

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

IN THE MATTER OF APPLICATION FOR)
RESERVATION OF WATER NO. 6294-r42M)
BY THE BUFFALO RAPIDS PROJECT)

) FINDINGS OF FACT AND CON-
) CLUSIONS OF LAW OF APPLI-
) CATION NO. 6294-r42M

The above-entitled matter came on regularly for hearing starting on or about September 9, 1977, in Billings, Montana, before the Montana Board of Natural Resources and Conservation and its duly appointed Hearing Examiner, James Driscoll.- The Applicant appeared without benefit of counsel. The Montana Department of Natural Resources and Conservation appeared by and through its counsel of record, Richard Gordon. The Montana Department of Health and Environmental Sciences appeared by and through its counsel of record, Mona Jamison. The Montana Department of Fish and Game appeared by and through its counsel of record, F. Woodside Wright and Clayton Herron. 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 Buffalo Rapids Project, Application No. 6294-r42M:

FINDINGS OF FACT

1. The Buffalo Rapids Project reservation request is summarized in Table BRP-1.

TABLE BRP-1
BUFFALO RAPIDS PROJECT RESERVATION REQUEST

Area	Acres to be Irrigated	Acre-Feet per Year	Peak Diversion (cfs)
Cracker Box	1,470	6,734	9.29
Stipek	3,840	14,861	20.51
Marsh	3,190	12,345	17.04
Haley	2,372	9,180	12.67
Colgate	760	2,941	4.06
Saugus-Calypto	450	1,742	2.40
Behind Glendive Canal	8,500	21,250	29.33
Terry Bench	17,354	43,385	59.87
Terry Unit Additions	1,300	5,031	6.94
Fallon Unit Additions	800	3,096	4.27
Buffalo Rapids Project Additions	1,000	3,870	5.34
TOTAL	41,306	124,435	171.72

The amount of water requested for these lands totals 124,435 acre-feet of water per year (af/y) with a maximum diversionary flow rate of 171.72 cubic feet per second (cfs). It was assumed in determining water requirements that 3.87 acre-feet are needed for each acre supplied by a canal system and 2.5 acre-feet per acre are needed for sprinkler irrigation. The maximum diversionary flow rate was calculated by multiplying the volume requirements per acre by .00138. Due to an arithmetical error in this application, the total peak cfs requested in the application is 166.7 cfs rather than 171.72 cfs, which is the sum of the peak requests for each area. All water is requested to be reserved from the Yellowstone River (Buffalo Rapids Project, Application No. 6294-r42M).

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

2. The purpose of this reservation is to ensure that water will be available for the expected expansion of irrigation by the Buffalo Rapids Project (Buffalo Rapids Project, Application No. 6294-r42M, p. 1).

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

Findings Related to the Need for the Reservation (89-890(3)(b)).

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 (Buffalo Rapids Project, Application No. 6294-r42M, p. 2).

5. A reservation of water is needed because there is competition for water in the Yellowstone Basin which may affect the ability of the Applicant to obtain a water right by permit in the future (Buffalo Rapids Project, Application 6294-r42M, p. 2).

6. 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)).

7. Cracker Box Unit. There has been no attempt to evaluate the feasibility or desirability of this project. The Application contains only cost estimates for this project, with no discussion of economic or social benefits that would be attributable to this project (Buffalo Rapids Project, Application No. 6294-r42M, p. 58).

8. Stipek Unit. There has been no attempt to evaluate the economic feasibility or the public benefits of this project. The Application contains a discussion only of the engineering features and costs of this unit (Buffalo Rapids Project, Application No. 6294-r42M, p. 58).

9. Marsh Unit. There has been no attempt to evaluate any irrigation benefits of this unit. Although the Application indicates that repayment could be accomplished within 40 years, the fraction of costs that are to be repaid and the remainder that is to be subsidized are not discussed (Buffalo Rapids Project, Application No. 6294-r42M, p. 54).

10. Haley Unit. There has been no attempt to evaluate the economic feasibility or social desirability of this project. The Application contains discussion only of the engineering features and costs of the unit (Buffalo Rapids Project, Application No. 6294-r42M, p. 52).

11. Colgate Unit. As explained in the Application, expensive, closely-spaced subsurface drains would be necessary for this project, and per-acre costs would be higher for this project than for other units in the Yellowstone division. Operation, maintenance, and replacement costs for this unit would probably exceed the payment capacity. Because of the above, the Application contained the recommendation for further studies be deferred (Buffalo Rapids Project, Application No. 6294-r42M, pp. J70 through J72).

12. Saugus-Calypto Unit. As explained in the Application, the lands in this unit are better suited to private development than project development. Because of the above, the Application contained the recommendation that no further studies be made (Buffalo Rapids Project, Application No. 6294-r42M, pp. J64 and J65).

13. Lands Behind Glendive Canal. These lands are part of the Warbird Unit discussed in the Application. As the Application explains, Warbird Unit should be considered infeasible. Until demand for additional irrigated land in Montana becomes extremely critical, no engineering plan could achieve feasibility (Buffalo Rapids Project, Application No. 6294-r42M, pp. J68 and J69).

14. Terry Bench. As explained in the Application, the high elevations of the arable lands and the remoteness from the only available dependable water supply indicate that current standards would not permit irrigation development (Buffalo Rapids Project, Application No. 6294-r42M, p. J63).

15. Terry Unit Additions. These lands are an addition to the existing Terry Unit which was completed in 1948 (Buffalo Rapids Project, Application No. 6294-r42M, p. 1).

16. Fallon Unit Additions. These lands are an addition to the existing Fallon Unit which was completed in 1948 (Buffalo Rapids Project, Application No. 6294-r42M, p. 1).

17. Buffalo Rapids Project Additions. These lands are currently nonirrigated and lie among the lands currently served with project water (Buffalo Rapids Project, Application No. 6294-r42M, p. 1).

18. Because the Draft Environmental Impact Statement (EIS) projected levels of irrigation development through the year 2000 and because no systematic basin-wide projections have been made beyond the year 2000, any projections beyond the year 2000 are speculative (Draft EIS, Vol. II, p. 241).

19. The possibility of construction of proposed projects which have been demonstrated to be economically infeasible or for which no economic feasibility has been demonstrated is highly uncertain. A reservation of water for such projects would be speculative because it is likely that projects for which costs exceed revenues and benefits will not be built by the year 2000 (Findings 7 through 14 and 18).

20. No water should be reserved for projects which are demonstrably infeasible. Demonstrably infeasible projects include the Colgate Unit, the Terry Bench Unit, and the lands behind Glendive Canal (Findings 11, 13, 14, and 19).

21. No water should be reserved for projects for which economic feasibility has not been demonstrated. Projects in this category include the Stipek Unit, the Marsh Unit, and the Haley Unit (Findings 8 through 10 and 19).

22. No water should be reserved for projects that are better developed privately than as a part of Buffalo Rapids Project. The Saugus-Calypto Unit is in this category (Finding 12).

23. Proposed projects that lie within the boundaries of existing successful projects are demonstrably economically feasible, and reservation of water for such projects should be made (Findings 15 through 17).

24. The amount of water necessary for the purpose of the reservation is the amount necessary to irrigate only projects which are demonstrably economically feasible and which are likely to be constructed by the year 2000. Demonstrably feasible projects included in this Application and the amounts of water required for their development are shown in Table BRP-2.

TABLE BRP-2
DEMONSTRABLY FEASIBLE PROJECTS

Project	Acres to be Irrigated	Acre-Feet per Year	Peak Diversion (cfs)
Terry Unit Additions	1,300	5,031	6.94
Fallon Unit Additions	800	3,096	4.27
Buffalo Rapids Project Additions	1,000	3,870	5.34
TOTAL	3,100	11,997	16.55

(Buffalo Rapids Project, Application No. 6294-r42M, p. 306; Findings 15 through 17 and 23).

25. It is established to the satisfaction of the Board that 11,997 af/y with a maximum diversionary flow rate of 16.55 cfs is the amount of water necessary for the purpose of the reservation to the year 2000 and is sufficient to irrigate the 3,100 acres which are additions to Terry Unit, Fallon Unit, and Buffalo Rapids Project (Findings 7 through 24).
Findings Related to the Public Interest (39-890(3)(d)).

26. Reservation of water for additional irrigation which is not likely to be installed by the year 2000 is not in the public interest because the permits which are junior to the reservation would have a less reliable water supply as a result (Draft EIS, Vol. II, p. 256).

27. The unused part of a reservation, which provides no benefits to the reservation holder because it is unused, imposes unnecessary costs and burdens on junior

permit holders. These junior permit holders will include future irrigators who develop with a permit rather than with reserved water and municipalities which have not applied for a reservation (Finding 26).

28. It is not in the public interest to grant a reservation for the following projects because it is likely that the reserved water would not be put to a beneficial use and would, since unused, impose costs on junior permit holders:

Cracker Box	Colgate
Stipek	Saugus-Calypto
Marsh	Behind Glendive Canal
Haley	Terry Bench

(Findings 7 through 14 and 26-27).

29. It is in the public interest that water be reserved for land which is part of the existing successful projects that have by their continued operation demonstrated economic feasibility and social desirability. Sufficient water should be reserved for the additions to the Terry Unit, the Fallon Unit, and the Buffalo Rapids Project Additions (Findings 23 through 25).

30. The Buffalo Rapids Project has an established plan for completion of the proposed facilities which will put reserved water to use by the year 2000 (Buffalo Rapids Project, Application No. 6294-r42M).

31. A reservation sufficient to irrigate 3,100 acres is in the public interest because it is reasonable to expect that the Buffalo Rapids Project will irrigate these acres by the year 2000 (Finding 30).

32. It is established to the satisfaction of the Board that the reservation of 11,997 af/y with a maximum diversionary flow rate of 16.55 cfs to be used to irrigate additions to Terry, Fallon, and Buffalo Rapids Units 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 (Findings 26 through 31).

CONCLUSIONS OF LAW

1. Chapter 8, Title 89, R.C., 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, Buffalo Rapids Project, 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 in 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.