

**Application of City of Helena
Water Reservation No. 72581-41I**

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATION OF THE CITY OF HELENA TO RESERVE WATER (Mont. Code Ann. § 85-2-316(1)(1991); ARM 36.16.107B(1)(a).)

1. The City of Helena is an incorporated municipality and a subdivision of the State of Montana. (Bd. Exh. 15-A, p. 1; Mont. Code Ann. § 85-2-316(1), ARM 36.16.107B(1)(a).)

2. The City of Helena has applied for a water reservation of 7,071 acre-feet/year (af/yr) of water with a maximum diversion rate of 16.4 cubic feet/second (cfs) to be diverted from a deep alluvial groundwater aquifer using a well field located near Prickly Pear Creek for year round use. (Bd. Exh. 15-C, p. 1-2.)

3. The City of Helena requested a water reservation to meet future demands by municipal and industrial users and to protect the quality of its municipal water supply. (Bd. Exh. 15-C, p. 1.)

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY THE CITY OF HELENA (Mont. Code Ann. § 85-2-316(4)(a)(1991); ARM 36.16.107B(1)(b).)

4. The City of Helena seeks to provide municipal water for future growth in a cost-effective manner. Sound planning requires providing users with an adequate water supply. The requested term of the water reservation is to year 2035. (Bd. Exh. 15-A, p. 1-5.)

5. The purpose of the reservation is to provide the water for municipal and industrial uses. (Bd. Exh. 15-C, p. 1.) Municipal and industrial uses are beneficial uses of water in Montana. (Mont. Code Ann. § 85-2-102(2)(a), ARM 36.16.102(3); ARM 36.16.107B(1)(b).)

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF HELENA (Mont. Code Ann. § 85-2-316(4)(a)(ii)(1991); ARM 36.16.107B(2).)

6. The Tenmile Water Supply, Missouri River Water Supply, Eureka Station and Hale system presently provides an average of 9.27 cfs of high quality water to the City of Helena. (Bd. Exh. 15-A, p. 3-10, and Bd. Exh. 15-C, p. 3.) Because of possible water quality problems (Bd. Exh. 15-C, p. 3), the Missouri River system (5.22 average cfs and 13.9 peak cfs) cannot be considered a firm, long-term, all season water supply (Bd. Exh. 15-C, p. 3, and Bd. Exh. 15-A, p. 3-11.) The reservation water requested

would be delivered from a well field located northeast of the City of Helena's Missouri River Water Treatment Plant drawing from a deep alluvial groundwater aquifer. (Bd. Exh. 15-C, p. 2; Helena Exh. 1, Att. 1-map.)

7. A reservation is the only means to obtain an early priority date for water that will be needed to meet projected municipal and industrial growth and to protect the quality of the city water supply. In the future, water may be appropriated by competing agricultural, industrial, and instream users. (Bd. Exh. 40, p. 249; Bd. Exh. 15-A, p. 2-1.)

8. It is important that the City of Helena have a water reservation to meet future municipal and industrial water demands in order for the community to prosper and develop. (Bd. Exh. 15-A, p. 1-4.)

9. Competing water uses may prevent the City of Helena from obtaining or perfecting a water use permit in the future. Without a reservation, the City of Helena may have to go through a costly process of buying or condemning existing water rights to meet increasing demands. (Bd. Exh. 40, p. 249.)

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY THE CITY OF HELENA (Mont. Code Ann. § 85-2-316(4)(a)(iii)(1991); ARM 36.16.107B(3).)

10. The method of determining the amount of water requested for a water reservation by the City of Helena was based on a forecast of its future population to the year 2035 along with the estimated amount of water used per person. (Bd. Exh. 15-C, p. 5.) The methodology used by the City of Helena projected an average annualized (compounded population growth rate) of approximately .50 percent. (Bd. Exh. 40, p. 236.) The 1990 population of Helena was 24,564. (Bd. Exh. 40, p. 236.) The City of Helena's population forecast for the year 2035 is 31,624 people. (Bd. Exh. 40, p. 236.)

11. The methodologies and assumptions used by the City of Helena are suitable and accurate under present conditions. (ARM 36.16.107B(3)(a).) The populations recorded in the 1990 census indicate that Helena grew at an annualized rate of .65 percent between the years 1960 and 1990. Therefore, the city's growth forecast of 31,624 people seems low. (Bd. Exh. 15-C, p. 10.)

12. The City of Helena water system has a low 9 percent rate of leakage (estimated .75 cfs out of 9.27 cfs used daily). (Bd. Exh. 15-A, p. 3-14 to 3-15.)

13. Helena presently meters 99 percent of its water users (Bd. Exh. 15-C, p. 7.) The City of Helena will continue to require metering. (Bd. Exh. 15-C, p. 7.) Helena water system

users presently consume 228 gallons of water per person daily and the city projects that future use will be 250 gallons per person daily (a typical basin use rate). (Bd. Exh. 15-C, p. 5, and Bd. Exh. 15-A, p. 3-14.)

14. The water use efficiencies associated with the municipal and industrial uses by the City of Helena are reasonable. (ARM 36.16.107B(3)(b).)

15. No other cost-effective measure could be taken within the reservation term to increase the use efficiency by the City of Helena and lessen the amount of water required for the purpose of the reservation. (ARM 36.16.107B(3)(b).)

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY THE CITY OF HELENA IS IN THE PUBLIC INTEREST (Mont. Code Ann. § 85-2-316(4)(a)(iv)(1991); ARM 36.16.107B(4).)

16. Benefits of the City of Helena's water reservation were calculated on a willingness-to-pay basis. Helena used a \$2.47/1,000 gallons value which is what Helena municipal users are currently paying. (Bd. Exh. 40, p. 253.) (Bd. Exh. 40, p. 253.)

17. The additional water provided by the water reservation will cost approximately \$.50/1,000 gallons. (Bd. Exh. 15-C, p. 8.)

18. The direct benefits of the City of Helena's water reservation exceed the direct costs. (ARM 36.16.107B(4)(a).)

19. Indirect benefits of the City of Helena's reservation may include secondary economic benefits to the community and to the state, and expanding both the property and income tax base from increased population. (Bd. Exh. 15-A, p. 4-2.)

20. Indirect costs of the reservation may include loss of opportunity for other development and increased administrative costs. While not quantified these costs are minor. (Bd. Exh. 15-A, p. 4-8.)

21. Impacts of well field development on aquifers and surface flows are difficult to predict (Bd. Exh. 41, p. 63.) With a minor hydrologic connection between Prickly Pear Creek and the proposed deep wells, there should be no significant adverse environmental impact associated with the use of the City of Helena's water reservation. (Bd. Exhibit Helena No. 15-A, pp. 4-9.) The effects of individual municipal water reservation depletions on water quality have not been quantified (Bd. Exhibit 40, pp. 253-254), but should be very small. Any resulting health risks have not been quantified. No other non-quantifiable benefits or costs were identified. (Bd. Exh. 15-A.)

22. Net benefits of granting the City of Helena's water reservation exceed the net benefits of not granting the water reservation and the project is economically feasible. (ARM 36.16.107B(4)(b); ARM 36.16.102(9).)

23. The City of Helena identified one alternative source of water for future development: modification of the Missouri River Water Treatment Plant to remove arsenic and toxic algae. This alternative would not provide greater net benefits than the water reservation, (Bd. Exh. 15-A, p. 4-4) and is not reasonable. (ARM 36.16.107B(4)(c).)

24. Failure to reserve water for future municipal and industrial use by the City of Helena is likely to result in an irretrievable loss of a resource development opportunity. (Bd. Exh. 15-A, p. 4-10; ARM 36.16.107B(4)(d).)

25. As conditioned, the City of Helena's water reservation will have no significant adverse impact to public health, welfare, or safety. (ARM 36.16.107B(4)(e).)

F. OTHER FINDINGS RELATING TO BOARD DECISION (Mont. Code Ann. § 85-2-316(3)(B), (4)(a)(iv)(b)(5), (6), and (9)(e)(1991); ARM 36.16.107B(5) through (8).)

26. The water reservation by the City of Helena will be used wholly within the state and within the Missouri River basin. (Bd. Exh. 15-A; ARM 36.16.107B(5) and (6).)

27. The City of Helena has identified a management plan for the design, development, and administration of its water reservation. (Bd. Exh. 15-A, pp. 5-1 to 5-16.)

28. The City of Helena is capable of exercising reasonable diligence towards feasibly financing the project and applying reservation water to beneficial use in accordance with the management plan. (ARM 36.16.107B(7).)

29. The priority date of the City of Helena's water reservation is July 1, 1985. (§ 85-2-331(4).)

30. As conditioned, the City of Helena's water reservation will not adversely affect any senior water rights. (ARM 36.16.107B(8).)

31. The public interest in protecting domestic and stockwater rights with a priority date on or after July 1, 1985 and perfected prior to the final date of this order outweighs the values protected by the municipal reservations.

III. CONCLUSIONS OF LAW

1. City of Helena is a qualified applicant for a water reservation. (Mont. Code Ann. § 85-2-316(1)(1991).)
2. The purpose of the City of Helena's application is a beneficial use. (Mont. Code Ann. § 85-2-316(4)(a)(i)(1991); ARM 36.16.107B(1)(b).)
3. The need for the City of Helena has been established. Specifically, the City has established that there is a reasonable likelihood that future in-state competing water uses would consume the water available for the purpose of its reservation. (Mont. Code Ann. § 85-2-316(4)(a)(ii)(1991); ARM 36.16.107B(2).)
4. The methodologies and assumptions used by the City of Helena are suitable and accurate under present conditions. (ARM 36.16.107B(3)(a).) As modified, the City of Helena has established the amount of water needed to fulfill its reservation. (Mont. Code Ann. § 85-2-316(4)(a)(iii)(1991); ARM 36.16.107B(3).)
5. Based on a weighing and balancing of the evidence, the reservation by the City of Helena as modified and conditioned herein is in the public interest. (§ 85-2-316(4)(a)(iv); ARM 36.16.107B(4).)
6. Upper Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985. (Mont. Code Ann. § 85-2-331(4).) The Board may determine the relative priorities of all reservations. (Mont. Code Ann. § 85-2-316(a)(e).)
7. The Board may grant, deny, modify or condition any reservation applied for. In no case may the Board make a reservation for more than the amount applied for. (Mont. Code Ann. § 85-2-316.)
8. The Board has no authority under the reservation statutes or any other statutes to determine, or alter any water right that is not a reservation. (Mont. Code Ann. § 85-2-316(14).)

IV. ORDER

1. Subject to all applicable modifications, conditions and limitations (including but not limited to the conditions applied to consumptive use reservations in Exhibits A and B attached to this order) the application of the City of Helena is granted for the following amount and flow of water: 16.4 cfs and 7,071 af/year.

2. The point of diversion and places of use are as set forth in the reservation application City of Helena and by reference are made a part of this Order.

3. The reservation is adopted subject to being perfected by December 31, 2025.

4. Relative to other reservations the priority date of the reservation shall be ahead of any other non-municipal reservation granted with a priority date of July 1, 1985. The reservation shall have equal priority with all other reservations granted to all municipalities.

5. Any and all liability arising from the reservation or the use of the reservation is the sole responsibility of the applicant. By granting such reservations, the Board on behalf of itself and the Department of Natural Resources and Conservation assumes no liability.