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# EXECUTIVE SUMMARY

### BEAVER CREEK

### DAM AND RESERVOIR

### LEVEL I



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Prepared for: THE WESTON COUNTY COMMISSION and THE WYOMING WATER DEVELOPMENT COMMISSION

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Oct. 30, 1989

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### ACKNOWLEDGMENTS

Many individuals made contributions to the information contained in this Level I study. Space (and memory) do not allow the acknowledgment of all, however, two of those deserve special consideration. First, the WWDC project manager, Evan Green. Evan has provided definitive and timely decisions and input over the entire course of the project, and when he takes a position, it is retained throughout. That is greatly appreciated. Second, Forrest M. Kepler Jr., Principle, Banner Assoc. Inc. of Laramie, Wy. Mr. Kepler shared information for a reservoir site which had been prepared by Banner in 1973. This generosity saved a good deal of time an expense and goes beyond any normal professional consideration or requirements. Thanks to both of those individuals.

### EXECUTIVE SUMMARY

The purpose of a WWDC level I study is to gather information on project alternatives and perform enough basic design, analysis and cost estimating to determine if it is logical and feasible to proceed with further evaluation of a selected alternative. The Weston County Commission, as sponsor of this Level I study, would like to have a recreation reservoir constructed in the county to provide water based recreation for the citizens of the county and anyone else who wishes to utilize the facilities. The Weston County Commissioners believe that this project would improve the quality of life in the County, and would also provide needed economic stimulus to the area in the form of increased revenue from out-of-area users. The potential also exists for the development of recreation and water sport oriented businesses in the community.

The original scope of this project was directed at studying one site on Beaver Creek immediately upstream of the Wyoming Highway 450 bridge. At a Scoping meeting held with the Weston County Commissioners, the project concept was modified to include a more general look at the entire county for sites, and preliminary analysis of identified sites.

A list of desirable characteristics for a Recreation Reservoir were established during that meeting to aid in the search. The original scope was further modified to ensure that the reservoir would be considered for no use which would conflict with recreational activities.

During the review of alternate sites, five sites were identified as having potential for recreation reservoirs. Upon further investigation, two sites were found to be suitable for further study and evaluation. Those sites are designated as Beaver I site and Beaver II site, are located on the main stem of Beaver Creek with the proposed dam located as follows: Beaver I Section 35, T.45N., R.63W. Beaver II Sections 7 & 8, T.42N., R.61W. The basic physical characteristics of each reservoir are:

Beaver I

Water surface area at normal high water line 650 acres Storage Volume at normal high water line-8000 ac.ft.

Beaver IJ

Water surface area at normal high water line-512 acres Storage Volume at normal high water line-5026 ac.ft.

### WETLANDS POTENTIAL

In identifying beneficial uses of the reservoir(s) which were compatible with recreation, it is necessary to focus on non-consumptive activities. One obvious use, in addition to recreation, is the establishment of wetlands habitat. Due to a national policy of "NO NET LOSS" of wetlands, the construction of any water development project is often jeopardized by the potential loss of wetlands. In the case of this reservoir, the construction will result in the automatic creation of that type of habitat. With little or no impact upon the primary use of the reservoir, the approximate upstream 1/3 of the reservoir (at either Beaver I or Beaver II site) could easily be designated and managed as wetlands habitat. In this area, the normal rise and fall cycle of the high water line (due to "pass through" requirements of prior water rights coupled with summer evaporation) will expose the highest percent of potential wetlands habitat in the reservoir. While this fluctuation is undesirable for recreation purposes, that action parallels the natural action of a wetlands habitat (being inundated in the spring and early summer, then drying and producing vegetation) thus providing ideal conditions for management of that type area.

#### CONCLUSIONS

The analysis of the data gathered during this study show a definitive choice for recreation reservoir sites in Weston County. The site designated a Beaver I has clear advantages over the Beaver II site in cost of construction, accessibility, and land ownership considerations. It is recommended that this reservoir site be considered for the estimated \$2.8 million project to create a recreation reservoir in Weston County.

The investigation of sources of available funding indicate that for project capitalization, the most likely alternative is a request of 75% grant from the WWDC with the balance being paid either through a loan or direct appropriation by the County.

Operational funds are another source of concern. Someone or some agency must assume responsibility for the operation and maintenance of the reservoir and recreation area. The Wyoming Game and Fish Commission has indicated that they will manage the fisheries and wetlands. In addition, the Wyoming Recreation Commission indicates that it may be possible to include the area in their park system. When ever option is taken, the entity with primary responsibility must make a firm commitment prior to project construction.

