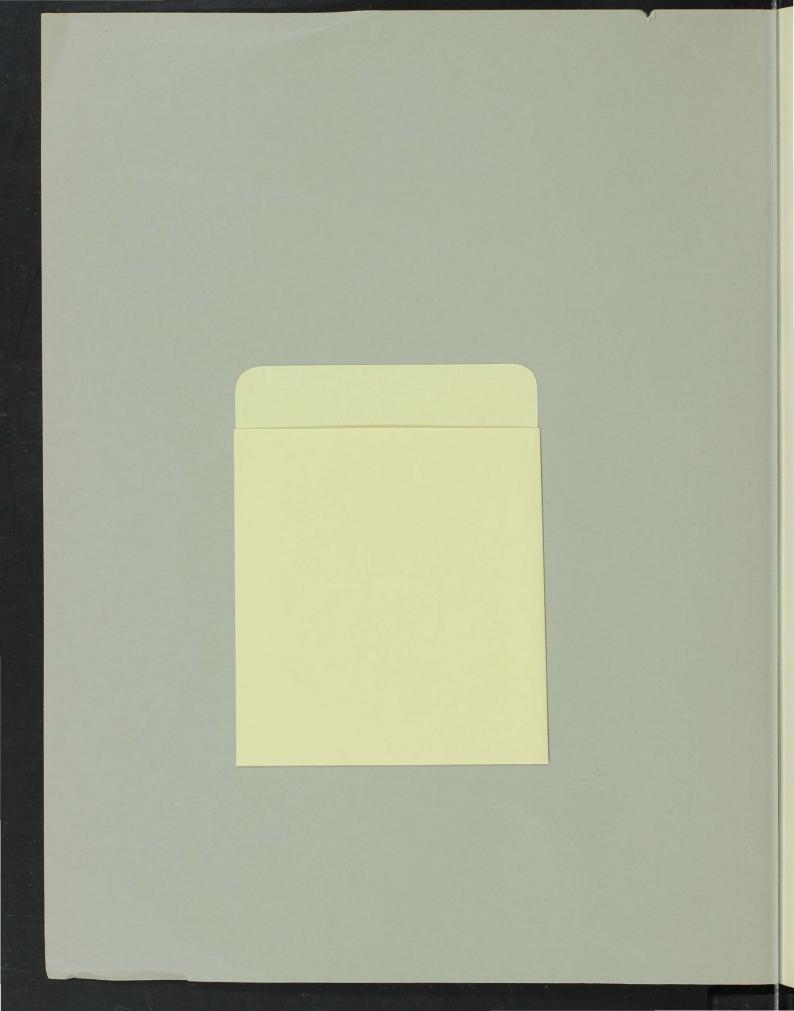
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A Selected Bibliography on the Relationships Between Agriculture and Water Quality

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A SELECTED BIBLIOGRAPHY ON THE RELATIONSHIPS BETWEEN AGRICULTURE AND WATER QUALITY

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Prepared under National Science Foundation Grant GI-32990

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Foreword

This bibliography was completed as part of a study on "National Environmental Models of Agricultural Policy, Land Use and Water Quality" at Iowa State University and funded under a grant from the National Science Foundation. It was compiled after a comprehensive search of numerous university, government and private organization publications. We consider this bibliography an important reference work, although abstracts were not developed for the more than one thousand entries. Hence, we are making it available for public distribution.

It is hoped that time and funds will be available in the future for continued revisions and updating of this work.

Howard C. Madsen Director of Environmental Research

Earl O. Heady Director, Center for Agricultural and Rural Development

Introduction

The entries in this bibliography were taken from a number of sources including the following: (1) selected theses at Iowa State University, (2) publication lists of the Iowa State Water Resources Research Institute (ISWRRI), (3) annotated literature surveys of the Environmental Systems Applications Center (ESAC), University of Indiana, (4) agriculture experiment station publications, (5) cooperative extension service publications, (6) U.S. Department of Agriculture, Economic Research Service publications and (7) miscellaneous sources.

The bibliography is divided into 13 major subject matter categories each with a number of minor categories. The first 10 major categories are similar to those used in the <u>Selected Water Resources Abstracts</u>. The remaining 3 major categories encompass modeling, model coefficients and parameters, and background material. Each entry appears only once in the bibliography, although it would be possible for certain entries to be classified under more than one subject matter category.

Each entry in the bibliography has been assigned a reference number consisting of three two-digit numbers designating major and minor subject matter categories and source, respectively. For example, the reference number for the first bibliographic entry, 01 02 10, can be interpreted as follows:

- (1) 01 specifies that it is the first minor subject matter category, General;
- (2) 02 specifies that it is the second major subject matter category, WATER CYCLE; and
 - (3) 10 specifies the source, Miscellaneous Sources.

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BIBLIOGRAPHY OF SELECTED REFERENCES FOR NSF PROJECT, CARD, IOWA STATE UNIVERSITY

NATURE OF WATER	01
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General	01 02

- Bowers, C. E., A. F. Pabst and S. P. Larson. Computer programs in hydrology. University of Minnesota, Water Resources Research Center Bul. 44. January 1972. 01 02 10
- 2. Kisisel, I. T. and J. W. Delleur. An analysis of hydrologic time series and generation models of synthetic flows for some Indiana watersheds. Purdue University, Water Resources Research Center Tech. Rpt. No. 19. July 1971.
 01 02 10
- 3. Rao, Ramachandra A. and J. W. Delleur. The instantaneous unit hydrograph: Its calculation by the transform method and noise control by digital filtering. Purdue University, Water Resources Research Center Tech. Rpt. No. 20. June 1971.

01 02 10

4. Stearns, Richard G. and John M. Wilson. Hydrology, geology and erosion by leaching in Skillman Basin on the Western Highland Rim, Lawrence County, Tennessee. Tenn. Dept. of Conservation, Division of Water Resources Water

Resources Res. Series No. 3. 1971.

01 02 06

5. The progress of hydrology: Volume 1, New developments in hydrology. Proceedings of the First International Seminar for Hydrology Professors. Department of Civil Engineering, University of Illinois (Urbana-Champaign). 1969.

01 02 10

6. Thomas, Eugene A. The process of eutrophication in Central European lakes. pp.29-49. In: National Academy of Sciences. Eutrophication: Causes, consequences, correctives. National Academy of Sciences, Washington, D.C. 1969.

01 02 04

7. Thornthwaite, C. W. An approach toward a rational classification of climate. Geographical Review 38, No. 1:55-94. January 1948.

01 02 02

8. U.S. Department of the Army, Corps of Engineers. Unit graph and hydrograph computation. Hydrologic Engineering Center, Sacremento, California. July 1966.

01 02 10

- 9. U.S. Department of the Army, Corps of Engineers. Unit hydrograph and loss rate optimization. Hydrologic Engineering Center, Sacremento, California. August 1966.
- 10. Ward, R. C. Principles of hydrology. McGraw-Hill Publishing Co., Limited, London, England. 1967.
- 11. Welch, Paul S. Limnology. 2nd ed. McGraw-Hill Book Co., Inc., New York. 1952.

Precipitation

02 02

12. Sorman, Unal A. and James R. Wallace. Digital simulation of thunderstorm rainfall. Georgia Institute of Technology, Environmental Resources Center Rpt. ERC-0972. August 1972.

02 02 06

Snow, Ice and Frost

03 02

Evaporation and Transpiration

04 02

- 13. Jensen, M. E. and H. R. Haize. Estimating evapotranspiration from solar radiation. Jour. of the Irrigation and Drainage Division. Proceedings of the Amer. Society of Civil Engineers 89, No. IR4:15-41. December 1963.
- 14. Kohler, M. A., T. J. Nordenson and D. R. Baker. Evaporation maps for the U.S. Technical Paper No. 37. U.S. Govt. Print. Off., Washington, D.C. 1959. 04 02 04
- 15. Penman, H. L. Estimating evaporation. Transactions, Amer. Geophysical Union 37, No. 1:43-46. February 1956.

Streamflow and Runoff

05 02

- 16. A hydrometeorological study related to the distribution of precipitation and runoff over small drainage basins:
 Urban versus rural areas. Texas A & M University, Water Resources Institute Rpt. TR-28. June 1970.

 05 02 06
- 17. Blank, David. Quantitative relationship of factors affecting water yield from small watersheds in Iowa. Unpublished M.S. thesis. Library, Iowa State University, Ames. 1965.

05 02 10

 Farvolden, Robert N. Base-flow recession in Illinois. University of Illinois, Water Resources Center Res. Rpt. No. 42. August 1971.

05 02 06

19. Plow into a stratified reservoir. U.S. Environmental Protection Agency, Office of Research and Monitoring Rpt. August 1972.

05 02 06

20. Hermanson, Ronald E. Soil surface characteristics and

rainfall-runoff-moistrue relationships on coastal plain soils. Auburn University, Water Resources Research Institute WRRI Bul. 702. ca. 1970.

05 02 06

21. Higgins, George R. and Joseph M. Colonell. Hydrologic factors in the determination of watershed yields. University of Massachusetts, Water Resources Research Center Pub. No. 20. July 1971.

05 02 06

22. Holt, R. F. Runoff and sediment as nutrient sources.
Water pollution by nutrients: Sources, effects and control. pp.35-38. 1969 Annual Meeting of Minnesota Chapter of Soil Conservation Society of America. University of Minnesota, Water Resources Research Center Graduate School Bul. 23. 1969.

05 02 04

23. Leopold, Luna B., M. Gordon Wolman and John P. Miller. Fluvial processes in geomorphology. W. H. Freeman and Company, San Francisco. 1964.

05 02 10

- 24. Mendez, Carlos. Computerized slope stability the sliding block problem; and M. B. Roy. Steady and transient state flow conditions. Purdue University, Water Resources Research Center Tech. Rpt. No. 21. February 1972.

 05 02 06
- 25. Moore, Walter R. and Carl W. Morgan. Effects of watershed changes on streamflow. University of Texas Press, Austin. 1969.

05 02 10

- 26. Nelson, D. W. and M. J. M. Romkens. Transport of phosphorus in surface runoff. In: Relationship of agriculture to soil and water pollution. Cornell University, New York State College of Agriculture Rpt. January 1970.

 05 02 04
- 27. Oulman, Charles S. Annual spring run-off problem at Omaha. Iowa Engineering Exp. Sta. Project 388s. June 1963.

05 02 04

28. Sharp, A. L., A. E. Gibbs and W. J. Owen. A history of the cooperative water yield procedures study report. U.S. Dept. Agr. Res. Rpt. No. 403. 1968.

05 02 10

- Sharp, A. L., A. E. Gibbs and W. J. Owen. Development of a procedure for estimating the effects of land and watershed treatment on streamflow. Tech. Bul. No. 1352. U.S. Govt. Print. Off., Washington, D.C. March 1966. 05 02 04
- 30. Smith, Dwight D. Time study of parallel terraces. Agr. Engineering 37:342-345. 1956.

05 02 04

Timmons, D. R., R. E. Burwell and R. F. Holt. Loss of crop nutrients through runoff. Minnesota Science 24, No. 31. 4:16-18. 1968.

05 02 04

Wischmeier, W. H. Relation of field-plot runoff to 32. management and physical factors. Soil Science Society of America Proceedings 30:272-277. 1966.

05 02 04

Yen, Ben Chie and Ven Te Chow. A study of surface runoff 33. due to moving rainstorms. University of Illinois, Department of Civil Engineering Hydraulic Engineering Series No. 17. June 1968.

05 02 10

Groundwater

06 02

Water in Soils

07 02

34. Hagan, Robert M. Water-soil-plant relations. Calif. Agriculture 10, No. 4:9-12. April 1957.

07 02 02

35. Jeppson, Roland W. Relationships of infiltration characteristics to parameters describing the hydraulic properties of soils. Utah State University, Utah Water Research Laboratory Pub. PRWG59-7. June 1972.

07 02 06

LeGrand, H. E. Movement of pesticides in the soil. 36. pp.71-77. In: Pesticides and their effects on soils and water. Amer. Society of Agronomy Special Pub. No. 8. 1966.

37. Part I: Controlling the soil moisture environment of transpiring plants; and Part II: Prediction of leaf temperature under natural atmospheric conditions. University of Kentucky, Water Resources Institute Res. Rpt. No. 30. 1970.

07 02 06

38. Richards, L. A. and C. H. Wadleigh. Soil water and plant growth. pp.73-251. In: Byron T. Shaw (ed.) Soil physical conditions and plant growth. Academic Press, Inc., New York. 1952.

07 02 02

- 39. Skaggs, R. W., E. J. Monke and L. F. Huggins. An approximate method for determining the hydraulic conductivity function of unsaturated soil. Purdue University, Water Resources Research Center Tech. Rpt. No. 11. June 1970.
- 40. Taylor, S. A. Estimating the integrated soil moisture tension in the root zone of growing crops. Soil Science 73, No. 5:331-340. May 1952.
- 41. U.S. Department of the Interior. Departmental manual; part 700 Dml; water and related land resources. U.S. Govt. Print. Off., Washington, D.C. ca. 1968.
- 42. Visser, W. C. Crop growth and the availability of moisture. Wageningen, Netherlands, Institute for Land and Water Management Research Tech. Bul. 6. 1959.
- 43. Wadleigh, C. H. The integrated moisture stress upon the root system in a large container of saline soil. Soil Science 61, No. 3:225-238. March 1946.
- 44. Wadleigh, C. H. and A. D. Ayers. Growth and biochemical composition of bean plants as conditioned by soil moisture tension and salt concentration. Plant Physiology 20, No. 1:106-132. January 1945.

45. Wadleigh, C. H. and H. G. Gauch. Rate of leaf elongation as affected by the intensity of the total soil moisture

stress. Plant Physiology 23, No. 4:485-495. October 1948.

07 02 02

- 46. Wadleigh, C. H., H. G. Gauch and O. C. Magistad. Growth and rubber accumulation in guayule as conditioned by soil salinity and irrigation regime. U.S. Dept. Agr. Tech. Bul. 925. U.S. Govt. Print. Off., Washington, D.C. 1946.
- 47. Ward, R. C. Principles of hydrology. McGraw-Hill Publishing Co., Limited, London, England. 1967.

Lakes 08 02

48. Born, S. M. and D. A. Yanggen. Understanding lakes and lake problems. University of Wisconsin, Upper Great Lakes Regional Commission Rpt. ca. 1972.

08 02 06

49. Stephenson, M. E. and J. R. Waybrant. Watershed analysis relating to eutrophication of Lake Michigan. Michigan State University, Institute of Water Research Tech. Rpt. No. 11. February 1971.

08 02 06

Water in Plants 09 02

Erosion and Sedimentation 10 02

- 50. Ballantyne, C. R., F. W. Schaller and J. A. Phillips.
 Erosion control factors and the universal soil loss equation. Iowa Coop. Ext. Serv. Rpt. Pm-410. December 1967.
 10 02 10
- 51. Beasely, R. P. Erosion and sediment pollution control. Iowa State University Press, Ames. 1972.
- 52. Beck, Kevin C. Sediment water interactions in some Georgia rivers and estuaries. Georgia Institute of Technology, Environmental Resources Center Rpt. ERC-0872. July 1972.

10 02 10

53. Bedell, Glenn D., Helmut Kohnke and R. B. Hickok. The effects of two farming systems on erosion from cropland. Soil Science Society of America Proceedings 11:522-526.

10 02 04

54. Beer, C. E., C. W. Farnham and H. G. Heinemann. Evaluating sedimentation prediction techniques in Western Iowa. Transactions of the Amer. Society of Agr. Engineers 9, No. 6:828-833. 1966.

10 02 04

55. Benedict, Paul C. A study of the errors resulting from use of turbidity in computing the suspended sediment discharge of Iowa streams. Iowa Academy of Science Proceedings 52:205-210. Harald Publishing Co., Carroll, Iowa. 1946.

10 02 04

- 56. Benedict, Paul C. Fluvial sediment transportation.
 Transactions, Amer. Geophysical Union 38:897-902. 1957.
 10 02 05
- 57. Colby, B. R., C. H. Hembree and F. H. Rainwater. Sedimentation and chemical quality of surface waters in Wind River Basin, Wyoming. U.S. Dept. of the Interior, Geological Survey Water-Supply Paper 1373. 1956.

 10 02 05
- 58. Glymph, Louis M., Jr. Importance of sheet erosion as a source of sediment. Transactions, Amer. Geophysical Union 38:903-907. 1957.

10 02 05

- 59. Gottschalk, L. C. Reservoir sedimentation. pp.17-117-34. In: V. T. Chow (ed.) Handbook of applied hydrology. McGraw-Hill Book Co., Inc., New York. 1964.
 10 02 04
- 60. Guidelines for erosion and sediment control planning and implementation. U.S. Environmental Protection Agency, Office of Research and Monitoring Rpt. EPA-R2-72-015. August 1972.

10 02 10

61. Hermauson, Ronald E. Soil surface characteristics and rainfall-runoff-moisture relationships on Coastal Plain

soils. Auburn University, Water Resources Research Institute Bul. 702. June 1970.

10 02 10

- 62. Holt, R. F., R. H. Dowby, and D. R. Timmons. Chemistry of sediment in water. pp.21-34. In: Ted L. Willrich and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

 10 02 04
- 63. Hoskin, Charles M. Sedimentation in St. Louis Bay,
 Mississippi. Mississippi State University, Water Resources Research Institute Rpt. June 1971.

 10 02 06
- 64. Kohnke, Helmut, Manuel Paulet and L. J. Lund. Pedologic features of reservoir sedimentation. Purdue University, Water Resources Research Center Tech. Rpt. 18. April 1971.

65. Kunkle, Samuel H. and George H. Comer. Estimating suspended sediment concentrations in streams by turbidity measurements. Jour. of Soil and Water Conservation 26:18-20. 1971.

10 02 04

- 66. Laflen, John M., H. P. Johnson and R. C. Reeve. Soil loss from tile-outlet terraces. Jour. of Soil and Water Conservation 27, No. 2:74-77. March-April 1972.

 10 02 10
- 67. Lee, Fred G. Factors affecting the transfer of materials between water and sediments. University of Wisconsin, Water Resources Center Literature Review No. 1. July 1970.
- 68. Little, W. C. and P. G. Mayer. The role of sediment gradation on channel armoring. Georgia Institute of Technology, Environmental Resources Center Rpt. ERC-0672. May 1972.
- 69. Maner, Sam B. Factors affecting sediment delivery rates in the red hills physiographic area. Transactions, Amer. Geographical Union 39:669-675. 1958.
- 70. Massey, H. F., M. L. Jackson and O. E. Hays. Fertility

erosion on two Wisconsin soils. Agronomy Jour. 45:543-547. 1953.

10 02 04

- 71. Moldenhauer, W. C. and W. H. Wischmeier. Soybeans in corn-soybean rotation, permit erosion but put blame on corn. Crops and Soils 21, No. 6:20. March 1969.

 10 02 04
- 72. Moldenhauer, W. C., W. H. Wischmeier and D. T. Parker.
 The influence of crop management on runoff, erosion, and
 soil properties of a Marshall silty clay loam. Soil Science Society of America Proceedings 31, No. 4:541-546.
 July-August 1967.

10 02 04

73. Moore, Charles A. and Marshall L. Silver. The role of sediments in eutrophication: A preliminary study. University of Illinois, Water Resources Center Res. Rpt. No. 50. January 1972.

10 02 06

74. Partheniades, Emmanuel and A. J. Mehta. Deposition of fine sediments in turbulent flows. U.S. Environmental Protection Agency, Water Pollution Control Research Series 16050 ERS 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.

10 02 10

75. Robinson, A. R. Sediment. A primer on agricultural pollution. Jour. of Soil and Water Conservation 26, No. 2:44-65. March-April 1971.

10 02 04

76. Roehl, John W. Sediment source areas, delivery ratios and influencing morphological factors. pp.202-213. In: W. Ward (ed.) Symposium of Bari, Commission of Land Erosion. Pub. No. 59. 1962.

10 02 10

77. Schuman, G. E., R. G. Spomer and R. F. Piest. Loss of phosphorus from agricultural watersheds on Missouri Valley loess. Paper presented at Social Science Society of America. U.S. Dept. Agr., Agr. Res. Serv. and Soil and Water Conservation Serv. Rpt. 1970.

10 02 04

78. Shen, Hsieh W. Sedimentation and contaminant criteria for watershed planning and management. Colorado State

University, Environmental Resources Center Completion Rpt. Series No. 31. June 1972.

10 02 06

- 79. Sheppard, J. R. Methods and their suitability for determining total sediment quantities. Proceedings of the Federal Inter-Agency Sedimentation Conference, 1963. pp.272-287. U.S. Dept. Agr. Misc. Pub. 970. 1965.
- 80. Stall, John B. Soil conservation can reduce reservoir sedimentation. Public Works 93, No. 9:125-128. September 1962.

10 02 05

81. Stewart, James M. and Joseph A. Phillips. Workshop on sediment control proceedings. February 10, 1972. University of North Carolina, Water Resources Research Institute Rpt. No. 63. 1972.

10 02 06

82. Stoltenberg, N. L. and J. L. White. Selective loss of plant nutrients by erosion. Soil Science Society of America Proceedings 17:406-410. 1953.

10 02 04

- 83. The Dow Chemical Company. An economic analysis of erosion and sediment control methods for watersheds undergoing urbanization. The Dow Chemical Company, Midland, Michigan, Final Rpt. C-1677. February 1972.

 10 02 06
- 84. Thomas, A. W., R. L. Carter and J. R. Carreker. Soil water and nutrient losses from Tifton loamy sand. Transactions of the Amer. Society of Agr. Engineers 11, No. 5:677-679. 1968.

10 02 04

85. Tokarski, Richard Peter. The effect of land utilization on water quality variations. Rutgers University, New Jersey Water Resources Research Institute Rpt. October 1970.

10 02 06

86. U.S. Department of Agriculture, Soil Conservation Service. List of coordinated soil erodibility factors (K) and soil-loss tolerances (T) in the universal erosion equation. Mimeograph list received from A. A. Klingebiel, Director, Soil Survey Interpretations. Washington, D.C.

July 1972.

10 02 10

87. U.S. Department of Agriculture, Soil Conservation Service. Procedure for computing sheet and rill erosion on project areas. U.S. Dept. Agr., Soil Conservation Serv. Tech. Release No. 51. September 1972.

10 02 10

88. U.S. Department of Agriculture, Soil Conservation Service. Sediment-it's filling harbors, lakes and roadside ditches. U.S. Dept. Agr., Agr. Information Bul. No. 325. December 1967.

10 02 10

89. U.S. Department of the Army, Corps of Engineers.
Proceedings of a seminar on sediment transport in rivers
and reservoirs. April 7-9, 1970. Corps of Engineers, The
Hydrologic Engineering Center Rpt. 1970.

10 02 06

90. U.S. Water Resources Council, Missouri Basin Inter-Agency Committee, Task Force on Sedimentation. Sedimentation report for the middle Missouri River tributaries, Missouri Basin comprehensive study. U.S. Dept. Agr., Soil Conservation Serv. Unpublished Mimeographed Paper (Lincoln, Nebraska). January 1968.

10 02 05

- 91. Upper Mississippi River Comprehensive Basin Study Coordinating Committee, Task Force on Sedimentation.
 Upper Mississippi River comprehensive basin study: Appendix G, Fluvial sediment. Draft No. 2. U.S. Dept. of the Army, Corps of Engineers, Rock Island, Illinois. 1967.

 10 02 05
- 92. Urban soil erosion and sediment control. U.S. Environmental Protection Agency Water Pollution Control Research Series 15030 DTL 05/70. U.S. Govt. Print. Off., Washington, D.C. May 1970.

10 02 06

- 93. Vanoni, V. A., N. H. Brooks and J. F. Kennedy. Lecture notes on sediment transportation and channel stability. California Institute of Technology, W. M. Keck Laboratory of Hydraulics and Water Resources Rpt. No. KH-R 1. 1960.

 10 02 05
- 94. Wischmeier, Walter H. A rainfall erosion index for a

universal soil-loss equation. Soil Science Society of America Proceedings 23:246-249. 1959.

95. Wischmeier, W. H. Advances in water erosion control in the Great Plains: Developments in application of the soil-loss prediction equation. Great Plains Agr. Council Pub. No. 32:47-53. Lincoln, Nebraska. 1968.

96. Wischmeier, Walter H. Rainfall erosion potential: Geographic and location differences of distribution. Agr. Engineering 43:212-215. April 1962.

97. Wischmeier, Walter H. and Dwight D. Smith. Predicting rainfall-erosion losses form cropland east of the Rocky Mountains: Guide for selection of practices for soil and water conservation. U.S. Dept. Agr., Agr. Res. Serv. Agr. Handbook No. 282. May 1965.

98. Wischmeier, Walter H. and Dwight D. Smith. Rainfall energy and its relationship to soil loss. Transactions, Amer. Geophysical Union 39:285-291. 1958.

99. Wischmeier, W. H., C. B. Johnson and B. V. Cross. A soil erodibility nomograph for farm land and construction sites. Jour. of Soil and Water Conservation 26, No. 5:189-193. September-October 1971.

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- 100. Bondurant, Dewey T. Some aspects of conservation practices and agricultural related pollutants. Iowa Academy of Science Proceedings 77:55-60. 1971.

 06 03 04
- 101. Laflen, John M. and W. C. Moldenhauer. Soil conservation on agricultural land. Jour. of Soil and Water Conservation 26, No. 6:225-229. November-December 1971.

 06 03 10
- 102. Soil and water conservation needs inventory, Cooke, Grayson and Fanin counties, Texas. Texoma Regional Planning Commission Rpt. PB-195 447. August 1970.

 06 03 07
- 103. U.S. Department of Agriculture. Soil and water conservation needs: A national inventory. U.S. Dept. Agr. Misc. Pub. No. 971. 1965.
- 104. U.S. Department of Agriculture, Agricultural Research Service. Soil and water conservation research in the Pacific Coast Region. U.S. Dept. Agr., Agr. Res. Serv. Misc. Pub. No. 900. March 1962.
- 105. U.S. Department of Agriculture, Agricultural Research Service. Soil and water conservation research in the Pacific Northwest. U.S. Dept. Agr., Agr. Res. Serv. Misc. Pub. No. 923. August 1963.
- 106. U.S. Department of Agriculture, Soil Conservation Service.
 Conservation needs memorandum 21. U.S. Dept. Agr., Soil
 Conservation Serv. Rpt. November 1965.

 06 03 05

- 107. U.S. Department of Agriculture, Soil Conservation Service. Iowa conservation needs inventory. U.S. Dept. Agr., Soil Conservation Serv. Rpt. (Des Moines, Iowa). 1970.

 06 03 04
- 108. U.S. Department of Agriculture, Soil Conservation Service. Technical Standards and specifications for conservation practices. Code No. 602: Terrace, level. U.S. Dept of Agr., Soil Conservation Serv. Rpt. (Des Moines, Iowa). November 1966.

06 03 04

109. Willrich, Ted L. Management of agricultural resources to minimize pollution of natural waters. Proceedings of the National Symposium on Quality Standards for Natural Waters, 1966. pp.303-314. University of Michigan, Ann Arbor, Michigan. 1967.

06 03 05

WATER QUANTITY MANAGEMENT AND CONTROL

04

Control of Water on the Surface

01 04

- 110. Lof, George O. G. and Clayton H. Hardison. Storage Requirements for water in the United States. Water Resources Research 2, No. 3:323-354. 1966.
- 111. Martin, R. O. R. and Ronald L. Hansen. Reservoirs in the United States. U.S. Dept. of the Interior, Geological Survey Water Supply Paper 1838. 1966.
- 112. Moench, Allen F. and Chester C. Kisiel. The convolution relation as applied to estimating recharge from an ephemeral stream. Paper presented at 50th Annual Meeting of Amer. Geophysical Union, April 21-25, 1969. Department of Hydrology and Water Resources, University of Arizona, Tucson. 1969.

01 04 07

113. U.S. Department of the Army, Corps of Engineers, Lower Mississippi Valley Division. Water resources development in Arkansas. Vicksburg, Mississippi. January 1969.

01 04 01

- 114. U.S. Department of the Army, Corps of Engineers, Lower Mississippi Valley Division. Water resources development in Louisiana. Vicksburg, Mississippi. January 1969.
- 115. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in Colorado. Omaha, Nebraska. January 1969.

01 04 01

116. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in Missouri. Omaha, Nebraska. January 1969.

01 04 01

117. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in Montana. Omaha, Nebraska. January 1969.

01 04 01

118. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in Nebraska. Omaha, Nebraska. January 1969.

01 04 01

119. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in North Dakota. Omaha, Nebraska. January 1969.

01 04 01

120. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in South Dakota. Omaha, Nebraska. January 1969.

121. U.S. Department of the Army, Corps of Engineers, Missouri River Division. Water resources development in Wyoming.
Omaha, Nebraska. January 1971.

01 04 01

122. U.S. Department of the Army, Corps of Engineers, North Central Division. Water resources development in Iowa. Chicago, Illinois. January 1969.

01 04 01

123. U.S. Department of the Army, Corps of Engineers, North Pacific Division. Water resources development in Idaho.

Portland, Oregon. January 1969.

01 04 01

124. U.S. Department of the Army, Corps of Engineers, North Pacific Division. Water resources development in Oregon. Portland, Oregon. January 1969.

01 04 01

- 125. U.S. Department of the Army, Corps of Engineers, North Pacific Division. Water resources development in Washington. Portland, Oregon. January 1969.
- 126. U.S. Department of the Army, Corps of Engineers, South Pacific Division. Water resources development in Arizona. San Francisco, California. January 1969.
- 127. U.S. Department of the Army, Corps of Engineers, South Pacific Division. Water resources development in California. San Francisco, California. January 1969.
- 128. U.S. Department of the Army, Corps of Engineers, South Pacific Division. Water resources development in Nevada. San Francisco, California. January 1969.
- 129. U.S. Department of the Army, Corps of Engineers, South Pacific Division. Water resources development in Utah. San Francisco, California. January 1969.
- 130. U.S. Department of the Army, Corps of Engineers, Southwestern Division. Water resources development in Kansas. Dallas, Texas. January 1969.
- 131. U.S. Department of the Army, Corps of Engineers, Southwestern Division. Water resources development in New Mexico. Dallas, Texas. January 1971.
- 132. U.S. Department of the Army, Corps of Engineers, Southwestern Division. Water resources development in Oklahoma. Dallas, Texas. January 1969.
- 133. U.S. Department of the Army, Corps of Engineers, South-

western Division. Water resources development in Texas. Dallas, Texas. January 1971.

01 04 01

134. U.S. Department of the Interior, Bureau of Reclamation.
Report of the Commissioner, 1965: Statistical Appendix,
Parts I, II and III. U.S. Dept. of the Interior, Bur. of
Reclamation Rpt. June 30, 1965.

01 04 01

135. U.S. Department of the Interior, Bureau of Reclamation.
Report of the Commissioner, 1965: Statistical Appendix,
Part IV. U.S. Dept. of the Interior, Bur. of Reclamation
Rpt. June 30, 1965.

01 04 01

136. U.S. Department of the Interior, Bureau of Reclamation.
Summary report of the Commissioner, 1969: Statistical Appendix, Parts I, II and III. U.S. Dept. of the Interior,
Bur. of Reclamation Rpt. June 30, 1969.

01 04 01

- 137. U.S. Department of the Interior, Bureau of Reclamation.
 Summary report of the Commissioner, 1969: Statistical Appendix, Part IV, Project Data. U.S. Dept. of the Interior, Bur. of Reclamation Rpt. June 30, 1969.

 01 04 01
- 138. U.S. Department of the Interior, Bureau of Reclamation.
 Water and land resource accomplishments, 1969: Federal
 reclamation projects. U.S. Dept. of the Interior, Bur. of
 Reclamation Rpt. September 8, 1970.

01 04 01

139. Velz, C. J., J. D. Calvert, R. A. Deininger, W. L. Heilman and J. Z. Reynolds. Pumped storage for drought control and multipurpose water resource development. Proceedings of the National Symposium on Quality Standards for National Waters. pp.123-133. University of Michigan, Ann Arbor, Michigan. 1967.

01 04 04

140. Vleugels, R. A. Optimal operation of serially-linked water reservoirs. University of California (Los Angeles), Water Resources Center Contribution No. 138. September 1972.

01 04 06

141. Young, George K., William P. Somers, William C. Pisano and

William N. Fitch. Assessing upland reservoirs using a daily flow model. Water Resources Research 5, No. 2:362-379. April 1969.

01 04 07

Groundwater Management

02 04

- 142. Agnew, Allen F. and Russell W. Busch. Interstate groundwater aquifers of the state of Washington: Physical and legal problems—a preliminary assessment. Washington State University, State of Washington Water Research Center Rpt. No. 8. September 1971.
- 143. Burt, Oscar R. Economic control of groundwater reserves.

 Jour. of Farm Econ. 48, No. 3:632-647. August 1966.

 02 04 01
- 144. Castle, E. N. and K. H. Lindeborg. The economics of ground water allocations: A case study. Jour. of Farm Econ. 42, No. 1:150-160. February 1960.
- 145. Hughes, William F. and Wyatte L. Harman. Projected economic life of water resources: Subdivision number 1, High Plains underground water reservoir. Texas Agr. Exp. Sta. Tech. Mono. 6. December 1969.
- 146. M. W. Bittinger and Associates, Inc. Management and administration of groundwater in interstate and international aquifers, phase I. M. W. Bittinger and Associates, Inc., Fort Collins, Colorado. ca. 1971.
- 147. Prickett, T. A. and C. G. Lonnquist. Selected digital computer techniques for groundwater resource evaluation. Illinois Dept. of Registration and Education, Illinois State Water Survey Bul. 55. 1971.
- 148. Schicht, R. J. and Allen Moench. Projected groundwater deficiencies in Northeastern Illinois, 1980-2020.
 Illinois Dept. of Registration and Education, Illinois State Water Survey Cir. 101. 1971.
- 149. Sechrist, Albert, B. J. Claborn, Frank Rayner and D. M.

Wells. Mathematical management model unconfined aquifer. Texas Tech University, Water Resources Center Final Rpt. PB-197 788. October 1970.

02 04 07

Effects on Water of Man's Non-Water Activities

03 04

Watershed Protection

04 04

- 150. Blank, David and C. E. Beer. Factors affecting water yield from small watersheds in Iowa. Transactions of the Amer. Society of Agr. Engineers 11, No. 5:701-704. 1968.
- 151. Maki, T. Ewald and William L. Hafley. Effects of land use on municipal watersheds. University of North Carolina, Water Resources Research Institute Rpt. No. 71. July 1972.

04 04 06

- 152. McKenzie, Linda (ed.) The grass roots and water resources management. Washington State University, State of Washington Water Research Center Rpt. No. 10. July 1972.

 04 04 06
- 153. Studies on effects of watershed practices on streams.
 U.S. Environmental Protection Agency Water Pollution Control Research Series 13010 EGA 02/71. U.S. Govt. Print.
 Off., Washington, D.C. February 1971.

04 04 06

WATER QUALITY MANAGEMENT AND PROTECTION

05

Identification of Pollutants

01 05

154. A primer on agricultural pollution. Soil Conservation Society of America, Ankeny, Iowa. 1971.

01 05 10

155. Feasibility study of water resource pollutant identifica-

tion by digital computer identification of remote infrared sensor spectral signatures. Clemson University, Water Resources Research Institute Rpt. No. 22. January 1972.

156. Johnson, H. P. and W. C. Moldenhauer. Pollution by sediment: Sources and detachment and transport processes.

pp.3-20. In: Ted L. Willrich and George E. Smith (ed.)

Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

01 05 04

The state of the s

- 157. Keup, Lowell E. Phosphorus in flowing waters. Water Research 2, No. 5:373-386. 1968.
- 158. Mackenthun, Kenneth M. Nitrogen and phosphorus in water. U.S. Govt. Print. Off., Washington, D.C. 1965.
- 159. Taylor, A. W. Phosphorus and water pollution. Jour. of Soil and Water Conservation 22, No. 6:228-231. 1967.
- 160. Taylor, A. W., W. M. Edwards and E. C. Simpson. Nutrients in streams draining woodland and farmland near Coshocton, Ohio. Water Resources Research 7, No. 1:81-89. February 1971.

01 05 04

Sources of Pollution

02 05

161. Agricultural pollution of the Great Lakes Basin. U.S. Environmental Protection Agency Water Pollution Control Research Series 13020 07/71. U.S. Govt. Print. Off., Washington, D.C. July 1971.

02 05 06

162. Black, C. A. Behavior of soil and fertilizer phosphorus in relation to water pollution. pp.72-93. In: Ted L. Willrich and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

02 05 04

163. Browning, George M. Agriculture pollution: Sources and control. pp. 150-166. In: Ted L. Willrich and N. William

Hines (ed.) Water pollution control and abatement. Iowa State University Press, Ames. 1967.

02 05 04

- 164. Characteristics of wastes from southwestern cattle feedlots. U.S. Environmental Protection Agency Water Pollution Control Research Series 13040 DEM 01/71. U.S. Govt. Print. Off., Washington, D.C. January 1971.
- 165. Collected papers regarding nitrates in agricultural waste water. U.S. Environmental Protection Agency Water Pollution Control Research Series 13030 ELY 12/69. U.S. Govt. Print. Off., Washington, D.C. 1970.
- 166. Duffer, W. R., C. C. Harlin, Jr. and Robert Kerr. Changes in water quality resulting from impoundment. U.S. Environmental Protection Agency Water Pollution Control Research Series 16080 GGH 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.
- 167. Edwards, William E. and Lloyd L. Harrold. Agricultural pollution of water bodies. The Ohio Jour. of Science 70, No. 1:50-56. 1970.
- 168. Evaluation of effect of impoundment on water quality in Cheney Reservoir. U.S. Dept. of the Interior, Bur. of Reclamation Res. Rpt. No. 25. ca. 1971.
- 169. Flege, R. K. Determination of degraded dyes and auxiliary chemicals in effluents from textile dyeing processes.

 Georgia Institute of Technology, Environmental Resources Center Rpt. March 1970.

 02 05 06
- 170. Gard, L. E. No-till cropping reduces pollution. Illinois Research 13, No. 1:3-5. 1971.
- 171. Gilbertson, C. B., T. M. McCalla, J. R. Ellis, O. E. Cross and W. R. Woods. Effect of animal density and surface slope on characteristics of runoff, solid wastes and nitrate movement on unpaved beef feedlots. Nebr. Agr. Exp. Sta. Rpt. SB 508. June 1970.

172. Infiltration rates and groundwater quality beneath cattle feedlots, Texas High Plains. U.S. Environmental Protection Agency Water Pollution Control Research Series 16060 EGS 01/71. U.S. Govt. Print. Off., Washington, D.C. January 1971.

02 05 06

173. Interaction of herbicides and soil microorganisms. U.S. Environmental Protection Agency Water Pollution Control Research Series 16060 DMP 03/71. U.S. Govt. Print. Off., Washington, D.C. March 1971.

02 05 06

174. Joint Task Force of the U.S. Department of Agriculture and the State Universities and Land Grant Colleges. A national program of research for environmental quality: Pollution in relation to agriculture and forestry. U.S. Dept. Agr. Rpt. U.S. Govt. Print. Off., Washington, D.C. September 1968.

02 05 04

- 175. Kilmer, V. J. et al. Loss of fertilizer nutrients from soils to drainage waters. University of North Carolina, Water Resources Research Institute Rpt. ca. 1972.

 02 05 10
- 176. Kunze, G. W. Pesticides and clay minerals. pp.49-70. In:
 Pesticides and their effects on soils and water. Amer.
 Society of Agronomy Special Pub. No. 8. 1966.

 02 05 05
- 177. Ligon, James T. and T. V. Wilson. Deep seepage on piedmont watersheds. Clemson University, Water Resources Research Institute Rpt. No. 29. April 1972.
- Management of nutrients on agricultural land for improved water quality. U.S. Environmental Protection Agency Water Pollution Control Research Series 13020 DPB 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.
- 179. Moe, P. G., J. V. Mannering and C. B. Johnson. Loss of fertilizer nitrogen in surface runoff water. Purdue University Agr. Exp. Sta. Jour. Paper No. 2953. January 1967.

02 05 10

180. Morel-Seytoux, H. J. A systematic treatment of the prob-

lem of infiltration. Colorado State University, Environmental Resources Center Completion Rpt. Series No. 23. June 1971.

02 05 06

181. Nutrients from tile drainage systems: Bio-engineering aspects of agricultural drainage, San Joaquin Valley, California. U.S. Environmental Protection Agency Water Pollution Control Research Series 13030 ELY 5/71-3, REC-R2-71-3, DWR No. 174-6. U.S. Govt. Print. Off., Washington, D.C. May 1971.

02 05 06

182. Otto, N. E. Evaluation of soil-applied herbicides for vegetation control. U.S. Dept of the Interior, Bur. of Reclamation Res. Rpt. No. 22. 1970.

02 05 06

- 183. Pesticide inputs and levels Minnesota waters: Lake Superior Basin. U.S. Environmental Protection Agency Water Pollution Control Research Series 16050 EYT 06/71. U.S. Govt. Print. Off., Washington, D.C. June 1971. 02 05 06
- 184. Pratt, P. F. Nitrate in the unsaturated zone under agricultural lands. U.S. Environmental Protection Agency Water Pollution Control Research Series 16060 DOE 04/72. U.S. Govt. Print.Off., Washington, D.C. April 1972.
 - 185. Relationship of agriculture to soil and water pollution.
 Cornell University, New York State College of Agriculture
 Rpt. January 1970.

02 05 04

- 186. Smithsonian Science Information Exchange, Inc. Movement of pesticides. Smithsonian Science Information, Inc., Washington, D.C. Computer printout. ca. 1972.
- 187. Smithsonian Science Information Exchange, Inc. Nitrates in soils. Smithsonian Science Information Exchange, Inc., Washington, D.C. Computer printout. ca. 1972.

 02 05 06
- 188. Stanford, G., C. B. England and A. W. Taylor. Fertilizer use and water quality. U.S. Dept. Agr., Agr. Res. Serv. Rpt. 41-168. October 1970.

02 05 04

- 189. Stengle, Thomas R. Sampling of glacial snow for pesticide analysis. U.S. Environmental Protection Agency Water Pollution Control Research Series 16020 GAG 02/71. U.S. Govt. Print. Off., Washington, D.C. February 1971.
- 190. Viets, Frank G., Jr. Fertilizers. A primer on agricultural pollution. Jour. of Soil and Water Conservation 26, No. 2:44-65. 1971.

02 05 04

- 191. Wadleigh, C. H. Agricultural pollution of water resources. Soil Conservation 53, No. 2:27-30. 1967.
- 192. Wadleigh, Cecil H. Wastes in relation to agriculture and forestry. U.S. Dept. Agr. Misc. Pub. No. 1065. March 1968.

02 05 04

193. Weidner, R. B., A. G. Christianson, S. R. Weibel and G. G. Robeck. Rural runoff as a factor in stream pollution. Water Pollution Control Federation Jour. 41:377-384.

March 1969.

02 05 04

194. Weiss, Charles M. The relative significance of phosphorus and nitrogen as algal nutrients. University of North Carolina, Water Resources Research Institute Rpt. No. 34. June 1970.

02 05 06

195. Whipple, William, Jr., J. V. Hunter and S. L. Yu. Unrecorded pollution sources and optimum water quality systems. The National Symposium on Cost of Water Pollution Control, April 6-7, 1972, Raleigh, North Carolina. 1972.

02 05 06

Effects of Pollution

03 05

196. Ahlrichs, J. L., L. Chandler, E. J. Monke and H. W. Reuszer. Effect of pesticide residues and other organotoxicants on the quality of surface and ground water resources. Purdue University, Water Resources Research Center Tech. Rpt. No. 10. June 1970.

03 05 10

197. Alexander, Robert M. Social aspects of environmental pollution. Oregon State Iniversity, Water Resources Research Institute Rpt. WRRI-7. March 1971.

03 05 06

- 198. Bradley, J. R., Jr., T. J. Sheets and M. D. Jackson. Contamination of surface and ground water with pesticides applied to cotton. University of North Carolina, Water Resources Research Institute Rpt. No. 60. April 1972.

 03 05 06
- 199. Copeland, B. J. and John E. Hobbie. Phosphorus and eutrophication in the Pamlico River Estuary, North Carolina, 1966-1969: A summary. University of North Carolina, Water Resources Research Institute Rpt. No. 65. March 1972.

03 05 06

- 200. Duffer, William R., R. Douglas Kreis and Curtis C. Harlin. Effects of feedlot runoff on water quality of impoundments. U.S. Environmental Protection Agency Water Pollution Control Research Series 16080 GGP 07/71. U.S. Govt. Print. Off., Washington, D.C. July 1971.
- 201. Fuhriman, D. K. and J. R. Barton. Ground water pollution in Arizona, California, Nevada, and Utah. U.S. Environmental Protection Agency Water Pollution Control Research Series 16060 ERU 12/71. U.S. Govt. Print. Off., Washington, D.C. December 1971.

03 05 06

- 202. Gammon, James R. The effect of inorganic sediment on stream biota. U.S. Environmental Protection Agency Water Pollution Control Research Series 18050 DWC 12/70. U.S. Govt. Print. Off., Washington, D.C. December 1970.
- 203. Kenney, Dennis R. The fate of nitrogen in aquatic ecosystems. University of Wisconsin, Water Resources Center Literature Review No. 3. January 1972.

 03 05 06
- 204. Kneese, Allen V. Effects of wastes on receiving water-some computational and scientific problems. pp. 49-56. In: Water pollution: Economic aspects and research needs. Resources for the Future, Inc., Washington, D.C. 1962.

03 05 07

205. Lauderdale, Robert A. The persistence of pesticides in impounded waters. University of Kentucky, Water Resources Institute Res. Rpt. No. 17. 1969.

03 05 06

206. Likens, G. E. (ed.) Nutrients and eutrophication: The limiting-nutrient controversey. Proceedings of the Symposium on Nutrients and Eutrophication: The Limiting-Nutrient Controversey, February 11-12, 1971. Publications Office, Allen Press, Inc., Lawrence, Kansas. Special Symposia, Volume 1. 1972.

03 05 06

207. McCalla, T. M., J. R. Ellis, C. B. Gilbertson and W. R. Woods. Chemical studies of solids, runoff, soil profile and groundwater from beef cattle feedlots at Mead, Nebraska. Nebr. Agr. Exp. Sta. Journal Series Paper No. 3321. 1972.

03 05 08

208. Nicholson, H. Page. The pesticide burden in water and its significance. pp.183-193. In: Ted L. Willrich and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

03 05 05

209. Role of animal wastes in agricultural land runoff. U.S. Environmental Protection Agency Water Pollution Control Research Series 13020 DGX 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.

03 05 06

210. Verduin, Jacob. Significance of phosphorus in water supplies. pp.63-71. In: Ted L. Willrich and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

03 05 04

Waste Treatment Processes

04 05

211. Aerobic secondary treatment of potato processing wastes.
U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EHV 12/70. U.S. Govt. Print.
Off., Washington, D.C. December 1970.

04 05 06

212. Atkins, Patrick R. The pesticide manufacturing industry:

Current waste treatment and disposal practices. U.S. Environmental Protection Agency Water Pollution Control Research Series 12020 FYE 01/72. U.S. Govt. Print. Off., Washington, D.C. January 1972.

04 05 06

- 213. Bio-regenerated activated carbon treatment of textile dye wastewater. U.S. Environmental Protection Agency Water Pollution Control Research Series 12090 DWM 01/71. U.S. Govt. Print. Off., Washington, D.C. January 1971.
- 214. Boen, Doyle F., James H. Bunts, Jr. and Robert J. Currie. Study of reutilization of wastewater recycled through groundwater, vol 2. U.S. Environenmtal Protection Agency Water Pollution Control Research Series 16060 DDZ 07/71. U.S. Govt. Print. Off., Washington, D.C. July 1971. 04 05 06
- 215. Cannery waste treatment, Kehr activated sludge. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EZP 09/70. U.S. Govt. Print. Off., Washington, D.C. September 1970.

04 05 06

216. Carawan, Roy E. (ed.) Proceedings workshop on poultry processing plant water utilization and waste control. September 16, 1971. University of North Carolina, Water Resources Research Institute Rpt. 1971.

04 05 06

- 217. Clayton, J. T. Closed systems for animal sewage treatment. University of Massachusetts, Water Resources Research Center Completion Rpt. FY 72-7. June 1971.

 04 05 06
- 218. Complete mix activated sludge treatment of citrus process wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EZY 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.
- 219. Denitrification by anaerobic filters and ponds: Bioengineering aspects of agriculture drainage, San Joaquin
 Valley, California. U.S. Environmental Protection Agency
 Water Pollution Control Research Series 13030 ELY 04/71-8,
 REC-R2-71-8, DWR No. 174-11. U.S. Govt. Print. Off.,
 Washington, D.C. April 1971.

04 05 06

220. Design guides for biological wastewater treatment processes. U.S. Environmental Protection Agency Water Pollution Control Research Series 11010 ESQ 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.

04 05 06

- 221. Dostal, Kenneth A. Aerated lagoon treatment of food processing wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 03/68. U.S. Govt. Print. Off., Washington, D.C. March 1968.
- 222. Dostal, Kenneth A. Secondary treatment of potato processing wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 07/69. U.S. Govt. Print. Off., Washington, D.C. July 1969.
- 223. Dry caustic peeling of tree fruit for liquid waste reduction. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 FQE 12/70. U.S. Govt. Print. Off., Washington, D.C. December 1970.
- 224. Elimination of water pollution by packinghouse animal paunch and blood. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 FDS 11/71. U.S. Govt. Print. Off., Washington, D.C. November 1971.
- 225. Eye, J. David. Treatment of sole leather vegetable tannery wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12120 09/70. U.S. Govt. Print. Off., Washington, D.C. September 1970. 04 05 06
- 226. Fair, J. F. and S. M. Morrison. Recovery of bacterial pathogens from high quality surface water. Water Resources Research 3:779-803. 1967.

04 05 05

227. Gramley, Dale I. A study of water pollution control in the textile industry of North Carolina. University of North Carolina, Water Resources Research Institute Rpt. 1970.

04 05 06

228. Humenik, F. J. Swine waste characterization and evaluation of animal waste treatment alternatives. University

of North Carolina, Water Resources Research Institute Rpt. No. 61. June 1972.

04 05 10

229. Judkins, J. F., Jr., R. H. Dinius, L. J. Hirth and J. C. Farrow. Gamma radiation of textile waste-water to reduce pollution. Auburn University, Water Resources Research Institute WRRI Bul. 6. January 1972.

04 05 06

- 230. Liquid wastes from canning and freezing fruits and vegetables. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EDK 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971.
- 231. Lof, George O. G. Combined cooling and bio-treatment of beet-sugar factory condenser water effluent. Colorado State University, Environmental Resources Center Completion Rpt. Series No. 28. June 1971.

04 05 06

232. Michelsen, Donald L. and Thomas B. Fansler. The treatment of disperse textile dye wastes by foam fractionation. Virginia Polytechnic Institute and State University, Water Resources Research Center Bul. 34. 1970.

04 05 06

233. Ngoddy, Patrick O., James P. Harper, Robert K. Collins, Grant D. Wells and Farouk A. Heidar. Closed system waste management for livestock. U.S. Environmental Protection Agency Water Pollution Control Research Series 13040 DKP 06/71. U.S. Govt. Print. Off., Washington, D.C. June 1971.

04 05 06

234. Nitrate removal from wastewaters by ion exchange. U.S. Environmental Protection Agency Water Pollution Control Research Series 17010 FSJ 01/71. U.S. Govt. Print. Off., Washington, D.C. January 1971.

04 05 06

235. Parker, Clinton E. Anaerobic-aerobic lagoon treatment for vegetable canning wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12120 DIK 12/70. U.S. Govt. Print. Off., Washington, D.C. December 1970.

04 05 06

236. Pilot plant installation for fungal treatment of vegetable

canning wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EDZ 08/71. U.S. Govt. Print. Off., Washington, D.C. August 1971. 04 05 06

237. Proceedings, First National Symposium on Food Processing Wastes. April 6-8, 1970, Portland, Oregon. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 04/70. U.S. Govt. Print. Off., Washington, D.C. 1970.

04 05 06

238. Proceedings, Second National Symposium on Food Processing Wastes. Co-sponsored by: Pacific Northwest Water Laboratory, U.S. Environmental Protection Agency and National Canners Association. March 23-26, 1971, Denver, Colorado. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 03/71. U.S. Govt. Print. Off., Washington, D.C. 1971.

04 05 06

239. Reconditioning of food processing brines. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EHU 03/71. U.S. Govt. Print. Off., Washington, D.C. March 1971.

04 05 06

- 240. Reduction of salt content of food processing liquid waste effluent. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 DXL 01/71. U.S. Govt. Print. Off., Washington, D.C. January 1971.
- 241. Removal of nitrate by an algal system: Bio-engineering aspects of agricultural drainage, San Joaquin Valley, California. U.S. Environmental Protection Agency Water Pollution Control Research Series 13030 ELY 4/71-7, REC-R2-71-7, DWR No. 174-10. U.S. Govt. Print. Off., Washington, D.C. April 1971.

04 05 06

242. Removal of nitrogen from tile drainage-a summary report:
Bio-engineering aspects of agricultural drainage, San
Joaquin Valley, California. U.S. Environmental Protection
Agency Water Pollution Control Research Series 13030 ELY
5/71-6, REC-R2-71-6, DWR No. 174-9. U.S. Govt. Print.
Off., Washington, D.C. May 1971.

04 05 06

243. Richardson, M. B. and J. M. Stepp. Costs of treating

textile wastes in industrial and municipal treatment plants: Six case studies. Clemson University, Water Resources Research Institute Rpt. No. 27. February 1972.

244. Schwiesow, William F., Herbert L. Brodie and Harry J. Eby. Disposal of wastes from swine feeding floors to minimize stream pollution. University of Maryland, Water Resources Research Center Rpt. January 1970.

04 05 06

245. Soderquist, M. R., K. J. Williamson, G. I. Blanton, Jr., D. C. Phillips, D. K. Law and D. L. Crawford. Current practice in seafoods processing waste treatment. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 ECF 04/70. U.S. Govt. Print. Off., Washington, D.C. April 1970.

04 05 06

246. State-of-art, sugarbeet processing waste treatment. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 DSI 07/71. U.S. Govt. Print. Off., Washington, D.C. July 1971.

04 05 06

247. State of the art of textile waste treatment. U.S. Environmental Protection Agency Water Pollution Control Research Series 12090 ECS 02/71. U.S. Govt. Print. Off., Washington, D.C. February 1971.

04 05 06

- 248. Streebin, Leale E., George W. Reid and Alan C. H. Hu.
 Demonstration of a full-scale waste treatment system for a
 cannery. U.S. Environmental Protection Agency Water
 Pollution Control Research Series 12060 DSB 09/71. U.S.
 Govt. Print. Off., Washington, D.C. September 1971.

 04 05 06
- 249. Techniques to reduce nitrogen in drainage effluent during transport: Bio-engineering aspects of agricultural drainage, San Joaquin Valley, California. U.S. Environmental Protection Agency Water Pollution Control Research Series 13030 ELY 6/71-10, REC-R2-71-10, DWR No. 174-13. U.S. Govt. Print. Off., Washington, D.C. June 1971.
 - 250. Treatment of citrus processing wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 10/70. U.S. Govt. Print. Off., Washington, D.C.

October 1970.

04 05 06

- 251. Trickling filter treatment of fruit processing waste waters. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EAE 09/71. U.S. Govt. Print. Off., Washington, D.C. September 1971.
- 252. Waste reduction in food canning operations: A study of four methods to improve the quality or reduce the quantity of effluent discharged by a fruit processing plant. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 08/70. U.S. Govt. Print. Off., Washington, D.C. August 1970.

253. Water pollution reduction through recovery of desizing wastes. U.S. Environmental Protection Agency Water Pollution Control Research Series 12060 EOE 01/72. U.S. Govt. Print. Off., Washington, D.C. January 1972.

04 05 06

254. Whey effluent packed tower trickling filtration. U.S. Environmental Protection Agency Water Pollution Control Research Series 12130 DUJ 09/71. U.S. Govt. Print. Off., Washington, D.C. September 1971.

04 05 06

255. Wilson, John M., B. A. Twigg, and A. Kramer. Comparative evaluation of biological type food processing liquid waste disposal systems. University of Maryland, Water Resources Research Center Rpt. June 1971.

04 05 06

Ultimate Disposal of Wastes

05 05

256. A design study on the economic use of agricultural wastes in Kansas. Kansas Dept. of Economic Development, Kansas Economic Development Commission Rpt. No. 25. January 1969.

05 05 07

257. A study of farm waste, farm animal waste:
Characterization, handling, utilization. University of
Wisconsin, Madison, Wisconsin. 1970.

05 05 07

258. Anderson, Larry L. Energy potential from organic wastes:
A review of the quantities and sources. U.S. Dept. of the
Interior, Bureau of Mines Information Circular 8549.
1972.

05 05 10

259. Animal waste management. Cornell University Conference on Agricultural Waste Management, January 13-15, 1969, Syracuse, New York. Sponsored by New York State College of Agriculture, Cornell University. 1969.

05 05 10

- 260. Animal waste management. Proceedings of National Symposium on Animal Waste Management, September 28-30, 1971, The Airlie House, Warrenton, Virginia. 1972.

 05 05 06
- 261. Butchbaker, A. F., G. W. A. Mahoney, M. D. Paine and J. E. Garton. Evaluation of beef cattle feedlot waste management alternatives. U.S. Environmental Protection Agency Water Pollution Control Research Series 13040 FXG 11/71. U.S. Govt. Print. Off., Washington, D.C. November 1971.

05 05 06

262. Connor, L. J., J. B. Johnson and C. R. Hoglund. A summary of state regulations pertaining to animal waste management in the North Central Region of the United States.

Michigan State University, Dept. of Agr. Econ. Agr. Econ. Rpt. No. 193. May 1971.

05 05 10

263. Ground disposal of pesticides: The problem and criteria for guidelines. Working Group on Pesticides, Washington, D.C. Rpt. PB-197 144. March 1970.

05 05 07

- 264. Hoglund, C. R., J. S. Boyd, L. J. Connor and J. B.
 Johnson. Waste management practices and systems on
 Michigan dairy farms. Michigan State University, Dept. of
 Agr. Econ. Agr. Econ. Rpt. No. 208. January 1972.

 05 05 10
- 265. Information available on disposal of surplus pesticides, empty containers and emergency situations. Working Group on Pesticides, Washington, D.C. Rpt. PB-197 146. September 1970.

05 05 07

266. Investigation of means for controlled self-destruction of

pesticides. U.S. Environmental Protection Agency Water Pollution Control Research Series 16040 ELO 06/70. U.S. Govt. Print. Off., Washington, D.C. June 1970.

05 05 06

267. Miner, J. Ronald (ed.) Farm animal-waste management. Iowa Agr. and Home Econ. Exp. Sta. Spec. Rpt. 67. May 1971.

05 05 08

268. Owens, T. R. and Wade L. Griffin. The economics of water pollution control for cattle feedlot operations. Texas Tech University, Dept. of Agr. Econ. Spec. Rpt. No. 9. September 1968.

05 05 10

- 269. Shaffer, Ron E. and Daniel D. Badger. Implications of water quality laws for the feedlot industry. Oklahoma Current Farm Economics 43, No. 1:3-11. March 1970.

 05 05 10
- 270. Ultimate disposal of phosphate from waste water by recovery as fertilizer. U.S. Environmental Protection Agency Water Pollution Control Research Series 17070 ESJ 01/70. U.S. Govt. Print. Off., Washington, D.C. 1970.
- 271. Wastes management research. Proceedings of the 1972
 Cornell Agricultural Waste Management Conference.
 Sponsored by the College of Agriculture and Life Sciences,
 Cornell University and Agricultural Pollution Control Research Program, Office of Research and Monitoring, U.S.
 Environmental Protection Agency. 1972.

05 05 06

Water Treatment and Quality Alteration 06 05

272. Fair, G. M., J. C. Geyer and D. A. Okun. Water and wastewater engineering: Volume 1, Water supply and wastewater removal. John Wiley and Sons, Inc., New York. 1966.

06 05 05

273. Frankel, Richard J. and William W. Hansen. Biological and physical responses in a freshwater dissolved oxygen model. pp.126-140. In: E. F. Gloyna and W. W. Eckenfelder, Jr. (ed.) Advances in water quality improvement. University

of Texas Press, Austin. 1968.

06 05 07

274. Katzer, M. F. and J. W. Pollack. Clarifying muddy waters is possible with automatic system. Environmental Science and Technology 2: 341-351. 1968.

06 05 05

275. Wanielista, Martin Paul. An evaluation of the design and operation of water treatment facilities. Unpublished Ph.D. dissertation. Library, Cornell University, Ithaca, New York. 1971.

06 05 04

Water Quality Control and Criteria

07 05

- 276. Baxter, Samuel S. Water quality requirements for public water supplies. Proceedings of the National Symposium on Quality Standards for Natural Waters. pp.179-184. University of Michigan, Ann Arbor, Michigan. 1967.
 - 277. Boyd, J. Haden. Collective facilities in water quality management. pp. 199-212. In: A. V. Kneese and B. T. Bower. Managing water quality: Economics, technology, institutions. The Johns Hopkins Press, Baltimore. 1968.

 07 05 05
- 278. Burke, G. W., Jr. Methodology in establishing water quality standards. Proceedings of the National Symposium on Quality Standards for Natural Waters. pp.33-43. University of Michigan, Ann Arbor, Michigan. 1967.
- 279. Ciriacy-Wantrup, S. V. Water quality, a problem for the economist. Jour. of Farm Econ. 43, No. 5:1133-1144. December 1961.

07 05 04

280. Clark, John W. and Warren Viessman, Jr. Water supply and pollution control. International Textbook Company, Scranton, Pennsylvania. 1965.

07 05 04

281. Coppock, Ray (ed.) Research on water quality. University of California (Los Angeles), Water Resources Center Rpt. No. 19. July 1970.

07 05 06

- 282. Craine, Lyle B. Water management innovations in England.
 Resources for the Future, Inc., Washington, D.C. 1969.
 07 05 05
- 283. Crutchfield, James A. Economic analysis in water quality management. pp.129-138. In: Thomas H. Campbell and Robert O. Sylvestor (ed.) Water resources management and public policy. University of Washington Press, Seattle. 1968.

07 05 04

- 284. Deininger, Rolf A. Water quality management: The planning of economically optimal pollution control systems. Unpublished Ph.D. dissertation. Library, Northwestern University, Evanston, Illinois. 1965.
- 285. Dobbs, Thomas L., Orman Paananen and Paul A. Rechard.
 Criteria and methods for state water resource planning.
 University of Wyoming, Water Resources Research Institute
 Water Resources Series No. 22. ca. 1970.

07 05 06

286. Dougal, Merwin D., E. Robert Baumann and John F. Timmons. Physical and economic factors associated with the establishment of stream water quality standards. Volume No. 1. Iowa State University, Iowa State Water Resources Research Institute Completion Rpt. ISU-ERI-AMES-64400. March 1970.

07 05 10

287. Dougal, Merwin D., E. Robert Baumann and John F. Timmons. Physical and economic factors associated with the establishemnt of stream water quality standards. Volume No. 2. Iowa State University, Iowa State Water Resources Research Institute Completion Rpt. ISU-ERI-AMES-64400. March 1970.

07 05 10

- 288. Hines, N. William. Nor any drop to drink: Public regulation of water quality; Part II: Interstate arrangements for pollution control. Iowa Law Review 52:432-457. 1966.
- 289. Iowa Geological Survey. Quality of surface waters of Iowa, 1886-1954. Iowa Geological Survey Water Bul. No. 5. 1955.

07 05 05

- 290. Iowa Water Pollution Control Commission. Water quality criteria and plan for implementation and enforcement for the surface waters of Iowa. Iowa Water Pollution Control Commission Rpt., revised. Des Moines, Iowa. July 1970.

 07 05 04
- 291. Kerri, Donald K. An investigation of alternative means of achieving water quality objectives. Unpublished Ph.D. dissertation. Library, Oregon State University, Corvallis. 1966.

07 05 05

292. Kneese, Allen V. and Blair T. Bower. Managing water quality: Economics, technology, institutions. The Johns Hopkins Press, Baltimore. 1968.

07 05 04

- 293. Managing irrigated agriculture to improve water quality.
 Proceedings of National Conference on Managing Irrigated
 Agriculture to Improve Water Quality, May 16-18, 1972.
 Sponsored by the U.S. Environmental Protection Agency and
 Colorado State University. 1972.

 07 05 06
- 294. McKee, Jack Edward. Report on guidelines for investigations into the quality aspects of water resources research. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. January 1966.

07 05 04

295. McKee, J. R. and Harold Wolf (ed.) Water quality criteria. 2nd ed. California State Water Quality Control Board Pub. No. 3-A. 1963.

07 05 04

296. National Academy of Sciences, National Research Council, Committee on Pollution. Waste management and control. National Academy of Sciences, National Res. Council Pub. 1400. 1966.

07 05 04

297. National Academy of Sciences, National Research Council, Water Resources Committee. Alternatives in water management. National Academy of Sciences, National Res. Council Pub. 1408. 1966.

07 05 05

298. Proceedings of the National Ground Water Quality

Symposium. August 25-27, 1971, Denver, Colorado. U.S. Environmental Protection Agency Water Pollution Control Research Series 16060 GRB 08/71. U.S. Govt. Print. Off., Washington, D.C. 1971.

07 05 06

299. ReVelle, Charles S., Daniel P. Loucks and Walter R. Lynn. A management model for water quality control. Water Pollution Control Federation Jour. 39, No. 7:1164-1183. 1967.

07 05 04

300. Secretary of Agriculture and Director of the Office of Science and Technology. Control of agriculture-related pollution. U.S. Govt. Print. Off., Washington, D.C. 1969.

07 05 05

- 301. Tarzwell, Clarence M. Water quality requirements for aquatic life. Proceedings of the National Symposium on Quality Standards for Natural Waters. pp.185-194. University of Michigan, Ann Arbor, Michigan. 1967.
- 302. Timmons, John F. Economic aspects. pp.377-389. In: Ted L. Willrich and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

07 05 04

303. U.S. Department of the Interior, Federal Water Pollution Control Administration. Water quality criteria. U.S. Govt. Print. Off., Washington, D.C. 1968.

07 05 04

304. U.S. Department of the Interior, National Technical Advisory Committee. Report of the Committee on Water Quality Criteria. U.S. Dept. of the Interior, Federal Water Pollution Control Administration. U.S. Govt. Print. Off., Washington, D.C. 1972.

07 05 10

305. U.S. Senate Select Committee on National Water Resources. Water resources activities in the United States: Pollution abatement. U.S. Govt. Print. Off., Washington, D.C. 1960.

07 05 04

306. U.S. Senate Select Committee on National Water Resources.

Water resources activities in the United States: Water quality management. U.S. Govt. Print. Off., Washington, D.C. 1960.

07 05 04

307. Water quality criteria data book, vol. 1: Organic chemical pollution of freshwater. U.S. Environmental Protection Agency Water Pollution Control Research Series 18010 DPV 12/70. U.S. Govt. Print. Off., Washington, D.C. December 1970.

07 05 06

308. Water quality criteria data book, vol. 2: Inorganic chemical pollution of freshwater. U.S. Environmental Protection Agency Water Pollution Control Research Series 18010 DPV 07/71. U.S. Govt. Print. Off., Washington, D.C. July 1971.

07 05 06

- 309. Water quality criteria data book, vol. 3: Effects of chemicals on aquatic life, selected data from the literature through 1968. U.S. Environmental Protection Agency Water Pollution Control Research Series 18050 GWV 05/71. U.S. Govt. Print. Off., Washington, D.C. May 1971.
- 310. Whinston, A. B. Economic analysis of optional water quality management. Purdue University, Water Resources Research Center Tech. Rpt. No. 25. June 1972.

07 05 06

311. Willrich, Ted L. and N. W. Hines (ed.) Water pollution control and abatement. Iowa State University Press, Ames. 1967.

07 05 05

312. Willrich, Ted L. and George E. Smith (ed.) Agricultural practices and water quality. Iowa State University Press, Ames. 1970.

07 05 04

WATER RESOURCES PLANNING

06

Techniques of Planning and Modeling

01 06

313. Anderson, Thomas C. Water resources planning to satisfy growing demand in an urbanizing agricultural region. Utah State University, Utah Water Research Laboratory Rpt. PRWG100-1. April 1972.

01 06 10

- 314. Application of specialized optimization techniques in water quantity and quality management with respect to planning for the Trinity River Basin. Texas A & M University, Water Resources Institute Rpt. TR-30. July 1970.
- 315. Castle, E. N. Programming structures in watershed development. pp.167-178. In: G. S. Tolley and F. E. Riggs (ed.) Economics of watershed planning. Iowa State University Press, Ames. 1961.

01 06 03

316. Ciriacy-Wantrup, S. V. Benefit-cost analysis and public-resource development. Jour. of Farm Econ. 37, No. 4:676-689. November 1955.

01 06 03

- 317. Clyde, Calvin G., Alton B. King and Jay C. Andersen. Application of operations research techniques for allocation of water resources in Utah. Utah State University, Utah Water Research Laboratory Rpt. PRWG73-2. September 1971.
- 318. Cormack, J. M. N. An application of farm planning to watershed development. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1965.
- 319. Cracup, John A., Fereidoun Mobasheri and Miguel A.
 Cardenas. An assessment of optimization techniques as applied to water resource systems. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. August 1970.

 01 06 06
- 320. Curry, G. L., J. C. Helm and R. A. Clark. A model for a linked system of multi-purpose reservoirs with stochastic inflows and demands. Texas Water Resources Institute Tech. Rpt. No. 41. May 1972.

01 06 06

321. DeBoer, Darrell W. and Howard P. Johnson. Simulation of runoff from depression characterized watersheds. Transactions of the Amer. Society of Agr. Engineers 14, No.

4:615-620. 1971.

01 06 10

322. Dorfman, Robert. Design of the simple valley project. pp.217-229. In: G. S. Tolley and F. E. Riggs (ed.) Economics of watershed planning. Iowa State University Press, Ames. 1961.

01 06 03

- 323. Dougal, Merwin D. (ed.) Flood plain management, Iowa's experience. Iowa State University Press, Ames. 1969.

 01 06 03
- 324. Engineering-Science, Inc., Research and Development Laboratory. A dynamic model of water-quality management decision-making. Engineering-Science, Inc., Research and Development Laboratory, Oakland, California. May 1970.

 01 06 06
- 325. Frankel, Richard Joel. Water quality management: An engineering-economic model for domestic waste disposal. Unpublished Ph.D. dissertation. Library, University of California, Berkeley. 1965.

01 06 04

326. Frederich, Augustine J. and Edward F. Hawkins. Hydrologic engineering techniques for regional water resources planning. U.S. Dept. of the Army, Corps of Engineers, The Hydrologic Engineering Center Tech. Paper No. 17. ca. 1970.

01 06 06

327. Freeze, R. Allan. A physics-based approach to hydrologic response modeling: Phase I, Model development. IBM Thomas J. Watson Research Center, Yorktown Heights, New York. September 1972.

01 06 06

328. Gardner, Milburn, III and Guy T. Peden, Jr. A case study in the formulation of a water resources management plan.
Mississippi State University, Water Resources Research Institute Rpt. 1972.

01 06 06

329. Guise, J. W. B. and J. C. Flinn. The allocation and pricing of water in a river basin. Jour. of Farm Econ. 52, No. 3:411-421. August 1970.

01 06 03

330. Guymon, Gary L. Application of the finite-element method

for simulation of surface water transport problems. University of Alaska, Institute of Water Resources Rpt. No. IWR-21. June 1972.

01 06 06

- 331. Hamilton, H. R., S. E. Goldstone and F. J. Cesario. Dynamic model of the economy of the Susquehanna River Basin.
 Battelle Memorial Institute, Columbus, Ohio. 1966.

 01 06 07
- 332. Heiple, L. R. and H. M. Jeffus. Water resource planning study for Arkansas and Oklahoma. University of Arkansas, Water Resources Research Center Pub. No. 7. 1970.

 01 06 06
- 333. Howe, Charles W. Benefit-cost analysis for water system planning. Amer. Geophysical Union Water Resources Monograph 2. 1971.

01 06 06

- 334. Interstate planning for regional water supply and pollution control. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FPP 11/71. U.S. Govt. Print. Off., Washington, D.C. November 1971. 01 06 06
- 335. Jacobs, James J. Economics of water quality management: Exemplified by specific pollutants in agricultural runoff. Iowa State University, Department of Economics Preliminary Rpt. 1972.

01 06 10

336. James, L. Douglas. An evaluation of relationships between streamflow patterns and watershed characteristics through the use of opset: A self calibrating version of the Stanford watershed model. University of Kentucky, Water Resources Institute Res. Rpt. No. 36. 1970.

01 06 06

337. Johnson, Jack D. and Conrad P. Straub. Development of a mathematical model to predict the role of surface runoff and groundwater flow in overfertilization of surface waters. University of Minnesota, Water Resources Research Center Bul. 35. June 1971.

01 06 10

338. Kneese, Allen V. Problems in devising procedures for approximating optimum systems. pp.86-95. In: Water pollution: Economic aspects and research needs. Re-

sources for the Future, Inc., Washington, D.C. 1962.

339. Krutilla, John V. and Otto Eckstein. Multiple purpose river development. The Johns Hopkins Press, Baltimore. 1958.

01 06 03

340. Lager, John A. and George Tchobanoglous. Use of hydraulic and mathematical models for determining effluent diffusion in South San Francisco Bay. Proceedings of the National Symposium on Estuarine Pollution. pp.384-422. August 23-25, 1967, Stanford University, Stanford, California. August 1967.

01 06 07

- 341. Lee, M. T. and J. W. Delleur. A program for estimating runoff from Indiana watersheds: Part III, Analysis of geomorphologic data and a dynamic contributing area model for runoff estimation. Purdue University, Water Resources Research Center Tech. Rpt. No. 24. September 1972.

 01 06 06
- 342. Liou, Earnest Yuan-Shang. Opset program for computerized selection of watershed parameter values for the Stanford watershed model. University of Kentucky, Water Resources Institute Res. Rpt. No. 34. 1970.

01 06 06

343. Maass, Arthur, M. M. Hufschmidt, R. Dorfman, H. A. Thomas, S. A. Marqlin and G. M. Fair (ed.) Design of water resource systems. Harvard University Press, Cambridge, Massachusetts. 1966.

01 06 03

344. Melvin, S. W., H. P. Johnson and C. E. Beer. Predicting surface runoff from agricultural watersheds. Transactions of the Amer. Society of Agr. Engineers 14, No. 3:505-510. 1971.

01 06 10

345. Optimal operation of water-supply systems. University of Arizona Tech. Rpt. No. 1. June 1970.

346. Pavelis, George A. Planning natural resource development:
An introductory guide. U.S. Dept. Agr., Econ. Res. Serv.
Agr. Handbook No. 431. May 1972.

347. Pavelis, G. A., H. P. Johnson, W. D. Shrader and J. F. Timmons. Methodology of programming small watershed development. Iowa Agr. and Home Econ. Exp. Sta. Res. Bul. 493:123-160. 1961.

01 06 05

- 348. Prest, A. R. and R. Turvey. Cost-benefit analysis: A survey. Econ. Jour. 75, No. 300:683-735. December 1965.
- 349. Proceedings of a conference on water resources planning and public opinion. University of Nebraska, Water Resources Research Institute Rpt. ca. 1971.
- 350. Ralph Stone and Company, Inc. Socio-economic study of multiple-use supply reservoirs. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. ca. 1970.

 01 06 06
- 351. Revelle, Charles S., Gary Dietrich and David Stensel. The improvement of water quality under a financial constraint: A commentary on "linear programming applied to water quality management." Water Resources Research 5:507-513. 1969.

01 06 05

- 352. Rogers, P. and D. V. Smith. The integrated use of ground and surface water in irrigation project planning. Jour. of Farm Econ. 52, No. 1:13-24. February 1970.

 01 06 03
- 353. Ross, Glendon Allen. The Stanford watershed model: The correlation of parameter values selected by a computerized procedure with measurable physical characteristics of the watershed. University of Kentucky, Water Resources Institute Res. Rpt. No. 35. 1970.

01 06 06

354. Seay, Edmond Eggleston, Jr. Minimizing abatement costs of water pollutants from agriculture: A parametric linear programming approach. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1970.

01 06 04

355. Sobel, Mathew J. Water quality improvement programming problems. Water Resources Research 1, No. 4:477-487.

356. The river basin model: An overview. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-1. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

357. The river basin model: Assessment department. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-6. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

358. The river basin model: Chairman and council. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-5. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

359. The river basin model: Computer output. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-12. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

360. The river basin model: Highway department. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-10. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

361. The river basin model: Planning and zoning department. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-11. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

362. The river basin model: The social science laboratory.
U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 PRU 12/71-13. U.S. Govt.
Print. Off., Washington, D.C. December 1971.

01 06 06

363. The river basin model: The transportation sector. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FRU 12/71-14. U.S. Govt. Print. Off., Washington, D.C. December 1971.

01 06 06

364. The Technical Committee of the Water Resources Centers of

the Thirteen Western States. Water resources planning and social goals: Conceptualization toward a new methodology. Utah State University, Utah Water Research Laboratory Pub. PRWG 94-1. September 1971.

01 06 06

365. Timmons, J. F. Econmic framework for watershed development. Jour. of Farm Econ. 36, No. 5:1170-1183. December 1954.

01 06 03

366. Toebes, Gerrit H. (ed.) Natural resource systems models in decision-making. Proceedings of a 1969 Water Resources Seminar. Purdue University, Lafayette, Indiana. Purdue University, Water Resources Research Center Rpt. May 1970.

01 06 10

367. Tolley, G. S. and F. E. Riggs (ed.) Economics of watershed planning. Iowa State University Press, Ames. 1961.

01 06 03

368. U.S. Department of the Interior, Bureau of Reclamation.
Emery County Project, Utah: Appendix C, Designs and Estimates. Salt Lake City, Utah. 1961.

01 06 03

369. Upton, Charles. A model of water quality management under uncertainty. Water Resources Research 6, No. 6:690-699.

June 1970.

01 06 07

- 370. Use of general equilibrium in regional water resource planning. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 F10 01/72. U.S. Govt. Print. Off., Washington, D.C. January 1972.
- 371. Use of new analytical methods in water resource development. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FZE 09/70. U.S. Govt. Print. Off., Washington, D.C. 1970.

372. Viessman, Warren, Jr. A user-oriented water research plan for Nebraska. University of Nebraska, Water Resources Research Institute Pub. No. 8. April 1972.

- 373. Viessman, Warren, Jr. Economic and technical aspects of the use of mathematical models in state water resources planning programs. University of Nebraska, Water Resources Research Institute Pub. No. 3. September 1970.
- 374. Yeh, W. W-G. and W. J. Trott. Optimization of water resources development: Optimization of capacity specifications for components of regional, complex integrated, multipurpose water resources systems. Engineering Systems Department, University of California (Los Angeles). June 1972.

01 06 10

Evaluation Process

02 06

375. Barnard, Jerald R. and Harold A. Lofgreen. Economic analysis of alternative water pollution control measures.

Iowa State University, Iowa State Water Resources Research Institute Rpt. ISWRRI-42. December 1971.

02 06 06

376. Barnard, Jerald R. and Duane B. Oyen. Economic factors affecting change in the intensity of flood plain use. Iowa State University, Iowa State Water Resources Research Institute Rpt. ISWRRI-45. December 1971.

02 06 06

377. Biniek, Joseph P. Economics of water pollution control measures. Paper presented at 24th Annual Meeting of the Soil Conservation Society of America. Fort Collins, Colorado. August 1969.

02 06 04

378. Butcher, Wlater R., Bruce Rettig and Gardenr M. Brown.
Proposed new procedures for evaluating water and land resources: Some comments from an academic viewpoint. Washington State University, State of Washington Water Research Center Rpt. June 1971.

- 379. Clover, Vernon T. A general analysis of economic characteristics of areas affected by the Texas water plan.

 Texas Tech University, Department of Economics Rpt. 1970.

 02 06 06
- 380. Deal, Richard E. and Michael H. Halbert. The application

of value theory to water resources planning and management. Philadelphia, Pennsylvania, Institute for the Study of Inquiring Systems Rpt. November 1971.

02 06 06

- 381. Falk, Lawrence H. and William J. Stober. An economic reappraisal of the Toledo Bend multiple-purpose water project. Louisiana State University, Louisiana Water Resources Research Institute Bul. 7. October 1970. 02 06 06
- 382. Glenn, Bruce P. and Edmund Barbour. A guide to using interest factors in economic analysis of water projects. U.S. Dept. of the Interior, Bur. of Reclamation Water Resources Tech. Pub. December 1970.

02 06 06

383. Goldstein, Jon H. Competition for wetlands in the Midwest: An economic analysis. The Johns Hopkins Press, Baltimore. 1971.

02 06 10

James, L. D. A perspective on economic impact. University of Kentucky, Water Resources Institute Res. Rpt. No. 37. March 1972.

02 06 10

385. Leopold, Luna B., Frank E. Clarke, Bruce B. Hanshaw and James R. Balsley. A procedure for evaluating environmental impact. U.S. Dept. of the Interior, Geological Survey Circular 645. 1971.

02 06 10

386. Louis Berger, Incorporated. Methodology to evaluate socio-economic benefits of urban water resources. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. June 1971.

02 06 06

Louis Berger, Incorporated. Methodology to evaluate 387. socio-economic benefits of urban water resources: Appendices. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. June 1971.

02 06 06

Miller, Stanley Frank. An investigation of alternative methods of valuing irrigation water. Unpublished Ph.D. dissertation. Library, Oregon State University, Corvallis. 1965.

02 06 02

389. Pearson, John E. and Kenneth E. Heideman. A study of the economic impact of water impoundment through validity testing of a comparative-projector model. Texas A & M University, Water Resources Institute Tech. Rpt. No. 20. August 1969.

02 06 07

390. Stewart, Clyde E. Economic evaluation of public irrigation development. pp.107-126. In: S. C. Smith and E. N. Castle (ed.) Economics and public policy in water resource development. Iowa State University Press, Ames. 1964.

02 06 03

391. The economic impact of pollution control: A summary of recent studies. U.S. Council on Environmental Quality, U.S. Dept. of Commerce, and U.S. Environmental Protection Agency. U.S. Govt. Print. Off., Washington, D.C. March 1972.

02 06 10

392. Timmons, John F. Some economic considerations in planning for Iowa's future needs for water. Paper presented at Water Resources Symposium of the Iowa Academy of Science Meeting. April 1969, University of Northern Iowa, Cedar Falls, Iowa. Department of Economics, Iowa State University, Ames. April 1969.

02 06 04

393. U.S. Water Resources Council, Special Task Force. Report of the Water Resources Council: A summary analysis of nineteen tests of proposed evaluation procedures on selected water and land resource projects. U.S. Water Resources Council, Washington, D.C. July 1970.

02 06 10

394. U.S. Water Resources Council, Special Task Force. Report of the Water Resources Council: Standards for planning water and land resources. U.S. Water Resources Council, Washington, D.C. July 1970.

02 06 10

395. Whipple, William, Jr., Ernest A. Englebert and Warren L. Trock (ed.) Evaluation processes in water resources planning. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. July 1970.

396. Wilkinson, Richard R., Wayne Maynard, D. M. Walker and J. W. Ranney. The integration of multiple objectives in urbanizing watersheds. University of North Carolina, Water Resources Research Institute Rpt. No. 62. May 1972.

Cost Allocation, Cost Sharing, Pricing/Repayment

03 06

397. Biniek, Joseph P. and Gary C. Taylor. Economics of water pollution. pp.57-70. In: John E. Reynolds and Gary C. Jones (ed.) Water Research Needs. University of Florida IFAS Pub. No. 3. 1967.

- 398. Gaffney, M. Comparison of market pricing and other means of allocating water resources. pp.195-277. In: Water law and policy in the Southeast. University of Georgia, Institute of Law and Government Rpt. 1962.
- 399. Gibb, J. P. and E. W. Sanderson. Cost of municipal and industrial wells in Illinois, 1964-1966. Illinois State Water Survey Circular 98. Urbana, Illinois. 1969.
 - 400. Illinois State Water Survey. Cost of pumping water.
 Illinois State Water Survey Tech. Letter 9. Urbana,
 Illinois. October 1968.
 - 401. Illinois State Water Survey. Cost of water treatment in Illinois. Illinois State Water Survey Tech. Letter 11. Urbana, Illinois. October 1968.
 - 402. Illinois State Water Survey. Costs of wells and pumps. Illinois State Water Survey Tech. Letter 10. Urbana, Illinois. July 1968.
 - 403. Illinois State Water Survey. Water transmission costs.
 Illinois State Water Survey Tech. Letter 7. Urbana,
 Illinois. October 1967.

 03 06 04
 - 404. Kneese, Allen V. The economics of regional water quality

management. The Johns Hopkins Press, Baltimore. 1964.

405. Kneese, Allen V. Water pollution: Economic aspects and research needs. Resources for the Future, Inc., Washington, D.C. 1962.

03 06 05

406. Lewis, Robert Clark. The marginal cost of alternative levels of water quality in the Upper Mississippi River. University of Minnesota, Water Resources Research Center Rpt. September 1970.

03 06 04

407. Macfarland, Dougard Allan. Marginal cost pricing of water with special reference to the city of Everett, Washington. Unpublished Ph.D. dissertation. Library, University of Washington, Seattle. 1965.

03 06 03

- 408. Matson, Roger Allan. The pricing of irrigation water output on Federal projects, with a case study of the Colorado Big Thompson Project. Unpublished Ph.D. Dissertation. Library, University of Colorado, Boulder. 1965.
- 409. Moench, A. F. and A. P. Visocky. A preliminary least cost study of future groundwater development in Northeastern Illinois. Illinois Dept. of Registration and Education, Illinois State Water Survey Cir. 102. 1971.
- 410. Prochaska, B. J. and C. B. Russell. Optimal policy for operation of a multipurpose reservoir. Clemson University, Water Resources Research Institute Rpt. January 1971.
- 411. Renshaw, E. F. Value of an acre foot of water. Jour. of Amer. Water Works Assn. 50, No. 3:303-309. March 1958.
- 412. Rosenstiel, Charles R. Factors influencing rural water purchase. University of Kentucky, Water Resources Institute Res. Rpt. No. 38. 1970.

03 06 06

413. Spomer, Ralph and Paul Rosenberry. Level terraces on loessial cropland in the Missouri Valley: A cost-effectiveness study. Unpublished mimeographed paper pre-

sented at Amer. Society of Agr. Engineers Meeting. March 1969, St. Joseph, Missouri. Department of Economics, Iowa State University, Ames. ca. 1969.

03 06 05

414. Timmons, John F. Economics of pollution control. Iowa Agr. and Home Econ. Exp. Sta. Paper No. J-6876:77-85.
March 1971.

03 06 04

415. Timmons, John F. Economics of water quality. pp.33-50. In: Ted L. Willrich and N. William Hines (ed.) Water pollution control and abatement. Iowa State University Press, Ames. 1967.

03 06 04

416. Timmons, John F. and Merwin O. Dougal. Economics of water quality management. Proceedings of International Conference on Water for Peace, Volume 6, Planning and developing water programs. pp.667-678. U.S. Govt. Print. Off., Washington, D.C. 1967.

03 06 04

417. U.S. Department of the Interior, Bureau of Reclamation.
Emery County Project, Utah: Appendix D, Agricultural
Economy and Financial Analyses. Salt Lake City, Utah.
1961.

03 06 03

Water Demand and Supply

04 06

418. Beard, Leo R. Use of interrelated records to simulate streamflow. U.S. Dept. of the Army, Corps of Engineers, The Hydrologic Engineering Center Tech. Paper No. 1. ca. 1970.

04 06 06

- 419. Burmeister, Ivan L. The streamflow data program in Iowa:
 Evaluation of the past, proposal for the future. U.S.
 Dept. of the Interior, Geological Survey Rpt. 1970.

 04 06 06
- 420. California, Department of Water Resources, The Resource Agency. Water for California: The California water plan outlook in 1970. Calif., Dept. of Water Resources Bul. No. 160-70. December 1970.

421. Clay, Comer. A review of the Texas water plan: Issues and attitudes. Contemporary developments in water law. Water Resources Symposium 4:160-172. 1970.

04 06 07

422. Comprehensive basin study: Oklahoma, Arkansas, Texas, Louisiana, Red River below Denison Dam, Volume 1, Summary report. Library, Bureau of Reclamation, Denver, Colorado. June 1968.

04 06 01

423. Comprehensive basin study: Oklahoma, Arkansas, Texas, Louisiana, Red River below Denison Dam, Volume 2, Appendix I, II, III, IV. Library, Bureau of Reclamation, Denver, Colorado. June 1968.

04 06 01

424. Falkson, L. Michael. Water supply and demand. Cornell University, Water Resources and Marine Sciences Center Tech. Rpt. PB-198 306. June 1970.

04 06 07

425. Howe, Charles W., Clifford S. Russell, Robert A. Young and William J. Vaughan. Future water demands: The impacts of technological change, public policies, and changing market conditions on the water use patterns of selected sectors of the United States economy, 1970-1990. Resources for the Future, Inc., Washington, D.C. Final Rpt. PB-197 877. March 1971.

04 06 07

426. Illinois Technical Advisory Committee on Water Resources. Water for Illinois, a plan for action. Illinois Dept. of Business and Econ. Development, Springfield, Illinois. 1967.

- 427. Iowa Natural Resources Council. An inventory of water resources and water problems Nishnabotna River Basin, Iowa. Iowa Natural Resources Council Bul. No. 2. 1955.
- 428. Larimer, O. J. Drainage area of Iowa streams. Iowa High-way Research Board Bul. No. 7. Iowa City, Iowa. 1957.

 04 06 04
- 429. Lowry, R. L. and A. F. Johnson. Consumptive use of water for agriculture. Proceedings of the Amer. Society of Civil Engineers 67, No. 4:595-616. April 1941.

04 06 02

430. Murray, C. Richard. Estimated use of water in the United States, 1965. U.S. Dept. of the Interior, Geological Survey Cir. 556. 1968.

04 06 01

431. Schneider, William J. Water data for metropolitan areas:
A summary of data from 222 areas in the United States.
U.S. Dept. of the Interior, Geological Survey Water Supply Paper 1871. 1968.

04 06 06

432. Schwob, Harlan H. Low-flow characteristics of Iowa streams. Iowa Natural Resources Council Bul. No. 9. 1958.

04 06 05

433. Shanholtz, V. O., J. B. Burford and J. H. Lillard. Evaluation of a deterministic model for predicting water yields from small agricultural watersheds in Virginia. Virginia Polytechnic Institute and State University, Department of Agricultural Engineering Res. Division Bul. 73. August 1972.

04 06 06

434. Singh, K. P., A. P. Visocky and C. G. Lonnquist. Plans for meeting water requirements in the Kaskaskia River Basin, 1970-2020. Illinois Dept. of Registration and Education, Illinois State Water Survey, Report of Investigation 70. 1972.

04 06 06

435. The economics of water supply and quality. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 DTF 02/71. U.S. Govt. Print. Off., Washington, D.C. February 1971.

04 06 06

- 436. The Texas Water Development Board. The Texas Water Plan.
 The Texas Water Development Board Rpt. November 1968.

 04 06 10
- 437. Timmons, John F. Water allocation: Supply and demand relationships. pp. 44-56. In: D. T. Massey and G. D. Rose (ed.) Opportunities for regional research on water resources problems. University of Iowa, Agricultural Law Center Monograph No. 10. 1968.

438. Timmons, J. F., J. C. O'Byrne and R. K. Frevert (ed.) Iowa's water resources. Iowa State University Press, Ames. 1956.

04 06 03

439. U.S. Army Engineer District, Basin Study Branch. Potamac River Basin Report, Volumes 1-9. Baltimore, Maryland. 1963.

04 06 05

440. U.S. Department of the Army, Corps of Engineers. Hydrologic simulation in water-yield analysis. Corps of Engineers, The Hydrologic Engineering Center Tech. Paper No. 10. ca 1970.

04 06 06

441. U.S. Department of the Interior, Bureau of Reclamation.
Use of irrigation water: A report on selected Federal reclamation projects 1946-1960. U.S. Dept. of the Interior, Bur. of Reclamation Rpt. Denver, Colorado.
June 1962.

04 06 01

442. U.S. Department of the Interior, Bureau of Reclamation. Emery County Project, Utah: Appendix A, Water Supply. Salt Lake City, Utah. 1961.

04 06 03

443. U.S. Department of the Interior, Bureau of Reclamation.
Use of water on Federal irrigation projects. U.S. Dept.
of the Interior, Bur. of Reclamation Interim Report.
Denver, Colorado. November 1970.

- 444. U.S. Department of the Interior, Geological Survey. Compilation of records of surface waters of the United States, October 1950 to September 1960, Part 6-B: Missouri River Basin below Sioux City, Iowa. U.S. Dept. of the Interior, Geological Survey Water Supply Paper 1730. U.S. Govt. Print. Off., Washington, D.C. 1964.
- 445. U.S. Department of the Interior, Geological Survey. Compilation of records of surface waters of the United States through September 1950, Part 6-B: Missouri River Basin below Sioux City, Iowa. U.S. Dept. of the Interior, Geological Survey Water Supply Paper 1310. U.S. Govt. Print. Off., Washington, D. C. 1958.

446. U.S. Department of the Interior, Geological Survey. Water resources data for Iowa, 1967, Part 1: Surface water records. U.S. Dept. of the Interior, Geological Survey Rpt. (Iowa City, Iowa). 1968.

04 06 05

447. U.S. Department of the Interior, Geological Survey. Water resources data for Iowa, 1968, Part 2: Water quality records. U.S. Dept. of the Interior, Geological Survey Rpt. (Iowa City, Iowa). 1969.

04 06 05

- 448. U.S. Study Commission. The Report of the U.S. Study Commission Texas: Part I, The Commission Plan. U.S. Govt. Print. Off., Washington, D.C. March 1962.
- 449. U.S. Study Commission. The Report of the U.S. Study Commission Texas: Part II, Resources and Problems. U.S. Govt. Print. Off., Washington, D.C. March 1962.
- 450. U.S. Study Commission. The Report of the U.S. Study Commission Texas: Part III, The Eight Basins. U.S. Govt. Print. Off., Washington, D.C. March 1962.
- 451. U.S. Water Resources Council, Missouri Basin Inter-Agency Committee. The Missouri River Basin, comprehensive framework study: Volume IV, Appendix, Economic analysis and projections. Lincoln, Nebraska. Final Draft. June 1969.
- 452. U.S. Water Resources Council, Missouri Basin Inter-Agency Committee. The Missouri River Basin, comprehensive framework study: Volume VI, Appendix, Hydrologic analyses and projections. Lincoln, Nebraska. Final Draft. June 1969.

 04 06 01
- 453. U.S. Water Resources Council, Missouri Basin Inter-Agency Committee. The Missouri River Basin, comprehensive framework study: Volume VII, Appendix, Plan of development and management of water and related land resources. Final Draft. June 1969.

04 06 01

454. U.S. Water Resources Council, Pacific Northwest River Basins Commission. Columbia North Pacific Region, comprehensive framework study: Appendix XI, Municipal and industrial water supply. Vancouver, Washington. Preliminary Rpt. August 1970.

04 06 01

455. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. California Region, comprehensive framework study: Appendix IV, Economic base and projections. San Francisco, California. Advanced Preliminary Field Draft. July 1970.

04 06 01

456. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. California Region, comprehensive framework study: Appendix X, Irrigation and drainage. San Francisco, California. Preliminary Field Draft. November 1970.

04 06 01

457. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. California Region, comprehensive framework study: Appendix XVIII, Volume A, General program and alternatives. San Francisco, California. Advanced Preliminary Field Draft. July 1970.

04 06 01

458. U.S. Water Resources Council, Pacific Southwest InterAgency Committee. Great Basin Region, comprehensive
framework study: Appendix XVIII, General programs and alternatives. San Francisco, California. Preliminary Field
Draft. November 1970.

04 06 01

459. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. Lower Colorado Region, comprehensive framework study: Appendix V, Water resources. San Francisco, California. Preliminary Field Draft. November 1970.

04 06 01

460. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. Upper Colorado Region, comprehensive framework study: Main report. San Francisco, California. Preliminary Field Draft. January 1971.

04 06 01

461. U.S. Water Resources Council, Pacific Southwest Inter-Agency Committee. Upper Colorado Region, comprehensive framework study: Appendix IV, Economic base and projections. San Francisco, California. Preliminary Field Draft. November 1970.

04 06 01

- 462. Water for Texas: 15th annual conference. Texas A & M University, Water Resources Institute Rpt. November 1970. 04 06 06
- 463. Whitford, Peter W. Forecasting demand for urban water supply. Stanford University, California Program in Engineering-Economic Planning Rpt. PB-195 664. September 1970.

04 06 07

464. Wilson, John M. and John Michael Kernodle. Summary of ground water data for Tennessee, through May, 1971. Tenn. Dept. of Conservation, Division of Water Resources Misc. Pub. No. 6. 1971.

04 06 06

- 465. World Irrigation (New Orleans). August-September 1966.
- 466. World Irrigation (New Orleans). August-September 1970.
- 467. Yaron, D. Empirical analysis of the demand for water by Israeli agriculture. Jour. of Farm Econ. 49, No. 2:461-473. May 1967.

04 06 03

Water Law and Institutions

05 06

468. Ballweg, John A. Measuring attitudes toward water use priorities. Virginia Polytechnic Institute and State University, Water Resources Research Center Bul. No. 50. April 1972.

- 469. Casbeer, Thomas J. and Warren L. Trock. A study of institutional factors affecting water resource development in the Lower Rio Grande Valley, Texas. Texas A & M University, Water Resources Institute Rpt. TR-21. 1969.
- 470. Ciriacy-Wantrup, S. V. Concepts used as econmic criteria for a system of water rights. pp.251-271. In: S. C. Smith and E. N. Castle (ed.) Economic and public policy

in water resource development. Iowa State University Press, Ames. 1956.

05 06 03

471. Concerns in water supply and pollution control: Legal, social and economic. University of Rhode Island, Community Planning and Area Development Bul. No. 1. March 1971.

05 06 06

- 472. Gopalakrishnan, Chennat. A study of the economic, legal and institutional aspects of Montana's water resource development. Mont. Agr. Exp. Sta. Bul. 648. July 1971.
- 473. Gray, Roy M. and Warren L. Trock. A study of the effects of institutions on the distribution and use of water for irrigation in the Lower Rio Grande Basin. Texas A & M University, Water Resources Institute Rpt. TR-36. March 1971.

05 06 06

474. Harl, N. E. Measurement of selected legal-economic effects on the corporate business organization. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1965.

05 06 03

475. Heath, Milton S., Jr. A comparative study of state water pollution control laws and programs. University of North Carolina, Water Resources Research Institute Rpt. January 1972.

05 06 06

- 476. Holje, Helmer (ed.) Symposium on water law and its relationship to the economic development of Montana's water resources. Montana State University, Montana University Joint Water Resources Research Center Rpt. June 1971.
- 477. Howards, Irving and Edward R. Kaynor. Institutional patterns in evolving regional programs for water resource management. University of Massachusetts, Water Resources Research Center Pub. No. 15. 1971.

05 06 06

478. Laws for a better environment. A seminar conducted by the Water Resources Research Institute, Oregon State University, Fall Quarter 1971. Oregon State University, Water Re-

sources Research Institute Rpt. January 1972.

479. Legal aspects of water supply and water quality storage.
Virginia Polytechnic Institute and State University, Water
Resources Research Center Rpt. August 1970.

05 06 06

- 480. Legal aspects of water use and control in South Carolina, Part A: Legal considerations relating to a new water resources law for South Carolina. Clemson University, Water Resources Research Institute Rpt. No. 20. March 1971.

 05 06 06
- 481. Legal aspects of water use and control in South Carolina, Part B: South Carolina lakes and ponds a study of public and private rights therin. Clemson University, Water Resources Research Institute Rpt. No. 21. March 1971.

05 06 06

- 482. Leonard, Robert L. An economic evaluation of Connecticut water law: Water rights, public water supply and pollution control. University of Connecticut (Storrs), Institute of Water Resources Rpt. No. 11. July 1970.

 05 06 06
- 483. MacCormick, A. J. and Gerald J. Stadler. Institutional design for water quality management: A case study of the Wisconsin River, Volume II, Section B, Hydrology. University of Wisconsin, Water Resources Center Tech. Rpt. PB-197 847. 1970.

05 06 07

484. Montana water law problems. Montana State University, Montana University Joint Water Resources Research Center Rpt. 1971.

- 485. Peterson, John H., Jr. and Peggy J. Ross. Changing attitudes toward watershed development. Mississippi State University, Water Resources Research Institute Rpt. 1971.
- 486. Timmons, John F. Methodological problems in legaleconomic research. pp.23-29. In: Marshall Harris and
 John C. O'Byrne (ed.) Legal-economic research. University of Iowa, Agricultural Law Center Monograph No. 1.
 1959.

05 06 04

487. Timmons, John F. and J. M. Cormack. Managing natural resources through land tenure structures. Jour. of Soil and Water Conservation 26, No. 1:5-10. 1971.

05 06 04

488. Trock, Warren L. Institutional factors influencing water development in Texas. Texas A & M University, Water Resources Institute Rpt. TR-35. March 1971.

05 06 06

Nonstructural Alternatives

06 06

Ecologic Impact of Water Development

07 06

489. Economic and environmental evaluation of development alternatives for Beaufort County, South Carolina. Clemson University, Water Resources Research Institute Rpt. No. 23. February 1972.

07 06 06

490. Hargrove, Michael B. Economic development of areas contiguous to multipurpose reservoirs: The Kentucky-Tennessee experience. University of Kentucky, Water Resources Institute Res. Rpt. No. 21. 1971.

07 06 06

491. Proceedings workshop on stream channelization and wetland drainage. University of North Carolina, Water Resources Research Institute Rpt. No. 45. November 1971.

07 06 06

RESOURCES DATA

Network Design 01 07

Data Acquisition 02 07

Evaluation, Processing and Publication 03 07

	ENGINEERING WORKS	08
	Structures	01 08
492.	Dougal, Merwin D. Developing water areas for recreation. Iowa Farm Science 14, No. 12:64 1970.	or outdoor 2-645. June
		01 08 04
	Hydraulics	02 08
493.	boose boundary mydrudites.	Pergamon
	Press, New York. 1967.	02 08 05
	Hydraulic Machinery	03 08
494.	Regunathan, Perialwar. Permeability of diatomite filter cakes containing various clay minerals. Unpublished M.S thesis. Library, Iowa State University, Ames. 1965. 03 08 05	
	Soil Mechanics	04 08
		34 00
	Rock Mechanics and Geology	05 08
	Concrete	06 08
	Materials	07 08
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	Rapid Excavation	08 08
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SCIENTIFIC AND TECHNICAL INFORMATION	10
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Design characteristics for a national system retrieve and disseminate water data. U.S. D. Interior, Geological Survey Rpt. October 19	ept. of the
Wiser, Edward H. Hydrologic information sto trieval system (Hisars), reference manual. North Carolina, Water Resources Research Ins No. 66. June 1972.	University of
Defended and the second and the second	02 10 06
Secondary Publication and Distribution	03 10
A bibliography of publications relating to win Connecticut, 1900-1970. University of Co	nnecticut

(Storrs), Institute of Water Resources Rpt. No. 10. June

1970.

495.

496.

497.

- 498. Aldrin and endrin in water: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. 1972.
- 499. Asfur, Hani and William W. G. Yeh. An annotated bibliography on the design of water resources systems. University of California (Los Angeles), Water Resources Center Contribution No. 134. March 1971.
- 500. Brouwer, C. J. and L. F. Abell. Bibliography on cotton irrigation. Wageningen, Netherlands, International Institute for Land Reclamation and Improvement Rpt. 1970.
- 501. Buetikofer, Larry B. and Dale D. Meredith. Annotated bibliography on Great Lakes hydrology. University of Illinois, Water Resources Center Res. Rpt. No. 56. September 1972.
- 502. DeVille, William B. and Stewart Ferguson. Water resources modeling: An annotated survey of recent literature. University of Indiana, Environmental Systems Applications Center Rpt. September 1971.
- 503. DeVille, William B., Michael Cohen and Stewart Ferguson.
 Water use planning: An annotated survey of recent literature. University of Indiana, Environmental Systems Applications Center Rpt. September 1971.

 03 10 10
- 504. DeVille, William B., Stewart Ferguson and Marion Stanley.
 Social aspects of water resources planning: An annotated survey of recent literature. University of Indiana, Environmental Systems Applications Center Rpt. September 1971.
- 505. Deville, William B., Michael Cohen, Marion Stanley and Jeffrey Raff. Survey of environmental problem areas: An annotated survey of recent literature. University of Indiana, Environmental Systems Applications Center Rpt. September 1971.
- 506. DeVille, William B., Michael Cohen, Marion Stanley and Jeffrey Raff. Land use models, surveys, planning: An

annotated survey of recent literature. University of Indiana, Environmental Systems Applications Center Rpt. September 1971.

03 10 10

507. Dieldrin in water: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 72-202. January 1972.

03 10 06

508. Emmer, Red E. and Keith W. Muckleton. A compilation of flood abatement projects in Oregon. Oregon State University, Water Resources Research Institute Rpt. WRRI-11.

December 1971.

03 10 06

- 509. Holmes, Beatrice H., George G. Simons and Harold H. Ellis. State water-right laws and related subjects: A supplementary bibliography, 1959 to mid-1967. U.S. Dept. Agr., Econ. Res. Serv. Misc. Pub. No. 1249. September 1972.
- 510. Institutional aspects of water resources development: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 71-210. September 1971.

 03 10 06
- 511. Johnson, J. B. and Larry J. Connor. Abstracts of selected publications on the economics of livestock waste management and pollution abatement. Michigan State University, Dept. of Agr. Econ. Agr. Econ. Rpt. No. 183. March 1971.

03 10 10

- 512. Legal aspects of water pollution in Delaware, Maryland and Virginia: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 72-206. 1972.

 03 10 06
- 513. Leuthold, R. M. and L. D. Bawden. An annotated bibliography of spatial studies. Wis. Agr. Exp. Sta. Res. Rpt. 25. August 1966.

03 10 01

514. Mangan, George F. and Herbert A. Swernson. Urban water planning: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 72-215. July 1972.

03 10 06

515. McCann, James A. and Gail G. Smith. An annotated bibliography of the masters theses and doctoral dissertations on water resources and their uses, 1930-1970. University of Massachusetts, Water Resources Research Center Pub. No. 22. 1971.

03 10 06

516. Miner, J. R. and J. R. Jordan. Bibliography of livestock waste management. Iowa State University, Department of Agricultural Engineering Rpt. May 1971.

03 10 10

517. Odors and air pollution: A bibliography with abstracts. U.S. Environmental Protection Agency, Office of Air programs. Research Triangle Park, North Carolina. October 1972.

03 10 06

518. Publications and reports of the USDA Sedimentation Laboratory.
tory. U.S. Dept. Agr., Sedimentation Laboratory
Mimeograph. Oxford, Mississippi. ca. 1972.

03 10 10

- 519. Publications of the Institute. Mississippi State University, Water Resources Research Institute Rpt. March 1972.

 03 10 06
- 520. Soil nitrogen cycle: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 72-708. ca. 1972.

03 10 06

521. Stork, Karen E. and Nyla R. Thomsen. Water resources publications related to the state of Nebraska. 2nd ed. University of Nebraska, Water Resources Research Institute NWRRI Pub. No. 7. May 1972.

03 10 06

522. Subsurface water pollution: A selective annotated bibliography. U.S. Environmental Protection Agency Rpt. Washington, D.C. March 1972.

03 10 06

523. The New England Council of Water Center Directors. Water resources research in New England universities: A subject index. University of Rhode Island, Rhode Island Water Resources Center Rpt. January 1972.

03 10 06

524. U.S. Department of the Interior, Office of Water Resources

Research. Agricultural runoff: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 72-204. January 1972.

03 10 06

525. U.S. Department of the Interior, Office of Water Resources Research. DDT in water: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 71. October 1971.

03 10 06

526. U.S. Department of the Interior, Office of Water Resources Research. Urbanization and sedimentation: A bibliography. U.S. Dept. of the Interior, Off. of Water Resources Res. Rpt. WRSIC 71-203. October 1971.

03 10 06

527. U.S. Environmental Protection Agency, Office of Research and Monitoring. Bibliography of water quality research reports. U.S. Environmental Protection Agency, Office of Research and Monitoring Rpt. June 1972.

03 10 10

528. Viessman, Warren, Jr. Water resources research in Nebraska, vol. 2. University of Nebraska, Water Resources Research Institute Pub. No. 5. 1971.

03 10 06

529. Walton, William C. Lists of references and selected books bearing on water resources in Minnesota. University of Minnesota, Water Resources Research Center WRRC Bul. 4, revised. March 1972.

03 10 06

530. Water resources research in Oklahoma. Oklahoma State University, Oklahoma Water Resources Research Institute Rpt.

December 1971.

03 10 06

Specialized Information Center Services 04 10

Translations 05 10

Preparation of Reviews 06 10

MODELING 11

Linear 01 11

531. Blank, D. and J. W. Delleur. A program for estimating runoff from Indiana watersheds: Part I, Linear system analysis in surface hydrology and its application to Indiana watersheds. Purdue University, Water Resources Research Center Tech. Bul. No. 4. August 1968.

532. Bowser, Max F. and John W. Goodwin. Optimum distribution patterns of feeder cattle. Okla. Agr. Exp. Sta. Tech. Bul. T-123. June 1968.

01 11 08

533. Brokken, Ray F. Interregional competition in livestock and crop production in the United States: An application of spatial linear programming. Volumes I through IV. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1965.

01 11 01

534. Brokken, Ray F. and Earl O. Heady. Interregional adjustment in crop and livestock production: A linear programming analysis. U.S. Dept. Agr., Econ. Res. Serv. Tech. Bul. No. 1396. July 1968.

01 11 01

535. Carew, John Phelem. Economic evaluation of water quality:
An application of linear programming. Unpublished Ph.D.
dissertation. Library, University of California,
Berkeley. 1969.

01 11 04

536. Charnes, A., W. W. Cooper and A. Henderson. An introduction to linear programming. John Wiley and Sons, Inc., New York. 1953.

01 11 01

537. Dantzig, George B. Linear programming and extensions. Princeton University Press, Princeton. 1963.

01 11 03

538. Egbert, Alvin C. Programming regional adjustments in resource use for grain production Unpublished Ph.D. disser-

tation. Library, Iowa State University, Ames. 1958.

539. Egbert, Alvin C. and Earl O. Heady. Regional adjustments in grain production: A linear programming analysis. U.S. Dept. Agr., Econ. Res. Serv. Tech. Bul. No. 1241. June 1961.

01 11 01

540. Egbert, Alvin C. and Earl O. Heady. Regional adjustments in grain production: A linear programming analysis. U.S. Dept. Agr., Econ. Res. Serv. Supplement to Tech. Bul. No. 1241. June 1961.

01 11 01

541. Egbert Alvin C. and Earl O. Heady. Regional analysis of production adjustments in the major field crops: Historical and prospective-an application of spatial linear programming. U.S. Dept. Agr., Econ. Res. Serv. Tech. Bul. No. 1294. November 1963.

01 11 01

542. Egbert, Alvin C. Earl O. Heady and Ray F. Brokken.
Regional changes in grain production: An application of
spatial linear programming. Iowa Agr. and Home Econ. Exp.
Sta. Bul. 521:983-1016. January 1964.

01 11 01

543. Eyvindson, Roger H. A model of interregional competition in agriculture incorporating consuming regions, producing areas, farm size groups and land classes. Volumes I through V. Unpublished Ph.D dissertation. Library, Iowa State University, Ames. 1965.

01 11 01

544. Gee, C. Kerry and Melvin D. Skold. Optimum enterprise combinations and resource use on mountain cattle ranches in Colorado. Colo. Agr. Exp. Sta. Bul. 546S. September 1970.

01 11 08

545. Havlicek, J., R. L. Rizek and G. G. Judge. Spatial structure of the livestock economy: II. Spatial analyses of the flows of slaughter livestock in 1955 and 1960. S.Dak. Agr. Exp. Sta. Bul. 521. June 1964.

01 11 08

546. Heady, Earl O. and W. Candler. Linear programming methods. Iowa State University Press, Ames. 1958.

01 11 01

547. Heady, Earl O. and Melvin Skold. Projections of U.S. agricultural capacity and interregional adjustments in production and land use with spatial programming models. Iowa Agr. and Home Econ. Exp. Sta. Res. Bul. 539:511-559. august 1965.

01 11 01

548. Heady, Earl O. and Norman K. Whittlesey. A programming analysis of interregional competition and surplus capacity of American agriculture. Iowa Agr. and Home Econ. Exp. Sta. Res. Bul. 538:467-508. July 1965.

549. Hughes, Trevor C. A mixed integer programming approach to planning multiple water sources for municipal water supply. Utah State University, Utah Water Research Laboratory Rpt. PRWG73-3. March 1972.

01 11 10

- 550. King, G. A. and L. F. Schrader. Regional location of cattle feeding--A spatial equilibrium analysis. Calif. Agr. Exp. Sta. Hilgardia 34, No. 10:331-416. July 1963.
- 551. Lee, M. T., D. Blank and J. W. Delleur. A program for estimating runoff from Indiana watersheds: Part II, Assembly of hydrologic and geomorpholic data for small watersheds in Indiana. Purdue University, Water Resources Research Center Tech. Rpt. No. 23. May 1972.

01 11 10

552. Miller, T. A. Aggregation error in representative farm linear programming supply estimates. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1967.

01 11 03

553. Revelle, Charles S., Daniel P. Loucks and Walter R. Lynn. Linear programming applied to water quality management. Water Resources Research 4:1-9. 1968.

01 11 05

554. Rizek, R. L., G. G. Judge and J. Havlicek. Spatial structure of the livestock economy: III. Joint spatial analysis of regional slaughter and the flows and pricing of livestock and meat. S.Dak. Agr. Exp. Sta. Bul. 522. October 1965.

01 11 08

555. Skold, Melvin D. Programming regional adjustments in grain production to meet changing demands. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1963.

01 11 01

556. Tung, T. H., Leon Reu and Ronald H. Millar. A location programming model of the Colorado dairy industry. Colo. Agr. Exp. Sta. Tech. Bul. 99. May 1968.

01 11 08

557. Weindlmaier, Hannes. A locational analysis of the Illinois livestock-meat industry. Illinois Agricultural Economics 11, No. 2:21-24. July 1971.

01 11 10

558. Whittlesey, Norman K. Linear programming models applied to interregional competition and policy choices for U.S. agriculture. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1964.

01 11 01

559. Winterboer, Ronald Dean. A producer oriented model for programming crop production. Unpublished M.S. thesis. Library, Iowa State University, Ames. 1971.

01 11 04

Non-Linear

02 11

- 560. Extensions of mathematical programming for regional water quality management. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 EGQ 04/72. U.S. Govt. Print. Off., Washington, D.C. April 1972.
- 561. Hall, Harry H. Efficiency in American agriculture: An application of quadratic programming. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1969.

02 11 01

562. Hall, Harry H., Earl O. Heady and Yakir Plessner.
Quadratic programming solution of competitive equilibrium
for U.S. agriculture. Amer. Jour. of Agr. Econ. 50, No.
3:536-555. August 1968.

02 11 01

563. Mathematical programming for regional water quality management. U.S. Environmental Protection Agency Water Pollution Control Research Series 16110 FPX 08/70. U.S. Govt. Print. Off., Washington, D.C. 1970.

02 11 06

564. Meier, W. L., Jr., C. S. Shih, and Duane J. Wray. Water resource system optimization by geometric programming. Texas A & M University, Water Resources Institute Rpt. TR-34. February 1971.

02 11 06

565. Plessner, Yakir. Quadratic programming competitive equilibrium models for the U.S. agricultural sector. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1965.

02 11 01

Simulation

03 11

566. Chen, Cheng Lung and Ven Te Chow. Hydrodynamics of mathematically simulated surface runoff. University of Illinois, Department of Civil Engineering Hydraulic Engineering Series No. 18. August 1968.

03 11 10

567. Dawdy, David R. and H. Terry. Digital computer simulation in hydrology. Jour. of Amer. Water Works Assn. 59, No. 6:685-688. February 1968.

03 11 07

Dixon, Neal P., David W. Hendricks, A. Leon Huber and Jay M. Bagley. Developing a hydro-quality simulation model. Utah State University, Utah Water Research Laboratory Pub. PRWG67-1. June 1970.

03 11 07

569. Eidman, Vernon R. (ed.) Agricultural production systems simulation. Proceedings of a Workshop, May 4-8, 1970, Stillwater, Oklahoma. Sponsored by Southern Farm Management Research Committee. Published at Oklahoma State University, Stillwater. May 1971.

03 11 10

570. LeFeuvre, Albert R. and Ernest C. Pogge. A dynamic simu-

lation of the Lower Kansas River drainage system.

Hydraulics Division 16th Annual Special Conference. Amer.

Society of Civil Engineers. August 1968.

03 11 07

571. Ligon, James T. Application of digital hydrologic simulation model to Piedmont watersheds. Clemson University, Water Resources Research Institute Rpt. No. 26. February 1972.

03 11 06

572. Ligon, James T., Albert G. Law and Donald H. Higgins. Evaluation and application of a digital hydrologic simulation model. Clemson University, Water Resources Research Institute Rpt. No. 12. November 1969.

03 11 10

573 Longenbaugh, Robert A. Mathematical simulation of a stream-aquifer system. Proceedings of the Third Annual Amer. Water Resources Conference, pp.74-83. November 8-10, 1967, San Francisco, California. 1967.

03 11 07

574. Naylor, T. H., J. L. Balintfy, D. S. Burdick and Kong Chu. Computer simulation techniques. John Wiley and Sons, Inc., New York. 1966.

03 11 03

575. Riley, J. Paul, Duane G. Dhadwick and Jay M. Bagley. Application of electronic analog computer to solution of hydrologic and river-basin-planning problems: Utah simulation model II. Utah State University, Utah Water Research Laboratory Pub. REWG 32-1. October 1966.

03 11 07

- 576. Stochastic optimization and simulation techniques for management of regional water resources systems. Texas Water Development Board, Systems Engineering Division and Water Resources Engineers, Inc. Rpt. 131. July 1971.

 03 11 06
- 577. Toebes, G. H. and T. P. Chang. Simulation model for the Upper Wabash surface water system. Purdue University, Water Resources Research Center Tech. Rpt. No. 27. July 1972.

03 11 10

578. A system approach for the study and control of factors affecting water pollution. Mississippi State University, Water Resources Research Institute Rpt. 1970.

04 11 06

579. Chow, Ven Te and Dale D. Meredith. Water resources systems analysis: Part IV, Review of programming techniques. University of Illinois, Department of Civil Engineering Hydraulic Engineering Series No. 22. July 1969.

04 11 10

580. Coffman, D. M., A. K. Turner and W. N. Melhorn. The W.A.T.E.R. system: Computer programs for stream network analysis. Purdue University, Water Resources Research Center Tech. Rpt. 16. June 1971.

04 11 06

581. Hufschmidt, Maynard M. Systems analysis. pp.81-90. In: Water resources and economic development in the South. Harvard University, Agricultural Policy Institute Series No. 16. August 1965.

04 11 07

Jaske, R. T. The use of digital systems modeling in the evaluation of regional water quality involving single or 582. multiple releases. Battelle Memorial Institute, Columbus, Ohio. August 1967.

04 11 07

McKean, R. N. Efficiency in government through systems 583. analysis. John Wiley and Sons, Inc., New York. 1964. 04 11 03

Input-Output

05 11

584. Flinn, J. C. and W. F. Musgrave. Development and analysis of input-output relations for irrigation water. Aus. Jour. of Agr. Econ. 11, No. 1:1-19. June 1967.

05 11 03

585. Laurent, Eugene A. and James C. Hite. Economic-ecologic anlaysis in the Charleston Metropolitan Region: An imputoutput study. Clemson University, Water Resources Research Institute Rpt. No. 19. April 1971.

05 11 06

Other 06 11

586. Beard, Leo R. Streamflow synthesis for ungaged rivers. U.S. Dept. of the Army, Corps of Engineers, The Hydrologic Engineering Center Tech. Paper No. 5. ca. 1970.

587. Cesal, L. C. Normative resource demand functions and elasticities programmed for representative farms. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1966.

06 11 02

588. Colyer, Dale and George D. Irwin. Beef, pork, and feed grains in the Cornbelt: Supply response and response adjustments. Mo. Agr. Exp. Sta. Res. Bul. 921. August 1967.

06 11 08

589. Ehrich, Rollo L. Economic analysis of the United States beef cattle cycle. Wyo. Agr. Exp. Sta. Science Monograph 1. April 1966.

06 11 08

590. Fox, Karl A. Econometric analysis for public policy. Iowa State University Press, Ames. 1958.

06 11 01

591. Heady, Earl O. Mathematical analysis: Models for quantitative application in watershed planning. pp. 197-216. In: G. S. Tolley and F. E. Riggs (ed.) Economics of watershed planning. Iowa State University Press, Ames. 1961.

06 11 03

- 592. Heady, Earl O. and John L. Dillon. Agricultural production functions. Iowa State University Press, Ames. 1961. 06 11 02
- 593. Heady, Earl O. and Harry H. Hall. Summary of U.S. national agricultural models conducted at Iowa State University. Unpublished paper. Department of Economics, Iowa State University, Ames.

06 11 03

594. Heady, Earl O. and Luther G. Tweeten. Resource demand and structure of the agricultural industry. Iowa State University Press, Ames. 1963.

06 11 02

- 595. Johnston, J. Econometric methods. McGraw-Hill Book Company, New York. 1963.
- 596. Kisiel, Chester C. Time series analysis of hydrologic data. Advance in Hydroscience 5:1-119. 1969.
- 597. Ostle, Bernard. Statistics in research. 2nd ed. Iowa State University Press, Ames. 1963.
- 598. Sengupta, J. K. and Karl A. Fox. Optimization techniques in quantitative economic models. North-Holland Publishing Company, Amsterdam, Netherlands. 1969.
- 599. Stanley, Richard H. Matrix organization: An approach to effective and continuing interdisciplinary team functioning. Iowa Academy of Science Proceedings 77:3-9. 1971.
- 600. Stochastic modeling for water quality management. U.S. Environmental Protection Agency Water Pollution Control Research Series 16090 DUH 02/71. U.S. Govt. Print. Off., Washington, D.C. February 1971.
- 601. Thrailkill, John. Digital computer modeling of limestone groundwater systems. University of Kentucky, Water Resources Institute Rpt. April 1972.
- 602. Yaron, Dan. Resource allocation for dairy and field crops in the Negev area of Israel. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1960.

MODEL COEFFICIENTS AND PARAMETERS

12

603. Davis, G. A. and R. O. Wheeler. Fall calving in Montana. Mont. Agr. Exp. Sta. Bul. 649. December 1970.

01 12 08

- 604. Dietrich, Raymond A. Market structure changes in the livestock and meat industry. Texas Agr. Exp. Sta. Departmental Information Rpt. No. 66-10. December 1966.

 01 12 08
- 605. Fraase, Ronald G. and Gordon W. Erlandson. Geographic changes in the production of cattle and calves in the North Central Region. N.Dak. Agr. Exp. Sta. Bul. No. 483. November 1969.
- 606. Gee, C. Kerry. Seasonal cattle feedlots in Colorado. Colo. Agr. Exp. Sta. Bul. 540S. November 1969.
- 607. Gum, Russell and Elmer L. Menzie. The Arizona cattle feeding industry. Ariz. Agr. Exp. Sta. Tech. Bul. 191. January 1972.
- 608. Gustafson, Ronald A. and Roy N. Van Arsdall. Cattle feeding in the United States. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 186. October 1970.
- 609. Hopkin, John A. and Robert C. Kramer. Cattle feeding in California. Bank of America NT & SA, Econ. Res. Dept. Rpt. February 1965.
- 610. Malphrus, L. D., C. Y. Liu and R. J. Freund. Cattle and calf movement in the South. Southern Cooperative Series Bul. 134. March 1968.

01 12 10

611. Martin, Neil R., Jr., David C. Petritz and Roy N. Van Arsdall. The Illinois beef industry: Characteristics, trends and inventories. Ill. Agr. Exp. Sta. Rpt. AERR-101. October 1969.

01 12 08

612. Menzie, Elmer L. and Russell Gum. Cattle and calf shipments for the state of Arizona. Ariz. Agr. Exp. Sta. Tech. Bul. 190. March 1971.

01 12 08

613. Nicol, Kenneth J. and Earl O. Heady. The cattle feeding industry in transition. Iowa State University, Center for Agricultural and Rural Development CARD Rpt. No. 42.

August 1972.

01 12 10

- 614. Osborn, James E., Milton Holloway and Neal Walker. Importance of irrigated crop production to a seventeen county area in the Texas High Plains. Texas Tech University, Water Resources Center Rpt. WRC-72-2. May 1972.
- 615. Purcell, Wayne D. Cattle feeding in the Southern Plains: Past, present, future outlook. Okla. Agr. Exp. Sta. Bul. B-688. January 1971.

01 12 08

616. Trock, Warren L. Projections of crop and livestock production in Texas, 1980 - 2000 - 2020. Texas Agr. Exp. Sta. Departmental Information Rpt. No. 66-8. November 1966.

01 12 08

617. U.S. Department of Agriculture, Economic Research Service. Livestock and Meat Situation. U.S. Dept. Agr., Econ. Res. Serv. LMS-172. March 1970.

01 12 01

618. U.S. Department of Agriculture, Statistical Reporting Service. Barley: Acreage, yield, production, price, value, by states, 1866-1953. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 241. January 1959.

01 12 01

- 619. U.S. Department of Agriculture, Statistical Reporting Service. Cattle on feed, cattle sold for slaughter: Selected markets, January 1, 1970. U.S. Dept. Agr., Stat. Rptg. Serv. MtAn 2-1(1-70). January 16, 1970.
- 620. U.S. Department of Agriculture, Statistical Reporting Service. Corn: Acreage, yield and production of all corn, corn for grain, corn for silage and acreage for forage, by states, 1866-1943. U.S. Dept. Agr., Stat. Rptg. Serv. Rpt. June 1954.

01 12 01

621. U.S. Department of Agriculture, Statistical Reporting

Service. Cotton and cottonseed: Acreage, yield, production, disposition, price, value, by states, 1866-1952.
U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 164.
June 1955.

01 12 01

622. U.S. Department of Agriculture, Statistical Reporting Service. Cotton and cottonseed: Planted and harvested acres, yield per acre, production, disposition, price, value, by states, 1944-58. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 264. April 1960.

01 12 01

623. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, by states 1944-49: Acreage, yield and production of principal field crops, revised estimates. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 108. March 1952.

01 12 01

624. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1965 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptq. Serv. CRPR 2-1(65). December 20, 1965.

01 12 01

625. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1966 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptg. Serv. CRPR 2-1(66). December 20, 1966.

01 12 01

626. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1967 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptg. Serv. CRPR 2-1(67). December 19, 1967.

01 12 01

627. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1969 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptg. Serv. CRPR 2-1(69). December 19, 1969.

01 12 01

628. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1970 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptg. Serv. CRPR 2-1(70). December 18, 1970.

629. U.S. Department of Agriculture, Statistical Reporting Service. Crop production, 1971 annual summary: Acreage, yield, production, by states. U.S. Dept. Agr., Stat. Rptg. Serv. CRPR 2-1(71). December 17, 1971.

01 12 10

- 630. U.S. Department of Agriculture, Statistical Reporting Service. Field crops, by states, 1949-54: Acreage, yield, production, revised estimates. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 185. June 1956.
- 631. U.S. Department of Agriculture, Statistical Reporting Service. Field crops, by states, 1954-1959: Acreage, yield, production, revised estimates. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 290. June 1961.

 01 12 01
- 632. U.S. Department of Agriculture, Statistical Reporting Service. Field crops, by states, 1959-1964: Acreage, yield, production, revised estimates. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 384. December 1966.
- 633. U.S. Department of Agriculture, Statistical Reporting Service. Flaxseed and rye: Acreage, yield, production, price, value, by states, 1866-1953. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 254. July 1959.
- 634. U.S. Department of Agriculture, Statistical Reporting Service. Hay: Acreage, yield, production, price, value, by states, 1866-1953. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 229. June 1958.

01 12 01

635. U.S. Department of Agriculture, Statistical Reporting Service. Meat Animals, 1969-1970. U.S. Dept. Agr., Stat. Rptg. Serv. MtAn 1-1(71). April 1971.

01 12 01

636. U.S. Department of Agriculture, Statistical Reporting Service. Oats: Acreage, yield, production, by states, 1866-1943. U.S. Dept. Agr., Stat. Rptg. Serv. Rpt. June 1954.

01 12 01

637. U.S. Department of Agriculture, Statistical Reporting Service. Sorghums: Acreage, yield, production, price,

value, by states, 1929-1958. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 320. July 1962.

01 12 01

638. U.S. Department of Agriculture, Statistical Reporting Service. Soybeans, cowpeas and velvetbeans: Acreage, yield, production, price, value, by states, 1924-1953. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 211. June 1957.

01 12 01

U.S. Department of Agriculture, Statistical Reporting 639. Service. Sugarbeets: Acreage, yield, production, price, value, related data, United States, 1909-1964; by states, 1924-1964. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 413. October 1967.

01 12 01

640. U.S. Department of Agriculture, Statistical Reporting Service. Wheat: Acreage, yield, production of all wheat, winter wheat, all spring wheat, spring wheat other than durum, durum wheat, by states, 1866-1943. U.S. Dept. Agr., Stat. Rptg. Serv. Stat. Bul. No. 158. February 1955.

01 12 01

Wheeler, R. O. The range cattle industry of the Northern Great Plains--A comparison of production rates between 641. 1958 and 1967. Mont. Agr. Exp. Sta. Bul. 643. August 1970.

01 12 08

Livestock and Crop Costs

02 12

Agricultural machinery management data. pp.299-306. 642. 1972 agricultural engineers yearbook. 1972.

02 12 10

643. Ayres, George E. Costs of alternatives for harvesting, processing, and storing forages. Unpublished interdepartmental seminar. Department of Agricultural Engineering, Iowa State University, Ames. November 30, 1970.

02 12 04

644. Bache, David H. Swine manure--Liability or asset. Paper presented at the American Pork Conference, March 3-5,

1970, Des Moines, Iowa. 1970.

02 12 10

- 645. Boykin, Calvin C. Economic and operational characteristics of cattle ranches: Texas High Plains and Rolling Plains. Texas Agr. Exp. Sta. Rpt. MP-866. January 1968.
- 646. Boykin, Calvin C. and Nathan K. Forrest. Economic and operational characteristics of livestock ranches: Edwards Plateau and Central Basin of Texas. Texas Agr. Exp. Sta. Rpt. MP 978. January 1971.
- 647. Brice, Billy B. and Rodney R. Paul. Crop costs and returns. N.Dak. Coop. Ext. Serv. and Econ. Res. Serv. Cir. FM 9-67. October 1967.
- 648. Burke, Ronnie L. Characteristics of beef cattle feedlots: California, Colorado, Western Corn Belt. U.S. Dept. Agr., Econ. Res. Serv. Marketing Res. Rpt. No. 840. 1969.
- 649. Buxton, Boyd M. and Harald R. Jensen. Economies of size in Minnesota dairy farming. Minn. Agr. Exp. Sta. Bul. 488. 1968.

02 12 08

650. Dean, G. W., A. J. Finch and J. A. Petit, Jr. Economic strategies for foothill beef cattle ranchers. Calif. Agr. Exp. Sta. Bul. 824. June 1966.

02 12 08

651. Dietrich, Raymond A. Cost and economies of size in Texas-Oklahoma cattle feedlot operations. Texas Agr. Exp. Sta. Rpt. B-1083. May 1969.

02 12 08

652. Dietrich, Raymond A. Interregional competition in the cattle feeding economy with special emphasis on economies of size. Texas Agr. Exp. Sta. Rpt. B-1115. September 1971.

02 12 08

653. Dietrich, Raymond A. The Texas-Oklahoma cattle feeding industry--Structure and operational characteristics. Texas Agr. Exp. Sta. Rpt. B-1079. December 1968.

654. Doster, D. H. How corn field machinery and farmstead equipment costs were computed. Unpublished mimeographed paper presented at Corn Production and Marketing Workshop. July 21-24, 1969, Purdue University, Lafayette, Indiana. Department of Agricultural Economics, Purdue University. 1969.

02 12 04

655. Erickson, Donald B. and Philip A. Phar. Guidelines for developing commercial feedlots in Kansas. Kans. Coop. Ext. Serv. Rpt. C-418. April 1970.

02 12 09

656. Erickson, Duane E. Economic comparison of confiment, conventional drylot and open-lot beef feeding systems. University of Illinois, Dept. of Agr. Econ. and Coop. Ext. Serv. Rpt. AE-4250. August 1970.

02 12 09

657. Ferguson, Walter L. and Billy V. Lessley. Hay harvesting methods, labor and equipment used, Northeast States. University of Maryland, Dept. of Agr. and Resource Econ. Rpt. AREIS 1. July 1971.

02 12 10

658. Gee, C. Kerry. Economic and operational characteristics of Colorado range cattle businesses. Colo. Agr. Exp. Sta. Bul. 550S. September 1972.

02 12 08

659. Gee, C. Kerry and Henry H. Stippler. Cow-calf enterprises on wheat farms in the Columbia Basin of Oregon. Oreg. Agr. Exp. Sta. Spec. Rpt. 242. November 1967.

660. Gerlow, Arthur R. and Willard F. Woolf. Economic effects of changes in production practices in beef cattle production in the Southwest Louisiana rice area. La. Agr. Exp. Sta. D.A.E. Res. Rpt. No. 433. November 1971.

02 12 08

661. Hadley, N. S., Stanley D. Parsons and D. Howard Doster.
Some economic considerations in farm machinery. Indiana
Coop. Ext. Serv. Pub. EC 139. 1968.

02 12 05

662. Hasbargen, Paul R. and Larry Hummer. Slotted floor beef housing versus other housing systems: An economic analysis. University of Minnesota, Dept. of Agr. Econ. Econ.

Study Rpt. S-70-1. March 1970.

02 12 10

663. Hasbargen, Paul R. and Leonard R. Kyle. Competitive position of cattle feeding in the Northern Corn Belt. Mich. Agr. Exp. Sta. and Coop. Ext. Serv. Res. Rpt. 77. September 1968.

02 12 08

664. Hoffman, Lynn D., Earl J. Partenheimer and W. L. Barr. An economic appraisal of farming alternatives for dairymen considering disposal of their milking herds. Pa. Agr. Exp. Sta. Bul. 773. January 1971.

02 12 08

665. Hoglund, C. R. Investments and annual costs for alternative beef cattle feeding systems. Mich. Agr. Exp. Sta. Res. Rpt. 7. April 1965.

02 12 08

666. Howell, H. B. Cost of crop production in North Central Iowa. Iowa Coop. Ext. Serv. Pub. FM 1565, revised. November 1970.

02 12 04

667. Howell, H. B. and E. G. Stoneberg. 1973-74 edition of suggested costs and returns in crop and livestock production for use in farm budgeting. Iowa Coop. Ext. Serv. FM-1186, revised. October 1972.

02 12 09

- 668. Howell, H. B. and Everett G. Stoneberg. Suggested costs and returns in crop and livestock production. Iowa Coop. Ext. Serv. Pub. FM 1186, revised. October 1970.

 02 12 04
- 669. Howell, H. B. and Ronald Winterboer. Custom rates paid by Iowa farmers. Iowa Coop. Ext. Serv. Rpt. Pm-521. November 1971.

02 12 09

670. Hull, Dale O., Adrian D. Hull and Maurice C. Caldwell. 1971 costs for field work. Iowa Farm Science 25, No. 4:11-14. January 1971.

02 12 04

671. Hunt, Donnell. Farm power and machinery management. Iowa State University Press, Ames. 1972.

- 672. Hunter, Elmer C. and J. Patrick Madden. Economies of size for specialized beef feedlots in Colorado. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 91. May 1966.
- 673. Iowa Development Commission, Research Division. Beef confiment in Iowa. The Iowa Development Commission. Des Moines, Iowa. ca. 1971.

02 12 10

674. Irrer, Thomas M. and B. F. Jones. Economies of size in Indiana beef cattle feedlots. Purdue University Agr. Exp. Sta. Res. Bul. No. 881. November 1971.

02 12 08

675. Jones, David. Practices, costs and returns in the Louisiana cattle feeding industry. Louisiana Rural Economist 31, No. 2:5-9. May 1969.

02 12 10

676. Kesler, R. P. and R. A. Hinton. An economic evaluation of liquid manure disposal from confinement finishing hogs. Ill. Agr. Exp. Sta. Bul. 722. December 1966.

02 12 08

677. King, Gordon A. Economies of scale in large commercial feedlots. Calif. Agr. Exp. Sta. Giannini Foundation Res. Rpt. No. 251. March 1962.

02 12 08

- 678. Kohout, J. C. and J. C. Headley. The relation of cost and farm size on Western Illinois livestock farms. Illinois Agricultural Economics 2, No. 2:16-22. July 1962.

 02 12 10
- 679. Lasley, Floyd A. and Charles N. Shaw. Economic aspects of dairying in the Northeast. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 188. July 1970.

- 680. Loftsgard, Laurel D., Dale O. Anderson and Marvin T.
 Nordbo. Owning and operating costs for farm machinery.
 N.Dak. Agr. Exp. Sta. Bul. No. 436. September 1961.

 02 12 08
- 681. Madden, J. Patrick. Economies of size in farming:
 Theory, analytical procedures, and a review of selected
 studies. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ.
 Rpt. No. 107. February 1967.

682. Maish, L. J., C. H. Cuykendall and P. R. Hasbargen. Economic comparisons of hay harvesting, storing and feeding systems for beef cow herds. University of Minnesota, Dept. of Agr. Econ. and Agr. Ext. Serv. Econ. Study Rpt. S69-5. October 1969.

- Maynard, Cecil D. and Odell L. Walker. Costs and returns 683. to beef cow-calf systems. Okla. Coop. Ext. Serv. Rpt. No. 112. February 1969. 02 12 09
- McCoy, John H. and Calvin C. Hausman. Economies of scale 684. in commercial cattle feedlots of Kansas--An analysis of nonfeed costs. Kans. Agr. Exp. Sta. Tech. Bul. 151. April 1967. 02 12 08

- 685. McCoy, J. H. and H. D. Wakefield. Economies of scale in farm cattle feedlots of Kansas--An analysis of nonfeed costs. Kans. Agr. Exp. Sta. Tech. Bul. 145. January 1966. 02 12 08
- McDermott, Elroy C. and Jack R. Davidson. The feasibility 686. of cooperative cattle feeding and slaughtering in Montana. Mont. Agr. Exp. Sta. Bul. 597. July 1965. 02 12 08
- Michalson, E. L. Economics of farm size in the 687. Washington-Idaho wheat-pea area. Wash. Agr. Exp. Sta. Tech. Bul. 52. May 1967. 02 12 08
- Moore, D. S. and Rex Kennedy. Effect of size of farm on 688. long term debt repayment capacity for dryland farms on medium-textured (mixed) soils of the Texas High Plains. Texas Agr. Exp. Sta. Rpt. MP-797. February 1966. 02 12 08
- Morris, W. H. M. Economies to scale in cattle feeding in 689. the U.S. Paper submitted to the XIV CIOSTA/IRL Congress. Department of Agricultural Economics, Purdue University, Lafayette. ca. 1968. 02 12 10
- 690. Mueller, A. G. Impact of changing technology on livestock

systems. Illinois Agricultural Economics 11, No. 2:1-5. July 1971.

02 12 10

691. Nelson, C. Alan and Melvin D. Skold. Resources, costs and returns on cattle ranches in the mountain areas of Colorado by size of ranch. Colo. Agr. Exp. Sta. Tech. Bul. 101. January 1970.

02 12 08

692. Nielsen, Darwin B., William G. Brown, Dillard H. Gates and Thomas R. Bunch. Economics of federal range use and improvement for livestock production. Oreg. Agr. Exp. Sta. Tech. Bul. 92. June 1966.

02 12 08

693. No-Till Farmer (Milwaukee). November 1972.

02 12 10

694. Purcell, Wayne D. Future of wheat farming and its relation to cattle feeding. Oklahoma Current Farm Economics 43, No. 2:3-15. June 1970.

02 12 10

695. Richards, Jack A. and Gerald E. Korzan. Beef cattle feedlots in Oregon -- A feasibility study. Oreg. Agr. Exp. Sta. Spec. Rpt. 170. November 1964.

02 12 08

696. Rodewald, Gordon E., Jr. and C. B. Baker. Economics of investment in cattle feeding. Illinois Agricultural Economics 9, No. 1:18-25. January 1969.

02 12 10

697. Schlender, John R. and D. Leo Figurski. Examining your machinery costs. Kans. Coop. Ext. Serv. Rpt. C-375. December 1966.

02 12 09

698. Scott, John T., Jr. and Elmer C. Broadbent. A computerized cattle feeding program for replacement and ration formulation. Illinois Agricultural Economics 12, No. 2:16-25. July 1972.

02 12 10

699. Stevens, Delwin M. Costs and returns for irrigated crops in Wyoming. Wyo. Agr. Exp. Sta. Exp. Bul. 467. March 1967.

700. Stevens, Delwin M. Mountain valley cattle ranching: An economic analysis. Wyo. Agr. Exp. Sta. Bul. 485. April 1968.

02 12 08

701. Sullivan, Gene D. and Robert E. Sweeney. Profitable use of capital on Louisiana beef cattle farms. La. Agr. Exp. Sta. D.A.E. Res. Rpt. No. 349. January 1966.

02 12 08

702. Swanson, Earl R. and R. D. Dunlop. Influence of prices on production potential for beef and hogs on farms with fixed acreages. Illinois Agricultural Economics 9, No. 1:10-17. January 1969.

02 12 10

703. Taylor, Maurice C. Some economic aspects of cattle feeding and feed processing. Mont. Agr. Exp. Sta. Bul. 650. August 1971.

02 12 08

- 704. Teichert, R. Burke and Delwin M. Stevens. Preconditioning Wyoming farm and ranch feeder calves: An economic analysis. Wyo. Agr. Exp. Sta. Bul. 527. September 1970.
- 705. The Missouri approach to animal waste management:
 Guidelines for planning and designing animal waste
 management systems in Missouri. University of Missouri,
 Missouri Water Pollution Board Rpt. MP 232. January 1971.

 02 12 10
- 706. Thorfinnson, T. S. and A. W. Epp. Cost of operating tillage and harvesting machinery in Nebraska. Nebr. Agr. Exp. Sta. Rpt. SB 475. March 1963.

02 12 08

707. Umberger, Dwaine E., Norman K. Whittlesey and M. E. Wirth. Financial structure of large farms in the wheat-pea area of Washington. Wash. Agr. Exp. Sta. Bul. 738. September 1971.

02 12 08

708. U.S. Department of Agriculture, Economic Research Service. Costs of producing upland cotton in the United States, 1964. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 99. September 1966.

02 12 01

709. U.S. Department of Agriculture, Economic Research Service.

1966 supplement to costs of producing upland cotton in the United States, 1964. U.S. Dept. Agr., Econ. Res. Serv. 1966 Supplement to Agr. Econ. Rpt. No. 99. September 1969.

02 12 01

- 710. U.S. Department of Agriculture, Statistical Reporting Service. Agricultural prices: 1969 annual summary. U.S. Dept. Agr., Stat. Rptg. Serv. Pr. 1-3(70). June 1970.
- 711. U.S. Department of Agriculture, Statistical Reporting Service. Agricultural prices: January 15, 1971. U.S. Dept. Agr., Stat. Rptg. Serv. Pr. 1(1-71). January 29, 1971.

02 12 01

- 712. Uvacek, Edward, Jr. Economic trends in Texas cattle feeding. Texas Agr. Exp. Sta. Rpt. B-1055. August 1966.
- 713. Van Arsdall, Roy N. Labor requirements, machinery investments, and annual costs for the production of selected field crops in Illinois, 1965. Ill. Agr. Exp. Sta. Rpt. AE-4112. August 1966.

02 12 08

- 714. Van Arsdall, Roy N. Resource requirements, investments, costs, and expected returns from hog production systems in Illinois, 1965. Ill. Agr. Exp. Sta. Rpt. AE-4074. 1965.
- 715. Van Arsdall, Roy N. Resource requirements, investments, costs, and expected returns from selected beef-feeding and beef-raising enterprises. Ill. Agr. Exp. Sta. Rpt. AE-4075. 1965.

02 12 08

716. Van Arsdall, Roy N. and William A. Elder. Economies of size of Illinois cash-grain and hog farms. Ill. Agr. Exp. Sta. Bul. 733. February 1969.

02 12 08

717. Wells, A. R., S. A. Engene and T. R. Nodlund. Economics of beef cow herds in Northeastern Minnesota. University of Minnesota, Dept. of Agr. Econ. Econ. Study Rpt. S68-4. November 1968.

02 12 10

718. White, T. Wayne and Arthur Gerlow. Returns above feed and

steer costs from finishing steers on experimental rations in Louisiana. La. Agr. Exp. Sta. Bul. No. 656. June 1971.

02 12 08

02 12 10

- 719. Williams, W. F. and R. A. Dietrich. An interregional analysis of the fed beef economy. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 88. 1966.
- 720. Williams, Willard F. and Thomas T. Stout. Economics of the livestock meat industry. The Macmillan Company, New York. 1964.
- 721. Winterboer, Ronald. Crop-opt system. Iowa Coop. Ext. Serv. Rpt. FM 1627, revised. September 1972.

 02 12 09
- 722. Woolf, Willard F. Costs and returns from typical beef production systems in the Macon Ridge area of Louisiana. Louisiana Rural Economist 26, No. 2:7-9. May 1964.

 02 12 10
- 723. Wright, K. T. Cattle feeding economics. Mich. Agr. Exp. Sta. Quarterly Bulletin 44, No. 4:590-607. May 1962.

Land Use and Soils

03 12

724. Austin, Morris E. Land resource regions and major land resource areas of the United States. U.S. Dept. Agr., Soil Conservation Serv. Agr. Handbook 296, revised. March 1972.

03 12 10

- 725. Baver, L. D. Soil physics. 3rd ed. John Wiley and Sons, Inc., New York. 1965.
- 726. Buckman, Harry O. and Nyle C. Brady. The nature and properties of soils. 4th ed. The Macmillan Co., New York. 1963.

03 12 02

727. Fenton, T. E., E. R. Duncan, W. D. Shrader and L. C. Dumenil. Productivity levels of some Iowa soils. Iowa

Agr. and Home Econ. Exp. Sta. and Iowa Coop. Ext. Serv. Special Rpt. 66. April 1971.

03 12 04

728. Iowa Conservation Needs Committee. Iowa soil and water conservation needs inventory. Iowa Coop. Ext. Serv. Rpt. 1963.

03 12 05

729. Krause, Orville E. Population and land use trends and projections. Paper presented at annual meeting of Fontana Conservation Roundup, Fontana Dam, N.C., May 13, 1971. U.S. Dept. Agr., Econ. Res. Serv. May 1971.

03 12 01

730. Mitchell, J. K. and C. E. Beer. Effect of land slope and terrace systems on machine efficiencies. Transactions of the Amer. Society of Agr. Engineers 8, No. 2:235-237.

1965.

03 12 05

731. Oschwald, W. R., F. F. Riecken, R. I. Dideriksen, W. H. Scholtes and F. W. Schaller. Principal soils of Iowa. Iowa Coop. Ext. Serv. Special Rpt. 42. 1965.

732. Peele, T. C. Influence of soil properties and cultural practices on evaporation of water from soil. Clemson University, Water Resources Research Institute Rpt. No. 28. March 1972.

03 12 06

- 733. Russell, Sir E. John. Soil conditions and plant growth. 8th ed. Longmans, Green and Co., New York. 1950. 03 12 02
- 734. Shanholtz, V. O. and J. H. Lillard. A soil water model for two contrasting tillage systems. Virginia Polytechnic Institute and State University, Water Resources Research Center Bul. 38. October 1970.

- 735. Shaw, Byron T. (ed.) Soil physical conditions and plant growth. Academic Press, Inc., New York. 1952.

 03 12 02
- 736. Thorne, D. W. and H. B. Peterson. Irrigated soils, their fertility and management. The Blakiston Company, Philadelphia. 1949.

03 12 02

- 737. U.S. Department of Agriculture, Forest Service. Report of the Chief of the Forest Service, 1968. U.S. Govt. Print. Off., Washington, D.C. August 1969.
- 738. U.S. Department of the Interior, Bureau of Land Management. Public Land Statistics, 1968. U.S.Govt. Print. Off., Washington, D.C. 1968.
- 739. U.S. Department of the Interior, Bureau of Land
 Management. Public Land Statistics, 1969. U.S.Govt.
 Print. Off., Washington, D.C. 1969.
- 740. U.S. Department of the Interior, Bureau of Land Management. Public Land Statistics, 1970. U.S.Govt. Print. Off., Washington, D.C. 1970.
- 741. U.S. Department of the Interior, Bureau of Reclamation.
 Emery County Project, Utah: Appendix B, Land Resources.
 Salt Lake City, Utah. 1961.
- 742. Voss, Regis D. Selected information for Iowa soil types. Iowa Coop. Ext. Serv. Pub. AG-66. August 1968.
- 743. Voss, Regis D. Understanding your soil test report. Iowa Coop. Ext. Serv. Pub. Pm 429. September 1968.
- 744. Voss, Ronald E. Summary of soil test results 1964-67. Iowa Coop. Ext. Serv. Pub. ST-7. May 1968.

Commodity Demands

04 12

745. Anthony, Willis E. Patterns of firm growth in livestock slaughtering. Minn. Agr. Exp. Sta. Tech. Bul. 261. March 1969.

04 12 08

746. Brandow, G. E. Interrelations among demands for farm

products and implications for control of market supply. Pa. Agr. Exp. Sta. Bul. 680. August 1961.

04 12 08

747. Crom, Richard. A dynamic price-output model of the beef and pork sectors. U.S. Dept. Agr., Econ. Res. Serv. Tech. Bul. No. 1426. September 1970.

04 12 11

748. Franzmann, John R. and B. T. Kuntz. Economies of size in Southwestern beef slaughter plants. Okla. Agr. Exp. Sta. Bul. B-648. April 1966.

- 749. U.S. Department of Agriculture, Agricultural Marketing Service. Grain Market News. U.S. Dept. Agr., Agr. Marketing Serv. Weekly Summary and Statistics 15, No. 3 (Independence, Missouri). January 20, 1967.
- 750. U.S. Department of Agriculture, Agricultural Marketing Service. Grain Market News. U.S. Dept. Agr., Agr. Marketing Serv. Weekly Summary and Statistics 16, No. 3 (Independence, Missouri). January 19, 1968.
- 751. U.S. Department of Agriculture, Agricultural Marketing Service. Grain Market News. U.S. Dept. Agr., Agr. Marketing Serv. Weekly Summary and Statistics 17, No. 3 (Independence, Missouri). January 17, 1969.
- 752. U.S. Department of Agriculture, Agricultural Marketing Service. Grain Market News. U.S. Dept. Agr., Agr. Marketing Serv. Weekly Summary and Statistics 18, No. 3 (Independence, Missouri). January 16, 1970.
- 753. U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service. Sugar Reports. U.S. Dept. Agr., Agr. Stab. and Cons. Serv. Rpt. No. 220. September 1970.
- 754. U.S. Department of Agriculture, Economic Research Service.
 Cotton Situation. U.S. Dept. Agr., Econ. Res. Serv.
 CS-248. October 1970.
- 755. U.S. Department of Agriculture, Economic Research Service.

Cotton Situation. U.S. Dept. Agr., Econ. Res. Serv. CS-249. January 1971.

- 756. U.S. Department of Agriculture, Economic Research Service.
 Cotton Situation. U.S. Dept. Agr., Econ. Res. Serv.
 CS-250. March 1971.
- 757. U.S. Department of Agriculture, Economic Research Service.
 Cotton Situation. U.S. Dept. Agr., Econ. Res. Serv.
 CS-251. May 1971.
- 758. U.S. Department of Agriculture, Economic Research Service.
 Dairy Situation. U.S. Dept. Agr., Econ. Res. Serv.
 DS-335. May 1971.
- 759. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-176. January 1956.
- 760. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-199. November 1959.
- 761. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-216. January 1963.
- 762. U.S. Department of Agriculture, Economic Research Service.
 Fats and Oils Situation. U.S. Dept. Agr., Econ. Res.
 Serv. FOS-230. November 1965.
- 763. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-232 March 1966.
- 764. U.S. Department of Agriculture, Economic Research Service.
 Pats and Oils Situation. U.S. Dept. Agr., Econ. Res.
 Serv. POS-240. November 1967.
- 765. U.S. Department of Agriculture, Economic Research Service.

Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-252. April 1970.

04 12 01

766. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-254. September 1970.

04 12 01

767. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-256. January 1971.

04 12 01

768. U.S. Department of Agriculture, Economic Research Service. Fats and Oils Situation. U.S. Dept. Agr., Econ. Res. Serv. FOS-257. April 1971.

04 12 01

769. U.S. Department of Agriculture, Economic Research Service. Food consumption, prices, and expenditures. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 138. July 1968.

04 12 01

770. U.S. Department of Agriculture, Economic Research Service. Food consumption, prices, and expenditures: Supplement for 1969. U.S. Dept. Agr., Econ. Res. Serv. Supplement to Agr. Econ. Rpt. No. 138. January 1971.

04 12 01

771. U.S. Department of Agriculture, Economic Research Service.
National Food Situation. U.S. Dept. Agr., Econ. Res.
Serv. NFS-120. May 1967.

04 12 01

772. U.S. Department of Agriculture, Economic Research Service.
National Food Situation. U.S. Dept. Agr., Econ. Res.
Serv. NFS-132. May 1970.

04 12 01

773. U.S. Department of Agriculture, Economic Research Service.
National Food Situation. U.S. Dept. Agr., Econ. Res.
Serv. NFS-133. August 1970.

04 12 01

774. U.S. Department of Agriculture, Economic Research Service. National Food Situation. U.S. Dept. Agr., Econ. Res. Serv. NFS-134. November 1970.

04 12 01

775. U.S. Department of Agriculture, Economic Research Service.
National Food Situation. U.S. Dept. Agr., Econ. Res.
Serv. NFS-135. February 1971.

04 12 01

776. U.S. Department of Agriculture, Economic Research Service.
National Food Situation. U.S. Dept. Agr., Econ. Res.
Serv. NFS-136. May 1971.

04 12 01

777. U.S. Department of Agriculture, Economic Research Service. Poultry and Egg Situation. U.S. Dept. Agr., Econ. Res. Serv. PES-266. April 1971.

04 12 01

778. U.S. Department of Agriculture, Economic Research Service. Poultry and Egg Situation. U.S. Dept. Agr., Econ. Res. Serv. PES-267. June 1971.

04 12 01

779. U.S. Department of Agriculture, Economic Research Service. Rice Situation. U.S. Dept. Agr., Econ. Res. Serv. RS-14. October 1969.

04 12 01

780. U.S. Department of Agriculture, Economic Research Service. Rice Situation. U.S. Dept. Agr., Econ. Res. Serv. RS-15. March 1970.

04 12 01

781. U.S. Department of Agriculture, Economic Research Service. Rice Situation. U.S. Dept. Agr., Econ. Res. Serv. RS-16 September 1970.

04 12 01

782. U.S. Department of Agriculture, Economic Research Service. Rice Situation. U.S. Dept. Agr., Econ. Res. Serv. RS-17. March 1971.

04 12 01

783. U.S. Department of Agriculture, Economic Research Service. Wheat Situation. U.S. Dept. Agr., Econ. Res. Serv. WS-194. October 1965.

04 12 01

784. U.S. Department of Agriculture, Economic Research Service. Wheat Situation. U.S. Dept. Agr., Econ. Res. Serv.

WS-195. February 1966.

04 12 01

785. U.S. Department of Agriculture, Economic Research Service. Wheat Situation. U.S. Dept. Agr., Econ. Res. Serv. WS-202. November 1967.

04 12 01

786. U.S. Department of Agriculture, Economic Research Service.
Wheat Situation. U.S. Dept. Agr., Econ. Res. Serv.
WS-214. November 1970.

04 12 01

787. U.S. Department of Agriculture, Statistical Reporting Service. Livestock and Meat Statistics. U.S. Dept. Agr., Stat. Rptg. Serv. Supplement for 1970 to Stat. Bul. No. 333. July 1970.

04 12 01

788. Waugh, Frederick V. Demand and price analysis. U.S. Dept. Agr., Econ. and Stat. Analysis Division Tech. Bul. 1316. November 1964.

04 12 01

Transportation

05 12

- 789. Capener, William N., William P. Stephens, James S. St.
 Clair and Harold Abel. Transportation of cattle in the
 West. Wyo. Agr. Exp. Sta. Res. Jour. 25. January 1969.
 05 12 08
- 790. Harston, Clive R. and Jack Richards. Montana livestock transportation. Mont. Agr. Exp. Sta. Bul. 592. April 1965.

05 12 08

791. Interstate Commerce Commission, Bureau of Accounts. Freight commodity statistics, class I railroads: Year ended December 31, 1969. U.S. Govt. Print. Off., Washington, D.C. 1970.

05 12 01

792. Interstate Commerce Commission, Bureau of Accounts.
Preight commodity statistics, motor carriers of property:
Year ended December 31, 1968. U.S. Govt. Print. Off.,
Washington, D.C. 1969.

05 12 01

793. Interstate Commerce Commission, Bureau of Accounts. Freight commodity statistics, class I, railroads in the United States: For the year ended December 31, 1968. Statement No. 69100-A. U.S. Govt. Print. Off., Washington, D.C. 1969.

05 12 01

794. Interstate Commerce Commission, Bureau of Economics.
Carload waybill statistics, 1964 mileage block distribution: Traffic and revenue by selected commodity classes, territorial movement and type of rate. U.S. Govt. Print.
Off., Washington, D.C. September 1967.

05 12 01

795. Interstate Commerce Commission, Bureau of Economics.
Carload waybill statistics, 1965 mileage block distribution: Traffic and revenue by selected commodity classes, territorial movement and type of rate. U.S. Govt. Print. Off., Washington, D.C. January 1968.

05 12 01

796. Interstate Commerce Commission, Bureau of Economics.
Carload waybill statistics, 1966 mileage block distribution: Traffic and revenue by selected commodity classes, territorial movement and type of rate. U.S. Govt. Print. Off., Washington, D.C. June 1968.

05 12 01

797. Moede, Herbert H. Over-the-road costs of hauling bulk milk. U.S. Dept. Agr., Econ. Res. Serv. Marketing Res. Rpt. No. 919. January 1971.

05 12 01

798. St. Clair, James S. Transportation alternatives for Wyoming stockmen. Wyo. Agr. Exp. Sta. Bul. 501. August 1969.

05 12 08

799. Thompson, W. H. Transportation of grain and mixed feeds from Iowa. Iowa Agr. and Home Econ. Exp. Sta. Spec. Rpt. No. 50. February 1967.

05 12 08

Feed Consumption

06 12

800. Allen, George C. and Margaret Devers. National and state livestock-feed relationships. U.S. Dept. Agr., Econ. Res.

Serv. Stat. Bul. No. 446. February 1970.

06 12 11

801. Allen, George C. and Margaret Devers. Supplement for 1968 to livestock-feed relationships 1909-63. U.S. Dept. Agr., Econ. Res. Serv. Supplement to Stat. Bul. No. 337. January 1969.

06 12 01

802. Hodges, Earl F. Consumption of feed by livestock 1940-1959. U.S. Dept. Agr., Econ. Res. Serv. Production Res. Rpt. No. 79. March 1964.

06 12 01

803. Jennings, R. D. Relative use of feeds for livestock including pasture, by states. U.S. Dept. Agr., Agr. Res. Serv. Stat. Bul. No. 153. February 1955.

06 12 01

804. Morrison, Frank B. Feeds and feeding: A handbook for the student and stockman. The Morrison Publishing Company, Clinton, Iowa. 1959.

06 12 01

805. U.S. Department of Agriculture, Economic Research Service. Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-211. November 1965.

06 12 01

806. U.S. Department of Agriculture, Economic Research Service. Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-219. May 1967.

06 12 01

807. U.S. Department of Agriculture, Economic Research Service. Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-226. November 1968.

06 12 01

808. U.S. Department of Agriculture, Economic Research Service. Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-231. November 1969.

06 12 01

809. U.S. Department of Agriculture, Economic Research Service. Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-236. November 1970.

06 12 01

810. U.S. Department of Agriculture, Economic Research Service.

Feed Situation. U.S. Dept. Agr., Econ. Res. Serv. FdS-239. May 1971.

06 12 01

- 811. U.S. Department of Agriculture, Economic Research Service.
 Grain and feed statistics through 1961. U.S. Dept. Agr.,
 Econ. Res. Serv. Stat. Bul. 159, revised. June 1962.

 06 12 01
- 812. U.S. Department of Agriculture, Economic Research Service. Supplement for 1964 to grain and feed statistics through 1961. U.S. Dept. Agr., Econ. Res. Serv. Supplement to Stat. Bul. 159. March 1965.

06 12 01

Population

07 12

- 813. U.S. Department of Commerce, Bureau of the Census. Population estimates and projections. Series P-25, No. 139. U.S. Govt. Print. Off., Washington, D.C. June 27, 1956.
- 814. U.S. Department of Commerce, Bureau of the Census. Population estimates and projections. Series P-25, No. 304. U.S. Govt. Print. Off., Washington, D.C. April 8, 1965.
- 815. U.S. Department of Commerce, Bureau of the Census. Population estimates and projections. Series P-25, No. 348. U.S. Govt. Print. Off., Washington, D.C. September 16, 1966.

07 12 01

816. U.S. Department of Commerce, Bureau of the Census. Population estimates and projections. Series P-25, No. 414. U.S. Govt. Print. Off., Washington, D.C. January 28, 1969.

07 12 01

817. U.S. Department of Commerce, Bureau of the Census. Population estimates and projections. Series P-25, No. 436. U.S. Govt. Print. Off., Washington, D.C. January 7, 1970.

818. Fox, Karl A. Delineating of regions for transportation planning. Paper prepared for the regional transportation planning study. U.S. Dept. of Transportation. Preliminary draft. Department of Economics, Iowa State University, Ames. October 1970.

08 12 01

819. Fox, Karl A. Population redistribution among functional economic areas: A new strategy for urban and rural America. Presented to the American Association for the Advancement of Science 137th Meeting, November 1970. (mimeo) Department of Economics, Iowa State University, Ames. 1970.

08 12 01

- 820. Hargrove, Stanley H. Preliminary description of the model with special attention to the delineation of consuming regions. Working paper (unpublished). Department of Economics, Iowa State University, Ames. February 1971.
- 821. U.S. Department of Commerce, Office of Business Economics. The economic base of selected geographic areas, historical and projected 1929 to 2020. Preliminary Report to the Water Resources Council. U.S. Govt. Print. Off., Washington, D.C. 1968.

08 12 01

822. U.S. Water Resources Council. Water resources regions and subregions for the national assessment of water and related land resources. U.S. Govt. Print. Off., Washington, D.C. July 1970.

08 12 01

Water Use

09 12

823. Blaney, H. F. and W. D. Criddle. Determining consumptive use and irrigation water requirements. U.S. Dept. Agr. Tech. Bul. 1275. U.S. Govt. Print. Off., Washington, D.C. 1962.

09 12 02

824. Blaney Harry F. and Eldon G. Hanson. Consumptive use and water requirements in New Mexico. N.Mex. State Eng. Tech. Rpt. 32. 1965.

09 12 01

825. Briggs, L. T. and H. L. Shantz. The water requirements of

plants. U.S. Dept. Agr., Bur. of Plant Industry Bul. 284. 1913.

09 12 02

- 826. Clark, Richard T. Water use in the North Platte River
 Basin of Wyoming. Wyo. Agr. Exp. Sta. Res. Jour. 4. January 1967.

 09 12 01
- 827. Criddle, Wayne D., Karl Harris and Lyman S. Willardson.
 Consumptive use and water requirements for Utah. Utah,
 Office of State Eng. Tech. Pub. No. 8, revised. November
 1962.
- 828. Erie, L. J., Orrin F. French and Karl Harris. Consumptive use of water by crops in Arizona. Ariz. Agr. Exp. Sta. Tech. Bul. 169. September 1965.
- 829. Goony, J. J. and J. E. Pehrson. Avocado irrigation.
 Univ. of Calif. Ext. Leaflet 50. 1955.

 09 12 02
- 830. Henderson, Donald C. and Earl F. Sorenson. Consumptive irrigation requirements of selected irrigated areas in New Mexico. N.Mex. Agr. Exp. Sta. Stat. Bul. 531. August 1968.
- 831. Hendrickson, A. H. and F. J. Veihmeyer. Irrigation experiments with grapes. Calif. (Berkeley) Agr. Exp. Sta. Bul. 728. 1950.
- 832. Irrigation water requirements for crop production Roswell Artesian Basin. New Mexico State University, Water Resources Research Institute WRRI Rpt. 5. November 1969.
- 833. Sutter, R. J. and G. L. Corey. Consumptive irrigation requirements for crops in Idaho. Idaho Agr. Exp. Sta. Bul. 516. July 1970.
- 834. Trelease, Frank J., Paul A. Rechard, Theodore J. Swartz and Robert D. Burman. Consumptive use of irrigation water in Wyoming. University of Wyoming, Water Resources Research Institute Water Resources Series No. 19. July

1970.

09 12 06

835. U.S. Department of Agriculture. Water, the Yearbook of Agriculture, 1955. U.S. Govt. Print. Off., Washington, D.C. 1955.

09 12 01

836. U.S. Department of Commerce, Bureau of the Census. 1967 U.S. Census of Mineral Industries. U.S. Govt. Print. Off., Washington, D.C. 1971.

09 12 01

837. U.S. Department of the Interior, Bureau of Reclamation.
Gulf basins project, Texas: Irrigation water requirements
and return flows. U.S. Dept. of the Interior, Bur. of
Reclamation Annex C-5. Denver, Colorado. April 1958.
09 12 01

Fertilizers and Pesticides

10 12

- 838. Ibach, D. B. Fertilizer use in the United States: Its economic position and outlook. U.S. Dept. Agr., Econ. Res. Serv. Agr. Econ. Rpt. No. 92. May 1966.
- 839. Ibach, D. B. and T. R. Adams. Crop yield response to fertilizer in the United States. U.S. Dept. Agr., Econ. Res. Serv. and Stat. Rptg. Serv. Stat. Bul. No. 431. August 1968.
- 840. Ibach, D. B. and T. R. Adams. Fertilizer use in the United States: By crops and areas, 1964 estimates. U.S. Dept. Agr., Econ. Res. Serv. and Stat. Rptg. Serv. Stat. Bul. No. 408. August 1967.
- 841. Voss, Regis D. General guide for fertilizer recommendations in Iowa. Iowa Coop. Ext. Serv. Pub. AG-65. August 1968.
- 842. Voss, Regis D. Guide to efficient fertilizer use:
 Marshall area. Iowa Coop. Ext. Serv. Pub. Pm 471-8. October 1969.

843. Beringer, Christoph. An economic model for determining the production function for water in agriculture. Calif. Agr. Exp. Sta. Res. Rpt. 240. 1961.

11 12 02

- 844. Beringer, Christoph. Some conceptual problems in determining the production function for water. Proceedings of the Western Farm Econ. Assn. 32:58-70. July 1959.

 11 12 02
- 845. Boykin, Calvin C. and T. C. Cartwright. Beef cattle production techniques which may have major economic implications in the South. Texas Agr. Exp. Sta. Departmental Information Rpt. No. 16. October 1967.

11 12 08

- 846. James, Sydney C. (ed.) Midwest farm planning manual.
 Iowa State University Press, Ames. 1968.

 11 12 04
- 847. Johnson, Ralph D. An economic evaluation of alternative marketing methods for fed cattle. Nebr. Agr. Exp. Sta. Rpt. SB 520. June 1972.

11 12 08

848. Kleinman, Alan P. The production function and the imputation of the economic value of irrigation water. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1969.

11 12 01

849. Miller, Stanley Frank and Larry L. Boersma. Economic analysis of water, nitrogen, and seeding rate relationships in corn production on Woodburn soils. Oreg. Agr. Exp. Sta. Tech. Bul. 98. 1966.

11 12 02

850. Moore, Charles V. A general analytical framework for estimating the production function for crops using irrigation water. Jour. of Farm Econ. 43, No. 4:876-888. November 1961.

11 12 02

851. Murray, William G. and Daniel E. Porter. Rise in land values slows to 2 percent in 1969. Iowa Farm Science 24,

No. 8:7-9. 1970.

11 12 05

852. Prices of Iowa farm products 1930-1970. Iowa Coop. Ext. Serv. Econ. Information 168. April 1971. 11 12 04

853. Seidel, H. F. and J. L. Cleasby. A statistical analysis of water works data for 1960. Jour. of Amer. Water Works Assn. 58:1507-1527. 1966.

11 12 05

854. Stubblefield, Thomas M., Hilliard Jackson and Harold Abel. Evaluation of marketing practices used by cattle feeders and producers in the Western States. Ariz. Agr. Exp. Sta. Tech. Bul. 181. December 1968.

11 12 08

- 855. Sutherland, R. H. Prices of Iowa farm products, 1930-1969. Iowa Farm Science 24, No. 8:20. 1970. 11 12 05
- 856. U.S. Department of Agriculture. Agricultural Statistics, 1965. U.S. Govt. Print. Off., Washington, D.C. 1965. 11 12 01
- 857. U.S. Department of Agriculture. Agricultural Statistics, 1967. 41. U.S. Department of Agriculture. Agricultural Statistics, 1966. U.S. Govt. Print. Off., Washington, D.C. 1966.

U.S. Govt. Print. Off., Washington, D.C. 1967.

11 12 01

- 858. U.S. Department of Agriculture. Agricultural Statistics, 1968. U.S. Govt. Print. Off., Washington, D.C. 1968.
- 859. U.S. Department of Agriculture. Agricultural Statistics, 1969. U.S. Govt. Print. Off., Washington, D.C. 1969. 11 12 01
- 860. U.S. Department of Agriculture. Agricultural Statistics, 1970. U.S. Govt. Print. Off., Washington, D.C. 1970. 11 12 01
- 861. U.S. Department of Agriculture. Agricultural Statistics, 1971. U.S. Govt. Print. Off., Washington, D.C. 1971. 11 12 10

862. U.S. Department of Agriculture, Economic Research Service.
Agricultural Finance Review. U.S. Dept. Agr., Econ. Res.
Serv. Volume 31, Supplement. December 1970.

863. U.S. Department of Agriculture, Economic Research Service. Farm mortgage lending. U.S. Dept. Agr., Econ. Res. Serv. Pub. FML-23. November 1969.

- 864. U.S. Department of Agriculture, Economic Research, Statistical Reporting, Agricultural Research and Foreign Agricultural Services. 1970 handbook of agricultural charts. U.S. Dept. Agr., Agr. Handbook No. 397. U.S. Govt. Print. Off., Washington, D.C. November 1970.
- 865. U.S. Department of Agriculture, Statistical Reporting Service. Farm Labor. U.S. Dept. Agr., Stat. Rptg. Serv. LA 1(1-65). January 11, 1965.
- 866. U.S. Department of Commerce, Bureau of the Census. 1950
 U.S. Census of Agriculture. Vol. 1, Counties and State
 Economic Areas. U.S. Govt. Print. Off., Washington, D.C.
 September 1952.
- 867. U.S. Department of Commerce, Bureau of the Census. 1950 U.S. Census of Agriculture. Vol. 3, Irrigation of Agricultural Lands. U.S. Govt. Print. Off., Washington, D.C. December 1952.
- 868. U.S. Department of Commerce, Bureau of the Census. 1954
 U.S. Census of Agriculture. Vol. 1, Counties and State
 Economic Areas. U.S. Govt. Print. Off., Washington, D.C.
 May 1956.
- 869. U.S. Department of Commerce, Bureau of the Census. 1954
 U.S. Census of Agriculture. Vol. 2, General Report. U.S.
 Govt. Print. Off., Washington, D.C. December 1956.
 11 12 01
- 870. U.S. Department of Commerce, Bureau of the Census. 1959
 U.S. Census of Agriculture. Vol. 1, Counties. U.S. Govt.
 Print. Off., Washington, D.C. July 1961.

871. U.S. Department of Commerce, Bureau of the Census. 1959 U.S. Census of Agriculture. Vol. 3, Irrigation of Agricultural Lands. U.S. Govt. Print. Off., Washington, D.C. October 1962.

11 12 01

872. U.S. Department of Commerce, Bureau of the Census. 1964 U.S. Census of Agriculture. Vol. 1, Statistics for the States and Counties. U.S. Govt. Print. Off., Washington, D.C. 1967.

11 12 01

873. U.S. Department of Commerce, Bureau of the Census. 1964
U.S. Census of Agriculture. Vol. 2, General Report. U.S.
Govt. Print. Off., Washington, D.C. 1968.

11 12 01

874. U.S. Department of Commerce, Bureau of the Census. Pocket data book, USA, 1971. U.S. Govt. Print. Off., Washington, D.C. May 1971.

11 12 01

875. U.S. Department of Commerce, Bureau of the Census. Statistical Abstracts of the United States, 1970. U.S. Govt. Print. Off., Washington, D.C. July 1970.

11 12 01

- 876. U.S. Department of the Interior, Bureau of Reclamation. Federal reclamation projects: 1964 crop report and related data. U.S. Govt. Print. Off., Washington, D.C. 1965.
- 877. U.S. Department of the Interior, Bureau of Reclamation. Federal reclamation projects: 1966 crop report and related data. U.S. Govt. Print. Off., Washington, D.C. 1967.
- 878. U.S. Department of the Interior, Bureau of Reclamation. Federal reclamation projects: 1967 crop report and related data. U.S. Govt. Print. Off., Washington, D.C. 1968.

BACKGROUND MATERIAL

13

879. Brandow, G. E. Cost of farm programs. pp.77-88. In:
Benefits and burdens of rural development. Iowa State
University Press, Ames. 1970.

01 13 01

880. Duymovic, Andrew, Richard Crom and James Sullivan.
Effects of alternative beef import policies on the beef
and pork sectors. U.S. Dept. Agr., Econ. Res. Serv. Agr.
Econ. Rpt. No. 233. October 1972.

01 13 11

- 881. Heady, Earl O. Agricultural policy under economic development. Iowa State University Press, Ames. 1962.

 01 13 01
- 882. Heady, Earl O. A primer on food, agriculture, and public policy. Random House, New York. 1967.
- 883. Heady, Earl O., Howard C. Madsen and Leo V. Mayer. Analysis of some farm program alternatives for the future.

 Iowa State University, Center for Agricultural and Rural Development CAED Rpt. 34. April 1969.

01 13 01

884. Madsen, Howard C. and Earl O. Heady. Bargaining power programs: Estimated effects on production, net farm incomes and food costs for specified price levels. Iowa State University, Center for Agricultural and Rural Development CARD Rpt. 39. September 1971.

01 13 01

885. Madsen, Howard C., Earl O. Heady and Kenneth J. Nicol.
Trade-offs in farm policy. Iowa State University, Center
for Agricultural and Rural Development CAED Rpt. 36. May
1970.

01 13 01

886. Mayer, Leo V., Earl O. Heady and Howard C. Madsen. Farm programs for the 1970's. Iowa State University, Center for Agricultural and Rural Development CAED Rpt. No. 32. October 1968.

01 13 01

887. Rogers, Keith D., Leo V. Mayer and Earl O. Heady. Utilization of U.S. farm surpluses for welfare and development programs at home and abroad. Iowa State University, Center for Agricultural and Rural Development CARD Rpt.

No. 41. June 1972.

01 13 10

- 888. U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service. 35th anniversary of Agricultural Adjustment Act of 1933. U.S. Dept. Agr., Agr. Stab. and Cons. Serv. Fact Sheet. May 1, 1968. 01 13 01
- 889. U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service. 1969 feed grains and wheat programs: Summary. U.S. Dept. Agr., Agr. Stab. and Cons. Serv. Rpt. March 1970.

01 13 01

890. U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service. 1968 upland cotton program: Summary. U.S. Dept. Agr., Agr. Stab. and Cons. Serv. Rpt. December 1968.

Water Policy 02 13

891. Bain, J. S., R. E. Caves and J. Margolis. Northern California's water industy. The Johns Hopkins Press, Baltimore. 1966.

02 13 03

892. Baldwin, R. A. A model of optimum water allocation under Iowa's permit system. Unpublished M.S. thesis. Library, Iowa State University, Ames. 1970.

02 13 03

893. Castle, Emery N. and Russell C. Youmans. Economics in regional water rearch and policy. Amer. Jour. of Agr. Econ. 50, No. 5:1655-1666. December 1968.

02 13 01

894. Ciriacy-Wantrup, S. V. Projections of water requirements in the economics of water policy. Jour. of Farm Econ. 43, No. 2:197-214. May 1961.

895. Csallany, Sandor C. Planning water for 2000 A.D. Proceedings of the Fourth American Water Resources Conference. Amer. Water Res. Assn. Proceedings Series No. 6:159-174. November 1968.

02 13 01

896. Davis, Roger K. The range of choice in water management.
The Johns Hopkins Press, Baltimore. 1968.

02 13 04

897. Dehaven, J. C. Water supply economics, technology and policy. Jour. of Amer. Water Works Assn. 55, No. 5:539-547. May 1963.

02 13 01

898. Harl, Neil E., Richard A. Baldwin and David W. Hubly. An analysis of the economic implications of the permit system of water allocation. Iowa State University, Iowa State Water Resources Research Institute Rpt. ISWRRI-43. November 1971.

02 13 06

- 899. Heady, Earl O. and John F. Timmons. Economic framework for planning efficient use of water resources. pp.47-61. In: John F. Timmons, John C. O'Byrne and Richard K. Frevert (ed.) Iowa's water resources: Sources, uses, and laws. Iowa State University Press, Ames. 1956.
- 900. Heady, Earl O., Howard C. Madsen, Kenneth J. Nicol and Stanley H. Hargrove. Agricultural and water policies and the environment. Iowa State University, Center for Agricultural and Rural Development CARD Rpt. 40T. June 1972.

02 13 06

- 901. Heady, Earl O., Howard C. Madsen, Kenneth J. Nicol and Stanley H. Hargrove. Agricultural water demands. National Water Commission Rpt. PB 206 790. November 1971.
- 902. Hirshleifer, Jack, James C. DeHaven and Jerome W. Milliman. Water supply: Economics, technology and policy. The University of Chicago Press, Chicago. 1960.
- 903. Holmes, Beatrice Hort. A history of federal water resources programs, 1800-1960. U.S. Dept. Agr., Econ. Res. Serv. Misc. Pub. No. 1233. June 1972.

02 13 06

904. Howe, Charles W. and William K. Easter. Interbasin transfers of water: Economic issues and impacts. The Johns Hopkins Press, Baltimore. 1971.

02 13 01

- 905. Huffman, Roy E. Irrigation development and public water policy. The Ronald Press Company, New York. 1953.

 02 13 01
- 906. Long-run costs and policy implications of adjusting to a declining water supply in Eastern Washington. Washington State University, State of Washington Water Research Center Rpt. No. 9 October 1971.

02 13 06

907. Moreell, Ben. Our nation's water resources: Policies and politics. The University of Chicago Press, Chicago. 1956.

02 13 01

908. National Water Commission. The National Water Commission annual report for 1969. National Water Commission Interim Rpt. No. 1. December 1969.

02 13 01

- 909. Pavelis, George A. Irrigation policy and long-term growth functions. Agr. Econ. Res. 17, No. 2:50-60. April 1965.
- 910. Presidential Advisory Committee on Water Resources Policy.
 Water resources policy. The Report by the Presidential
 Advisory Committee on Water Resources Policy. U.S. Govt.
 Print. Off., Washington, D.C. January 17, 1956.

 02 13 01
- 911. Smith, S. C. and E. N. Castle (ed.) Economics and public policy in water resource development. Iowa State University Press, Ames. 1964.

02 13 03

912. The role of water resources in the economic development of the Great Plains. Proceedings of a seminar sponsored by the Water Resources Committee and the Resource Economics Committee of the Great Plains Agricultural Council. July 22-23, 1971, Denver, Colorado. Great Plains Agr. Council Pub. No. 54. December 1971.

02 13 06

913. Timmons, John F. Theoretical considerations of water allocation among competing uses and users. Jour. of Farm Econ. 38, No. 5:1244-1258. December 1956.

02 13 01

- 914. U.S. President's Water Resources Policy Commission. A water policy for the American people. Volume I. U.S. Govt. Print. Off., Washington, D.C. December 11, 1950.
- 915. U.S. Senate Select Committee on National Water Resources.
 Future needs for reclamation in the Western States. U.S
 Govt. Print. Off., Washington, D.C. April 1960.

 02 13 01
- 916. U.S. Senate Select Committee on National Water Resources.
 Land and water potentials and future requirements for
 water. U.S. Govt. Print. Off., Washington, D.C. December
 1959.
- 917. U.S. Senate Select Committee on National Water Resources.
 Report of the Select Committee on National Water Resources: Part I, Summary Report. U.S. Govt. Print. Off., Washington, D.C. January 30, 1961.
- 918. Water, man, and nature. A symposium sponsored by the Department of the Interior, Bureau of Reclamation, and the American Institute of Biological Sciences. August 30-31, 1971, Colorado State University, Fort Collins, Colorado. 1971.

919. Wollman, Nathaniel. The value of water in alternative uses: With special application to water use in the San Juan and Rio Grande basins of New Mexico. The University of New Mexico Press, Albuquerque. 1962.

02 13 01

02 13 06

920. Wollman, Nathaniel and Gilbert W. Bonem. The outlook for water: Quality, quantity, and national growth. The Johns Hopkins Press, Baltimore. 1971.

02 13 01

Land Policy

03 13

921. Bennett, Elmer F., Eugene E. Hughes and Leland O. Graham. Future demands on the public lands: Volume I, Policy impacts of future demands. Public Land Law Review

Commission, Washington, D.C. Rpt. PB-195 041. October 1970.

03 13 07

922. Clawson, Marion. Suburban land conversion in the United States: An economic and governmental process. The Johns Hopkins Press, Baltimore. 1971.

03 13 10

923. Clawson, Marion, Raymond M. Smith and Daniel W. Cook. Future demands on the public lands: Volume IV, Probable future demands on the public lands for new cities and urban expansion. Public Land Law Review Commission, Washington, D.C. Rpt. PB-195 044. October 1970.

03 13 07

924. Daniel, Mann, Johnson and Mendenhall, Los Angeles, California. Federal public land laws and policies relating to use and occupancy: Volume IV, Appendices. Public Land Law Review Commission, Washington, D.C. Rpt. PB-195 660. November 1970.

03 13 07

925. Freeman, Albert Myrick, III. The Federal reclamation program and the distribution of income. Unpublished Ph.D. dissertation. Library, University of Washington, Seattle. 1965.

03 13 03

926. Future demands on the public lands: Volume II,
Projections of the consumption of commodities producible
on the public lands of the United States 1980-2000.
Public Land Law Review Commission, Washington, D.C. Rpt.
PB-195 042. October 1970.

03 13 07

- 927. Golze, Alfred R. Reclamation in the United States. The Claxton Printers, Ltd., Caldwell, Idaho. 1961.
- 928. Planning and zoning for better resource use. Soil Conservation Society of America, Ankeny, Iowa. 1971.
 03 13 10
- 929. Timmons, John F. Integration of law and economics in analyzing agricultural land use problems. Jour. of Farm Econ. 37:1126-1142. 1955.

930. Timmons, John F. Land institutions impeding and

facilitating agricultural adjustment. pp.166-188. In:
Problems and policies of American agriculture. Iowa State
University Press, Ames. 1959.

03 13 05

931. U.S. Department of Agriculture, Economic Research Service. Exploring our cropland potential. The Farm Index 10, No. 9:11. U.S. Dept. Agr., Econ. Res. Serv. Rpt. September 1971.

03 13 01

Ecology and the Environment

04 13

932. Aldrich, S. R., W. R. Oschwald and J. B. Fehrenbacker.
Implications of crop-production technology for environmental quality. Paper presented at Amer. Assn. for the Advancement of Science Meeting. Chicago, Illinois. December 1970.

04 13 04

- 933. Barkley, Paul W. and David W. Seckler. Economic growth and environmental decay: The solution becomes the problem. Harcourt Brace Jovanovich, Inc., New York. 1972.

 04 13 10
- 934. Bayley, Ned D. Agriculture and the current environmental crisis. Relationship of agriculture to soil and water pollution. pp.1-5. Conference on agricultural waste management. New York State College of Agriculture, Cornell University, Ithaca, New York. 1970.

935. Biniek, Joseph P. Environmental crunch on agriculture: Economics or ecology? Paper presented at the Seminar on Control of Agriculture-Related Pollution, July 24-25, 1972, Lincoln, Nebraska. 1972.

04 13 10

936. Boggess, W. R. and R. J. Miller. Improving environmental quality: A major goal of agricultural research. Illinois Research 12, No. 4:3. 1970.

04 13 04

937. Brady, Nyle C. (ed.) Agriculture and the quality of our environment. Amer. Assn. for the Advancement of Science Pub. 85. Washington, D.C. 1967.

938. Brubaker, Sterling. To live on earth: Man and his environment in perspective. The Johns Hopkins Press, Baltimore. 1972.

04 13 10

- 939. Ciriacy-Wantrup, S. V. The economics of environmental policy. Land Econ. 47, No. 1:36-45. February 1971.
- 940. Commoner, Barry. The closing circle: Nature, man and technology. Alfred A. Knopf, Inc., New York. 1972.
- 941. Crocker. Thomas D. and A. J. Rogers, III. Environmental economics. The Dryden Press, Inc., Hinsdale, Illinois. 1971.

04 13 10

942. Dorfman, Robert and Nancy S. Dorfman. Economics of the environment: Selected readings. W. W. Norton and Company, Inc., New York. 1972.

04 13 10

943. Effective consideration of ecological factors in water and related land resources planning and management.

Proceedings of the Water Resources Planning Conference,
November 4-5, 1969. Sponsored by the New England Council of Water Center Directors and the New England River Basins Commission. University of Rhode Island, Rhode Island Water Resources Center Rpt. ca. 1970.

04 13 06

- 944. Environmental quality: A survey of costs, benefits, citizens' attitudes. A report prepared for the second annual Alabama Environmental Conference. School of Engineering, Auburn University, Auburn. October 1971.
- 945. Flack, J. Ernest and Margaret C. Shipley (ed.) Man and the quality of his environment. Western Resources Papers, 1967. University of Colorado Press, Boulder. 1968.
- 946. Fox, Irving K. A structure for the task and some areas of study. pp.129-140. In: J. Ernest Flack and Margaret C. Shipley (ed.) Man and the quality of his environment. University of Colorado Press, Boulder. 1968.

947. Garvey, Gerald. A framework for environmental policy:

Energy, ecology, economy. W. W. Norton and Company, Inc., New York. 1972.

- 948. Hargrove, Thomas R. Agricultural Research: Impact on environment. Iowa Agr. and Home Econ. Exp. Sta. Spec. Rpt. 69. April 1972.
- 949. Herfindahl, Orris C. and Allen V. Kneese. Quality of the environment: An economic approach to some problems in using land, water and air. The Johns Hopkins Press, Blatimore. 1965.
- 950. Jarrett, Henry. Environmental quality in a growing economy. The Johns Hopkins Press, Baltimore. 1966.

 04 13 07
- 951. Kneese, Allen V. and Blair T. Bower (ed.) Environmental quality analysis: Theory and method in the social sciences. The Johns Hopkins Press, Baltimore. 1972.
- 952. Kneese, Allen V., Robert U. Ayres and Ralph C. d'Arge. Economics and the Environment: A materials balance approach. The Johns Hopkins Press, Baltimore. 1971. 04 13 10
- 953. Let's consider our environment. Indiana Dept. of Commerce, Division of Planning Rpt. PB-197 581. September 1970.
- 954. Miller, R. J. and W. R. Boggess. A two-dimensional approach to environmental research. Illinois Research 13, No. 2:9-10. 1971.
- 955. Odum, Eugene P. Fundamentals of ecology. 3rd ed. W. B. Saunders Company, Philadelphia. 1971.
- 956. President's Science Advisory Committee, Environmental Pollution Panel. Restoring the quality of our environment. U.S. Govt. Print. Off., Washington, D.C. 1965.
- 957. Rogers, George B. and James G. Vertrees. Agriculture,

marketing and the environment -- Problems and research needs. U.S. Dept. Agr., Econ. Res. Serv. ERS-490. August 1971.

04 13 11

958. U.S. Council on Environmental Quality. Environmental Quality: The First Annual Report of the Council on Environmental Quality. U.S. Govt. Print. Off., Washington, D. C. August 1970.

959. U.S. Council on Environmental Quality. Environmental Quality: The Second Annual Report of the Council on Environmental Quality. U.S. Govt. Print. Off., Washington, D.C. August 1971.

04 13 04

960. U.S. Department of Agriculture, Economic Research Service. Agriculture in the environment. U.S. Dept. Agr., Econ. Res. Serv. ERS-481. July 1971.

04 13 11

- 961. Wagner, Richard H. Environment and man. W. W. Norton and Company, Inc., New York. 1971. 04 13 10
- 962. Yoss, J. K., J. W. Blaylock, M. J. Schneider, L. C. Schwendiman and C. J. Touhill, Jr. Technical, intelligence, and project information system for the environmental health service: Volume IV, Pesticides model case study. U.S. Environmental Health Service, Rockville, Maryland. Final Rpt. June 1970. 04 13 07

Output and Efficiency

- 963. Auer, Ludwig. Impact of crop-yield technology on U.S. crop production. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1963. 05 13 02
- 964. Coffing, Arthur and Karl J. Lindeborg. Relationships between farm size and ability to pay for irrigation water. Idaho Agr. Exp. Sta. Prog. Rpt. No. 112. ca. 1966. 05 13 01
- 965. Dean, W. G., G. A. King, H. O. Carter and C. R. Shumway.

Projections of California agriculture to 1980 and 2000. Calif. (Davis) Agr. Exp. Sta. Bul. 847. September 1970. 05 13 01

- 966. Heady, Earl O. and Leo V. Mayer. Food needs and U.S. agriculture in 1980. National Advisory Commission on Food and Fiber Tech. Papers, Vol. 1. August 1967.
- 967. Hutchinson, J. D. Inter-relationships among capital, technology and size in farm organization and income. Unpublished M.S. thesis. Library, Iowa State University, Ames. 1969.
- 968. Mayer, Leo V. An analysis of future resource supplies, resource utilization, domestic and export demand and structural change in the agricultural economy to 1980. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1967.
- 969. Mayer, Leo V. and Stanley H. Hargrove. Food costs, farm incomes and crop yields: With restrictions on fertilizer use. Iowa State University, Center for Agricultural and Rural Development CAED Rpt. No. 38. March 1971.
- 970. Mayer, Leo V. and Earl O. Heady. Projected state and regional resource requirements for agriculture in the United States in 1980. Iowa Agr. and Home Econ. Exp. Sta. Res. Bul. 568:372-413. June 1969.
- 971. National Advisory Commission on Food and Fiber. Food and fiber for the future. U.S. Govt. Print. Off., Washington, D.C. July 1967.
- 972. U.S. Department of Agriculture, Economic Research Service. Changes in farm production and efficiency: A summary report, 1964. U.S. Dept. Agr., Econ. Res. Serv. Stat. Bul. No. 233, revised. July 1964.
- 973. U.S. Department of Agriculture, Economic Research Service. Changes in farm production and efficiency: A summary report, 1970. U.S. Dept. Agr., Econ. Res. Serv. Stat. Bul. No. 233, revised. June 1970.

05 13 01

- 974. U.S. Department of Agriculture, Economic Research Service.
 Changes in farm production and efficiency: A summary
 report, 1971. U.S. Dept. Agr., Econ. Res. Serv. Stat.
 Bul. No. 233, revised. June 1971.
- 975. Upchurch, L. M. The capacity of the United States to supply food for developing countries. pp.215-223. In: Alternatives for balancing world food production and needs. Iowa State University Press, Ames. 1967.

Irrigation 06 13

- 976. Clark, Colin. The economics of irrigation. Pergamon Press, New York. 1967.
- 977. Dominy, Floyd E. The role of irrigation in the West; expanding economy. Irrigation and Drainage Specialty Conference. Amer. Society of Civil Engineers. 1967.
- 978. Forage crop irrigation with oxidation pond effluent.
 Mississippi State University, Water Resources Research
 Institute Rpt. 1970.
- 979. Fullerton, H. H. Transfer restrictions and misallocation of irrigation water. Unpublished M.S. thesis. Library, Utah State University, Logan. 1966.
- 980. Gerard, C. J. Influence of transpiration suppressants, sprinkler irrigation and moisture levels on transpiration and evapotranspiration. Texas A & M University, Water Resources Institute Rpt. TR-27. May 1970.
- 981. Gertel, Karl. Economic aspects of irrigation in the western Cornbelt fringe with special reference to the proposed Sargent Reclamation Project in Central Nebraska. Unpublished Ph.D. dissertation. Library, Iowa State University, Ames. 1954.

982. Helfinstine, Rex David. An economic comparison of dryland and potential irrigation farming in Central South Dakota. Unpublished Ph.D. dissertation. Library, University of California, Berkeley. 1959.

06 13 03

- 983. Hiler, E. A. and S. I. Bhuiyan. Dynamic simulation of unsteady flow of water in unsaturated soils and its application to subirrigation system design. Texas A & M University, Water Resources Institute Rpt. November 1971.
- 984. Israelson, Orson W. Irrigation principles and practices.
 John Wiley and Sons, Inc., New York. 1956.

 06 13 02
- 985. Law, James P., Jr. National irrigation return flow research and development program. U.S. Environmental Protection Agency Water Pollution Control Research Series 13030 GJS 12/71. U.S. Govt. Print Off., Washington, D.C. December 1971.

06 13 06

986. Myers, J. M., C. D. Baird and R. E. Choate. Evaporation losses in sprinkler irrigation. University of Florida, Florida Water Resources Research Center Pub. No. 12. December 1970.

- 987. Osborn, James E., Milton Holloway and Newt Walker. Importance of irrigated crop production to a seventeen county area in the Texas High Plains. Texas Tech University, Water Resources Center Rpt. WRC-72-2. May 1972.
- 988. Ruttan, Vernon W. The economic demand for irrigated acreage: New methodology and some preliminary projects, 1954-1980. The Johns Hopkins Press, Baltimore. 1965.
- 989. Skaggs, R. W. and G. J. Kriz. Water table control and subsurface irrigation in mineral and high organic coastal plain soils. University of North Carolina, Water Resources Research Institute Rpt. No. 67. May 1972.
- 990. Skogerboe, Gaylord V. and James P. Law, Jr. Research needs for irrigation return flow quality control. U.S.

Environmental Protection Agency Water Pollution Control Research Series 13030 11/71. U.S. Govt. Print Off., Washington, D.C. November 1971.

06 13 06

991. Skold, M. D. and A. W. Epp. Optimal farm organizations for irrigated farms in South Central Nebraska. Nebr. Agr. Exp. Sta. Res. Bul. 222. 1966.

06 13 03

992. Youngner, V. B., W. D. Kesner, A. R. Berg and L. R. Green. Ecological and physiological implications of greenbelt irrigation: Second annual report of the Maloney Canyon Project. University of California, Water Resources Center Contribution No. 135. 1971.

06 13 06

General

07 13

993. Abel, Martin E. and Anthony S. Rojko. World food situation: Prospects for world grain production, consumption and trade. U.S. Dept. Agr., Econ. Res. Serv. Foreign Agr. Econ. Rpt. No. 35. 1967.

07 13 01

994. Armenakis, A. A., H. J. Moore and G. T. Peden, Jr.
Inland port facilities and economic growth. Mississippi
State University, Water Resources Research Institute Rpt.
1970.

07 13 06

- 995. Barnett, H. J. and Chandler Morse. Scarcity and growth.
 The Johns Hopkins Press, Baltimore. 1963.
- 996. Bator, Francis M. The anatomy of market failure. The Quarterly Jour. of Econ. 72, No. 3:351-379. August 1958.
- 997. Bator, Francis M. The simple analytics of welfare maximization. Amer. Econ. Review 47:22-59. 1957.
- 998. Baumol, William J. Economic theory and operations analysis. 2nd ed. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1965.

999. Baumol, William J. Welfare economics and the theory of the state. 2nd ed. Harvard University Press, Cambridge, Massachusetts. 1965.

07 13 05

1000. Bishop, C. E. and W. D. Toussaint. Introduction to agricultural economic analysis. John Wiley and Sons, Inc., New York. 1958.

07 13 02

- 1001. Brewer, Michael F. Public pricing of natural resources.

 Jour. of Farm Econ. 44, No. 1:35-49. February 1962.

 07 13 03
- 1002. Bromley, Dan and Loyd Fischer (ed.) Issues in natural resource use and development. North Central Regional Strategy Committee on Natural Resource Development Rpt. No. 1. October 1971.

07 13 10

1003. Brown, Lester R. Seeds of change. Praeger Publishers, New York. 1970.

07 13 01

1004. Brown, Lester R. The world food/population problem: An overview. pp.3-18. In: Alternatives for balancing world food production and needs. Iowa State University Press, Ames. 1967.

07 13 01

1005. Buchanan, James M. Joint supply, externality and optimality. Economica 33, No. 132:404-415. November 1966.

07 13 04

1006. Buchanan, James M. The demand and supply of public goods. Rand McNally and Co., Chicago. 1968.

1007. Buchanan, James M. and Wm. Craig Stubblebine.
Externality. Economica 29, No. 116: 371-384. November 1962.

- 1008. Cameron, Gordon C. Regional economic development: The Federal role. The Johns Hopkins Press, Baltimore. 1971.
- 1009. Chase, Samuel B. Introduction and summary. pp. 1-32. In:

Samuel B. Chase (ed.) Problems in public expenditure analysis. The Brookings Institution, Washington, D.C. 1968.

07 13 05

1010. Clark, J. B. The distribution of wealth. The Macmillan Co., New York. 1899.

07 13 02

1011. Cummings, Ralph W., Jr. U.S. export potentials and the green revolution. pp.27-46. In: Farm program choices. Iowa State University, Center for Agricultural and Rural Development CAED Rpt. 35. 1970.

07 13 01

1012. Dunn, Edgar S., Jr. Economic and social development: A process of social learning. The Johns Hopkins Press, Baltimore. 1971.

07 13 10

1013. Fellows, Irving F. (ed.) Budgeting: Tool of research and extension in agricultural economics. Conn. (Storrs) Agr. Exp. Sta. Bul. 357. 1960.

07 13 02

1014. Ferguson, C. E. Microeconomic theory. Richard D. Irwin, Inc., Homewood, Illinois. 1966.

07 13 02

1015. Friedman, Milton. Price theory: A provisional text. Aldine Publishing Co., Chicago. 1962.

07 13 02

1016. Harl, Neil E. The social, economic, regulatory and legal aspects of our environment: Problems and solutions.

Paper presented at Annual Extension Conference, Iowa State University, Ames, Iowa. Department of Economics, Iowa State University. 1970.

07 13 04

1017. Head, J. G. Public goods and public policy. Public Finance 17:197-219. 1962.

07 13 05

1018. Heady, Earl O. Economics of agricultural production and resource use. Prentice Hall, Inc., Englewood Cliffs, New Jersey. 1952.

1019. Henderson, James M. and Richard E. Quant. Microeconomic

- theory. McGraw-Hill Book Co., Inc., New York. 1958. 07 13 02
- 1020. Hicks, John R. Value and capital. 2nd ed. Oxford University Press, London, England. 1946.
- 1021. Hildreth, R. J. and E. N. Castle. Identification of problems. pp.19-40. In: W. L. Gibson, R. J. Hildreth and Gene Wunderlich (ed.) Methods for land economics research. University of Nebraska Press, Lincoln. 1966.
- 1022. Irwin, George D. A comparative review of some firm growth models. Agr. Econ. Res. 20, No. 3:82-100. July 1968.
- 1023. Kneese, Allen V. and Ralph G. d'Arge. Pervasive external costs and the response of society. Resources for the Future, Inc., Washington, D.C. 1969.
- 1024. Koopmans, T. C. Three essays on the state of economic science. McGraw-Hill Book Co., Inc., New York. 1957.

 07 13 04
- 1025. Leven, Charles L., John D. Legler and Perry Shapiro. An analytical framework for regional development policy.

 Massachusetts Institute of Technology Press, Cambridge.
 1970.

07 13 01

- 1026. Linsley, R. K. and J. B. Franzini. Water-resources engineering. McGraw-Hill Book Co., Inc., New York. 1964.
- 1027. Massey, Dean T. and Gordon D. Rose. Opportunities for regional research on water resources problems. University of Iowa, Agricultural Law Center Monograph No. 10. September 1968.

07 13 01

1028. Meyer, C. W. Joint supply, externalities, and public goods: The case of water quality. Unpublished typewritten paper. Department of Economics, Iowa State University, Ames. ca. 1970.

07 13 05

1029. Mishan, E. J. Reflections on recent developments in the

concept of external effects. pp. 180-224. In: Welfare economics: Ten introductory essays. Random House, Inc., New York. 1969.

07 13 04

1030. Mishan, E. J. The postwar literature on externalities: An interpretative essay. Jour. of Econ. Literature 9, No. 1:1-28. March 1971.

07 13 04

1031. Paddock, William and Paul Paddock. Famine - 1975! Little, Brown and Company, Boston. 1967.

1032. Samuelson, Paul A. Diagrammatic exposition of a theory of public expenditure. Review of Econ. and Stat. 37:350-356. 1955.

07 13 05

- 1033. Samuelson, Paul A. The pure theory of public expenditure. Review of Econ. and Stat. 36:387-389. 1954. 07 13 04
- 1034. Stork, Karen E. (ed.) Technology transfer in water research: The interface between producers and users. University of Nebraska, Nebraska Water Resources Research Institute Rpt. 1972.

07 13 06

1035. Turvey, Ralph. On divergences between social cost and private cost. Economica 30:309-313. 1963. 07 13 05

1036. U.S. Department of Agriculture, Economic Research Service. Farm Income Situation. U.S. Dept. Agr., Econ. Res. Serv. FIS-218. July 1971.

07 13 01

1037. U.S. Department of Commerce, Office of Business Economics. Survey of Current Business 49, No. 4. U.S. Govt. Print Off., Washington, D.C. April 1969. 07 13 01

1038. U.S. Water Resources Council. The nation's water resources. U.S. Govt. Print. Off., Washington, D.C. November 1968.

07 13 01

1039. U.S. Water Resources Council. The nation's water re-

sources: Summary. U.S. Govt. Print. Off., Washington, D.C. November 1968.

07 13 01

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1036. U.S. Department of Archeritary Sconosic Manager Department of the Second Second

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