

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR REPLACEMENT PLAN TO ALLOW THE WITHDRAWAL OF GROUNDWATER FROM THE DAWSON AQUIFER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUNDWATER BASIN.

REPLACEMENT PLAN - DETERMINATION OF WATER RIGHT NO. 1068-BD

AQUIFER: DAWSON

APPLICANT: DANIEL S. ABEYTA

In compliance with section 37-90-107.5, C.R.S. and the Designated Basin Rules, 2 CCR 410-1 (Rules or Rule), Daniel S. Abeyta (Applicant) submitted an application for a replacement plan to allow the withdrawal of groundwater from the Dawson Aquifer that has been allocated by Determination of Water Right No. 1068-BD.

FINDINGS

1. Pursuant to section 37-90-107(7), C.R.S., in a Findings and Order dated November 29, 2006, the Ground Water Commission (Commission) approved a Determination of a Right to an Allocation of Groundwater, No. 1068-BD, from the Dawson Aquifer (Aquifer), summarized as follows.
 - a. The determination quantified an amount of water from beneath 37.7 acres of overlying land generally described as the W $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$, the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$, and the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 10, Township 12 South, Range 65 West of the 6th P.M., in El Paso County (Overlying Land).
 - b. The allowed average annual amount of groundwater to be withdrawn from the aquifer was limited to 28.4 acre-feet per year, which based on an aquifer life of one hundred years results in an amount of water allocated of 2,840 acre-feet (subject to adjustment by the Commission to conform to actual local aquifer characteristics).
 - c. The use of groundwater is limited to the following beneficial uses: indoor residential and commercial (home-based business), stock watering, irrigation, hot tub/swimming pool, and augmentation.
 - d. In accordance with Rule 5.3.6 the withdrawal of the subject groundwater will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal, the groundwater is considered to be not-nontributary, and Commission approval of a replacement plan providing for actual depletion of affected alluvial aquifers and adequate to prevent any material injury to existing water rights in such alluvial aquifers is required prior to approval of well permits for wells to withdraw the subject groundwater.
2. The subject water is Designated Groundwater located within the boundaries of the Upper Black Squirrel Creek Designated Groundwater Basin and the Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction over the withdrawal of the water by large capacity wells that are permitted pursuant to section 37-90-107(7).
3. Withdrawal of the subject groundwater would deplete the alluvial aquifer of the Kiowa-Bijou Designated Groundwater Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin, both of which, according to Rules 5.2.4.2 and 5.2.6.2, respectively, have been determined to be over appropriated. Such depletion

would unreasonably impair existing large capacity alluvial rights withdrawing water from those alluvial aquifers.

4. Pursuant to Rule 5.6.1.A this plan must be adequate to prevent any material injury to water rights of other appropriators, which for purposes of this plan means large capacity wells withdrawing water from the alluvial aquifer of the Kiowa-Bijou Designated Groundwater Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin.
5. Pursuant to Rule 5.3.6.2(C) the amount of replacement water shall provide for the depletion of alluvial water for the first 100 years due to all previous pumping and if pumping continues beyond 100 years, shall replace actual impact until pumping ceases.
6. The application for the replacement plan was received by the Commission on December 6, 2019.
7. The Applicant proposes to divert 4 acre-feet annually from the Dawson Aquifer for a period of 300 years. The Dawson aquifer water will be withdrawn through 4 wells to be located on 4 residential lots on the 37.7 acre Overlying Land. Each Dawson Aquifer well is proposed to divert 1 acre-foot of water annually for use in 1 single family residence, stock and domestic animal watering, irrigation of lawn and garden, hot tub/swimming pool and augmentation.
8. At a continuous withdrawal of 4 acre-feet annually for 300 years, depletions to the alluvial aquifer systems of the Kiowa-Bijou Designated Groundwater Basin and Upper Black Squirrel Creek Designated Groundwater Basin would steadily increase to 0.103 acre-feet per year in the 300th year, which is equal to 2.57% of pumping, as shown in Exhibit A.
9. The Applicant proposes to provide 0.9 acre-feet per year of replacement water to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Groundwater Basin. The proposed source of replacement water is septic and leaching field return flows from the in-house use of the groundwater to be pumped under the plan. The Applicant estimates that return flows from each lot will consist of 90% of the water used for in-house purposes. Assuming each lot uses a total annual amount for in-house use of 0.25 acre-feet, the return flow per lot would be 0.225 acre-feet annually, and the return flows under the plan will total 0.9 acre-feet per year for all 4 lots at full build out.
10. The subject property is located within the drainage of Black Squirrel Creek, and the return flows will flow to the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin. The Applicant proposes to aggregate all replacements to the drainage in which the well or wells will operate, in accordance with Guideline 2007-1.
11. Pursuant to Rule 5.6.1.B this plan must be adequate to prevent unreasonable impairment of water quality. Pursuant to Rule 5.6.1.B.1.b, if the replacement source water is from an onsite wastewater treatment system permitted by a local health agency and the applicant demonstrates the source is in compliance with that permit there shall be a rebuttable presumption of no unreasonable impairment of water quality.
12. Pursuant to Rule 5.6.1.C this plan, including the proposed uses of the water withdrawn pursuant to the plan, must not be speculative, and must be technically and financially feasible and within the Applicant's ability to complete. The plan, including the proposed uses of the water withdrawn pursuant to the plan, is not speculative. The plan appears

technically and financially feasible and within the Applicant's ability to complete.

13. Pursuant to Rule 5.6.1.D this plan must be able to be operated and administered on an ongoing and reliable basis. The plan appears to be able to be operated and administered on an ongoing and reliable basis.
14. Pursuant to Rule 5.6.1.F replacement source water must be physically and legally available in time, place and amount to prevent material injury. As determined in Determination of Water Right No. 1068-BD water is currently available in the amounts and for the number of years proposed to be diverted.
15. Pursuant to Rule 5.6.1.G the replacement source water must be legally available for use. Records in this office indicate that the Applicant controls the water right to be used as the source of replacement water, consisting of Determination of Water Right No. 1068-BD, and such water is legally available for use pursuant to this plan.
16. In accordance with Rule 5.6.2 the application was referred to the Upper Black Squirrel Creek Ground Water Management District on February 18, 2020. Comments from the District were received on March 23, 2020.
17. In accordance with sections 37-90-107.5 and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on February 20, 2020 and February 27, 2020. No objections to the application were received within the time limit set by statute.
18. According to Rule 5.6.1:
 - a. The Applicant has the burden of proving the adequacy of the plan in all respects.
 - b. If the applicant meets its burden of proof, the Commission shall grant approval of the plan which shall include any terms and conditions established the Commission.
19. The Commission Staff has evaluated the application pursuant to section 37-90-107.5, and the requirements of Rule 5.3.6.2(C) and Rule 5.6, finds that the requirements have been meet, and the plan may be approved to allow diversions from the Dawson Aquifer if operated subject to the conditions given below.

ORDER

In accordance with section 37-90-107.5, and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for a replacement plan to allow the withdrawal of groundwater from the Dawson Aquifer underlying 37.7 acres that are the subject of Determination of Water Right no. 1068-BD is approved subject to the following conditions:

20. The Dawson Aquifer groundwater will be withdrawn through 4 wells to be located on 4 residential lots on the 37.7 acre Overlying Land. The allowed use of groundwater for each well under this plan is use in 1 single family residence, stock and domestic animal watering, irrigation of lawn and garden, hot tub/swimming pool and augmentation.
21. The allowed annual amount of groundwater to be withdrawn from the aquifer by all wells operating under this plan shall not exceed 4 acre-feet. The allowed annual amount of water to be withdrawn from each on-lot well shall not exceed 1 acre-foot.

22. A totalizing flow meter shall be installed on each well. The well owner shall maintain the meter in good working order.
23. Permanent records of all withdrawals of groundwater from each well shall be recorded at least annually by the well owners, permanently maintained, and provided to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
24. Pumping under this plan is limited to a period of 300 years. The year of first use of this replacement plan shall be the calendar year of construction of a well permitted pursuant to this plan or permitting of an existing well pursuant to the plan.
25. Return flows from in-house use of groundwater shall occur through individual on-lot non-evaporative septic systems located within the 37.7 acres of Overlying Land that are the subject of Determination of Water Right No. 1068-BD. The septic systems must be constructed and operated in compliance with a permit issued by a local health agency.
26. Replacement of depletions must be provided annually in the acre-feet amounts shown in Exhibit A. Annual replacement requirements may be computed by pro-rating between the values given on Exhibit A, or for simplicity may be taken as the amount shown in the next succeeding 5 year increment.
27. The Applicant or their successor(s) are responsible for ensuring that replacement water is provided to the alluvial aquifer as required by this plan. The annual replacement requirement and the annual amount of replacement water provided shall be calculated and reported on a form acceptable to the Commission. The annual amount of replacement water provided must be no less than the annual replacement requirement on a yearly basis. No credit shall be claimed by the Applicant for an oversupply of replacement water provided to the alluvium during previous years.
28. The Applicant must provide the required annual amount of replacement water for the first 100 years, or for as long as a well is operated pursuant to this plan, whichever is longer.
29. To assure adequate return flows, at least one well must be serving an occupied single-family dwelling that is generating return flows via a non-evaporative septic system before any other use is allowed to be served by any of the wells.
30. So long as at least one well continues to pump and supply an occupied dwelling, the plan's required replacement obligations, shown in Exhibit A, will be met. Should all wells cease pumping for in-house use within the first 100 years an amended or alternate replacement plan must be obtained that will replace actual depletions to the alluvial aquifer so as to prevent any material injury to water rights of other appropriators.
31. The Applicant (and their successors) must gather and maintain permanent records of all information pertaining to operation of this plan, which shall include, but is not be limited to, those items identified below. The Applicant must submit records to the Commission and the Upper Black Squirrel Creek Ground Water Management District on forms acceptable to the Commission, on an annual basis for the previous calendar year, by February 15th of the following year.
 - a. Identification of all well permits issued and wells constructed under this plan.

Aquifer: Dawson

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- b. The amount of water diverted by each well and all wells in total, both annually and cumulatively since operation of the plan began.
 - c. The number of occupied dwellings served by each well.
 - f. The return flows occurring from use of all wells operating under the plan, assuming 0.225 acre-feet per year per occupied single family dwelling (90% of the water used for in-house purposes) enters the alluvial aquifer as replacement water.
 - g. Any other information the Commission deems relevant and necessary to operation, monitoring, accounting, or administration of the plan.
32. The Applicant (and their successors) are fully responsible for the operation, monitoring, and accounting of the replacement plan. In the event a lot with a well permitted or operating pursuant to this plan is sold, identification of the well that was sold and evidence that the new owner has been notified of their responsibilities under the replacement plan shall accompany that year's accounting.
33. Any covenants adopted for this subdivision should contain a description of the replacement plan, including the limitations on diversions and use of water for each well and lot, the requirement to meter and record all well pumping, and information on how records are to be reported and the plan is to be administered.
34. In the event the permitted well or wells are not operated in accordance with the conditions of this replacement plan, they shall be subject to administration, including orders to cease diverting groundwater.
35. All terms and conditions of Determination of Water Right No. 1068-BD must be met.
36. Pursuant to Rule 5.6.1.E, a copy of this Findings and Order shall be recorded by the Applicant in the clerk and recorder's records of El Paso County, so that a title examination of the land on which the structures involved in this plan are located reveals the existence of this plan.

Dated this 8th day of April, 2020.



Kevin G. Rein, P.E.
Executive Director
Colorado Ground Water Commission

By: 

Keith Vander Horst, P.E.
Chief of Water Supply, Basins

Exhibit A
Replacement Plan - Determination No.: 1068-BD
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Designated Basin Summary Table for Daniel S. Abeyta Pumping Rate of 4 acre-feet per year for 300 Years from the Dawson aquifer Section(s): Section 10, T12S, R65W, 6th P.M.							
Year	Pumping (Q) (AF/YR)	Annual Depletion (q) (AF/YR)	Depletion as a % of Pumping (q/Q)	Year	Pumping (Q) (AF/YR)	Annual Depletion (q) (AF/YR)	Depletion as a % of Pumping (q/Q)
5	4.0	0.000	0.00	155	4.0	0.038	0.95
10	4.0	0.000	0.00	160	4.0	0.040	1.00
15	4.0	0.000	0.00	165	4.0	0.042	1.05
20	4.0	0.000	0.01	170	4.0	0.044	1.11
25	4.0	0.001	0.01	175	4.0	0.046	1.16
30	4.0	0.001	0.02	180	4.0	0.049	1.22
35	4.0	0.001	0.03	185	4.0	0.051	1.27
40	4.0	0.002	0.05	190	4.0	0.053	1.33
45	4.0	0.002	0.06	195	4.0	0.055	1.38
50	4.0	0.003	0.08	200	4.0	0.058	1.44
55	4.0	0.004	0.10	205	4.0	0.060	1.50
60	4.0	0.005	0.13	210	4.0	0.062	1.55
65	4.0	0.006	0.15	215	4.0	0.064	1.61
70	4.0	0.007	0.18	220	4.0	0.067	1.67
75	4.0	0.009	0.22	225	4.0	0.069	1.72
80	4.0	0.010	0.25	230	4.0	0.071	1.78
85	4.0	0.011	0.29	235	4.0	0.073	1.84
90	4.0	0.013	0.32	240	4.0	0.076	1.89
95	4.0	0.015	0.37	245	4.0	0.078	1.95
100	4.0	0.016	0.41	250	4.0	0.080	2.00
105	4.0	0.018	0.45	255	4.0	0.082	2.06
110	4.0	0.020	0.50	260	4.0	0.085	2.12
115	4.0	0.022	0.54	265	4.0	0.087	2.17
120	4.0	0.024	0.59	270	4.0	0.089	2.23
125	4.0	0.025	0.64	275	4.0	0.091	2.29
130	4.0	0.027	0.69	280	4.0	0.094	2.34
135	4.0	0.029	0.74	285	4.0	0.096	2.40
140	4.0	0.032	0.79	290	4.0	0.098	2.45
145	4.0	0.034	0.84	295	4.0	0.100	2.51
150	4.0	0.036	0.89	300	4.0	0.103	2.57

Created by jmw on February 12, 2020

Values for 'Depletion as a % of Pumping' (q/Q) are not calculated when the pumping rate (Q) is changed to anything but zero