

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR REPLACEMENT PLAN TO ALLOW THE WITHDRAWAL OF GROUND WATER FROM THE DENVER AQUIFER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

REPLACEMENT PLAN - DETERMINATION OF WATER RIGHT NO. 104-BD- Amendment No. 1

AQUIFER: DENVER

APPLICANT: NANCY MANLEY

In compliance with Section 37-90-107.5, CRS, and the Designated Basin Rules, 2 CCR 410-1 ("Rules" or "Rule"), Nancy Manley ("Applicant") submitted an application for a replacement plan to allow the withdrawal of ground water from the Denver Aquifer in accordance with Determination of Water Right No. 104-BD.

FINDINGS

1. Pursuant to Section 37-90-107(7), CRS, in a Findings and Order dated November 30, 2000, the Ground Water Commission ("Commission") approved a Determination of Water Right, no. 104-BD, for the Denver Aquifer ("Aquifer"), summarized as follows.
 - a. The determination quantified an amount of water from beneath 40 acres of overlying land generally described as the SW 1/4 of the SW 1/4, Section 22, Township 13 South, Range 64 West, Sixth P.M., in El Paso County.
 - b. The total volume of underlying ground water that may be withdrawn from the Aquifer shall not exceed 980 acre-feet and the allowed average annual amount of ground water that may be withdrawn from the Aquifer shall not exceed 9.8 acre-feet.
 - c. The use of the allowed amount of underlying ground water shall be limited to the following beneficial uses: domestic, livestock watering and irrigation.
 - d. In accordance with Rule 5.3.6 the withdrawal of the subject ground water 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 ground water 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 ground water.
2. The subject water is Designated Ground water located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction.
3. Withdrawal of the subject ground water would deplete the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water Basin, which, according to Rule 5.2.6.2, has been determined to be over appropriated. Such depletion would unreasonably impair existing alluvial rights withdrawing water from that alluvial aquifer.
4. Pursuant to Rule 5.6.1 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 Upper Black Squirrel Creek Designated Ground Water 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. An application for the replacement plan was received by the Commission on June 19, 2018, and a replacement plan was originally approved on March 15, 2019. The applicant submitted a request to amend the replacement plan on April 10, 2019, claiming a misunderstanding as to what diversions and uses were intended to occur under the plan. The requested amendment to the plan will result in fewer diversions and uses, and less depletions to the alluvial aquifer, than those that would result from operating the plan as approved on March 15, 2019. Staff of the Commission therefore deems that the plan may be amended as requested without re-publication. This amendment replaces the plan as approved on March 15, 2019.
7. The Applicant proposes to divert 0.59 acre-feet annually from the Denver Aquifer for a period of 100 years and then divert 0.52 acre-feet annually from the Denver Aquifer for a period of 200 years, for a total pumping period of 300 years. The Denver aquifer water will be withdrawn through two wells to be located on two residential lots. Each well is proposed to divert 0.295 acre-feet of water annually for 100 years for use in 1 single family residence and irrigation of 700 square feet of lawn, garden, and trees or irrigation of 200 square feet of lawn, garden, and trees and watering of two domestic animals. After 100 years of pumping all irrigation and animal watering uses from the wells shall cease and the use of each well shall be limited to diversions of 0.260 acre-feet per year for in-house use in 1 single family residence.
8. At a continuous withdrawal of 0.59 acre-feet annually for 100 years and then 0.52 acre-feet annually for 200 year, total depletions to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Ground Water Basin would steadily increase to 0.467 acre-feet per year in the 300th year, as shown in Exhibit A.
9. The Applicant proposes to provide 0.468 acre-feet per year of replacement water to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Ground Water Basin. The proposed source of replacement water is septic and leaching field return flows from the in-house use of the ground water to be pumped under the plan. The Applicant estimates that return flows from each residence will consist of 90% of the water used for in-house purposes. Assuming each residence uses a total annual amount for in-house use of 0.26 acre-feet, the return flow per lot would be 0.234 acre-feet annually, and the return flows under the plan will total 0.468 acre-feet per year for two residences 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 Ground Water 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. So long as the septic and leaching treatment systems for the in-house use of the water are constructed and operated in compliance with state and county health department standards the plan would not cause unreasonable impairment of water quality of the alluvial aquifer.
12. Records in this office indicate that the Applicant controls the water right to be used as the

Aquifer: Denver

Applicant:

source of replacement water, consisting of Determination of Water Right No. 104-BD.

13. In accordance with Rule 5.6.2 the application was referred to the Upper Black Squirrel Creek Ground Water Management District on January 14, 2019. Written recommendations from the district were received on February 15, 2019.
14. In accordance with Sections 37-90-107.5 and 37-90-112, CRS, the application was published in the Ranchland News newspaper on January 17, 2019 and January 24, 2019. No objections to the application were received within the time limit set by statute.
15. The Commission Staff has evaluated the application pursuant to Section 37-90-107.5, CRS, and the requirements of Rule 5.3.6.2(C) and Rule 5.6.
16. According to Rule 5.6.2 of the Designated Basin Rules:
 - a. The Applicant has the burden of proving the adequacy of the plan in all respects.
 - b. The Commission Staff shall propose any additional terms and conditions or limitations which are necessary to prevent material injury and to ensure that the plan is administrable and enforceable.
17. Based on the above, no material injury will occur to the water rights of large capacity wells producing from the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water Basin, due to diversions from the Denver Aquifer, if operated under this replacement plan, subject to the conditions given below.

ORDER

In accordance with Section 37-90-107.5, CRS, and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for a replacement plan to allow the withdrawal of ground water from the Denver Aquifer underlying 40 acres that are the subject of Determination of Water Right no. 104-BD is approved subject to the following conditions:

18. The Denver aquifer water will be withdrawn through two wells to be located on two residential lots. For the first 100 years of pumping the allowed use of ground water for each well is use in 1 single family residence and irrigation of 700 square feet of lawn, garden, and trees or irrigation of 200 square feet of lawn, garden, and trees and watering of two domestic animals. After 100 years of pumping all irrigation and animal watering uses from the wells shall cease and the use of each well shall be limited to in-house use in 1 single family residence.
19. The allowed annual amount of ground water to be withdrawn from the aquifer by all wells operating under this plan shall not exceed 0.59 acre-feet for the first 100 years then 0.52 acre-feet for the next 200 years, for a total pumping period of 300 years. The allowed annual amount of water to be withdrawn from each well shall not exceed 0.295 acre-feet for the first 100 years then 0.26 acre-feet for the next 200 years.
20. A totalizing flow meter shall be installed on each well. The well owner shall maintain the meter in good working order.
21. Permanent records of all withdrawals of ground water from each well shall be recorded at least annually by the well owners, permanently maintained, and provided to the

Aquifer: Denver

Applicant:

Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.

22. 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.
23. Return flows from in-house use of ground water shall occur through individual on-lot non-evaporative septic systems located within the 40 acres of overlying land that are the subject of Determination of Water Right No. 104-BD.
24. The septic systems must be constructed and operated to state and county health department standards.
25. 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.
26. The Applicant or their successor(s) are responsible for ensuring that replacement water is provided to the alluvial aquifer as required by this plan, and that the replacement prevents any material injury to the water rights of other appropriators. 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.
27. 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.
28. Each occupied single family dwelling that is being supplied by a well that utilizes a non-evaporative septic and leaching field treatment system shall be assumed to be providing 0.234 acre-feet of replacement water to the alluvial aquifer. To assure adequate return flows, the number of occupied single-family dwellings that are generating return flows via a non-evaporative septic and leaching field system must be equal to or greater than the number of dwellings shown in Table 1 below, or an amended or alternate replacement plan must be obtained that will make the required replacement deliveries.

| Table 1 | | |
|---------|--------------|---------------------|
| Year | No. of Wells | Return Flow (af/yr) |
| 1-15 | 1 | 0.234 |
| 16-300 | 2 | 0.468 |

29. The Applicant or their successor(s) must gather, record 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.

Aquifer: Denver

Applicant:

- a. Identification of all well permits issued and wells constructed under this plan.
 - 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.
 - d. The number of square feet irrigated by each well.
 - e. The number of large domestic animals served by each well.
 - f. The return flows occurring from use of all wells operating under the plan, assuming 0.234 acre-feet per year (90% of the water used for in-house purposes) enters the alluvial aquifer as replacement water from each occupied single family dwelling.
 - g. Any other information the Commission deems relevant and necessary to operation, monitoring, accounting, or administration of the plan.
30. The Applicant or their successor(s) 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, evidence of the sale and notification to the new owner of their responsibility under the replacement plan shall accompany that year's accounting.
31. Any covenants adopted for this subdivision should contain a description of the replacement plan, including the limitations on water use for each lot, metering of well pumping, and how the plan is to be administered.
32. 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 ground water.
33. All terms and conditions of Determination of Water Right No. 104-BD must be met.
34. Pursuant to Designated Basin Rule 5.6.1(F), the Commission retains jurisdiction to modify or revoke approval of this replacement plan if monitoring or operating experience reveals that the plan results in any material injury to water rights of other appropriators or in unreasonable impairment to water quality.
35. A copy of this Findings and Order shall be recorded by the Applicant in the real property records of El Paso County, so that a title examination of the above described property, or any part thereof, shall reveal to all future purchasers the existence of this replacement plan. The terms and conditions of this replacement plan shall be considered to be a covenant on and running with the subject property.
36. This amendment to the plan replaces the plan as approved on March 15, 2019.

Dated this 30th day of April, 2019.

By: 

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



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