Application of DFWP
Water Reservation No. 40J L078651-00

II. FINDINGS OF FACT

A. FINDINGS ON THE QUALIFICATION OF DEPARTMENT OF FISH, WILDLIFE AND PARKS TO RESERVE WATER (MCA §85-2-316(1)(1993); ARM 36.16.107B(1)(a).)

1. The Montana Department of Fish, Wildlife and Parks (DFWP) is an executive branch agency of the State of Montana established pursuant to MCA §2-15-3401, and is qualified to reserve water pursuant to MCA §85-2-316.

2. DFWP is the executive branch agency mandated by statute to provide for the protection, preservation and propagation of all fish and wildlife and their habitat within the state. The DFWP is the responsible agency of state government to apply for instream flow reservations for fish, wildlife and their habitat in the Little Missouri River Basin and Lower Missouri River Basin below Fort Peck Dam (Peterman, Pre-filed Dir., p. 2).

B. FINDINGS ON THE PURPOSE OF THE WATER RESERVATION APPLIED FOR BY DFWP (MCA §85-2-316(4)(a)(1991); ARM 36.16.107B(1)(b).

3. DFWP submitted an application in June, 1991, to reserve waters to maintain minimum flow levels throughout the year or during described portions of the year. In addition, DFWP applied for channel maintenance flows on 21 stream reaches in the Little Missouri River Basin and the Lower Missouri River Basin below Fort Peck Dam, including tributaries of the Milk River. The waters applied for, including the reach boundaries and amounts of water requested, are discussed in the application (DFWP App., pp. 32-141).

4. The instream reservations are for the benefit of the public for fish, wildlife and recreational uses (DFWP App., p. 6; Peterman, Pre-filed Dir., pp. 1-2).

5. A purpose of the reservations is to reserve flows for existing and future beneficial uses to maintain a minimum flow, quantity, and quality of water for fish and wildlife populations and for recreational uses (DFWP App., p. 6; Peterman, Pre-filed Dir., pp. 1-2).

6. A reservation will help maintain fish and wildlife habitat sufficient to accommodate a diversity of species at levels comparable to existing levels. The reservation will contribute to, and maintain a clean and healthful and desirable environment (DFWP App., p. 6).

7. A purpose of the reservations is to sustain adequate levels of water quality (DFWP App., p. 6; Peterman, Pre-filed Dir., p. 5).

C. FINDINGS ON THE NEED FOR THE WATER RESERVATION APPLIED FOR BY DFWP (MCA §85-2-316(4)(a)(ii)(1993); ARM 36.16.107B(2).

8. An instream flow for fish, wildlife, and recreational purposes cannot be obtained through a water use permit (DFWP App., p. 7; Peterman, Pre-filed Dir., pp. 3-5).

9. Water quantities, over and above existing rights, are available for future appropriation. These waters may be appropriated for future off stream use. Future appropriations would deprive the fish, wildlife, and recreational resources of the waters that are necessary to perpetuate them (DFWP App., p. 7).

10. Instream flows of water are necessary to preserve and protect the prairie streams included in this application. These prairie streams provide a diverse habitat for warmwater species of fish (DFWP App., p. 7).

11. Instream flow reservations would help maintain habitat for pallid sturgeon, paddlefish, sicklefin chub, shortnose gar, pearl dace and northern redbelly dace. These are the "Species of special Concern" as recognized by the DFWP and the Montana Chapter of the American Fisheries Society. The pallid sturgeon is listed as an endangered species under federal law (DFWP App., pp. 11-12).

12. Instream flows of water in the Lower Missouri and Little Missouri River Basins are needed to maintain flows necessary for the basic life requirements of the fish, wildlife, and other living organisms that depend upon the flow of these streams and rivers (DFWP App., p. 8).

13. Instream flows will help preserve the reproductive capacity of streams and rivers for fish. Stream riffles and side channels are typically the prime sites chosen for spawning and the rearing of young. These sites are also the stream habitats that are most sensitive to flow reductions. Consequently, the production of young recruits that is needed to sustain stream fisheries is strongly tied to the flows necessary to maintain riffle and side channel habitat (DFWP App., p. 9).

14. Instream flows are necessary to protect the food base for fish. The game fish living in the reaches under application are typically top predators within the stream environment. They depend on some lower form of plant or animal for food. These lower life forms have specific water requirements necessary to sustain their growth and reproduction (DFWP App., p. 9).

15. Instream flows will help protect the quality of water that is necessary to sustain aquatic organisms and will help prevent the further deterioration of water quality during low flow periods. Possible consequences of further lowering stream flows during normal low flow periods are: higher water temperatures, increased amounts of

dissolved solids, increased nutrient concentrations, and lower dissolved oxygen levels, all of which are potentially harmful to aquatic life (DFWP App., p. 9).

16. Instream flows will help preserve sport fisheries which contribute to the region's economy. Anglers spent about $1.7 million in 1985 fishing the waters of the Lower and Little Missouri River Basins. The total economic value of streams in the basin is slightly higher than the amount for fishing alone if other travel related expenses are included (DFWP App., p. 11).

17. Instream flows preserve instream values by protecting the status quo of stream and river flows up to the minimum flows necessary to provide a healthy fishery.

18. DFWP has applied for reservations on nine streams in the Milk River Subbasin. On five of the streams, the request is for instream flows in cold water streams. Those stream reaches are identified in the application as Beaver Creek (Hill County), Beaver Creek #1 (Phillips County), Clear Creek, Little Box Elder Creek, and Peoples Creek (DFWP App., pp. 55-88).

19. These streams support a cold water trout fishery of primarily brook trout, although some rainbow, cutthroat and brown trout are also present. These streams are among the few coldwater trout streams in the region (DFWP App., p. 55).

20. The riparian zone of each of the coldwater streams provides habitat for a variety of game and non-game animal and bird species. Elk, mule and whitetail deer, big horn sheep, pheasant, grouse and a variety of waterfowl utilize the area. In addition, fur bearers such as beaver, mink, muskrat, raccoon, bobcat and coyote are found in the drainage. Non-game wildlife, birds of prey, and songbirds are found in close proximity of the streams (DFWP App., pp. 60, 63, 66, 73, 76).

21. The requested flows are necessary to maintain resident trout populations and to help protect riparian habitat (DFWP App., pp. 60, 63, 66, 74, 76).

22. On the remaining 4 streams in the Milk River subbasin, the DFWP has requested instream flows and also channel maintenance/ dominant discharge flows. Those streams, as identified in the DFWP application, are Battle Creek, Beaver Creek #2 (Phillips County), Frenchman River and Rock Creek (DFWP App., p. 53).

23. The steams identified in the previous paragraph are characterized in the DFWP application as prairie streams. They are typically low-gradient streams consisting of slow, deep pools, long shallow runs, and intermittent riffles (DFWP App., pp. 55, 68, 77, 81, 85).

24. The streams support populations of sauger, walleye, northern pike, channel catfish, and small mouth bass. The natural production occurring in these tributaries contributes to the recruitment of sport fish in the Milk River (DFWP App., pp. 55, 56, 68, 82, 85).

25. The riparian zone of each of the warmwater streams provides habitat for a variety of game and non-game animal and bird species. Antelope, mule and whitetail deer, pheasant, grouse, and partridge utilize the area. The riparian areas provide winter habitat for game and upland game birds. In addition, fur bearers such as beaver, mink, muskrat, raccoon, bobcat and coyote are found in the drainage. Non-game wildlife and birds of prey and songbirds are found in close proximity of the streams (DFWP App., pp. 69, 78, 83, 86).

26. The requested flows are necessary to protect the habitat of walleye, sauger, smallmouth bass, and northern pike, and to maintain habitat for the fish community during low flow periods. The flows will also help protect riparian habitat (DFWP App., pp. 70, 79, 83, 87).

27. DFWP has applied for instream reservations on the Missouri River below Fort Peck Dam for the entire length of the river to the border with the state of North Dakota. The DFWP application divides the request to cover two stream reaches (DFWP App., pp. 26, 33-52).

28. Missouri River Reach #7 is a 10.7 mile stretch of the river starting directly below Fort Peck Dam to the confluence with the Milk River. The stream gradient is very low and averages 0.9 feet/mile. The river channel below the dam was substantially altered during construction of the dam. There are three, 40 foot deep pools, two large, off channel dredge ponds and an island complex with an associated side channel (DFWP App., p. 37).

29. The side channels are important fish habitats in Missouri River Reach #7. The side channels provide a majority of spawning locations for rainbow trout starting April 1 of each year. The side channels also provide habitat for the young of the year throughout the summer and fall until they move into the main channel. It is important to maintain the side channel flows through the end of September of each year for rearing rainbow trout (DFWP App., p. 41; Frazer, Pre-filed Dir., p. 3).

30. Reach #7 provide habitat for shovel nose sturgeon, paddlefish, northern pike, channel catfish, sauger, and walleye (DFWP App., p. 38).

31. The water levels in the side channels fluctuate due to the releases from Fort Peck Dam. The side channel complex provides the best rearing habitat for rainbow trout. It is important to maintain as much of this habitat as possible until the young of the year are large enough to contend with the fluctuating flow conditions that

occur in the side channels due to the operation of the dam (Frazer, Pre-filed Dir., p. 3).

32. Missouri River Reach #8 is from the confluence of the Milk River to the Montana-North Dakota border, a distance of approximately 171.9 miles. The stream gradient is very low, averaging 0.9 feet/mile. In the upper 55 miles of the reach, erosion is taking place due to the lack of sediment in the waters released from Fort Peck Dam. The remaining 117 miles of the river is in a depositional state (DFWP App., p. 46).

33. The game fish found in this reach include sauger, burbot, shovelnose sturgeon, paddlefish, northern pike, walleye, channel catfish, rainbow trout, small mouth bass, pallid sturgeon, and brown trout (DFWP App., pp. 46-47). Angler use on the Missouri River below Fort Peck Dam is lower than that on Montana's Blue Ribbon trout streams, but is a significant recreational activity, nonetheless (Nelson, App., Pre-filed Rebutt., pp. 3-4).

34. There are eight spawning and incubation sites used by sauger along the reach. The spawning and incubation sites are confined to those areas where hard sandstone formations border the river. The scarcity of spawning and incubation sites limits the sauger population and makes it important that adequate flows are maintained through these areas (DFWP App., p. 49).

35. It is necessary to maintain a two-foot minimum water depth over the spawning areas for sauger to successfully reproduce. The requested flows are necessary to maintain the existing resident game fish population and to meet the spawning and incubation flow requirements of sauger (DFWP App., p. 50).

36. In both Missouri River Reach #7 & #8, the riparian zone provides diverse habitats which support many wildlife species. Populations of both mule and whitetail deer occupy the bottomlands. Game birds such as ring-necked pheasants, sharp-tailed grouse and morning doves live along the river. Canada geese and several species of ducks use some of the reaches year round and others when ice free. There is a winter concentration of bald eagles immediately downstream of Fort Peck Dam. Small fur bearers are commonly found along the river corridor (DFWP App., pp. 39-40, 49).

37. The requested flows are necessary to maintain existing resident game fish populations. These flows will: protect the habitat of fish species of "special concern", including the federally listed, "endangered" pallid sturgeon, meet the flow requirement for spawning and incubation of sauger, protect the habitat of the rainbow trout population, and help protect riparian habitat (DFWP App., pp. 42, 50).

38. The DFWP has requested reservations on the Redwater River and Poplar River Subbasins. This request includes the Redwater River Reach #1 and #2 and the East, Middle and West Forks of the Poplar

River and the Poplar River (DFWP App., pp. 91, 92, 95 100, 102, 109, 115, 118).

39. The game fish present in these streams are the northern pike, walleye, sauger, channel catfish, burbot, and smallmouth bass. There exists in all these streams, in varying numbers, non-game forage species including goldeye carp, creek chub, northern redbelly dace, flathead chub, lake chub, emerald shiner, fathead minnow, longnose dace, river carpsucker, shorthead redhorse, white sucker, stonecat, brook stickleback and Iowa darter (DFWP App., pp. 92, 95, 102, 103, 109, 115, 116, 118).

40. Estimates of fishing pressure and harvests for most of these stream reaches are unavailable. Fishing pressure is probably low due to the low human population in the region. However, the streams are fished by local anglers (DFWP App., pp. 92, 95, 109).

41. The Poplar River and its tributaries provide habitat for migrating and breeding water fowl. A variety of duck species and Canada geese nest and use the rivers for migration. Several species of upland game birds, including pheasants, partridge and grouse rely on the riparian habitat. Whitetail deer are the principal big game species and a few mule deer and antelope are found throughout the area. Beaver, muskrat, mink, raccoon and coyotes are the common fur bearers in the area (DFWP App., pp. 103, 104, 109, 116, 119).

42. The Redwater River and its tributaries provide habitat for mule and whitetail deer. Antelope are common throughout the area. The area is frequented by migrating and breeding waterfowl. A variety of duck species and Canada geese nest along the river. Several species of upland game birds, including pheasants, partridge and grouse are found in the drainage (DFWP App., pp. 92-93).

43. The flows requested on these stream reaches are necessary to maintain habitat for game fish during the low flow months, protect spawning and incubation habitats, and to protect the riparian habitat. Studies of biological flow relationships on the Middle Fork of the Poplar River have revealed a strong correlation between minimum stream flows during April and May and the spawning and incubation needs of walleye (Stewart, 1981). Because the West Fork of the Poplar is much like the Middle Fork, similar flow requests were made for April and May to protect walleye spawning and incubation (DFWP App., pp. 93, 96, 107, 110, 116, 119).

44. The DFWP has requested reservations for instream flow for streams in the Little Missouri River Basin on the Little Missouri River, Box Elder Creek, Little Beaver Creek and Beaver Creek (Wibaux County). These are prairie streams with long deep pools separated by short riffles. Comprehensive information on stream flows and hydrology in the basin is limited (DFWP App., pp. 123-124).

45. The game fish species found in these streams are channel catfish, sauger, walleye, and northern pike. The streams support forage species including goldeye, flathead chub, and creek chub. The fisheries are valued locally for sport fishing (DFWP App., pp. 124, 126, 130, 134, 138).

46. These streams provide a unique riparian habitat that contrasts with the surrounding semi-arid, short-grass prairie. Whitetail and mule deer are abundant. Antelope are found in the surrounding farm and rangeland. Upland game birds found within the drainage include various species of grouse, pheasant, partridge and wild turkey. Some species of water fowl are seasonally present. Great blue heron are also found in the drainage. In particular, the Box Elder Creek drainage provides nesting and rearing habitat for great blue heron, Canada geese and other waterfowl. Fur bearers are common and include mink, muskrat, beaver, raccoon, red fox and coyote (DFWP App., pp. 127, 131, 135, 140).

47. The requested flows are necessary to maintain survival habitat for the game fish and other fish during critical low flow periods and to help protect riparian habitat (DFWP App., pp. 127, 131, 135, 140).

D. FINDINGS ON THE AMOUNT OF WATER NEEDED FOR THE WATER RESERVATION APPLIED FOR BY DFWP (MCA §85-2-316(4)(a)(iii)(1993); ARM 36.16.107B(3).)

48. The instream flows requested by DFWP are intended to maintain fishery values. Several methods were used to determine the requested amounts of water. The DFWP utilized the Wetted Perimeter Inflection Point Method, Fixed Percentage Method, Base Flow Method, biological/flow relationships, and the Dominant Discharge/Channel Morphology Concept (DFWP App., pp. 14-22).

49. The most accurate means for deriving minimum flow requests is to directly observe the relationships between stream flows and aquatic populations. This use of biological-flow relationships was not possible for each stream reach due to the extensive commitment of resources required (DFWP App., p. 14).

50. The Wetted Perimeter Method was selected by DFWP to derive minimum instream flow requests for the following cold water streams: Beaver Creek (Hill County), Little Box Elder Creek, Clear Creek, and Peoples Creek) and for certain flows in the Missouri River Reaches #7 and #8 in DFWP's application (DFWP App., p. 14; Nelson, Pre-filed Dir., p. 3).

51. DFWP has completed a comprehensive survey of the instream flow methods literature (Leathe & Nelson 1989). This survey discussed the significance of existing methods to Montana's history of instream flow development, a survey and analysis of instream flow methods, the relationship between instream flow methods, and why Montana uses the

Wetted Perimeter Method in its instream flow program. This synopsis offers the scientific basis for the use of the Wetted Perimeter Method and other methods to determine the amounts of the requested flows. (DFWP App., pp. 20-21).

52. The Wetted Perimeter Method is based on the assumption that food supply can significantly influence the number and size of fish that can be maintained in the stream. The principal food of game fish are aquatic invertebrates which are produced in the stream riffles. A riffle is a section of stream where water is less deep, and flow is more rapid. Aquatic invertebrates live in the substrate of the riffle areas and require flowing water supplies to live. As the riffled area is more wetted, there is a greater abundance of aquatic invertebrates and more food for game fish (DFWP App., p. 15; Nelson, Pre-filed Dir., p. 4).

53. Wetted perimeter is the distance along the bottom and sides of a channel that is in contact with water when the stream is viewed in cross-section (DFWP App., p. 15; Nelson, Pre-filed Dir., p. 6).

54. The relationship between wetted perimeter and flow for stream riffles generally shows two inflection points where the rate of increase of wetted perimeter changes. Below the lower inflection point, flow spreads out horizontally across the stream bottom, causing the wetted perimeter to increase rapidly for very small increases in flow. A point is eventually reached (at the lower inflection point) where the water starts to move up the sides of the active channel and the rate of increase of wetted perimeter begins to decline. At the upper inflection point, the stream is approaching its maximum width and the water begins to move up the banks as flow increases. Large increases in flow beyond the upper inflection point cause only small increases in wetted perimeter (DFWP App., pp. 18-19; Nelson, Pre-filed Dir., pp. 5-6).

55. The upper inflection point flow is derived from the plot of the relationship between wetted perimeter and flow for the stream riffles of interest. These plots are generated using DFWP's wetted perimeter computer program, which is calibrated using surveyed channel measurements that are taken at different flows for each stream of interest (DFWP App., pp. 20-21; Nelson, Pre-filed Dir., pp. 5-6).

56. Wetted perimeter field data, used to calibrate the wetted perimeter computer program, were collected by two or more DFWP personnel. The field data for the cold streams reaches was collected by one team consisting of two persons. The field data on Missouri River Reaches #7 and #8 was collected by a second team of up to four persons (Nelson, Tr. Day 6, p. 86).

57. DFWP personnel were trained in the use of the Wetted Perimeter Method at workshops conducted by DFWP, often in conjunction with the United States Geological Survey. Training included: theory of the Wetted Perimeter Method, surveying and field techniques,

selection of study sites, data coding, flow measuring procedures, and field exercises (Nelson, Pre-filed Dir., p. 2).

58. Application of the Wetted Perimeter Method by DFWP's field personnel was governed by procedures and standards set forth in DFWP's publication titled "Guidelines for Using the Wetted Perimeter (WETP) Computer Program of the Montana Department of Fish, Wildlife and Parks", (Nelson 1989), (DFWP App., p. 20; Nelson, Pre-filed Dir., p. 2).

59. Riffles are areas of streams that are most sensitive to flow reductions. Therefore, a flow request that wets most of the riffle area will also help to protect a stream's pools and runs - areas where adult fish normally reside (DFWP App., p. 15; Nelson, Pre-filed Dir., p. 5).

60. The Wetted Perimeter Method provides a range of flows from which a single flow recommendation is selected. Professional judgment plays a role in selecting a final flow recommendation using all instream flow methods, including the Wetted Perimeter Method (DFWP App., pp. 18-20; Nelson, Pre-filed Dir., pp. 5-6).

61. The Wetted Perimeter Method used by DFWP to determine the amount of water needed for fishery resources is generally accurate and suitable. It offers a reasonable estimate of the amount of water needed to protect aquatic habitat as it has been applied to the streams in this portion of the DFWP's reservation application.

62. The DFWP used the Fixed Percentage Method to derive its instream flow request for Beaver Creek #1 (Phillips County). This particular stream reach is a coldwater stream which supports brook trout. Due to time constraints and the remoteness of the area, the Wetted Perimeter Method was not used (DFWP App., pp. 21, 75-76; Nelson, Pre-filed Dir., p. 7).

63. The Fixed Percentage Method uses an average of the high inflection point as determined by the Wetted Perimeter Method on known streams. This amount is expressed as a percentage of the average annual flow. The fixed percentage that was used for Beaver Creek #1 (Phillips County) was obtained by using the high inflection point flows derived for the four cold water streams in the Bears Paw Mountains that are part of DFWP's application for reservation (DFWP App., p. 21; Nelson, Pre-filed Dir., p. 7).

64. The Fixed Percentage Method used by DFWP to determine the amount of water needed for fishery resources is generally accurate and suitable. It offers a reasonable estimate of the amount of water needed to provide instream benefits on the streams in this portion of the DFWP's reservation application.

65. DFWP selected the Base Flow Method to determine the instream flow requests for the following waters: Battle Creek, Beaver Creek #2

(Phillips County), Frenchman River, Rock Creek, Redwater River Reach #1 and #2 and the East, Middle and West Forks of the Poplar River, Poplar River, Little Missouri River, Box Elder Creek, Little Beaver Creek and Beaver Creek in Wibaux County (DFWP App., pp. 70, 79, 83, 87, 93, 96, 106, 112, 116, 119, 127, 131, 135, 140).

66. The Base Flow Method was selected to determine the instream flow requests on the warmwater, or prairie streams, because it best reflected the naturally occurring flows. In late summer, fall, and winter the flows in these streams virtually ceases for long periods of time. The flow that exists helps exchange water between pools, freshening the pools and oxygenating the water which is critical to support fish (DFWP App., p. 22).

67. The flows requested by the DFWP are for two time periods during the year. Those two periods are the winter months of December through March and the non-winter months of April through November. For each of these periods the DFWP selected the lowest mean monthly flow for each period. The mean monthly flows were calculated by the U.S. Geological Survey (USGS) (DFWP App., p. 22).

68. DFWP contracted with the Helena office of the USGS to conduct a study to determine the monthly flow characteristics and Dominant Discharge Hydrographs for streams in the Lower and Little Missouri River basins. Estimates were made for 21 sites, 17 in the Lower Missouri River Basin and 4 in the Little Missouri Basin. This report is denominated as Water-Resources Investigations Report 94-4098 (USGS Report) and was made part of the direct testimony of Charles Parrett (Parrett, Pre-filed Dir., p. 2).

69. The USGS Report provides estimates of stream flow characteristics of the mean monthly discharges that are exceeded 90, 80, 50 and 20 percent of the years of extended record (1937-86) and the mean monthly discharge for each month (USGS Report 94-4098).

70. The 1937-86 base period of record was selected and the general study approach used was the same as the previous study done by the USGS in the upper basin of the Missouri River (USGS Report 94-4098).

71. The USGS Report lists the 21 sites for which stream flow estimations were made. Sites identified in the Report as numbers 1, 16-21, are those for which there is gaged streamflow information. The gaged streamflow information at each site did not necessarily cover the base period selected for the Report. To adjust for any differences, a streamflow-record extension statistical program was applied to the data (USGS Report 94-4098).

72. For those gauge sites where the period of actual streamflow record includes the 1937-86 base period, the estimates of monthly streamflow characteristics are based on recorded stream flows and are considered reliable. For those gauge sites where the streamflow

record was augmented by the application of the streamflow-record extension program, the data is considered reliable (USGS Report 94-4098; Parrett, Pre-filed Dir., pp. 2-3).

73. Estimates of stream flow at ungauged sites, were based on two methods, Concurrent Measurement and the Drainage-Area-Ratio Adjustment methods. The Concurrent Measurement Method was used to estimate the stream flows on the West Fork of the Poplar and on the Poplar Rivers (Sites 14 and 15 in the Report). The Drainage-Area-Ratio Adjustment Method was used on the remaining sites (Sites 2-13 in the Report). These two estimation methods are generally considered reliable (USGS Report 94-4098; Parrett, Pre-filed Dir., pp. 2-3).

74. The Base Flow Method used by DFWP to determine the amount of water needed for fishery resources is generally accurate and suitable. It offers a reasonable estimate of the amount of water needed to provide instream benefits as it has been applied to the streams in this portion of the DFWP's reservation application.

75. The DFWP also requested channel maintenance instream flow reservations on the warmwater, or prairie streams, (Battle Creek, Beaver Creek #2 (Phillips County), Frenchman River, Rock Creek, Redwater River Reach #1 and 2 and the East, Middle and West Forks of the Poplar River, Poplar River, Little Missouri River, Box Elder Creek, Little Beaver Creek and Beaver Creek (Wibaux County)) based on the Dominant Discharge/Channel Morphology Concept (DFWP App., pp. 68, 77, 81, 85, 92, 95, 102, 109, 115, 118, 125, 129, 133, 137; Nelson, Pre-filed Dir., pp. 7-8).

76. The streams in question are characterized by long, deep pools separated by widely-spaced riffles. The pools provide refuge for game fish and other fish species from late summer through the winter when flows in the streams decrease. The maintenance of this system of riffles and pools is believed to be critical to survival of the fish species (DFWP App., p 23).

77. It is believed that a bank full discharge at some interval is needed to maintain the morphology of the prairie streams. Flowing water provides the energy to erode and aggrade (deposit) the alluvial material that makes up the bed and banks of prairie streams. This process of erosion and aggradation that occurs during bank full discharges forms and maintains the long, deep pools characteristic of prairie streams (Gillilan, Pre-filed Dir., p. 3).

78. It is not known how long the bank full flow must be present to accomplish the channel shaping that is necessary to maintain the characteristic pools and riffles of prairie streams. Because this fact is unknown, the DFWP, in its application, requested a one-day high flow amount with a stair-step increase up to and a similar stair-step decrease down from that amount (DFWP App., p. 24).

79. In order to assure that the reservation included the high flow that may occur in any given year, the DFWP requested an amount of water which incorporated the stepping up and stepping down to the high flow. This approach resulted in reservations requests for dominant discharge for time periods of 14 to 21 days (DFWP App., p. 24).

80. The stair stepping approach to formulating the DFWP reservation request for the dominant discharge flow is intended to mimic the natural hydrograph of the stream. A hydrograph is a plotting of discharge over time (Gillilan, Pre-filed Dir., p. 5).

81. To arrive at the dominant discharge for the streams included in this portion of the DFWP application, calculations of the two year recurrence interval peak flow by the USGS were used to determine the channel maintenance/dominant discharge reservation request (DFWP App., p. 25).

82. The DFWP did not measure or in any other manner actually observe a bank full discharge on any of the streams at any location for the stream reaches covered by this portion of its application (Nelson, Tr. Day 6, p. 120).

83. The DFWP did not determine, by survey or other measurement at any point, the physical characteristics of cross sections of the stream reaches in this portion of its application. There were no studies on any of the streams reaches covered in this portion of the application to determine the type, origin, or nature of the materials making up the stream bed and banks (Nelson, Tr. Day 6, p. 120).

84. The DFWP selected one site, usually at the mouth or base of a stream reach, to calculate the dominant discharge or bank full flow. The stream reaches on which the DFWP requested instream flow reservations based on the dominant discharge method range in length from 15 to 90 miles. The bank full flow information at one site may or may not be accurate throughout the entire stream reach.

85. The dominant discharge concept is generally accepted within the scientific community. There is, however, a debate about the appropriate methods to determine the dominate discharge and its recurrence interval. DFWP's requested channel maintenance flows may not be an accurate estimate of the dominant discharge or its recurrence interval (Hansen, Obj., Pre-filed Direct, pp.9-11).

86. For the Missouri River reaches #7 and #8, a combination of methods were used in arriving at the instream reservation request. For Missouri River reach #7, the Wetted Perimeter Inflection Point method was used. It was applied to three representative riffles between the Fort Peck Dam and the confluence of the Milk River. It was also used on two riffles in the east side channels within 2.5 miles below the dam. It was also used on two riffles in the 2.5 mile-long eastside channel below the dam (DFWP App., pp. 40-41).

87. Two riffle cross-sections were measured at sites identified as spawning and rearing areas in the east side channel. The data collected was analyzed by use of the WETP computer program. It was determined that a side channel flow of about 250 cfs, would almost completely cover the riffles. A main channel flow that would provide a side channel flow of 250 cfs, is about 7800 cfs. The spawning and rearing period for rainbow trout is April 1 to September 30 of each year (DFWP App., p. 41).

88. For the Missouri River reach #8, the Wetted Perimeter Inflection Point method was also applied on three riffles between the confluence of the Milk River and Wolf Point (DFWP App., p. 49).

89. In the Missouri River reach #8, the DFWP identified 8 sites that were known sauger spawning/incubation reefs. Based on a prior study (cited in the application as Gardner and Stewart (1987)), successful sauger reproduction requires a two foot minimum water depth over the spawning areas (DFWP App., p. 49).

90. In formulating its request for instream flow, the DFWP monitored the river stage heights at two representative sauger spawning reefs located between Poplar and the North Dakota border. The flows needed to satisfy the two foot minimum necessary to cover the spawning/incubation reefs were calculated from the stage height data using options in the WETP computer program (DFWP App., p. 50).

91. The spawning period for sauger is from May 11 to June 30 of each year. A flow of 11,497 cfs is needed to satisfy the two foot minimum criteria at the one of the monitored reefs in Reach #8. This amount represents the largest instream flow request for this time period (DFWP App., p. 50).

92. The DFWP in its application requested instream flows throughout the year. The two periods of the greatest magnitude flow are as has been discussed. The total acre-feet per year for Reach #7 is 5,620,361 and for Reach #8 is 5,522,972 (DFWP App., pp. 43, 51).

93. The requested instream flow exceeds 50% of the annual flow. One-half of the average annual flow of the Missouri River below Fort Peck Dam at Reach #7 is 3,263,500 ac/ft per year and 3,748,500 ac/ft per year at Reach #8 (DEIS, p. 94).

94. The one-half annual flow limitation is applied to the following streams or reaches (FEIS, p. 163).

Stream or Reach	50% Annual Flow (cfs)	Acre/feet/ year
Missouri River #7	4508 cfs	3,263,500
Missouri River #8	5178 cfs	3,748,500

95. Granting the total requests of the various conservation districts for reservations of water from the Missouri River below Fort Peck Dam would have minimal impact on the fisheries in Reaches #7 and #8 (Nelson, Tr. Day 6, p. 129).

E. FINDINGS THAT THE WATER RESERVATION APPLIED FOR BY DFWP IS IN THE PUBLIC INTEREST (MCA §85-2-316(4)(a)(iv)(1993); ARM 36.16.107B(4).)

96. The direct benefits of reserving the requested instream flows include: the preservation of the fisheries resources in the basin, maintenance of wildlife dependant on stream flow, existing riparian communities, and water quality (DFWP App., pp. 142-159).

97. Fisheries resources would be protected by DFWP's reservations.

98. Several Species of Special Concern and Endangered Species reside in streams in the Little and Lower Missouri River Basin. An instream flow reservation would help to protect the habitat for these species.

99. Instream flows maintain the riparian areas and provide habitat for wildlife and birds.

100. A direct cost of reserving the requested instream flows is the cost of administering the reservations if granted (DFWP App., p. 159).

101. The indirect benefits of reserving the requested instream flow are the recreation and tourism associated with fishing, hunting and other outdoor activities and the aesthetic values associated with rivers (DFWP App., pp. 169-170).

102. The indirect costs of reserving the requested instream flow are the lost resource development opportunities (See in general transcript of public hearings). There will not be any indirect costs to any senior water right holders as a result of these reservations, unless that senior user elects to undergo a change of use. In that case, DFWP or any other junior user may elect to object to that change of use. A valid objection by a junior user may result in additional costs to the senior user (MCA §85-2-402(2)).

103. Instream flow reservations will have an effect on the use of existing irrigation water rights if the reservants object to changes in existing rights. These are indirect costs to existing water right holders. All junior water right holders, including reservants, have the right to object to changes in senior water rights (Spence, Pre-filed Dir., p. 5). Such objections do impact existing water rights, by allowing the reservant to object to changes. These costs have not been quantified by the applicant.

104. DFWP's history of objections to changes in water rights with respect to its "Murphy" rights and Yellowstone Basin reservation rights, shows that it objects infrequently to such changes (Spence, Pre-filed Dir., pp. 5-6).

105. The applicant's costs of applying for the reservations and of conducting the contested case hearing are not direct or indirect costs.

106. There are no other reasonable alternatives with greater net benefits (ARM 36.16.107B(4)(c)).

107. Depending on the location, timing, and amount of water diverted, incremental development of new water use permits could cause an irretrievable loss of water quality, fisheries, and opportunities for recreation (ARM 36.16.107B(4)(d)).

108. Stream flow depletions could reduce components of the natural environment, including fishery resources, wildlife riparian areas, and water quality (DFWP App., p. 184).

109. Reservations for instream flow are the only way to protect stream flow for water quality, fisheries and recreation on nearly all streams where such reservations are requested (Peterman, Pre-filed Dir., pp. 3-4; Spence, Pre-Filed Dir., pp. 10-11).

110. The Board approved all of the conservation districts' applications for reservations thereby protecting the future irrigation potential in the counties of the Lower and Little Missouri River Basins. Those reservations will help preserve the local tax base that is fostered through irrigation projects (see Board Order, pp. 76-144 supra). DFWP's instream flow reservation would not have adverse impacts to public health, safety and welfare (ARM 36.16.107B(4)(e)).

111. The instream flows requested by DFWP will: help to maintain the existing resident fish populations, protect spawning and rearing habitats, protect the habitats of game fish and "Species of Special Concern", including the pallid sturgeon. The flows will also help protect the habitat for those wildlife species which depend on the streams and their riparian zones for food, water and shelter (ARM 36.16.107B(4)(f)).

F. <u>OTHER FINDINGS RELATING TO BOARD DECISION (MCA §85-2-316(3)(B), (4)(a)(iv)(b), (5), (6), and (9)(e)(1993); ARM 36.16.107B(5) through (8).)</u>

112. The water reservation by DFWP will be used principally within the state and only within the Little and Lower Missouri River Basins (ARM 36.16.107B(5) and (6)).

113. DFWP has proposed a management plan for measuring, protecting, and reporting on instream reservations (DFWP App., pp. 193-198).

114. The management plan presents an adequate framework for measuring, protecting, and reporting on reservations for minimum instream flows derived using the Wetted Perimeter, Biological Flow, Fixed Percentage and Base Flow methods (DFWP App., pp. 193-198).

115. DFWP is capable of exercising reasonable diligence towards measuring, protecting, and reporting its minimum instream water reservations in accordance with the management plan for instream reservations derived using the Wetted Perimeter, Biological Flow, Fixed Percentage and Base Flow methods (DFWP App., pp. 193-198)(ARM 36.16.107B(7)).

116. The management plan presented by DFWP does not provide an adequate framework to monitor and measure any reservation granted for channel maintenance\dominant discharge method. DFWP has not proposed any method to monitor at multiple points along a given stream reach to take into account any variations that occur in the flow, topography, channel morphology or any other unique characteristics of a particular stream. Existing technology does not allow DFWP to predict when a dominant discharge flow is likely to occur (DFWP App., pp. 193-198).

117. It may be difficult to predict when a snowmelt or other climactic phenomena triggering the dominant discharge event will occur. This unpredictability is indicative of the difficulty in managing the channel maintenance flows applied for by the DFWP (Perkins, Re-dir., Tr. Day 6, p. 230).

118. DFWP is not capable of exercising reasonable diligence towards measuring, quantifying, protecting, and reporting its channel maintenance reservations in accordance with the management plan (ARM 36.16.107B(7)).

119. The water reservation as conditioned would not adversely affect any water right with a priority date before July 1, 1985, in the Lower Missouri Basin and before July 1, 1989, in the Little Missouri Basin (MCA §85-2-316(9)(e); ARM 36.16.107B(8)).

III. CONCLUSIONS OF LAW

1. DFWP is a qualified applicant for a water reservation (MCA §85-2-316(1)(1991).

2. The purpose of the DFWP application is a beneficial use (MCA §85-2-316(4)(a)(i)(1991); ARM 36.16.107B(1)(b)).

3. The need for the DFWP application has been established (MCA §85-2-316(4)(ii)(1991); ARM 36.16.107B(2)).

4. The Wetted Perimeter, Fixed Percentage, and Base Flow methodologies used by DFWP are generally accurate and suitable for determining the amounts necessary for the instream flow reservations. (ARM 36.16.107B(3)(a)). DFWP has established the amount of water needed to fulfill its reservation as set forth in Table 1 (MCA §85-2-316(4)(a)(iii)(1991); ARM 36.16.107B(4)).

5. The Dominant Discharge Methodology used by DFWP to compute channel maintenance flows as applied to the streams on which channel maintenance flows were requested is not suitable (ARM 36.16.107B(3)(a)).

6. The benefits of granting minimum instream flows requested as modified and conditioned herein exceed the direct and indirect costs of those reservations. Upon a weighing and balancing of the evidence, it has been established to the satisfaction of the Board that the water reservation requested by DFWP as modified and conditioned herein is in the public interest (MCA §85-2-316(4)(a)(iv)(1991); ARM 36.16.107B(4)).

7. Upon a weighing and balancing of the evidence, it has not been established to the satisfaction of the Board that the water reservation requested by DFWP for channel maintenance flows herein is in the public interest (MCA §85-2-316(4)(a)(iv)(1991); ARM 36.16.107B(4)).

8. The specific occurrence of the channel maintenance flows applied for by DFWP are sufficiently unpredictable that the Board finds the reservations for channel maintenance flows are not in the public interest (ARM 36.16.107B(4)(f)).

9. The Lower Missouri River water reservations approved by the Board shall have a priority date of July 1, 1985. The Little Missouri River water reservations approved by the Board shall have a priority date of July 1, 1989 (MCA §85-2-331(4)). The Board may determine the relative priorities of all reservations (MCA §85-2-316(a)(e)).

10. 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 (MCA s85-2-316).

11. 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 (MCA §85-2-316(14)).

12. This reservation does not guarantee DFWP minimum flows.

IV. ORDER

1. Subject to all applicable conditions, and limitations (including but not limited to the conditions applied to instream reservations in Exhibit A attached to this Order) the application of DFWP is granted as set forth in Table 1.

2. The Lower Missouri River instream flow reservations, as set forth in Table 1 of this order, shall have a priority date of July 1, 1985. The Little Missouri River instream flow reservations, as set forth in Table 1 of this order, shall have a priority date of July 1, 1989.

3. Relative to other reservations, the priority date of the DFWP shall be subordinate to the consumptive use reservations granted to all municipalities. Further, on those waters where the Board has granted consumptive use or storage reservations to any Conservation District, the priority date of the DFWP instream reservation shall be subordinate to those reservations.

4. 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.

TABLE 1

Montana Department of Fish, Wildlife and Parks Instream Reservations.

Stream	Reach	Dates	Amount (cfs)	Amount (af)	(af/yr)
Milk River Subbasin					
Battle Creek	International boundary to mouth	Jan., Feb., Mar., Dec.,	2.0	480	2,900
		Apr. through Nov.	5.0	2,420	
Beaver Creek (Hill County)	Reservation boundary to Beaver Creek Reservoir	Year-round	7.0	5,068	5,068
Beaver Creek #1 (Phillips Co.)	Headwaters to reservation boundary	Year-round	0.2	145	145
Beaver Creek #2 (Phillips County)	Highway 191 to mouth	Jan., Feb., Mar., Dec.	7.0	1,679	7,003
		Apr. through Nov.	11.0	5,324	
Clear Creek	Headwaters to Clear Creek Road	Year-round	5.0	3,620	3,620
Frenchman River	International boundary to mouth	Jan., Feb., Mar., Dec.	2.0	480	2,900
		Apr. through Nov.	5.0	2,420	
Little Box Elder Creek	Headwaters to Clear Creek Road	Year-round	1.0	724	724
Peoples Creek	Headwaters to Barney Olson Road	Year-round	1.0	724	724
Rock Creek	International boundary to mouth	Jan., Feb., Mar., Dec.	2.0	480	4,352
		Apr. through Nov.	8.0	3,872	
Lower Missouri River Subbasin					
Missouri River #7	Fort Peck Dam to Milk River	Year-round	4,508		3,263,500
Missouri River #8	Milk River to state line	Year-round	5,178		3,748,500
East Fork Poplar River	International boundary to Middle Fork	Jan., Feb., Mar., Dec.	3.0	719	3,679
		April	15	893	
		May	10	615	
		June through Nov.	4	1,452	
Middle Fork Poplar River	International boundary to East Fork	Jan., Feb., Mar., Dec.	1.0	239	3,980
		April	30.0	1,785	
		May	20.0	1,230	
		June through Nov.	2.0	726	
Poplar River	Junction of Middle and East Forks to reservation boundary	Jan., Feb., Mar., Dec.	8.0	1,920	13,152
		April	70.0	4,165	
		May	50.0	3,074	
		June through Nov.	11.0	3,993	
West Fork Poplar River	County bridge south of Peerless to reservation boundary	Jan., Feb., Mar., Dec.	3.0	719	5,186
		April	30.0	1,785	
		May	20.0	1,230	
		June through Nov.	4.0	1,452	
Redwater River #1	Circle to East Redwater Creek	Jan., Feb., Mar., Dec.	2.0	480	1,932
		Apr. through Nov.	3.0	1,452	
Redwater River #2	East Redwater Creek to mouth	Jan., Feb., Mar., Dec.	2.0	480	2,416
		Apr. through Nov.	4.0	1,936	
Little Missouri River Subbasin					
Beaver Creek (Wibaux County)	Lamesteer Creek to state line	Jan., Feb., Mar., Dec.	1.0	239	579
		Apr. through Nov.	0.7	340	
Boxelder Creek	One mile west of Belltower to state line	Jan., Feb., Mar., Dec.	4.0	960	4,348
		Apr. through Nov.	7.0	3,388	
Little Beaver Creek	Russell Creek to state line	Year-round	3.0	2,171	2,171
Little Missouri River	Montana-Wyoming border to Montana-South Dakota border	Jan., Feb., Mar., Dec.	5.0	1,199	5,071
		Apr. through Nov.	8.0	3,872	

af - acre-feet af/yr - acre-feet per year cfs - cubic feet per second

EXHIBIT A

1. Reservations granted in the Order are subject to all prior existing water rights in the source of supply, including storage rights, and any final determination of existing water rights as provided by Montana law. Reservations are also subject to all prior Federal and Indian reserved rights. The reservants may use the reserved water only when such use will not adversely affect prior water rights.

2. The reservations are subject to all Federal, State and local laws.

3. Pursuant to MCA §85-2-316 (10) (1993), the Board shall review water reservations granted in this order at least every 10 years to insure the objectives of the reservation are being met. Where the Board determines the objectives are not being met, it may, after notice and hearing, extend the term, modify, or revoke the reservation.

4. Any proposed changes of the reservation in point of diversion, place of use, purpose of use, or place of storage, from that originally granted by the Board, shall be made in accordance with the requirements of MCA §85-2-402 (1993). Further, the Board shall not approve the change unless the provisions of MCA §85-2-316 (1993) are met.

5. The reservations are subject to all water uses which do not require a permit under MCA §85-2-306 (1993) that were beneficially used prior to the date of the Order granting the reservations.

6. The reservations may be subordinated pursuant to MCA §85-2-316 (9)(d)(1993).

7. Conditions of this Order may be added, modified or deleted by the Board after notice and hearing.

8. All decisions made by the Board regarding water reservations granted in this Order are appealable under the provisions of the Montana Administrative Procedure Act.

MEMORANDUM TO THE CONTESTED CASE &

PUBLIC HEARINGS

In the course of the preliminary proceedings, the hearing itself, and the Board's deliberation in adopting the proposed Findings of Fact, Conclusions of Law, and Order, and in addressing the exceptions submitted by the parties, several legal issues were raised. Some of these matters were addressed in preliminary orders, rulings made at the time of the hearing, and by the Board in adopting its Proposed and Final Order. The Board believes that the basis for the various rulings and decisions should be addressed by a Memorandum. This Memorandum explains the reasoning behind various rulings and decisions made in the course of this proceeding.

In the course of the Contested Case Hearing, the hearings examiner ruled on several Motions that dealt with procedural issues. The Department of Fish, Wildlife & Parks (DFWP) moved at the time of the hearing to amend its application. The time, set in the scheduling order for such amendments, had passed and the Conservation Districts objected to the amendment. The DFWP had, however, provided the information contained in its amendment through pre-filed testimony. The amendments requested by DFWP went to the amounts of water associated with particular reservation applications. This information was available only upon the completion of studies by the US Geological Service. The hearings examiner granted a Motion to Amend.

The Motion to Amend was granted because the amendments did not substantially change the application, and the granting of the

amendments did not place objectors at a disadvantage. The amendment only addressed the volume of water requested and did not materially alter the original application. While it can be argued that any amendment to a reservation involving change in the amount of water is material and granting such an amendment would place the objectors at a disadvantage, in this instance the objectors were aware of and had access to the same streamflow information available to the DFWP. The amendment simply went to a refinement of streamflow data. While streamflow information is critical to the application, the objectors challenged the overall scientific theory behind DFWP's application. The specific numbers in the amended instances were not critical to the objectors having an opportunity to adequately prepare their case.

The Department of Interior, Bureau of Reclamation, moved at the time of hearing to be added as an objector to the application of the City of Havre. The Bureau of Reclamation appeared as an objector to other applicants, including two other municipal applicants requesting reservations from the Milk River similar to that of the City of Havre. The City of Havre applied for both a groundwater reservation and a surface water reservation from the Milk River. When legal notice was given of the application for the reservations, however, only the groundwater reservation request of the City of Havre was published. As a result, the Bureau of Reclamation did not file an objection even though it had objected to other municipal applicants request for reservations of surface water from the Milk River.

The City of Havre objected to the Motion of the Bureau of Reclamation. It is true that the City of Havre, in its pre-filed

testimony and in its presentation at the Contested Case Hearing, did not have an opportunity to address the Bureau of Reclamation objection. The Bureau of Reclamation's objection was the same as entered against the other two municipalities. Its objection was not to the granting of the reservation but requested the imposition of the conditions upon any reservation of surface water from the Milk River.

The Bureau of Reclamation's Motion challenged the sufficiency of the notice as to the City of Havre's application. To avoid any question about the sufficiency of the published notification as it pertained to the City of Havre, the hearings examiner granted the Bureau of Reclamation's Motion. So as not to disadvantage the City of Havre, it was granted an opportunity to address the objection by filing additional written testimony to address the objections of the Bureau of Reclamation. The City of Havre took advantage of this opportunity and did file testimony addressing the Bureau of Reclamation's objection.

At the contested case hearing, DFWP objected to the substance of the live testimony provided by those individuals who had pre-filed written testimony. Their concern was that the individuals testifying not be given an opportunity to augment or diverge from pre-filed testimony. Such enhanced testimony would place opposing parties at a disadvantage of not being aware in advance of the hearing of the substance of the testimony. The hearings examiner overruled the Motion with the caveat that at any time during testimony if a witness deviated from or attempted to expand on their pre-filed testimony that an appropriate objection could be entered.

As the Contested Case Hearing progressed, it became obvious that the parties respected the use of the pre-filed testimony but took advantage of the opportunity to present witnesses live to clarify and explain various aspects of their application or pre-filed testimony. Except for a few objections, all parties accepted the live testimony of the various witnesses and used the opportunity to effectively examine and cross-examine witnesses.

In general, the public hearing portion of the reservation hearing process went well. One issue did come up at public hearings which the parties addressed in a subsequent Motion. Several individuals appeared at the public hearings and presented testimony concerning the Sheridan County Conservation District Application. Several individuals, testifying at the public hearing sessions, alluded to settlement discussions that had taken place among the applicant, objector, and other affected water users in Sheridan County. The Department of the Interior, Fish and Wildlife Service (F&WS) moved to exclude this testimony from the record.

Because of the way the public hearings were structured, the F&WS did not make its objection at the time the individuals offered their testimony. As a practical matter, it would have been difficult in a public forum to address such a Motion. The F&WS made its Motion the next day before the start of the contested case hearing. The other parties to the contested case hearing did not object to the Motion. At that time the hearings examiner ruled that such references to settlement discussions would not be used by the Board in reaching its decision in this matter. The hearings examiner also ruled that any

subsequent testimony at the public hearings regarding settlement discussions would not be considered by the Board. Given the format of the public hearing sessions, the parties agreed that this was an acceptable way of addressing the problem.

In its deliberations, the Board considered the objections of the Department of the Interior, Bureau of Indian Affairs (BIA) on behalf of the Fort Peck, Fort Belknap, and Rocky Boy's Indian Reservations. The BIA appeared as a party at the contested case hearing in its capacity as trustee for the tribal entities. No party objected to BIA's standing to participate in this procedure. In general, the BIA's objections to several municipal applicants and several conservation district applicants concerned the relationship between federal reserved water rights associated with the Indian Reservations and the reservations to be granted by the Board in this matter.

The BIA did not object either to the granting of specific reservations or to the amount of water requested. Its objections were in the form of conditions it asked to be placed on any reservation granted in this process which is upstream of an Indian Reservation. It also entered an objection asking that where tribal lands or tribal members could possibly be the users of water developed under reservations granted in this process, those reservation waters not be counted as part of any tribal reserved water rights.

The BIA conditions were generally four or five in number. Three of the requested conditions were similar in all instances. The first was that any water reserved in this process was subject to all senior Indian and federal water rights in the source of supply by fully

recognizing Winters v. United States. The Board considered this condition in its deliberations and believed it was not necessary to impose this condition.

The statute creating the reservation process specifically provides that the Board has no authority to alter a water right that is not a reservation, MCA §85-2-316(14). The Board's own rules further expand on this limitation. The Board is aware of this statutory provision and, in reaching its decision, took every precaution to avoid making any decision which in any way could adversely effect all senior Indian or federal water rights. The Board believes, however, that the conditions requested by the BIA are redundant to all existing law concerning the legal rights of senior water right holders, including Indian tribes and the federal reserve water rights as established under court decisions.

The BIA also asked that a condition be placed on any reservations granted in sources which may be subject to senior Indian and federal water rights. The condition would provide that any economic investments made by the reservant is made at its own risk and create no equitable rights against the United States. Again, the Board believes that this is simply a restatement of the existing law of prior appropriation whether it would be an individual, Indian tribe, either as an entity or through its individual tribal members or the federal government. Any water reservation granted in this process is subject to all senior water rights. This condition is stated in the statute and also in a general statement of conditions placed on all

the reservations granted herein. The Board believes that it has adequately addressed the BIA's concerns relevant to this issue.

The final general condition that the BIA requested in all situations where there was a senior Indian or federal water right in the source of supply, was that any subsequent legal decision holding that the State did not have jurisdiction to grant water reservation permits near or within the exterior boundaries of an Indian Reservation or allotted lands would void that reservation grant. Again, the Board believed that as a matter of law, it went without saying that if some subsequent decision withdrew the authority to grant reservations, the reservation permits would, by operation of law, become void. The Board believes that such a decision would void the actions in this matter and that the condition requested by BIA was not necessary.

The BIA requested specific conditions applicable to the Blaine and Liberty Counties Conservation District applications. The Board has placed conditions on those two reservations which it believes incorporates the BIA's concern. The BIA also identified areas of concern regarding the municipal applications of Plentywood and Scobey and the applications of Daniels County and Sheridan County Conservation Districts. Again, the Board adopted specific conditions in those four instances. The BIA also had concerns regarding the applications of Valley County and Roosevelt County Conservation Districts and the municipalities of Wolf Point and Poplar. The Board recognized these concerns with specific conditions relating to those four situations. The Board believes that the reservations granted to

these particular applicants is not to be considered part of or counted against the amounts of water granted the tribes under the Fort Peck tribal compact with the State of Montana.

The Board appreciates the fact that the BIA, on behalf of the Fort Peck, Fort Belknap, and Rocky Boy Indian Reservations appeared in this matter. The BIA's participation in the hearing process clarified for the Board the concerns of the Native American peoples and assisted the Board in reaching its decision. The Board adopted conditions that dealt with the BIA's specific concerns. This is not to say that the other concerns, as expressed by the additional conditions, are not legitimate concerns. Those concerns, in the Board's judgment, however, are addressed by existing law which provides more than adequate protection for all senior water right holders, including the various Indian tribes.

The final issue the Board wishes to address in this Memorandum concerns the overwhelming public opposition to the granting of reservations to DFWP. The public's objections to the DFWP applications can be put in two categories. The first, is that granting of reservations for fish and wildlife purposes would preclude any future development of water. The second category is best characterized as an inherent distrust of granting a government entity the right to participate in the water permitting process.

The decision that instream flows for fish and wildlife purposes is a beneficial use of water was made by the Legislature in adopting statutes under which the Board is now proceeding. That decision was made by the duly elected legislative body and reflects the policy of

the State of Montana. There is nothing the Board can do to reverse that policy decision. If the citizens believe this policy is incorrect, the avenue for change is through their elected representatives.

The particular question of whether DFWP should be granted reservations in this matter is to be determined by the Board in the process it followed in adopting this Order. That process allowed for the consideration of facts put into the record through the hearings process. Those facts established to the satisfaction of the Board that DFWP had established that a reservation for instream flow provided a public benefit in the form of enhanced fish and wildlife habitat.

The Board recognized the public's concerns by first reducing the reservations requested by the DFWP and then by placing them in a subordinate position to the other reservations. It is true, however, that granting the DFWP reservations will make those reservations senior to any subsequent permits issued. Also, by granting the reservations, DFWP will have a reservation permit which will allow them to participate in any permit hearings, including applications for new permits and applications for change of place of use and point of diversion of existing rights or permits.

The sentiment expressed by public testimony was that under no circumstances should DFWP be given an opportunity to tie-up water that could be used for future agricultural and economic development. This public sentiment is in direct conflict with the text of the statute which recognizes instream flows as a beneficial use. In addition, the

reservation process allowed all government entities who believed that there was a possibility of future consumptive use within their jurisdiction to apply for a reservation. The cities and counties were entitled to apply for reservations to accommodate future population growth and industrial expansion. The conservation districts, on behalf of the agricultural community, did apply for large reservations for agricultural purposes. The Board granted in total these applications, finding that the future economic development of the region was contingent upon access to water. The DFWP reservation was only granted after the recognition of consumptive uses of water and potential economic development that hopefully will follow from that use.

The Board fully understands the public's concern about the DFWP becoming actively involved in the permitting process on streams in which it was granted a reservation. There is considerable debate whether or not DFWP already has this authority under MCA §85-2-308(3). This section gives a person standing to file an objection to a permit application or application for change if the property, water rights, or interest of the objector would be adversely affected by the proposed appropriation. DFWP would be considered a person under the definitions used in the statute. Also, DFWP, under a variety of other laws regarding fish and wildlife matters, could rely on one of those statutes to base an objection to a permit application or some type of change. The Board, while sympathetic to concerns of the public and the objectors in this matter, believes that this line of argument is not valid.

The Board granted a portion of the DFWP's application because it believes a sufficient showing of facts was made that the granting of the reservation was warranted and in the public interest. The Board hopes that water users in the Lower Missouri and Little Missouri Basins recognize that it is the policy of the State to maintain fish and wildlife populations for the benefit of all residents. The Board's decision, however, clearly recognizes the priority for development of water for agricultural purposes. This was the overriding concern of people in the region. The Board considered and balanced the conflicting interests in arriving at its decision.

MEMORANDUM TO EXCEPTIONS TO THE PROPOSED ORDER

The Board of Natural Resources and Conservation (Board) received several exceptions after circulating the Proposed Order on November 15, 1994. The Board received written exceptions and heard argument on those exceptions on December 15, 1994. The Board takes this opportunity to address those exceptions and identify changes made to the Proposed Order as a result of the exception process. It will also discuss those exceptions which it did not address by way of changes to the Proposed Order.

The City of Havre (Havre) filed an exception from that portion of the Proposed Order in which the Board denied its reservation of surface water from the Milk River. While Havre's filing contained numerous exceptions to specific findings and conclusions in the Proposed Order, all of its exceptions went to the Board's decision to deny Havre's request for a reservation of surface water from the Milk River. It is Havre's contention that it had presented facts to support the granting of this portion of its reservation request. Havre maintains that its projected population growth and current water usage support the granting of the reservation.

In response to the exception, the Board reviewed Havre's application for a reservation filed in 1991, its pre-filed testimony filed in August, 1994, and its witness's testimony at the hearing in September of 1994. The water usage and population projections in its application and pre-filed testimony do not support the granting of a reservation in the amounts requested. Havre's witness testified at

the hearing to water usage different from the figures submitted in its application and pre-filed testimony. At the Contested Case Hearing, Havre presented testimony for the first time that it was currently using all of the water in its contract with the Bureau of Reclamation (BOR).

In its application and pre-filed testimony, Havre stated it was using approximately 1075 acre feet a year out of a contract for 2800 acre feet year with the BOR. Havre stated its existing wells were being used on an emergency basis. At the hearing, Havre's public works director testified that it was using its wells only in emergency situations and it was using the entire amount of the BOR contract. This would mean that in a three year period Havre's water use had more than doubled. The Board did not find this testimony credible.

The Board did grant Havre's reservation for additional wells with a capacity of up to 475 acre feet a year. This reservation should be adequate to replace the existing wells which are being phased out. The Board recognizes that municipal water service may be extended to the area referred to as North Havre in the near future. This would add approximately 2000 people to the municipal system. Even using Havre's most optimistic population projections, at the average daily per capita consumption rate, it would only use all of its BOR contract amount by the year 2035. The Board believes that its decision to grant the groundwater portion of Havre's request is sufficient to meet its future needs.

The Blaine County and Liberty County Conservation Districts (Blaine CD and Liberty CD) filed exceptions directed to the conditions

the Board placed on the reservations granted them for storage projects on tributaries of the Milk River. The Board deleted two modifiers, "extreme" and "spring" from the first condition but chose to leave the conditions in place. The conditions the Board placed on the reservations were in response to objections filed by the BOR and the Bureau of Indian Affairs (BIA) on behalf of the Fort Belknap Indian Irrigation Project (Fort Belknap). Both the BOR and Fort Belknap utilize the Milk River as the source of water for their irrigation projects.

The Milk River is closed to further permits during the summer months. The BOR has senior water rights for filling its storage projects on the Milk River. Fort Belknap has one of the earliest rights on the Milk River for its irrigation project. These projects rely on the spring run off to store water for the irrigation season. The Milk River is not closed during the time of spring run off.

The conditions the Board put on the Blaine CD and Liberty CD reservations are similar to those put on all permits issued in the basin by the Department of Natural Resources and Conservation (DNRC). The BOR and BIA requested the conditions be placed on the reservations so that there is no misunderstanding about the priority of their senior rights. The language suggested by the Blaine CD and Liberty CD in their exceptions is a correct statement of existing water law. The BOR and BIA hold senior water rights and all junior water right and permit holders take water subject to the senior water rights. The Board chose to impose the conditions so the priority of the BOR and Fort Belknap appropriations is clear to the reservants.

The Daniels County Conservation District (Daniels CD) filed an exception to the Board's granting of a reservation to the DFWP on the Poplar River tributaries. The basis of the exception is that the Fort Peck Tribes currently hold an instream flow right that guarantees flows on the Poplar River and its tributaries. Daniels CD argues that this tribal flow right serves the same purpose as would be achieved by the DFWP reservation. The Board does not believe that the Fort Peck right provides a substitute for the DFWP reservation.

Except in one instance, the DFWP reservation does not increase the amount of water preserved for instream flows above that previously recognized by the tribal right. As to the amount of water, the DFWP reservation for instream flow is concurrent with the tribal flow right. The DFWP's interest in the instream flow is different from the tribe's. The granting of the DFWP reservation on the Poplar River and its tributaries for the purpose of maintaining the fish and wildlife habitat is a separate purpose from the tribe's interest in assuring a certain flow into the Fort Peck Indian Reservation. For this reason the Board rejects the Daniels CD's exception.

The Fish and Wildlife Service (F&WS) of the U.S. Department of the Interior and the Montana Department of Fish, Wildlife and Parks (DFWP) filed exceptions to Board's decision granting a reservation to the Sheridan County Conservation District (Sheridan CD). The DFWP joined in the exceptions filed by the F&WS. The exceptions went to the amount of water granted in the reservation and to the management plan presented in the application and approved by the Board. The

Board considered the exception of the F&WS even though it was received late and no representative appeared at argument.

The F&WS exception to the amount of water granted in the reservation concerned the amount of water permitted for development after the date of the of the reservation. By statute all reservations in the Missouri River Basin have a priority date of July 1, 1985. The F&WS believes that approximately 4800 acre feet of water have been permitted since that date. It further argues that the Board did not consider these groundwater withdrawals in granting the Sheridan CD reservation.

The Board relied on the estimates of available groundwater identified in the Draft Environmental Impact Statement (DEIS). The DEIS identified a range of groundwater available for sustainable development. The upper limit of this amount was suggested to be 17,479 acre feet. The lower limit was identified as 7809 acre feet. The information in the DEIS concluded that between these two amounts, water was available for development without mining the groundwater resource. The Board relied on this evidence in setting the upper limit of the Sheridan CD reservation. It used the lower number to establish a point for a review of the development of the groundwater resource to determine if the area could sustain further development.

The F&WS in its exception argues that the amounts of water used in the reservation does not take into account the groundwater development that has occurred since the start of the reservation process. Outside the reservation process, various entities and individuals have obtained groundwater permits in the aquifer in

question. Some of this water has been developed and put to use. In other cases, permits have been issued but the diversion has not been completed. The Board recognized that the numbers in the DEIS may be out of date. Following receipt of the F&WS exception, the Board asked the DNRC staff to review the groundwater permits issued in the area to determine the amount of water which has been permitted since July of 1985.

The DNRC staff reported to the Board that the numbers in the DEIS include water permits issued through 1988. Since 1988, permits for groundwater development have been issued for approximately 1900 acre feet. Based on this information, the Board reduced the amounts in the Sheridan CD reservation by 2000 acre feet. The upper limit is now 15,479 acre feet and the lower amount of 5,809 acre feet triggers further review. The Board believes this reduction accurately reflects the permit activity in the groundwater area.

The second portion of the F&WS exception requests that the Board condition the Sheridan CD reservation on the appointment of a groundwater oversight committee to control the development of the groundwater resource in the area. The Board does not doubt its authority to condition the granting of any reservation. The Board declines to condition the Sheridan CD reservation on the creation of an oversight committee.

The management of the State's water resources is an issue that comes up frequently in any discussion of water matters. What mechanism of management is appropriate, who is to participate in the management, what is the geographical extent of the management plan,

what are the guidelines for any management plan are some of the basic questions that arise about any suggested management scheme. The F&WS is asking the Board to create, as a condition on the Sheridan CD reservation, a special oversight committee. Because there was not an opportunity for all affected individuals to participate in the creation of this committee, the Board elected not to create one.

There appears from the record, evidence which would support the creation of some type of regulatory oversight mechanism in the area. The continued development of the groundwater resources will undoubtedly lead to conflicts. The groundwater users in the area may well be advised to create a regulatory system now before problems develop in the future. But the Board believes the local users are the key to resolving the problem. The groundwater users in the area should be the ones to address the situation.

There exists, in statute, mechanisms to close the basin to future appropriation and through that process institute controls. There is also a statutory procedure to create a groundwater control district. Under either scheme, the local groundwater users would be involved in the creation and organization of the oversight body. Also, by adopting a mechanism already authorized by statute, the groundwater users would have the directions they need to operate an oversight entity. Under either process, all of the affected groundwater users would have an opportunity to be heard on the issue of the creation of any type of oversight entity. This would not be the case with a committee created as a condition of the granting of a reservation.

The Board believes that it has limited the amount of the Sheridan CD reservation so as to avoid depletion of the resource. The review procedure, now set when 5809 acre feet of the reservation is developed, should prevent any adverse impacts to the groundwater resource. If parties continue to obtain permits outside the Sheridan CD procedures, they will proceed at their own risk. The F&WS is not without the means to protect its interests in the area. It is to the F&WS credit that it is advocating the creation of an oversight committee to head off problems in the future. The Board does not believe, however, that the reservation process is the vehicle to address the broader concerns associated with the creation of such a committee.

The DFWP filed exceptions dealing with several aspects of the Proposed Order. The first exception concerned all the conservation districts' reservations. The DFWP noted that unlike the reservations granted the conservation districts in the Upper Missouri Basin, the reservations in the lower basin did not specify that development was to be completed by the year 2025. The DFWP is apparently concerned that without a deadline, the conservation districts will not develop their reservations. The Board considered this exception and recognized it was not consistent with its decision in the upper basin. The Board believes, however, that the statutory requirement that all the reservations be reviewed every ten years takes care of the concerns the DFWP may have about the conservation districts' diligence.

The DFWP filed exceptions to that portion of the Proposed Order granting reservations to the Carter County and Daniels County Conservation Districts (Carter CD and Daniels CD) for full service irrigation projects. The basis of the exception was that these projects would divert water during low flow, summer periods. The Board believes that in these specific cases the public interest is best served by granting reservations for the development of water for agricultural purposes.

The next issue raised by the DFWP in its exceptions concerned the largest storage project reservation granted to the Blaine County Conservation District. The DFWP believes that the evidence does not support the need for this project. This particular project has been discussed for over thirty years and still there has no progress toward construction. The Board in granting the reservation considered the economic feasibility of this project.

The Board granted this and the other conservation districts' reservations and prioritized them ahead of the DFWP reservations because of the overwhelming statement of public interest in favor of developing water for agricultural use. The projects granted reservations, including the one questioned by the DFWP, still have many hurdles to clear before they are developed. The Board believes the evidence shows that all projects have some chance of being economically feasible and has elected to let the market place make the final determination.

The DFWP joined in the F&WS's exceptions to the Sheridan CD reservation. The F&WS's exceptions were addressed earlier in this

memorandum. The DFWP also entered exceptions intending to clarify portions of the Proposed Order concerning its reservations. The Board made the changes to that portion of the Proposed Order granting reservations to the DFWP in consideration of these exceptions. The Board did not make any changes to the Proposed Order as requested by the DFWP where the requested changes might be construed to support the granting of reservations for channel maintenance flows. The next section of this memorandum discusses the Board's position on the exceptions regarding the DFWP's request for channel maintenance flows.

The DFWP, through a number of exceptions, objected to the Board's denial of its requests for reservation of water for channel maintenance flows on numerous prairie streams. The DFWP, in its oral argument on the exceptions, acknowledges the dilemma faced by the Board in quantifying the reservation when it suggested any reservation for this purpose be based on a one day peak flow. This concession by the DFWP was offered to overcome the Board's concerns about how the channel maintenance reservations would be managed. Even with the DFWP's willingness to compromise, the Board decided not to grant reservations for channel maintenance flows.

The Board does not reject the scientific theory on which the DFWP based its reservation request for channel maintenance/dominant discharge flows. The evidence in the record supports a finding that dominant discharge flows are necessary for the maintenance of prairie streams. The problem in granting such a reservation comes in applying the scientific theory to the real world situation. Water users, including the DFWP, must deal in dates and amounts of water in order

to conduct their affairs. Something as ephemeral as high spring run-off or a summer thunderstorm which cause a bank full flow do not lend themselves to measurement or monitoring. Without accurate measurement or enforceable monitoring, the public interest is not served by granting reservations for channel maintenance flows.

The DFWP by way of an exception argues that there are no lost resource opportunities if the other reservation requests are granted and given a higher priority. This is only partially correct. The granting of the other requests encourages the development of the water resources by governmental entities. It does not deal with the lost opportunities for resource development incurred by private parties. This was an area of overwhelming concern expressed at the public hearings.

The Lower Missouri Coalition (Coalition) filed an exception that was a blanket objection to the granting of any reservations to the DFWP. The first exception, and the one that sets the tone for all the others entered by this party, is that instream reservations are not in the public interest. This contention by the Coalition was phrased and re-phrased many times throughout the hearing by this party and all the individuals who testified at the public hearings. The Coalition believes that the interests of agriculture are more important than the instream use of water for the maintenance of fish and wildlife resources.

The public interest the Coalition seems to be challenging, is the underlying decision to recognize instream flows as a beneficial use of water. The decision to consider instream flow reservations as part of

this process was made by the Montana Legislature when it adopted the reservation statute. It specifically included instream reservations as one of the uses for which reservations could be sought. The decision to recognize instream reservations and to allow governmental entities to apply for them as part of the reservation process was a policy decision by the legislature. It is not within the Board's authority to reject the applications for instream flow without due consideration.

The Board is required to consider public interest as it applies to specific reservation requests. This takes on a two tier analysis. The first step is to determine if the reservation request, in and of itself, is in the public interest. The Coalition did challenge each DFWP instream reservation request. It offered testimony that questioned the methodology used to determine the instream flow request, challenged the scope of the request, emphasized the importance of water for agriculture, and, finally, proposed alternatives that might make water available to support fish and wildlife resources. The Coalition did not offer testimony to rebut the general proposition that maintaining the fish and wildlife resources was in the public interest.

The bulk of the Coalition's testimony on public interest, and the testimony at the public meetings, went to the contention that the use of water by agriculture is more important to the region than the instream flows for fish and wildlife purposes. The Board weighed this expression of public interest when it analyzed the conservation districts' applications, when it considered the DFWP's application for

channel maintenance flows, and when it established the reservation priorities. The Board granted in full, with minor exceptions, the conservation districts' requests for reservations for agricultural use. It granted these reservations ahead of the instream reservation of the DFWP. In addition, it rejected the DFWP request for the channel maintenance flows. The Board's decision reflects the public interest expressed by the Coalition and those persons who testified at the public hearings as it applies to the evaluation of each specific reservation request for instream flow.

The Coalition's next contention is that below the Fort Peck Dam the granting of instream reservations is pointless since the flow of the Missouri River is controlled by the Corp of Engineers. It is true that the amount of water and when its is released from the dam is controlled by a party that is not bound by the Board's Order. Once that water is released, however, state law applies to its use and the Board's Order does have an important role to play in allocating its use. The Board had before it the record of releases from the dam. It based its decision on the granting of reservations below the dam in part on this record. Again, below Fort Peck Dam, after all senior rights are fulfilled, the conservation districts have the first opportunity to use the water. Taking the Coalition's argument to its logical conclusion would mean that the Board should not have granted the conservation districts reservations below the dam since theoretically the Corp of Engineers could restrict flow to make them impractical also.

The Coalition believes the instream reservation on the cold water streams will cause water to flow out of the state. To begin with, instream flow reservations granted on the cold water streams higher in the drainage will have no effect on water usage lower in the basin. It may even cause more water to flow downstream to be used at other places in the basin. It does not follow that this water will be lost to development.

A review of the record shows that on those cold water streams where instream reservations were granted, there were no competing reservation requests for agricultural development. It is true that the granting of the instream reservation may limit the future development of water by a private party. However, there is still the opportunity to develop storage projects that would rely on high spring run-off.

The reservation process was open to all conservation districts who could have worked with a private party to propose storage projects. No storage projects were proposed on any of the cold water streams in question. Without a specific project to analyze, it is impossible for the Board weigh the relative merits of instream flow reservations versus a storage project on the same stream. The merits of storage projects, as presented by the Coalition in a vacuum, does not provide the basis for the Board to reject the instream flow reservation request.

The Coalition's next argument deals with water availability on the prairie streams. This is a difficult argument to follow given the wording in the Coalition's exception. Water availability is an issue

in the management of prairie streams. The flow regime of this type of stream is highly variable. The use of averages can only go so far in helping to allocate the water. The averages were used to grant the reservations to the conservation districts and were used to grant instream flow reservations. The Board recognizes that in those years when the flow is below average, not all the reservations will be satisfied. The Board can only work with the information it has and apply it uniformly to the situation.

The Coalition excepts from the Board's finding that the use of the Wetted Perimeter Method for determining the amount of water for instream flow is generally accurate and suitable. It further excepts to its use for the purpose of determining the amount of water for instream flow on the mainstem of the Missouri River. By extension, the Coalition excepts to the use of the Fixed Percentage Method because it is an extension of the Wetted Perimeter Method. The Coalition challenges the use of the Wetted Perimeter Method as not being the only factor controlling fish population and reproduction.

The DFWP presented, through competent testimony, the merits and limitations of the various methods available for determining the instream flow needed for fisheries purposes. The DFWP use of the Wetted Perimeter Method and its variations, was not offered as the only factor controlling fish populations. The Wetted Perimeter Method is a measurement technique, which competent testimony supported, as a way of determining the level of instream flows which benefit fish populations and reproduction. On the mainstem of the Missouri River, the DFWP used a combination of methods to arrive at its reservation

request. The Wetted Perimeter Method was only one of the methods used. Further, the Coalition did not offer testimony of a competent witness to challenge the DFWP methodology.

The Coalition took exception to various findings and conclusions by the Board regarding the impact of granting instream flow reservations on existing water rights. The Coalition contends that instream flow reservations would have an adverse impact on senior water right holders. This position is incorrect and does not reflect existing water law. A senior water right holder is afforded protection only so long as he continues to use that right in the manner in which it was acquired.

The existence of a junior right can have no impact on a senior right so long as the senior right does not change. This was the law before the granting the reservations and is the law after the reservations are granted. When a senior right holder decides to change his use of the water, he is subject to challenge by any junior right holder. This is a risk that has always been present in the law. The granting of the instream flow reservations does not change this risk. The granting of an instream flow reservation does add another junior right holder that may object to a change.

The record shows that the number and frequency of challenges by the DFWP as an instream flow reservant to changes requested by a senior right holder do not warrant the concerns expressed. Even under existing law, a senior right holder does not have unlimited power. The addition of another junior right holder further defines the extent of the senior right, it does not limit it.

The Coalition's exception to the finding that the issuance of new water permits could cause a loss of water quality and fisheries is rejected by the Board. The evidence the Coalition cites is of the historic effects of granting new permits. The reservation process is a prospective one and deals with the future use of the water resource. It is in this context made the particular finding of fact that is challenged.

The Coalition also argues that the development of water storage projects enhances instream flow. The Board denied the channel maintenance flows requested by the DFWP in order to preserve the opportunity to develop storage projects to capture spring run-off in the future. The instream flows granted to the DFWP were considered the minimum necessary to maintain aquatic habitat. The Board did grant all of the reservation requests for storage projects that were submitted.

The Board considered the public welfare in reaching its decision. The public welfare is synonymous with the public interest in this proceeding. The importance of agriculture to the region was recognized by the granting of all the conservation districts requests for reservations and the rejection of the DFWP request for channel maintenance flows and the lowest priority it received for those reservations that were granted.

The Coalition believes the DFWP management plan is defective because it fails to place a limit on its ability to be involved in the water permitting process. The Board's position on this argument has been discussed previously. The Board recognized that in granting the DFWP reservations it would have all the rights afforded by statute to participate in the permit process. It is not necessary for the DFWP

to spell these rights out in its management plan. It was the Board's prerogative to condition the DFWP reservations by limiting its participation in the permit process and it elected not to do so.

Both the Coalition and the DFWP at this late date suggest the procedure followed by the Board in conducting the hearings is improper. Neither of these parties raise the issue in a fashion which requires the Board to rule as it has on the formal exceptions. Both parties are obviously aware the procedure the Board followed in reaching its decision was outlined early in the process and all parties were given an opportunity to object. None did.

It is disingenuous of these two parties to mention their dissatisfaction with procedure at this point. The DFWP was granted the majority of its reservation requests as it requested. The Coalition was not successful in blocking the granting of the DFWP reservations but it played an important role in the Board's decision in setting priorities and denying the channel maintenance portion of the DFWP request. Each having prevailed to a large degree in meeting their objectives, the Board does not believe it failed to adequately consider the evidence each party put into the record.

The Board believes it has addressed all the exceptions filed in this matter. While not addressed by number citation, the foregoing discussion in a general fashion deals with all the exceptions. Any exception not specifically addressed is denied. The Board changed various findings and conclusions in response to the filed exceptions but did address those changes in the memorandum. The changes to the findings and conclusions constitute the Board's response.

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

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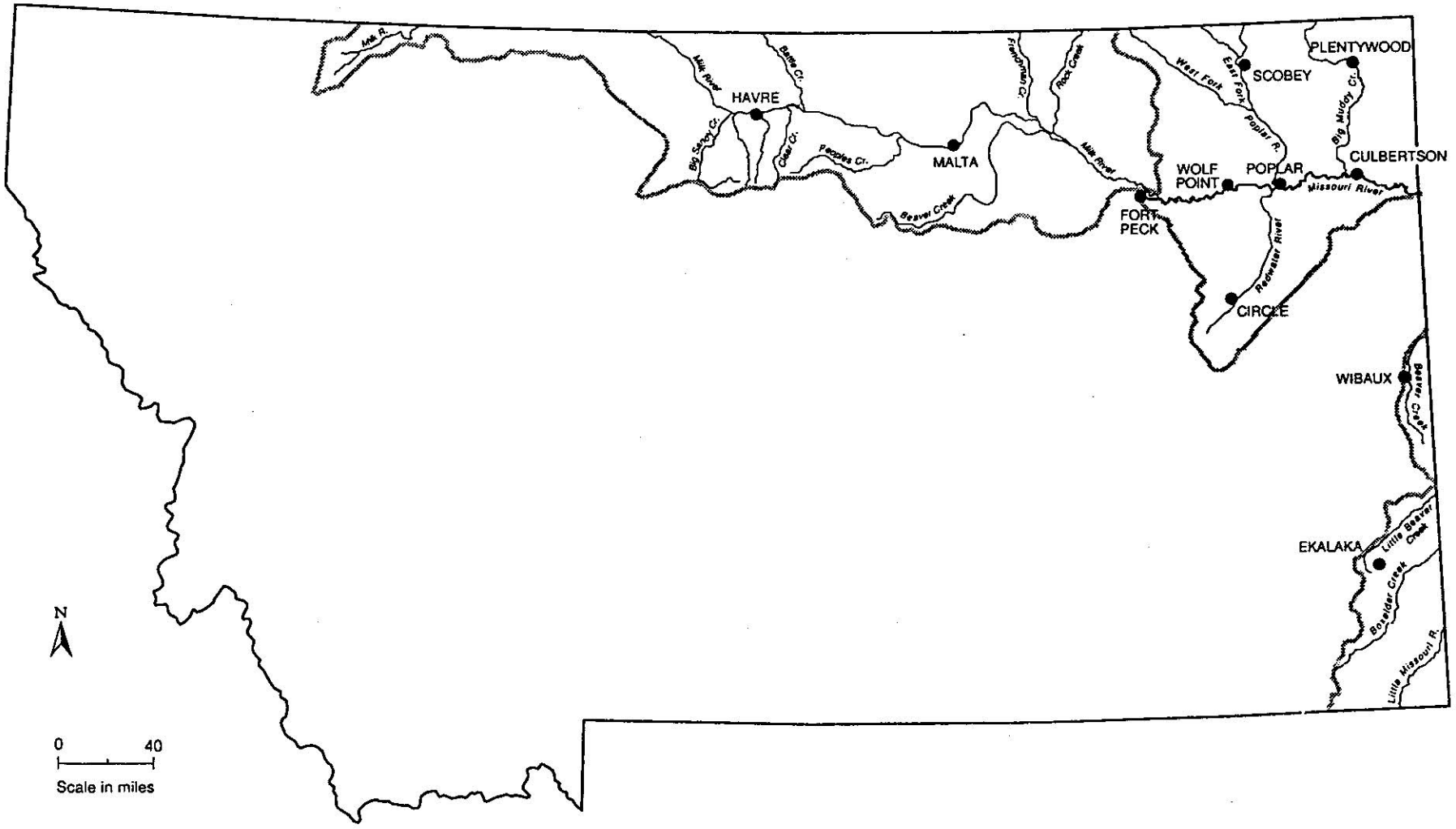
The foregoing Findings of Fact, Conclusions of Law, Order, and Memorandum were adopted by the Board of Natural Resources and Conservation and the reservations granted herein became effective on December 15, 1994.

DATED this 30th day of December, 1994.

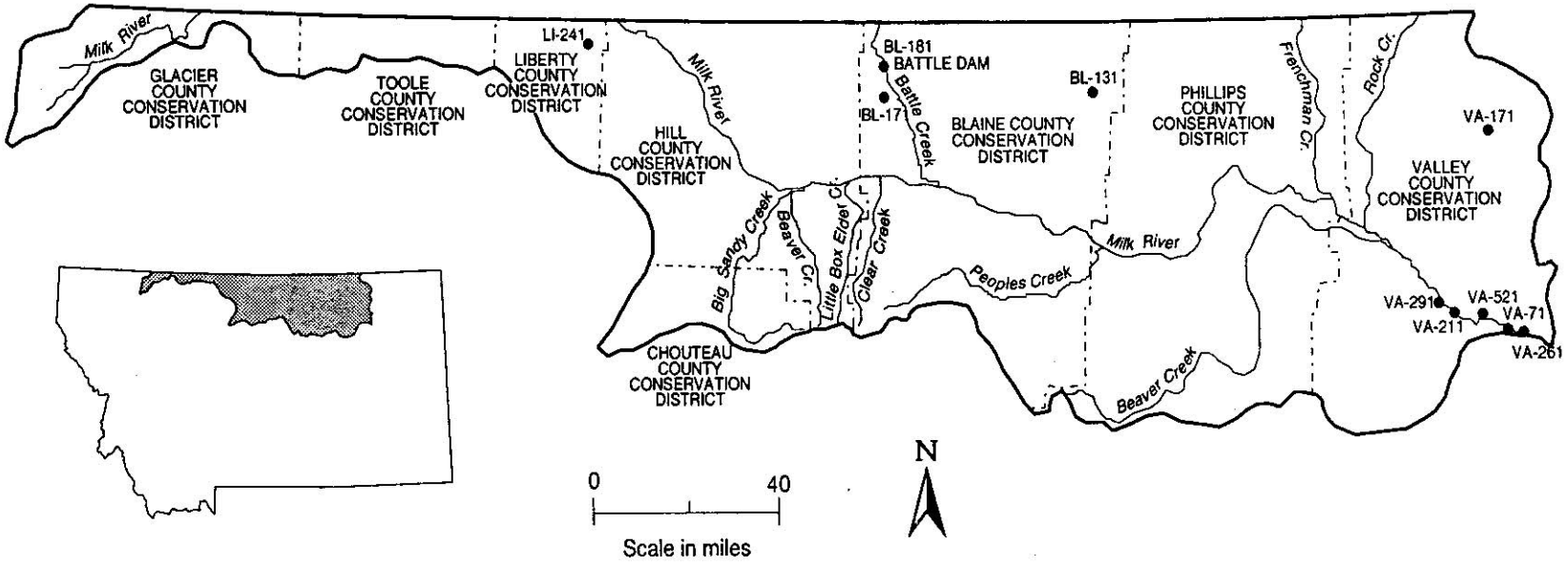
Jack Galt

Jack Galt, Chairman
Board of Natural Resources and Conservation

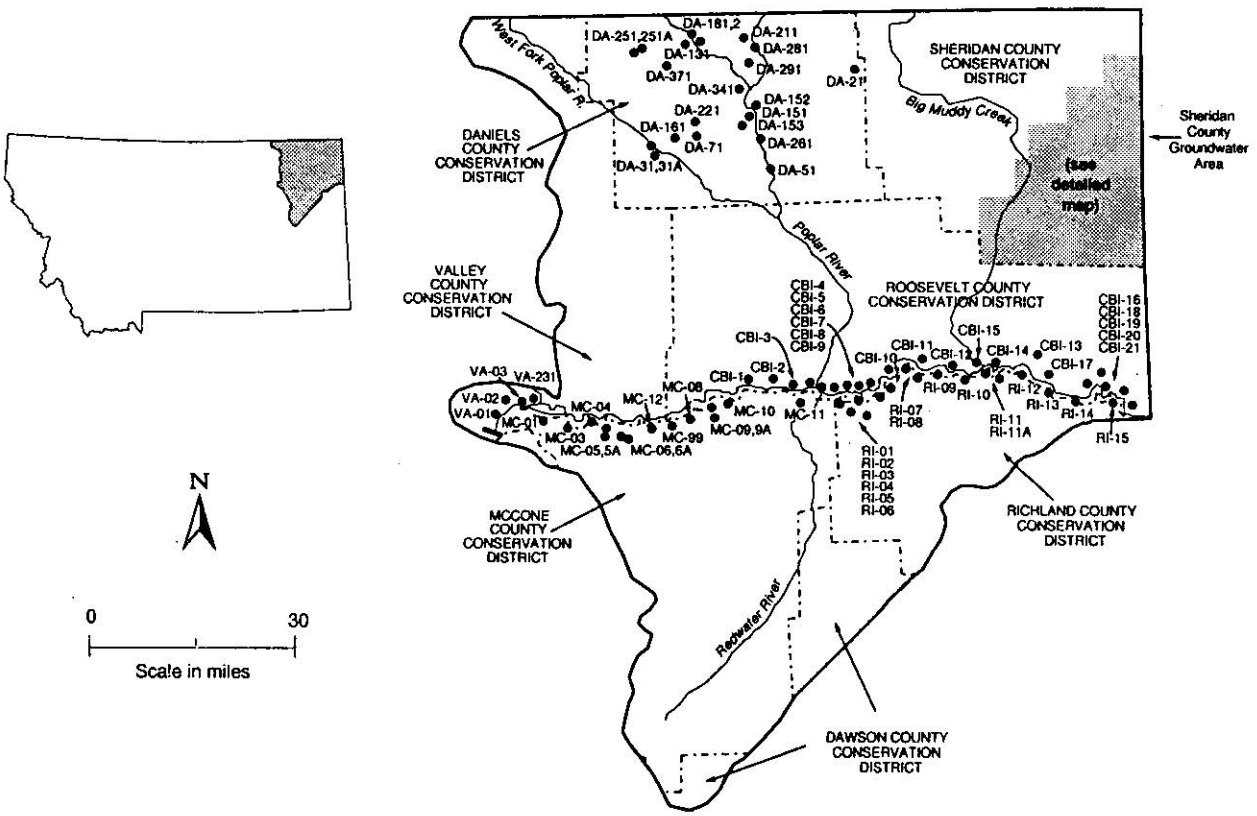
Municipalities Awarded Water Reservations in the Lower Missouri River Basin



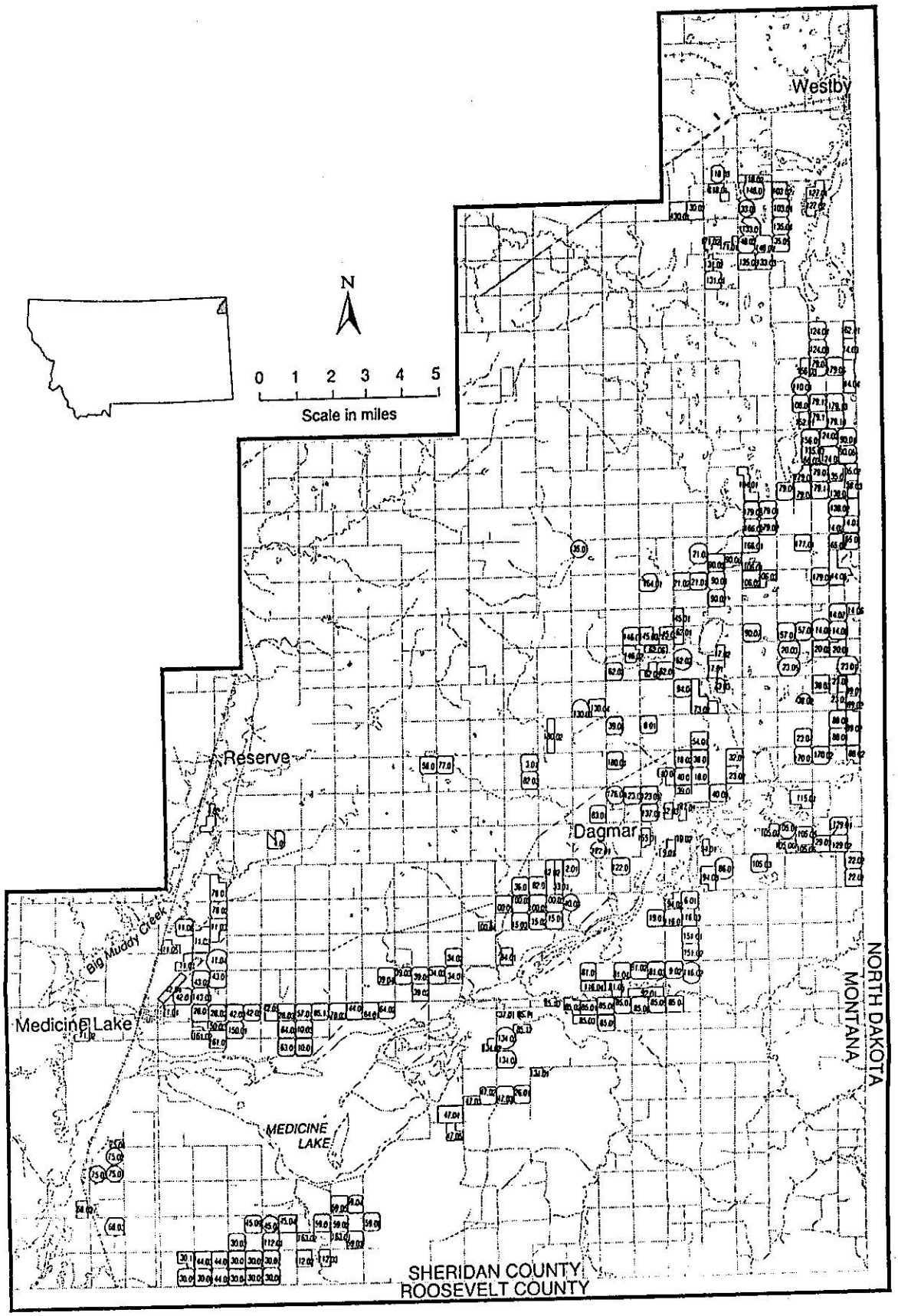
Conservation District Projects in the Milk River Subasin



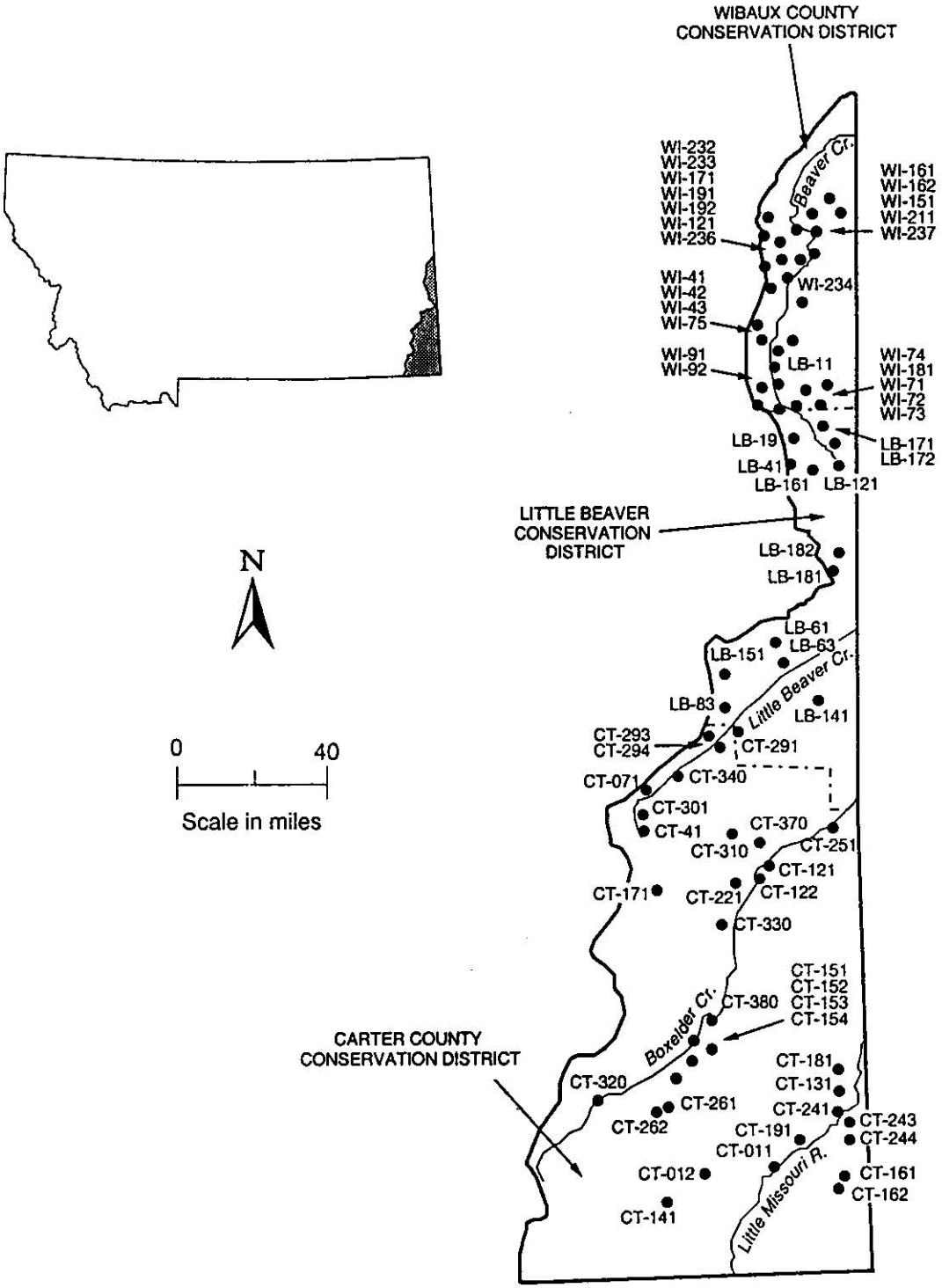
Conservation District Projects in the Lower Missouri River Subbasin



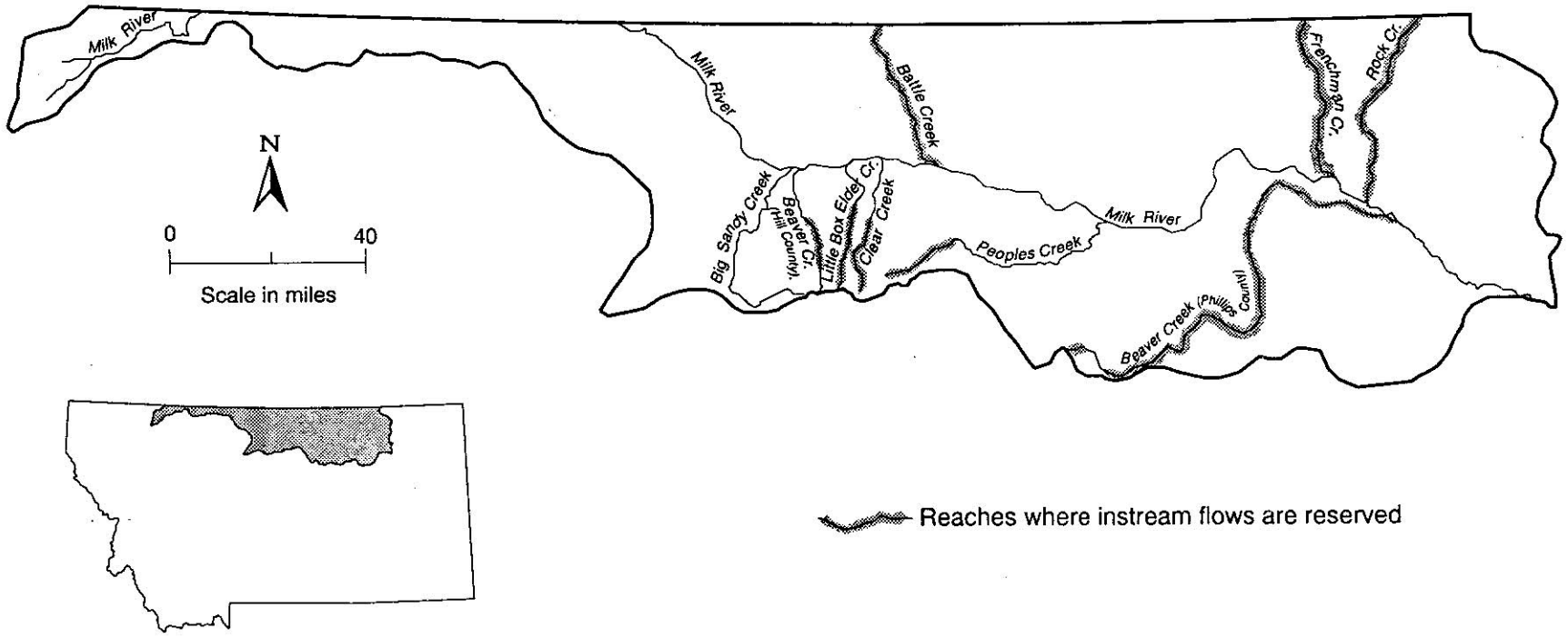
Groundwater Development Projects Proposed by the Sheridan County Conservation District



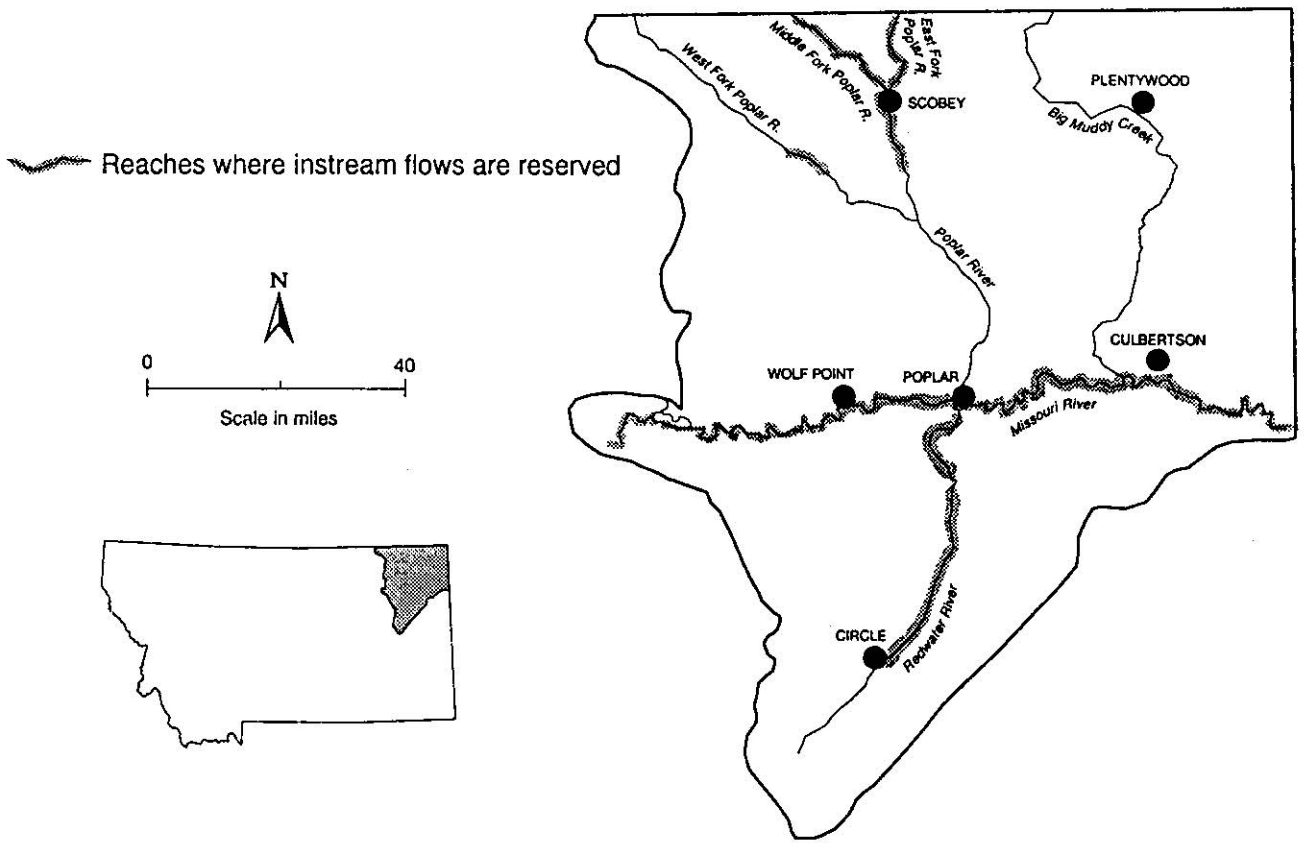
Conservation District Projects in the Little Missouri River Subbasin



Location of Instream Flow Reservations in the Milk River Subbasin



Location of Instream Flow Reservations in the Lower Missouri River Subbasin



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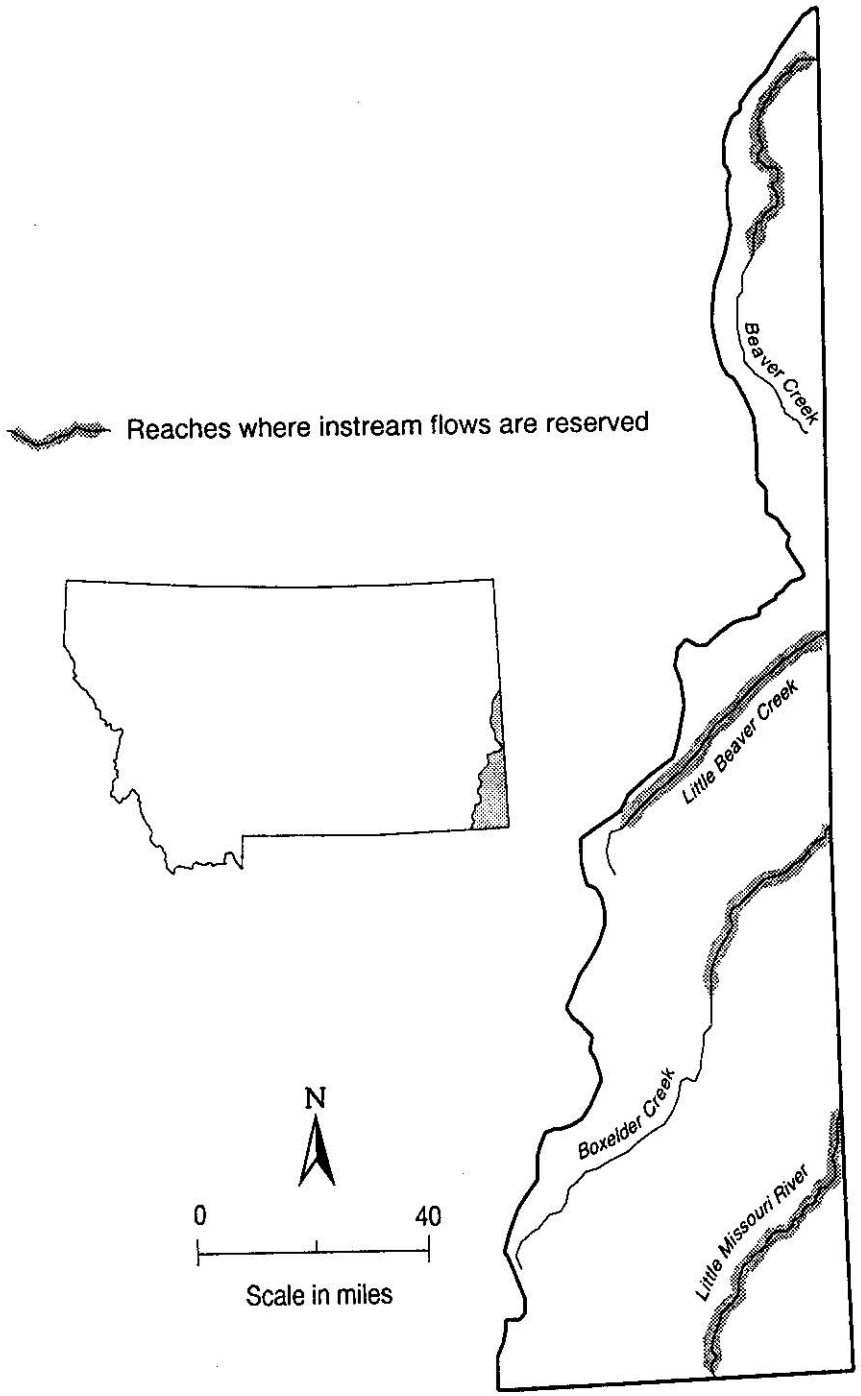

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200 copies of this public document were published at an estimated cost of $6.85 per copy, for a total cost of $1,370.00, which includes $1,300.00 for printing and $70.00 for distribution.