

Water Resources and Their Economic Importance in New Mexico

A set of papers presented at a
Staff and Graduate Seminar

Conducted by the Agricultural Economics Department

New Mexico College of Agricultural and Mechanic Arts

January 26 through May 24, 1956

The water resources of New Mexico are of great economic importance to the state. For this reason a staff and graduate seminar was held for the purpose of bringing together information about the water resources, review the past, present and proposed future uses of water and to analyze the water resource problems which have a bearing on the economic welfare of the State of New Mexico.

This seminar was organized and conducted by the Agricultural Economics Department. It met once every 2 weeks for a 2 hour period on New Mexico A & M Campus. This was primarily a staff and graduate student seminar.

The papers presented were of sufficient public interest that those in attendance and others requested they be made available for reference purposes.

No attempt has been made to edit any of the papers. They are presented here in the form they were received from the author. Some are in more of an outline form than others but these give considerable information in a limited space. Others are more or less the complete presentation.

The following is the order in which the papers were given in the seminar and is the order in which they are presented in this publication.

| | <u>Page Number</u> |
|---|--------------------|
| Jan. 26 - Source and Disappearance of the Total --- Water Supply in New Mexico H. R. Stucky, Professor and Head of Department of Agricultural Economics New Mexico College of A & M A | 1 |
| A Brief Review of Surface Water --- Studies in New Mexico Morris Evans, Agricultural Economist, New Mexico College of A & M A | 8 |

| | |
|---|-------|
| General Observations on Underground Water in New Mexico W. P. Stephens, Agricultural Economist, New Mexico College of A & M A | 13 |
| Feb. 9 - Legal Status of Water in New Mexico Charles D. Harris, Special Assistant Attorney General, State Engineer's Office. | -- 21 |
| Feb. 23 - The Watershed Protection Program - Public Law 566 Harold B. Elmendorf - Head, Area Engineering & Planning Office, Soil Conservation Service | -- 33 |
| The Soil and Water Conservation Program - in New Mexico Robert Young - State Director, Soil Conservation Service | 41 |
| Mar. 8 - Water Production from Forest Lands of New Mexico George Hardaway, Division of Watershed Management, Southwestern Region, U. S. Forest Service, Albuquerque | 47 |
| Southwest Watershed Studies of Agricultural Research Service Joel E. Fletcher, Soils Division Agricultural Research Service, Tucson J. L. Gardner - Botanist, ARS, USDA, New Mexico College of A & M A | 52 |
| Mar. 22 - The Effects of Interstate Compacts on New Mexico Water Supply S. E. Reynolds, State Engineer | 55 |
| Apr. 5 - Irrigation Developments by the Bureau of Reclamation in New Mexico Leon Hill - Staff Head of Operations Amarillo, Bureau of Reclamation | 72 |
| Water Supply and Costs in Operation of Rio Grande Project Theodore H. Moser, Acting Chief of the Engineering Division, Bureau of Reclamation, El Paso | 77 |

- Apr. 19 - The Colorado River Storage Project and Participating Projects 86
Ralph Charles, Project Development Engineer, Bureau of Reclamation, Albuquerque
- May 3 - Ground Water: Its Importance to the Economy of New Mexico 96
Clyde Conover, Engineer, Ground Water Branch, U. S. Geological Survey, Albuquerque
- Streamflow Investigations of the U. S. Geological Survey in New Mexico 107
Wallace T. Miller, Director, Surface Water Division, U. S. Geological Survey, Santa Fe
- May 17 - The Work of the Corps of Engineers in New Mexico 112
Robert C. Woodson, Civil Planning and Report Branch, Corps of Engineers, Albuquerque
- Hydrologic Aspects of Planning Flood Control Works in New Mexico 134
John T. Martin, Chief, Hydrology Section, Corps of Engineers, Albuquerque
- May 24 - Problems of the Elephant Butte Irrigation District 137
John L. Gregg, Treasurer-Manager, Elephant Butte Irrigation District, Las Cruces
- Stream Flow Studies in the Mesilla Valley 141
Frank Bromilow, Professor and Head of Civil Engineering Department
New Mexico College of A & M A