

BEFORE THE BOARD OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

IN THE MATTER OF APPLICATION FOR)
RESERVATION OF WATER NO. 9944-r43D)
BY THE CARBON CONSERVATION DISTRICT)

) FINDINGS OF FACT AND CON-
) CLUSIONS OF LAW OF APPLI-
) CATION NO. 9944-r43D

The above-entitled matter came on regularly for hearing starting on or about September 6, 1977, in Billings, Montana, before the Montana Board of Natural Resources and Conservation and its duly appointed Hearing Examiner, James Driscoll. The Applicant appeared by and through its counsel of record, Gary Spaeth. The Montana Department of Natural Resources and Conservation appeared by and through its counsel of record, Richard Gordon. The Montana Department of Fish and Game appeared by and through its counsel of record, F. Woodside Wright and Clayton Herron. The Montana Department of Health and Environmental Sciences appeared by and through its counsel of record, Mona Jamison. Witnesses were duly sworn, and oral and documentary evidence was introduced.

The Board, having read and fully considered the complete record, makes the following Findings of Fact and Conclusions of Law relating to the Carbon Conservation District Application No. 9944-r43D:

FINDINGS OF FACT

1. The Carbon Conservation District has applied for a reservation of 47,557 acre-feet of water per year (af/y) with a maximum diversionary flow rate of 274.2 cubic feet per second (cfs) to be used to irrigate 21,015 acres. On the average this request is for a diversion of 2.26 acre-feet per acre with a maximum flow rate of 1 cfs per 76.64 acres. Water is requested from the Yellowstone River, Clark Fork River, Rock Creek, Red Lodge Creek, and other tributaries of the Yellowstone River for the year 2007 (Application No. 9944-r42D).

Findings Related to the Purpose of this Reservation (89-890(3)(a)).

2. The purpose of the reservation is to insure water availability and adequate streamflow for the future agricultural needs of the Carbon Conservation District (The Carbon Conservation District Application at page 4).

3. It is established to the satisfaction of the Board that a purpose for the reservation has been shown (Finding 2).

4. A reservation of water is needed because it will secure a priority date for future developments that is earlier than the priority dates such developments would have if permits were obtained immediately before construction or use began (Carbon Conservation District, Application No. 9944-r43D).

5. The reservation is needed because there is a proliferating world-wide demand for food, which is dependent on sufficient water availability (The Carbon Conservation District Application at page 4).

6. A reservation is needed because there is competition for water in the Yellowstone River Basin which may affect the availability of the Applicant to obtain a water right by permit in the future. This, in turn, will also help promote the necessary planning (The Carbon Conservation District Application at page 5).

7. It is established to the satisfaction of the Board that the need for a reservation of water has been shown (Findings 4 and 5).

Findings Related to the Amount of Water Necessary for the Purpose of the Reservation (89-890(3)(c)).

8. The amount of water necessary for this reservation is the amount required to irrigate the number of acres described in this application that can reasonably be expected to be completed by the Carbon Conservation District by the year 2007 (EIS).

9. The payment capacity consists of total farm revenue minus all costs except irrigation water costs and is the maximum amount a water user could pay for water while maintaining a profitable operation (Carbon Conservation District, Application No. 9944-r43D, p. 22).

10. The cropping pattern by percent is 29% for grain and 40% for hay, 8% for silage and 23% for cash crop in lower reaches with a maximum payment capacity of \$185.00 per acre, and 20% for grain and 80% for hay in both the intermediate and higher reaches in the county for a maximum payment capacity of \$125.00 per acre. (The Carbon Conservation District Application at page 24).

11. A 75% on-farm irrigation efficiency was assumed for sprinkler irrigation and 55% for flood irrigation. (The Carbon Conservation District Application at page 11).

12. Conveyance losses were estimated by formula and included in the diversionary requirement needs. (The Carbon Conservation District Application at page 11).

13. Peak diversion requirements were calculated using recommended peak consumption use rates for alfalfa divided by the on-farm efficiency. (The Carbon Conservation District Application at page 11).

14. The calculated values for alfalfa equals 7.5 to 3.9 gpm per acre-foot for flood irrigation and 6 to 7 gpm for side-roll sprinklers. In the case of center pivots, the peak rate was reduced to 6 gpm per acre to more closely match the

infiltration rate of heavy soils to the application rate of system. (The Carbon Conservation District Application at page 11).

15. The system will not meet peak plant consumptive uses, but using the soil profile as a moisture reservoir, the system is sized somewhat below that required to meet peak consumptive uses. (The Carbon Conservation District Application at page 11).

16. Although the Carbon Conservation District has requested 47,557 acre-feet per year to irrigate 21,015 acres, no additional irrigation can be developed from Rock Creek and Red Lodge Creek unless reservoirs are built to provide storage on these streams (Carbon Conservation District, Application No. 9944-r43D).

17. Carbon Conservation District has no established plan for providing the storage necessary to irrigate the acres that would use water from the Rock Creek and Red Lodge Creek drainages (Carbon Conservation District, Application No. 9944-r43D, p. 245).

18. Sufficient water is available from the Yellowstone River and Clarks Fork River to irrigate all acres described in the Application that do not propose to take water from the Rock Creek and Red Lodge Creek drainages (Carbon Conservation District, Application No. 9944-r43D, pp. 15 through 17).

19. Of the 21,015 acres for which a reservation has been requested by the Carbon Conservation District, only 16,380 can be considered to have plans sufficient to merit a reservation because 4,635 acres can be developed only if storage is provided and the Application contains no plans for storage for these acres.

20. Of the 16,380 acres that can be considered to have plans only 10,034 acres are considered by the Board to have sufficient plans to warrant a reservation.

21. A reasonable projection on the expansion of irrigation in Carbon County by the Carbon Conservation District by the year 2007 would be 10,034 acres. Using irrigation factors of 2.26 acre-feet of water per acre, and 76.64 acres per cfs, a

reservation of water sufficient to irrigate 10,034 acres would be 22,676 acre-feet per year.

22. It is established to the satisfaction of the Board that 22,676 af/y is the amount of water necessary for the purpose of the reservation to the year 2007.

23. The reservation will contribute economically to the public interest (The Carbon Conservation District Application at page 7).

24. The development of future irrigation projects in Carbon County and beneficial use of water will create jobs and increase the tax revenues (The Carbon Conservation District Application at page 7).

25. From 1960 to 1970, the rural population in Carbon County declined 14.9 percent. A major reason was a lack of job opportunities (Draft EIS, Vol. I, p. 101).

26. The development of new pumping facilities, ditches, canals, sprinkler systems, and other diversions will contribute to the economic stability of the County. (The Carbon Conservation District Application at page 8).

27. New irrigation would increase income in Carbon County, both for the farmers who would install the systems and for the local businesses that would enjoy increased sales resulting from the increase in agricultural income. New irrigation would increase the number of both on-farm and off-farm jobs. (Draft EIS, Vol. I, p. 156).

28. The Carbon Conservation District has an established plan for completion of the proposed facilities which will put reserved water to use by the year 2007 (Carbon Conservation District, Application No. 9944-r43D).

29. By reserving water for future beneficial use, individual ranchers and farmers have a more favorable timetable in which to accumulate the capital needed to finance, to take maximum advantage of favorable changes in the agricultural market, or to utilize the most contemporary technology available in water delivery systems. (Carbon Conservation District Application at page 5).

30. The plan of the Carbon Conservation District is not speculative and is documented to the highest degree of detail possible. (Carbon Conservation District).

31. The reservation shall be put to use within reasonable diligence and the plan includes a bona fide intent and ability to use the water reserved as projected.

32. Detailed planning of district projects will be accomplished through funds made available by the Montana Legislature or Carbon County mill levy. The Department of Natural Resources and Conservation's Technical Assistance Program will also be used (The Carbon Conservation District Application at page 3).

33. The Board is satisfied there will be progress toward completion of construction of the facilities with reasonable diligence according to an established plan which includes the economic feasibility of each project, a soils and land classification analysis showing the suitability of lands to sustain irrigation, and possible sources of funding.

34. A reservation sufficient to irrigate 10,034 acres is in the public interest because it is reasonable to expect that the Carbon Conservation District will irrigate an additional 10,034 acres by the year 2007.

35. It is established to the satisfaction of the Board that the reservation of 22,676 acre-feet per year to be used for irrigation is in the public interest and that there will be progress toward completion of the facility and accomplishment of the purpose with reasonable diligence in accordance with an established plan.

CONCLUSIONS OF LAW

1. Chapter 8, Title 89, R.C.M. 1947, and in particular, Section 89-890, R.C.M. 1947, authorizes the adoption by the Montana Board of Natural Resources and Conservation of orders reserving water to qualified applicants for reservations of water.

2. If ordered adopted, a reservation must be ordered adopted in accordance with Chapter 8, Title 89, R.C.M. 1947, and any rules adopted thereunder.

3. The Applicant, the Carbon Conservation District, is a political subdivision of the State of Montana and as such is entitled to apply to reserve waters within the State of Montana in accordance with Section 89-890, R.C.M. 1947, and any rules adopted thereunder.

4. All pertinent statutes and rules of the State of Montana have been adhered to in the review of this reservation Application, both by the Montana Department of Natural Resources and Conservation and by the Montana Board of Natural Resources and Conservation.

5. Based upon the above Findings of Fact, and specifically based upon any condition, limitation, or modification of the full Application appearing in said Findings, all pertinent criteria delineated at Section 89-890, R.C.M. 1947, and any rules adopted thereunder providing for the adoption of an order reserving water have been met.

6. Nothing found herein has bearing upon the status of water rights claimed by the Applicant other than those herein newly applied for, nor does anything found herein have bearing on the status of claimed water rights of any other party except in relation to those rights herein newly applied for, to the extent necessary to reach a conclusion herein.