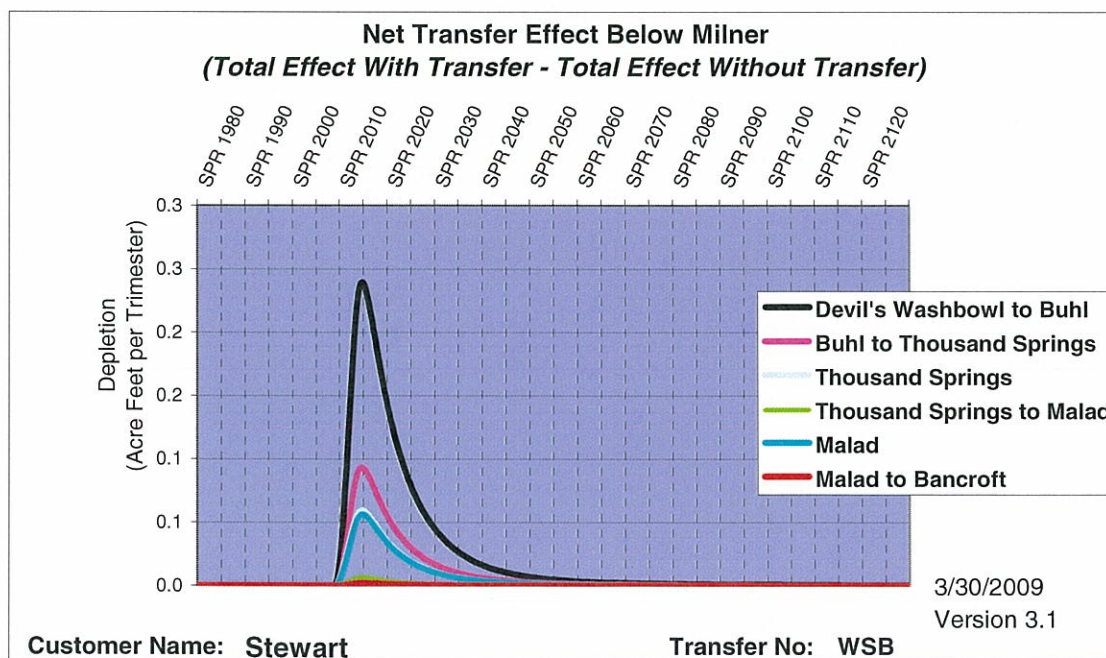
# MEMORANDUM

**Date:** March 30, 2009  
**To:** Water Right Files 35-8362, 35-13503, and 35-13505  
**From:** Aaron Marshall  
**Re:** Reid Stewart Water Supply Bank Rental Application Review

The original rental application submitted by Reid Stewart in November 2008, requests the use of ground water from the Eastern Snake Plain Aquifer (ESPA) for irrigation of 120 acres in Bingham County. In December 2008, Mr. Stewart amended his application and requested rental of water for irrigation 600 acres in total. 240 acres identified in the application are covered by existing water rights (35-7246M, 35-7632A, and 35-13609) which were previously offered to the Bank for rental by another party (Lance Funk). However, water rights 35-7246M and 35-7632A are not eligible for acceptance into the Bank. Due to the limited available supply of water rights in the Bank in this area (Basin 35, Water District 120), the current demand from rental applications appears to exceed the supply. Since Mr. Stewart may resume use of these rights at the authorized place of use, his rental application will be processed based on the lands described next in his list that are not covered by existing water rights for irrigation of 120 acres in the SE¼ of Section 34, Township 4 South, Range 30 East.

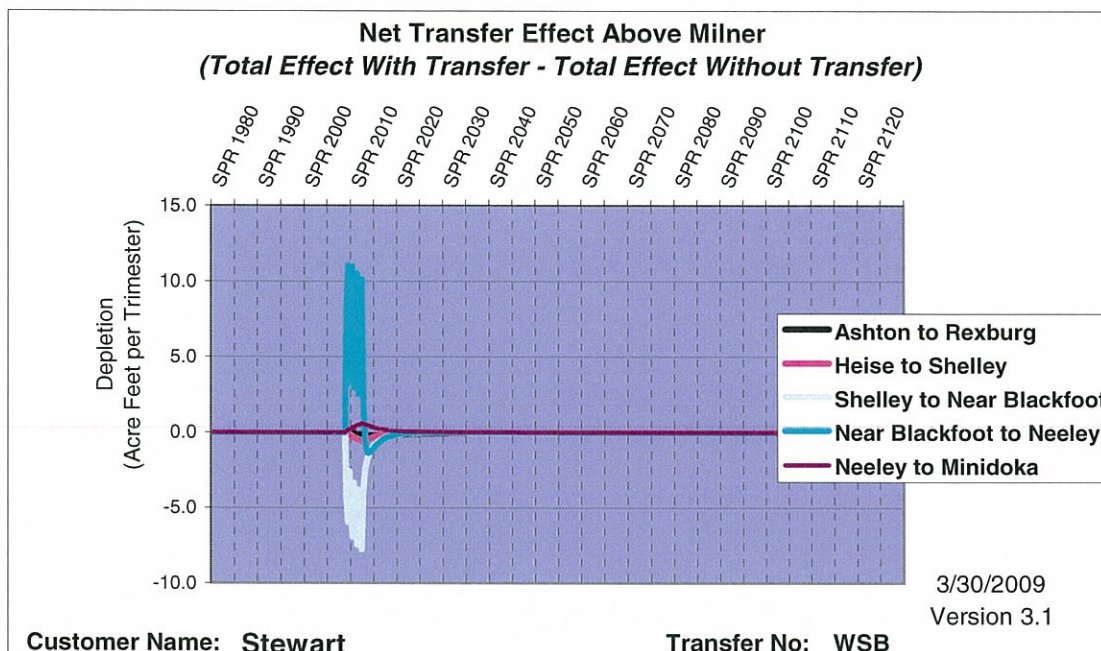
The point of diversion identified in the rental application is located in ESPA model grid cell row 78, column 105. I used the Department's ESPA transfer spreadsheet to model the effects of the proposed rental on reaches of the Snake River. I modeled the use based on 240 acre-feet diverted in both the spring and summer trimesters from 2009 through 2012 for a total annual volume of 480 acre-feet. This volume is consistent with the field headgate requirement for the area (4 af/ac) for irrigation of 120 acres. The "from well" points of diversion modeled are authorized by rights 35-8362, 35-13503, and 35-13505. The volume of water leased to the Bank under these rights and input to the model is 480.0 acre-feet per year based on use in the spring and summer trimesters. The rental would move points of diversion closer to the Snake River and is expected to have an immediate increase in depletions to the river.

The results of the model run indicate minimal increases in depletions (less than 0.3 acre-feet per trimester) to reaches of the Snake River below Milner Dam caused by the proposed change.



The model predicts that only the “near Blackfoot to Neeley” reach of the Snake River will experience an increase in depletion greater than 2.0 acre-feet per trimester during the proposed rental period. Every other reach of the river above and below Milner Dam during the proposed rental period is predicted to have a nominal increase in depletion within the acceptable range or a net accretion caused by the change. The following values represent increases in depletion volume, in acre-feet, predicted by the model during the proposed rental period in the “near Blackfoot to Neeley” reach:

|                   |                    |              |
|-------------------|--------------------|--------------|
| Spring 2009 = 8.4 | Summer 2009 = 11.0 | Winter = 3.3 |
| Spring 2010 = 9.2 | Summer 2009 = 11.0 | Winter = 2.9 |
| Spring 2011 = 8.7 | Summer 2009 = 10.5 | Winter = 2.5 |
| Spring 2012 = 8.3 | Summer 2009 = 10.1 | Winter = 2.2 |



Impact to the Snake River by the proposed use was evaluated with regard to the criteria outlined in Administrator's Memorandum, Transfer Processing No. 24. The transfer memo states, “applications that propose to move the point of diversion for a water right to divert and use ground water from the ESPA, including any modeled tributary aquifers, if (a) the depletion to a hydraulically connected reach is greater than 10% of the total depletion resulting from diversion at the proposed point of diversion; (b) increases to depletions in a reach is greater than 2 acre-feet per trimester; and (c) the transfer would result in increased depletions greater than 10%, to any reach of the Snake River; the transfer is not approvable without mitigation.

Applying the test described in part (c) above, the total depletion resulting from diversion at the proposed point of diversion in summer 2009 will be 141.6 acre-feet in the “near Blackfoot to Neeley” reach. This is 11.1 acre-feet greater than if the change did not occur. This trimester is predicted to have the greatest increase in depletion during the rental period. Since the increase in depletion is less than 10% ( $(11.1 / 130.5) * 100 = 8.5\%$ ) the test fails and mitigation is not required. Rental of 480.0 acre-feet of water per year under water rights 35-8362, 35-13503, and 35-13505 is acceptable for the proposed use.