



BEAR LAKE PRESERVATION PROJECT

Bear Lake Regional Commission

April 1983

BEAR LAKE PRESERVATION PROJECT
WORK OUTLINE

Work Elements

I. Administration and Coordination of the Projects

- A. Form an Interdisciplinary Task Force with representation from all parties with key interests in Bear Lake, i.e. States of Utah, Idaho and Wyoming, local agencies, and private interests.

The general purposes of the Task Force are:

1. Coordination of project,
2. Identification of other funding and services,
3. Provide assistance in information and education programs,
4. Evaluation of project progress and success.

- B. Develop detailed work plan including implementation assignments and construction projects to appropriate groups to insure proper long and short term direction, and revise as needed.

- C. Facilitation and Coordination of all work elements and tasks by the Bear Lake Regional Commission with involved entities to insure timely and proper completion of each task.

- D. Grant Management and support service to insure accountability to funding sources, to include such activities as progress reports, bookkeeping, auditing, typing, computer needs and copying.

II. Information and Education Program

The purpose of this element is to (1) Increase the public's awareness and understanding of Bear Lake and it's unique, physical, chemical and biological characteristics; (2) Improve the understanding of all user groups of man and his actions as they relate to the total ecosystem of Bear Lake; (3) Use all feasible educational tools and techniques to get the messages to the people at a frequency level to insure impact; and (4) Coordinate program with other agencies, fisheries etc., to tell a complete story. In order for this program to be effective, it must be conducted over a long term. The time for this element is five years.

- A. Establish a theme or title that would serve as the focal point to unify all aspects and subelements of the Information and Education program.
- B. Employ the expertise of the Task Force and others in identifying subject matter or opportunities for the Information and Education Program.
- C. Develop an audio/visual program to provide an overview of the Bear Lake Preservation Project. This program would be shown to user groups, state and federal agency personnel to provide an understanding of why we are concerned about Bear Lake and how they can help.
- D. Develop a series of audio/visual programs describing the uniqueness of the Bear Lake Ecosystem and what the function is of each part of this system and how man can have a good or bad impact on each part of the system, (could be used on education T.V.).
- E. Develop a series of articles on the same subjects covered by Item D, make these articles available to newspapers, radio, T. V. and to groups or agencies that publish newsletters. All would be targeted to each of the various user groups in the Basin area.
- F. Develop associated handout materials, brochures etc. for distribution at public meetings and gatherings held in conjunction with the project and also have available at state parks and other public use areas.
- G. Explore the feasibility of interpretive signage or displays along highways at state parks, rest areas, and look-out points explaining the unique characteristics of Bear Lake. These should be located on all major accesses to Bear Lake.
- H. Provide news releases at key points in the Bear Lake Preservation Project.
- I. Provide staff time and capabilities to attend and create various meetings and opportunities to make presentations.

III. Water Quality Management Plan

The major objective of this work element will be to develop and implement a user oriented handbook for private land owners, large developers, and state or federal agencies which will contain recommended methods and practices to guide land use changes and multiple use opportunities, such that they are in harmony with the existing Bear Lake ecosystem. The management plan will include the use of computer based data management system emphasizing the use of natural ecosystem processes. The development and implementation of the Bear Lake Basin Water Quality Management Plan will be a three year

effort. The following are the specific work elements involved in the completion of this task.

- A. Study Team and Task Organization and Budget Programming. This element will insure the proper coordination of work by the individual members of the study team and the necessary federal, state and local agencies.
 - B. The Development of an Environmental Data Management System. This element will design and implement a data format system that will have the capability of storing and retrieving the large amounts of data required in developing the management plan. These data systems will be used to environmentally describe site specific locations within the Bear Lake basin, and to cross reference recommended methods and practices for minimizing water quality impacts as a result of land use changes.
 - C. Data Collection, Information Gathering and Synthesis. This task will complete the necessary data base for the data management system (Water Quality Management Plan). The data base will incorporate a wide range of physical water resources, water quality, socio-economic and other environmental data into the user oriented computer system. This information will statistically define the watershed characteristics and allow the formulation of a series of logically derived site specific quantitative alternatives for mitigating water quality impacts.
 - D. Interface Alternatives with Existing Water Quality Standards and Local Ordinances (load allocations). This element will document present applicable state standards and other criteria for defining water quality in each separate water body or stream reach within the Bear Lake Basin as it is related to potential waste load changes. These standards will be used to determine present and future water quality changes.
 - E. Ordinance Modifications. If necessary, develop and implement local ordinance changes to insure the use of the management plan and provide a stronger means of control and approval authority by local governments.
- IV. Refine and document existing data on the water quality of the Upper Bear River above Stewart Dam and its tributaries. This element has a three year completion time frame.
- A. Establish a Sampling Program on the Upper Bear River and It's Tributaries. This element will establish the locations of mass exports of nitrogen and phosphorus from stream segments studied. This data will interface with B, C, and D, below.

- B. Documentation of Land Use Practices and Impacts. Within each watershed studied, land use will be defined and will statistically determine individual land use impacts.
 - C. Determination of Natural Nutrient Sources. Because of the geology of certain watersheds within the upper Bear River, natural nutrient sources may be present. Based upon the detailed sampling program (A above), identification of these natural sources will be undertaken.
 - D. Energy Impacts. Because of the influx of energy development, selected watersheds which have been modified by energy development will be studied for water quality impacts. Statistical analysis by comparisons to other watersheds will determine the degree of modification.
 - E. Development of Best Management Practices. Based upon A. through B. above, a series of Best Management practices will be developed for watersheds within the Upper Bear River for the purpose of improving water quality.
 - F. Implementation of Watershed Best Management Practices. Contacts will be made with Soil Conservation District's, R. C. and D.'s, and other funding sources to secure monies for the implementation of the Best Management Practice's generated in work element E. above.
- V. Assist and Facilitate Implementation of Diking of Dingle Marsh to maximize natural cleaning process of Bear River water by the Dingle Marsh.

The U. S. Fish and Wildlife Service, who manages the Dingle Marsh, have expressed an interest in the feasibility of diking parts of the Marsh.

- A. Develop and Provide facts (feasibility investigation) to demonstrate the benefits of diking on other modifications to the U. S. Fish and Wildlife Service.
 - B. Provide necessary baseline data for engineering specifications for the selected alternatives in A, above.
 - C. Assist and facilitate in obtaining Federal funds for construction.
- VI. Ongoing Evaluation of Projects Effectiveness.

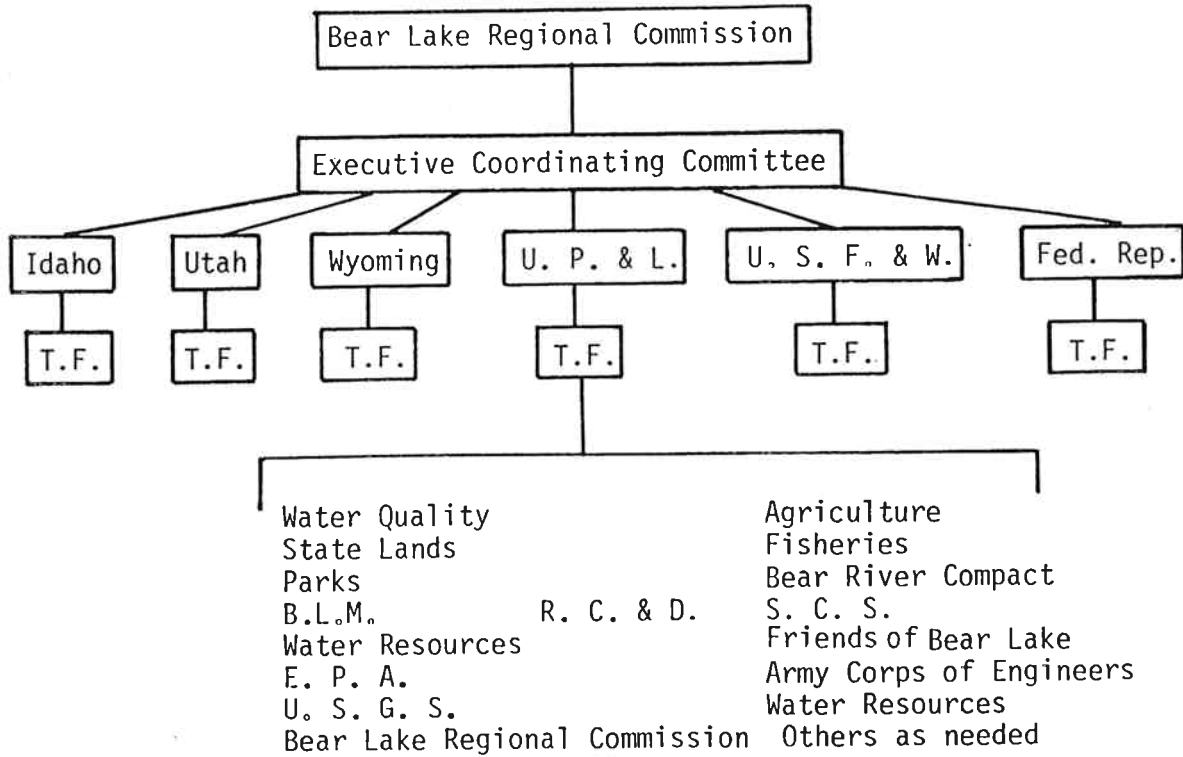
This work element will provide an ongoing water quality data base for Bear Lake, it's watersheds and the Bear River entering Bear Lake. An annual report relative to the changes in water quality and the implementation other work elements will be generated as a formal method of project evaluation. Recommendations as to

the effectiveness of the project will be made at that time. This work element will last the full five years of the project.

- A. Monitoring Program, Water Quality. A major task of this work element will be to establish monitoring stations on the major tributaries to Bear Lake (Swan Creek, 2 sites); (Big Creek, 2 sites), and (Lifton, 1 site). A number of sites in Bear Lake will be studied (3 initially) to determine the spatial differences in water quality on the lake. After six months, statistical analysis will be performed on the data to determine if differences do exist. Modification of the number of sites will be made based upon the results of this statistical analysis.
- B. Monitoring Program, Land Use Changes. A second task will be to monitor land use changes in watersheds and multiple use demands, i.e. development, building activity, new road construction, and visitation.
- C. Project Reports. At the conclusion of each year, a report updating the project data, and project effectiveness will be generated. Technical recommendations for the following year will be included in this document.

BEAR LAKE PRESERVATION PROJECT

INTERDISCIPLINARY TASK FORCE



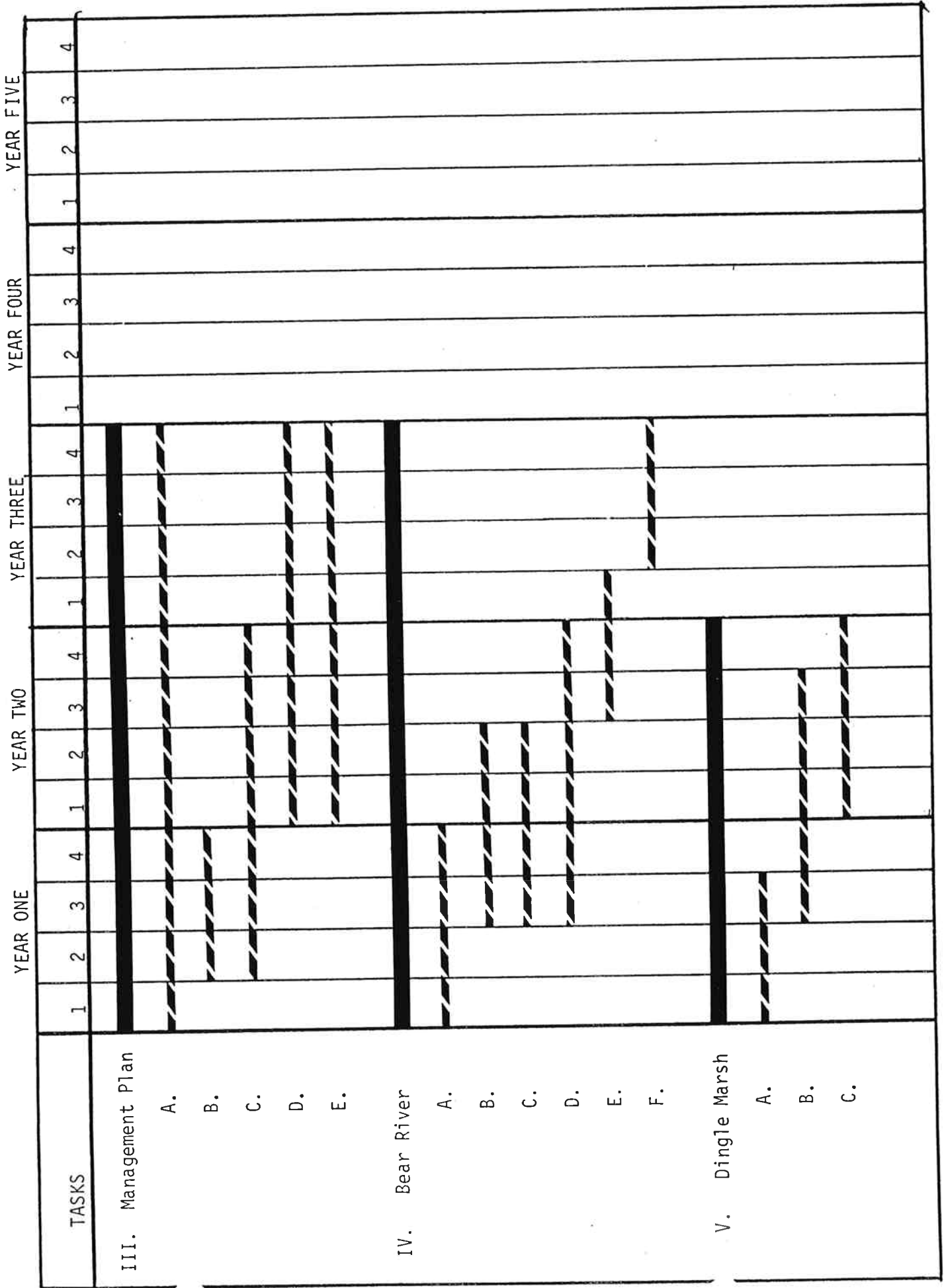
Chairman of each Task Force to serve on the "Executive Coordinating Committee"

T.F. = Task Force

BEAR LAKE PRESERVATION PROJECT SCHEDULE

TASKS	YEAR ONE				YEAR TWO				YEAR THREE				YEAR FOUR				YEAR FIVE			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
I. Admin. & Coordin.	[Solid black bar]																			
A.	[Dashed diagonal line]																			
B.	[Dashed diagonal line]																			
C.	[Dashed diagonal line]																			
D.	[Dashed diagonal line]																			
II. Inform. & Educ.	[Solid black bar]																			
A.	[Dashed diagonal line]																			
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BEAR LAKE RESERVATION PROJECT SCHEDULE



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	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
VI. Evaluation																				
A.																				
B.																				

