Bulletins

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B5001 Geology and Ground-Water Resources of the Houston District, Texas
By J. W. Land, A. G. Winslow, W. N. White
October 1950

Gives information about the geology in relation to ground water. Summarizes the results of previous investigations, gives the results of deep-well exploration, and gives information about pumpage, fluctuations of water levels, pumping tests, and quality of water.

B5003 Geology and Ground-Water Resources of Walker County, Texas
By A. G. Winslow
October 1950

Gives information about the geology, occurrence, development, and use of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

B5004 Development of Ground Water for Irrigation in the Dell City Area, Hudspeth County, Texas
By R. A. Scalapino
September 1950

Gives information about the geology and occurrence of ground-water, development, and fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B5101 Water Supply of the Houston Gulf Coast Region
By W. H. Goines, A. G. Winslow, J. R. Barnes
January 1951

Summarizes the development and use of water from both surface and underground sources. Shows that greater development is possible.

B5102 Summary of the Development of Ground Water for Irrigation in the Lobo Flats Area, Culberson and Jeff Davis Counties, Texas
By J. W. Hood, R. A. Scalapino
September 1951

Summarizes the geology in relation to the occurrence of ground water. Gives information about the development and fluctuations of water levels, records of wells, logs, and chemical analyses of ground water.

B5103 Ground-Water Resources of Parker County, Texas
By G. J. Stramel
November 1951

Gives information about the geologic formations, their water-bearing properties, and ground-water development and use; also gives records of wells, logs, and chemical analyses of ground water.

B5104 Development of Wells for Irrigation and Fluctuation of Water Levels in the High Plains of Texas to January 1951
By E. R. Leggat
November 1951

B5201 The Houston District, Texas, Pumpage and Decline of Artesian Pressure During 1950-51
By A. G. Winslow, L. R. Fluellen, Jr.
January 1952

B5202 Summary of Ground-Water Development in the Pecos Area, Reeves and Ward Counties, Texas, 1947-51
By J. W. Hood, D. B. Knowles
January 1952

Gives information about the use of ground water and changes in water levels.

B5203 Records of Wells, Drillers' Logs, Water Analyses, and Map Showing Location of Wells in Winter Garden District, Dimmit and Zavala Counties and Eastern Maverick County, Texas
By D. E. Outlaw
March 1952

B5204 Ground-Water Resources in the Vicinity of Kenmore Farms, Kendall County, Texas
By W. O. George, W. W. Doyel
June 1952

Gives information about the geology, the occurrence of ground water, and the movement of ground water; also gives records of wells, logs, and chemical analyses of ground water.

B5205 Texas Index of Surface Water Records, 1882-1951, Discharge, Sediment, Chemical Quality, and Water Temperature
May 1952

B5206 Results of Artificial Recharge of the Ground Water Reservoir at El Paso, Texas
By R. W. Sundstrom, J. W. Hood
July 1952

Gives the results of a recharge test in the Montana well field and evaluates the feasibility of artificial recharge at the Montana and Mesa well fields.

B5207 Geology and Ground-Water Resources of Lynn County, Texas
By E. R. Leggat
September 1952

Gives information about the geologic formations, their water-bearing properties, and the development and use of ground water. Also gives water levels in wells, records of wells, logs, and chemical analyses of ground water.

B5208 Water Resources of Waller County, Texas
By T. R. Fluellen, W. H. Goines
September 1952

Gives information about the relation of geology to the occurrence of ground water and the utilization of ground water. Information about surface-water supply is also given along with records of wells, logs, and chemical analyses of ground water.

B5209 Ground-Water Resources of Starr County, Texas
By O. C. Dale
December 1952

Gives information about the occurrence of ground water; also gives records of wells, logs, and chemical analyses of ground water.

B5210 Ground-Water Resources of Ector County, Texas
By D. B. Knowles
December 1952

Gives information about the geologic formations, their water-bearing properties, and the development and use of water from wells. Also gives records of wells, drillers' logs, and chemical analyses of water from wells.

B5301 Ground-Water Resources of the Odell Sand Hills, Wilbarger County, Texas
By G. W. Willis, D. B. Knowles
January 1953

Gives the results of test drilling, indicates areas favorable for additional development of ground water, and gives the results of pumping tests, theoretical drawdowns, and pumping levels for assumed spacing of production wells. Also gives records of wells, logs, and chemical analyses of ground water.

B5302 Records of Water-Level Measurements in Hale County, Texas, 1910-1953
By C. R. Follett
October 1953

B5303 Records of Water-Level Measurements in Lubbock County, Texas, 1936-1953
By C. R. Follett
October 1953

B5304 Records of Water-Level Measurements in Floyd County, Texas, 1913-1953
By C. R. Follett
November 1953

B5305 Records of Water-Level Measurements in Deaf Smith County, Texas, 1914-1953
By C. R. Follett
November 1953

B5306 Records of Water-Level Measurements in Lamb County Texas, 1914-1953
By C. R. Follett
December 1953

B5307 Records of Water-Level Measurements in Swisher County, Texas, 1914-1953
By C. R. Follett
December 1953

B5401 Pumpage of Ground Water and Decline of Artesian Pressure in the Houston District, Texas, During 1951 and 1952
By W. W. Doyel, A. G. Winslow, W. L. Naftel
January 1954

B5402 Summary of Ground-Water Development in the Southern High Plains, Texas
By E. R. Leggat
February 1954

Presents information about the use of ground water and the fluctuations of water levels, and summarizes the effects of ground-water development on the pumping levels and discharges of wells.

B5403 Ground-Water Resources of Cameron County, Texas
By O. C. Dale, W. O. George
February 1954

Gives information about the water-bearing formations and the use of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

B5404 Records of Water-Level Measurements in Dallas, Hansford, Hartley, Hutchinson, Moore, Ochiltree, and Sherman Counties, Texas
By C. R. Follett
March 1954

B5405 Records of Water-Level Measurements in Martin County, Texas, 1936-1953
By C. R. Follett
April 1954

B5406 Records of Water-Level Measurements in Bailey, Briscoe, Castro, Parmer, Potter, and Randall Counties, Texas
By C. R. Follett
April 1954

B5407 Records of Water-Level Measurements in Cochran, Crosby, Gaines, Hockley, Lynn, and Terry Counties, Texas
By C. R. Follett
April 1954

B5408 Records of Water-Level Measurements in Loving and Ward Counties, Texas
By C. R. Follett
May 1954

B5409 Salt Water and Its Relation to Fresh Ground Water in Harris County, Texas
By A. G. Winslow, W. W. Doyel
June 1954

Gives a summary of the relation between fresh and salt water in aquifers; considers the possible means of natural discharge from the aquifer, the probable occurrence of fresh and salt water prior to ground-water withdrawals, and the present occurrence of salt water. Also shows the effect of ground-water withdrawals and considers the possible sources of salt-water contamination.

B5410 Ground Water Development in the Southern High Plains of Texas, 1953
By E. R. Leggat
July 1954

Summarizes ground-water development, use, and fluctuations of water levels to 1954. Shows the decline in water levels from January 1953 to January 1954.

B5411 Ground Water Resources of Tom Green County, Texas
By G. W. Willis
September 1954

Gives information about the geology and its relation to ground water, and the occurrence, quality, and development of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

B5412 Ground-Water Resources of the San Antonio Area, Texas, a Progress Report of Current Studies
By J. W. Lang
August 1954

Gives a summary of the geology and the occurrence of ground water. Gives information about the hydrology, estimates the perennial yield of the Edwards Limestone Aquifer, and discusses water-supply problems.

B5413 Records of Wells in Bastrop County, Texas
By G. M. Austin
September 1954

Gives records of wells, logs, and chemical analyses of ground water.

B5414 Records of Water-Level Measurements in Reeves County, Texas
By C. R. Follett
September 1954

B5415 Records of Water-Level Measurements in Culberson, Hudspeth, and Jeff Davis Counties, Texas
By C. R. Follett
November 1954

B5416 Records of Water-Level Measurements in Atascosa and Frio Counties, Texas
By B. W. Swartz
December 1954

B5417 Records of Water-Level Measurements in El Paso County, Texas
By C. R. Follett
December 1954

B5418 Ground-Water Resources of Jones County, Texas
By A. G. Winslow, W. W. Doyel, C. H. Gaum
December 1954

Gives information about the geologic formations and their relation to the occurrence of ground water. Discusses utilization, quality, and possibilities for future development. Also gives records of wells, logs, and chemical analyses of ground water.

B5501 Records of Wells in Hays County, Texas
By K. J. Decook, W. W. Doyel
February 1955

Gives logs of wells, water levels, and chemical analyses of ground water.

B5502 Geology and Ground-Water Resources of Galveston County, Texas
By B. M. Petitt, Jr., A. G. Winslow
October 1955

Gives information about the geologic formations and their water-bearing properties, the history of water supplies, the ground-water hydrology, and the quality of water. Also gives records of wells, logs, and chemical analyses of ground water.

B5503 Records of Water-Level Measurements in Haskell and Knox Counties, Texas
By C. R. Follett
September 1955

B5601 Geology and Ground-Water Resources of Medina County, Texas
By C. L. R. Holt, Jr.
August 1956

Describes the rock units and their water-bearing properties. Gives information about the occurrence, recharge, movement, discharge, and quality of ground water, and fluctuations of water levels. Also gives records of wells and springs, logs, water levels, and chemical analyses of ground water.

B5602 Pumpage of Ground Water and Changes in Artesian Pressure in the Houston District and Baytown-LaPorte Area, Texas, 1953-55
By L. A. Wood
February 1956

B5603 Ground-Water Resources of the El Paso District, Texas, Progress Report No. 7
By R. E. Smith
February 1956

Gives information about pumpage and the fluctuation of water levels. Also gives information about the removal of water from storage in the Hueco Bolson and salt-water encroachment. Gives water levels in wells and chemical analyses of ground water.

B5604 Ground Water Resources of the Crane Sandhills, Crane County, Texas
By G. H. Shafer
March 1956

Gives information about the geologic formations and their water-bearing properties, the development of water from wells, and the quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

B5605 Basic Data and Summary of Ground-Water Resources of Chambers County, Texas
By W. W. Doyel
February 1956

Gives information about the occurrence of ground water and the decline in water levels. Also gives records of wells, logs, water levels in wells, and chemical analyses of ground water.

B5606 Records of Water-Level Measurements in Bexar County, Texas
By C. R. Follett
March 1956

B5607 Water-Level Decline Maps of 17 Counties in the Southern High Plains, Texas, January 1955 to January 1956
By C. R. Follett
April 1956

B5608V1 Ground Water Resources of the San Antonio Area, Texas. V.1 Progress Report of Current Studies
By B. M. Petitt, Jr., W. O. George
July 1956

B5608V2PT1 Ground-Water Resources of the San Antonio Area, Texas. V.2 Pt.1 Records of Wells and Springs
By B. M. Petitt, Jr., W. O. George
July 1956

B5608V2PT2 Ground-Water Resources of the San Antonio Area, Texas. V.2 Pt.2 Records of Driller's Logs
By B. M. Petitt, Jr., W. O. George
July 1956

B5608V2PT3 Ground-Water Resources of the San Antonio Area, Texas. V. 2 Pt. 3 Water Levels in Wells
By B. M. Petitt, Jr., W. O. George
July 1956

B5609 Records of Water-Level Measurements in Medina County, Texas, 1930 to March 1956
By C. R. Follett
April 1956

B5610 Records of Water-Level Measurements in Comal and Guadalupe Counties, Texas, 1933 to March 1956
By C. R. Follett
April 1956

B5611 Records of Water-Level Measurements in Kinney, Uvalde, and Val Verde Counties, Texas, 1929 to March 1956
By C. R. Follett
May 1956

B5612 Records of Water-Level Measurements in Hays, Travis, and Williamson Counties, Texas, 1937 to May 1956
By C. R. Follett
July 1956

B5613 Records of Water-Level Measurements in Childress, Cottle, Hardeman, and King Counties, Texas, 1940 to Jan. 1956
By C. R. Follett
July 1956

B5614 Records of Water-Level Measurements in Foard and Wilbarger Counties, Texas, 1936 to January 1956
By C. R. Follett
August 1956

B5615 Ground-Water Resources of the Hueco Bolson, Northeast of El Paso, Texas
By D. B. Knowles, R. A. Kennedy
August 1956

Gives information about the occurrence of ground water and the ground-water reservoirs, ground-water development and fluctuations of water levels, pumping tests and application of the results, and the ground water in storage.

B5617 Records of Water-Level Measurements in Dimmit, Maverick, and Zavala Counties, Texas, 1920, 1928 to September 1956
By C. R. Follett
December 1956

B5701 Artificial-Recharge Experiments at McDonald Well Field, Amarillo, Texas
By E. A. Moulder, D. R. Frazor
January 1957

Describes a recharge test made to determine the practicability of recharge through wells; the recharge-head relationship of injection wells; the storage and transmitting properties of the aquifer; the effect of recharge on water levels; and the percentage of water that can be recovered by pumping.

B5702 Records of Water Levels in Bastrop and Caldwell Counties, Texas, 1937 through December 1956
By B. W. Swartz
April 1957

B5703 Records of Water Levels in Aransas and San Patricio Counties, Texas, 1938 through December 1956
By B. W. Swartz
April 1957

B5704 Geology and Ground-Water Resources of Lamb County, Texas
By E. R. Leggat
March 1957

Describes the geologic formations and their water-bearing properties. Gives information about the occurrence, recharge, discharge, development and quality of ground water, and the fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B5705 Water-Level Decline Maps, 1956 to 1957, and Water Levels in Observation Wells in 20 Counties In the Southern High Plains, Texas
By C. R. Follett
April 1957

B5706 The Use of Ground Water for Irrigation in Childress County, Texas
By G. H. Shafer
March 1957

Gives information about the occurrence, use, and quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

B5707 Water-Level Maps and Water Levels in Observation Wells in the North High Plains, Texas
By C. R. Follett
August 1957

B5708 Records of Wells in Travis County, Texas
By Ted Arnow
July 1957

Gives records of wells, logs, and chemical analyses of ground water.

B5709 Geology and Ground-Water Resources of Tarrant County, Texas
By E. R. Leggat
September 1957

Gives information about the geologic units and their water-bearing properties; occurrence, development, and use of ground water; and fluctuations of water levels. For the principal ground-water reservoirs, gives information about the yields and specific capacities of wells, the results and application of results of pumping tests, the potential for future development, and the quality of the water. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B5710 Ground-Water Geology of Wilson County, Texas
By R. B. Anders
July 1957

Gives information about the geology and water-bearing properties of the formations, development of ground water, pumping tests, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.

B5711 Ground-Water Resources of Goliad County, Texas
By O. C. Dale, E. A. Moulder, Ted Arnow
September 1957

Gives information about the rock formations and their water-bearing properties, the occurrence of ground water, pumping test data, present and potential development, relationship between ground water and surface water, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.

B5712 Ground-Water Geology of the Alpine Area, Brewster, Jeff Davis, and Presidio Counties, Texas
By R. T. Littleton, G. L. Audsley
September 1957

Gives information about the geologic formations and their water-bearing properties, geologic structure, occurrence and movement of ground water, and the quality of water. Gives information about ground-water exploration and indicates areas of possible additional development. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B5801 Ground-Water Geology in the Vicinity of Dove and Croton Creeks, Stonewall, Kent, Dickens, and King Counties, Texas, with Special Reference to Salt-Water Seepage
By L. G. McMillion
July 1958

Gives information about the ground water in northeast Kent County and the artesian system of the Childress Dolomite; includes discussion of the stratigraphy of the salt-producing areas, geologic structure, topography, and the water table. Also contains records of wells and exploration holes and logs.

B5802 Ground-Water Conditions in Carson County, Texas
By Chris Gard
August 1958

Gives information about the geologic formations and water supply; the source, movement, chemical quality, and utilization of ground water; and well performance. Also gives records of wells, logs, and chemical analyses of ground water.

B5803 Ground-Water Geology of Real County, Texas
By A. T. Long, Jr.
October 1958

Gives information about the rock formations and their water-bearing properties, the occurrence and movement of ground water and the relation to streamflow and development, and quality of water. Also gives records of wells, logs, water levels, and analyses of ground water.

B5804 Records of Water-Level Measurements in Jackson, Matagorda, and Wharton Counties, Texas, 1934 to April 1958
By F. A. Rayner
December 1958

B5805 Pumpage of Ground Water and Fluctuations of Water Levels in the Houston District and Baytown-LaPorte Area, Texas, 1955-57
By L. A. Wood
December 1958

Also gives information about the changes in chemical quality of the water.

B5806 Records of Water-Level Measurements in Collingsworth, Hemphill, Roberts, and Wheeler Counties, Texas, 1937 through July 1958
By F. A. Rayner
December 1958

B5807A Compilation of Surface Water Records in Texas through September 1957
September 1958

Data presented for most of the gaging stations comprise a description of the station, tables of monthly discharge and runoff, and a yearly summary table. Supersedes U. S. Geological Survey Water-Supply Paper 850.

B5807B Texas Index of Surface Water Records, Discharge, Sediment, Chemical Quality, and Water Temperature
November 1958

Provides a convenient index of basic data for Texas streams and reservoirs. Includes records of flow, stage, contents, temperatures, chemical quality, and sediment load. Supersedes Bulletin 5205.

B5807C Summary of the Peak Flood Flow Measurements and other Measurements of Stream Discharge in Texas at Points Other Than Gaging Stations
February 1959

Summarizes in one volume all streamflow measurements made in Texas prior to September 30,1957.

B5807D Channel Gain and Loss Investigations, Texas Streams, 1918-1958
April 1960

Presents two sections: (1) low-flow investigations, including tabulation of measurements, text, and substantiating information; and (2) delivery of water investigations, including discussion of purpose and scope, summary of results, and presentation of results in hydrographs and time-of-travel curves.

B5807E Texas Stream-Gaging Program: Evaluation and Recommendations
October 1960

Sets forth the procedures, problems, and findings in an analytical review and evaluation of the current stream-gaging program in Texas with recommendations as to the number and locations of new stations required to develop a balanced stream-gaging program.

B5808 Pumpage of Ground Water and Changes in Levels in Galveston County, Texas, 1952-57
By L. A. Wood
December 1958

Also gives information about subsidence of the land surface and changes in chemical quality of the ground water.

B5901 Records of Water-Level Measurements in Chambers, Liberty, and Montgomery Counties, Texas, 1931 through April 1958
By F. A. Rayner
January 1959

B5902 Records of Water-Level Measurements in Bell, McLennan, and Somervell Counties, Texas, 1930 through 1957
By F. A. Rayner
February 1959

B5903 Records of Water-Level Measurements in Crockett, Glasscock, Reagan, Upton, and Terrell Counties, Texas, 1937 through 1957
By F. A. Rayner
March 1959

B5904 Records of Water-Level Measurements in Brazoria, Fort Bend, and Waller Counties, Texas, 1931 through June 1958
By F. A. Rayner
February 1959

B5905 Chemical Composition of Texas Surface Waters, 1956
January 1959

Provides in table form the results of chemical analysis of water obtained daily from selected points throughout the state, and gives the results from a number of miscellaneous samples obtained at various points.

B5906 Records of Water-Level Measurements in Crane and Midland Counties, Texas, 1937 through 1957
By F. A. Rayner
March 1959

B5907 Records of Water-Level Measurements in Mitchell, Nolan, Sterling, and Tom Green Counties, Texas, 1938 through 1957
By F. A. Rayner
March 1959

B5908 Water-Level Measurements and Maps, Southern High Plains, Texas, 1958 and 1959
By F. A. Rayner
June 1959

B5909 Water-Level Measurements and Maps, Northern High Plains, Texas, 1958 and 1959
By F. A. Rayner
August 1959

B5910 Water Requirements Survey for Texas
By Bureau of Business Research
July 1959

Presents water requirements for all the river basins in Texas. These requirements are broken down into industrial, nonindustrial, and total requirements; includes the water requirements and the population of all Texas cities of 5,000 persons or over, and projections.

B5911 Ground-Water Geology of Bexar County, Texas
By Ted Arnow
October 1959

Gives information about the geology and water-bearing properties of the formations; for the Edwards and associated limestones, discusses the recharge, discharge, movement of water, fluctuations of water levels, and quality of the water.

B5912 Inventory and Use of Sedimentation Data in Texas
By Soil Conservation Service
January 1959

Brings together all available pertinent data on sedimentation records in order to furnish the best possible estimate of average annual sediment rates for the watersheds larger than 100 square miles throughout the state. Curves are shown indicating average annual rates of sediment production by land resource areas for watersheds ranging from 100 to 10,000 square miles in size. Sediment problems in the 17 major river basins of the state are discussed, as are various types of sediment damage including sedimentation of reservoirs.

B5913 Texas Index of Meteorological Data (1885-1959)
October 1959

Lists the meteorological stations and shows graphically the periods for which records of meteorological data are available for the period 1885 to 1959.

B5914 A Study of Droughts in Texas
By R. L. Lowry, Jr.
December 1959

Includes information on the variation in annual rainfall, extent and severity of droughts, description of historical droughts beginning in 1891 to 1956, summary of 11 droughts since 1889, severity of the climates during the droughts, effects of drought on the Texas economy, effects of drought on water supplies, consideration of past droughts and the design of supply projects, what can be done about future droughts, and background of the economic distress in the Great Plains.

B5915 Chemical Composition of Texas Surface Waters, 1957
By L. S. Hughes
November 1959

Contains the same type of information as Bulletin 5905.

B5916 Geology and Ground-Water Resources of Winkler County, Texas
By Sergio Garza, J. B. Wesselman
November 1959

Gives information about the geologic formations and their water-bearing properties; information about the occurrence, movement, use, and quality of ground water; and the results of pumping tests. Also gives records of wells, logs, and chemical analyses of ground water.

B6001 Surface Runoff from Texas Watersheds and Sub-Basins
By Lockwood, Andrews, Newman
February 1960

Presents an inventory and analysis of data regarding drainage areas, surface runoff, consumptive uses, and reservoir storage for the state.

B6002 Brine Production and Disposal on the Lower Watershed of Chambers and Richland Creeks, Navarro County, Texas
By F. L. Osborne, Jr., V. M. Shamburger, Jr.
March 1960

Gives information about the history of oil development, geology, brine production and disposal, and the chemical quality of produced water.

B6003 Geology and Ground Water Resources of Dimmit County, Texas
By C. C. Mason
June 1960

Gives information about the rock formations and their water-bearing properties for the Carrizo Sand. Gives information about the occurrence and withdrawals of ground water, changes in water levels, recharge, quality of water, records of wells, logs, water levels, and chemical analyses of ground water.

B6004 Geology and Ground Water Resources of Hays County, Texas
By K. J. Decook
August 1960

Gives information about the geology; water-bearing properties of the rock units; structural geology; and occurrence, recharge, movement, discharge, quality, and utilization of ground water. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.

B6005 Water-Level Measurements in Culberson, Hudspeth, and Jeff Davis Counties, Texas
By Jack Stearman
April 1960

B6006 Monthly Reservoir Evaporation Rates for Texas, 1940 through 1957
By R. L. Lowry, Jr.
May 1960

Presents tables and charts from which monthly rates of evaporation can be obtained for water-supply analysis. Explains procedures used, development of data, and the proper use of results obtained.

B6007 Ground Water Geology of Karnes County, Texas
By R. B. Anders
July 1960

Gives information about the geologic formations and occurrence of ground water, ground-water development, changes in water levels, and potential development. Also gives records of wells, logs, and chemical analyses of ground water.

B6008 Water Levels in Observation Wells in Cameron, Hidalgo, and Starr Counties, Texas, 1950-1959
By Jack Stearman
May 1960

B6009 Water Levels in Observation Wells in Haskell and Knox Counties, Texas, 1956-1960
By Jack Stearman
June 1960

B6010 Geology and Ground-Water Resources of Hale County, Texas
By J. G. Cronin, L. C. Wells
November 1960

Gives information about the geologic formations and their water-bearing properties; the occurrence of ground water; the hydraulic properties of the aquifer; recharge, movement, and discharge of water; and the water in storage. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B6011 Water Levels in Observation Wells, Southern High Plains, Texas, 1959 and 1960
By Jack Stearman
July 1960

B6012 Water Levels in Observation Wells, Northern High Plains, Texas, 1958-1960
By Jack Stearman
August 1960

B6013 Geology and Ground-Water Resources of Grayson County, Texas
By E. T. Baker, Jr.
September 1960

Gives information about the rock units and their water-bearing properties; the occurrence and movement of ground water; and for the water-bearing formations, the fluctuations of water levels, the hydraulic characteristics, future development, use, and quality of water. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.

B6014V1 Ground-Water Resources of the Lower Rio Grande Valley Area, Texas. V.1
By R. C. Baker, O. C. Dale
February 1961

B6014V2 Ground-Water Resources of the Lower Rio Grande Valley Area, Texas. V. 2 Records of Wells
By R. C. Baker, O. C. Dale
February 1961

B6015 Water Levels in Observation Wells in Atascosa and Frio Counties, Texas, 1955-1960
By Jack Stearman
September 1960

B6016 Reconnaissance Investigation of the Ground-Water Resources of the Canadian River Basin, Texas
September 1960

Gives information about the geology and the occurrence of ground water by geologic units, the quality and development of ground water, and ground water available for future development.

B6017 Ground-Water Geology of the Hickory Sandstone Member of the Riley Formation, McCullock County, Texas
By C. C. Mason
February 1961

Gives information about the stratigraphic units and their water-bearing properties in McCulloch County. For the Hickory Sandstone Member, gives information about the hydrologic characteristics, use of water, recharge, movement and discharge, water in storage, fluctuations of water levels, and quality of water. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B6018 Irrigation in Texas in 1958
November 1960

This survey inventories acreages and crops irrigated in 1958 together with the amounts of surface and underground water applied, the number of irrigation wells, and the acreages that are potentially suitable for irrigation if water was provided.

B6019 Consumptive Use of Water by Major Crops in Texas
By L. L. McDaniels
November 1960

Gives estimates of average consumptive use amounts for 12 major crops and crop groupings. The estimates are tabulated by months for the respective months of growing season for each crop for each of the 24 areas of major production in the state.

B6101 Water Levels in Observation Wells, Southern High Plains, Texas, 1960 and 1961
By D. C. Draper
March 1961

B6102 Geology and Ground-Water Resources of Carson County and Part of Gray County, Texas, Progress Report No. 1
By A. T. Long, Jr.
March 1961

Gives information about the geologic formations and their water-bearing properties; the occurrence, use, availability, and quality of ground water; and the fluctuations of water levels. Also gives tables of water levels and chemical analyses of ground water.

B6103 Annual Water Level Measurements in Observation Wells, Northern High Plains, Texas, 1960 and 1961
By R. C. Lucas
March 1961

B6104 Chemical Composition of Texas Surface Waters, 1958
By L .S. Hughes, Wanda Jones
April 1961

Contains information similar to Bulletin 5905.

B6105 Ground Water Geology of Live Oak County, Texas
By R. B. Anders, E. T. Baker, Jr.
April 1961

Gives information about the geology and occurrence of ground water, pumping tests, changes in water levels, development and potential development, and quality of water. Also gives records of wells, drillers' logs, and chemical analyses of ground water.

B6106V1 Geology and Ground Water Resources of Pecos County, Texas. V. 1 Includes Records of Wells
By C. A. Armstrong, L. G. McMillion
October 1961

B6106V2 Geology and Ground Water Resources of Pecos County, Texas. V. 2 Drillers' Logs, Water Levels in Wells, and Chemical Analyses of Water
By C. A. Armstrong, L. G. McMillion
October 1961

B6107 A Summary of the Occurrence and Development of Ground Water in the Southern High Plains of Texas
By J. G. Cronin
September 1961

Gives information about the geologic units and their water supply. For the Ogallala Formation, gives information about the occurrence, use, recharge and movement of ground water, hydraulic properties, fluctuations of water levels, water in storage, and quality of water. Also gives the outlook for the future.

B6108 Silt Load of Texas Streams, A Compilation Report, June 1889 - September 1959
By I. M. Stout, L. C. Bentz, H. W. Ingram
December 1961

Contains monthly records from silt-sampling stations in Texas.

B6109 Geology and Ground Water Resources of the Northern High Plains of Texas, Progress Report No. 1
By W. H. Alexander, Jr.
November 1961

Gives information about the geologic formations and their water-bearing properties; gives the occurrence, use, availability, and quality of ground water, together with fluctuations of water levels. Also gives chemical analyses of water from selected wells.

B6110 Ground-Water Reconnaissance of the Marfa Area, Presidio County, Texas
By M. E. Davis
December 1961

Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence, movement, recharge, and quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water

B6111 A Reconnaissance of the Ground-Water Resources of the Marathon Area, Brewster County, Texas
By K. J. Decook
December 1961

Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence, movement, recharge, discharge, and quality of ground water, together with the fluctuations of water levels; also gives records of wells, logs, and chemical analyses of ground water.

B6201 Recharge, Discharge, and Changes in Ground Water Storage in the Edwards and Associated Limestones, San Antonio Area, Texas, a Progress Report on Studies 1955-59
By Sergio Garza
January 1962

B6202 Ground-Water Resources of Victoria and Calhoun Counties, Texas
By R. F. Marvin, G. H. Shafer, O. C. Dale
January 1962

Gives information about the occurrence, movement, and quality of ground water; pumping tests, fluctuations of water levels; and present and potential development.

B6203 Ground-Water Resources of the Lower Mesilla Valley, Texas and New Mexico
By E. R. Leggat, M. E. Lowry, J. W. Hood
March 1962

Gives information about the geology pertinent to the occurrence of ground water; recharge, movement, and discharge of ground water; fluctuations of water levels; water in storage; and quality of water; also gives records of wells, logs, and chemical analyses of ground water.

B6204 Development of Ground Water in the El Paso District, Texas, 1955-60, Progress Report No.8
By E. R. Leggat
March 1962

Gives information about the development and pumpage of ground water, fluctuations of water levels, results of pumping tests, quality of water, and artificial recharge; also gives records of wells and chemical analyses of ground water.

B6205 Chemical Composition of Texas Surface Waters, 1959
By L. S. Hughes, Wanda Shelby
April 1962

Contains information similar to Bulletin 5905.

B6206 Research in the Problem of Scaling of Electrodialyses Demineralizers
By D. A. Cowan
April 1962

Describes the results of experiments in which electrodialysis demineralizers were used for desalinization. Presents conclusions and recommendations concerning the problem of scaling of electrodialysis demineralizers.

B6207 Water-Level Measurements through 1962 in Selected Observation Wells, Southern High Plains, Texas
June 1962

B6208 Ground-Water Geology of Edwards County, Texas
By A. T. Long, Jr.
April 1962

Gives information about the rock formations and their water-bearing properties, the occurrence and movement of ground water, relation to streamflow, present and potential development, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.

B6209 Ground-Water Resources of Haskell and Knox Counties, Texas
By William Ogilbee, F. L. Osborne, Jr.
August 1962

Gives information about the geologic formations and their water-bearing properties for the Seymour Formation. Gives the extent, source, occurrence, recharge, movement, discharge, utilization, and the fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.

B6210 Ground Water Geology of Bandera County, Texas
By R. D. Reeves, F. C. Lee
May 1962

Gives information about the stratigraphy and water-bearing properties of the rock units; and the occurrence, movement, development, and quality of ground water. Also gives records of wells and springs, logs, and analyses of water.

B6211 Pumpage of Ground Water and Fluctuations of Water Levels in the Houston District and the Baytown-LaPorte Area, Texas, 1957-61
By R. B. Anders, W. L. Naftel
June 1962

B6212 Geology and Ground Water Resources of Uvalde County, Texas
By F. A. Welder, R. D. Reeves
July 1962

Gives information about the occurrence, recharge, discharge, movement, and quality of ground water. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.

B6213 Annual Water-Level Measurements in Observation Wells, Northern High Plains, Texas, 1961 and 1962
July 1962

B6214V1 Geology and Ground Water Resources of Reeves County, Texas. V. 1 Includes Records of Wells
By William Ogilbee, J. B. Wesselman
September 1962

B6214V2 Geology and Ground Water Resources of Reeves County, Texas. V. 2 Drillers' Logs, Water Levels in Wells, and Chemical Analyses of Water
By William Ogilbee, J. B. Wesselman
September 1962

B6215 Chemical Composition of Texas Surface Waters, 1960
By L. S. Hughes, Wanda Shelby
December 1962
Contains information similar to Bulletin 5905.

B6216 Geology and Ground Water Resources of Kinney County, Texas
By R. R. Bennett, A. N. Sayre
December 1962

Gives information about the rock formations and their water-bearing properties for the Edwards and associated limestones; the occurrence, recharge, movement, and discharge of ground water; the fluctuations of water levels and spring discharge; and the quality of water for the different aquifers. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.

B6301 Availability of Groundwater from the Goliad Sand in Alice Area, Texas
By C. C. Mason
May 1963

Gives information about the geology in relation to ground water; the occurrence, quality, and development of ground water; pumping tests; changes in water levels; problems of well construction; and future development. Also gives records of wells, water levels, logs, and chemical analyses of ground water.

B6302 Availability and Quality of Ground Water in Smith County, Texas
By J. W. Dillard
May 1963

For the principal aquifers, gives information about the geology and structure, source and movement of water, water levels, water-bearing characteristics, chemical quality of water, utilization and present development, well construction and yields, ground water available for development, and physical factors affecting future development.

B6303 Pumpage of Ground Water and Changes in Water Levels in Galveston County, Texas, 1958-62
By R. B. Anders, W. L. Naftel
March 1963

Also gives information about the subsidence of the land surface and changes in chemical quality of the ground water.

B6304 Chemical Composition of Texas Surface Waters, 1961
By L. S. Hughes, Wanda Shelby
September 1963

Contains the same type of information as Bulletin 5905.

B6305 Reconnaissance Investigation of the Ground Water Resources of the Gulf Coast Region, Texas
By L. A. Wood, R. K. Gabrysch, Richard Marvin
June 1963

Gives information about the geology and aquifers in the region; the occurrence, chemical quality, and utilization of ground water; changes in water levels; and problems by subregions. Also gives a quantitative estimate of the availability of ground water in the region.

B6306 Reconnaissance Investigation of the Ground Water Resources of the Red River, Sulphur River, and Cypress Creek Basins, Texas
By E. T. Baker, Jr., A. T. Long, Jr., R. D. Reeves, L. A. Wood
July 1963

Gives information about the general geology of the basins by subdivisions of the area. For the primary aquifers, discusses physical characteristics; recharge, movement, and discharge of ground water; chemical quality; utilization and present development; changes in water levels; availability and potential development; and problems. Also describes secondary aquifers.

B6307 Reconnaissance Investigation of the Ground Water Resources of the Sabine River Basin, Texas
By B. B. Baker, J. W. Dillard, V. L. Souders, R. C. Peckham
August 1963

Contains the same type of information as Bulletin 6306.

B6308 Reconnaissance Investigation of the Ground Water Resources of the Neches River Basin, Texas
By B. B. Baker, J. W. Dillard, V. L. Souders, R. C. Peckham
August 1963

Contains the same type of information as Bulletin 6306.

B6309 Reconnaissance Investigation of the Ground Water Resources of the Trinity River Basin, Texas
By B. B. Baker, J. W. Dillard, V. L. Souders, R. C. Peckham
September 1963

Contains the same type of information as Bulletin 6306.

B6310 Reconnaissance Investigation of the Ground-Water Resources of the Brazos River Basin, Texas
By J. G. Cronin, C. R. Follett, G. H. Shafer, P. L. Rettman
December 1963

Contains the same type of information as Bulletin 6306.

B6311 Floods in Texas—Magnitude and Frequency of Peak Flows
By J. L. Patterson
December 1963

Outlines methods by which the magnitude and frequency of expected floods for most streams in Texas may be predicted; large streams receive special treatment since they do not lend themselves well to regional analysis. Includes tabulations of peak gage heights and discharges for most stations.

B6312 Ground-Water Resources of Refugio County, Texas
By C. C. Mason
October 1963

Discusses principal aquifers and presents data on water pumped and transmissibility. Presents records of wells, drillers' logs where available, and chemical analyses of well water.

B6401 Research on Evaporation Retardation in Small Reservoirs, 1958-63
By W. W. Meinke, W. J. Waldrip
March 1964

Studies show that evaporation losses from small farm and ranch ponds can be retarded effectively by use of a chemical film on the surface of the water, and that the cost of the water saved ranges from 1.02 to 2.45 per 1,000 gallons. Describes the theory and historical development of the chemical-film technique and the methods and problems of film-chemical addition as related to small farm and ranch ponds.

B6402 Geology and Ground-Water Resources of Carson County and Part of Gray County, Texas, Progress Report No. 2
By Gene D. McAdoo, E. R. Leggat, A. T. Long
March 1964

Presents data on wells drilled, water pumped, and water-level declines during the period 1960-62. Discusses possible contamination of ground water from surface disposal of oil-field brines.

B6403 Fifty Years of Water Development in Texas
By S. D. Breeding, P. B. Jones, R. W. Harden, H. M. Cook
April 1964

Summarizes the last fifty years of water development in Texas under three main programs: surface water, ground water, and topographic mapping. Emphasizes the need to expand these programs to meet water demands of the future.

B6404 Conservation Storage Reservoirs in Texas, Some Aspects and Chronology of Surface-Water Resources Development
By L. L. McDaniels
April 1964

Provides information on the development of water resources in Texas by the construction of conservation storage reservoirs. Discusses some of the natural and man-made conditions that may affect conservation storage reservoirs in the state such as: droughts, floods, sedimentation; and water needs for industry, irrigation, recreation, and municipalities. Also gives pertinent data on all reservoirs with 5,000 acre-feet or more capacity.

B6405 Reconnaissance of the Chemical Quality of Surface Waters of the Sabine River Basin, Texas and Louisiana
By L. S. Hughes, D. K. Leifeste
May 1964

Discusses the generally excellent quality of surface water, with tables of chemical analyses and illustrations showing dissolved solids, hardness, and chloride content.

B6406 Geology and Ground-Water Resources of Hardin County, Texas
By E. T. Baker, Jr.
June 1964

Presents the geology of water-bearing formations and gives tables of well records, chemical analyses, and drillers' logs where available. Discusses possibility of saline water contamination and land subsidence resulting from ground-water withdrawals.

B6407 Base-Flow Studies, Pedernales River, Texas, Quantity and Quality, April - May 1962
By P. H. Holland, L. S. Hughes
June 1964

Presents an evaluation of quality of water and interchange of surface and ground waters during a period when evaporation and transpiration losses were significant; compares results with similar study in 1956.

B6408 Dams and Reservoirs in Texas, Historical, and Descriptive Information
By C. L. Dowell
July 1964

Presents in narrative form the location, ownership and history of development; physical description; and pertinent data of all dams and reservoirs with 5,000 acre-feet or more storage capacity. Photographs of typical dams in the state are included. A complete alphabetical index gives all current and obsolete names of major dams and reservoirs.

B6409 Reconnaissance Investigation of the Ground-Water Resources of the Guadalupe, San Antonio, and Nueces River Basins, Texas
By W. H. Alexander, Jr., B. N. Myers, O. C. Dale
August 1964

Contains the same type of information as Bulletin 6306.

B6410 Suspended-Sediment Load of Texas Streams, Compilation Report, October 1959-September 1961
By E. A. Adey, H .M. Cook
November 1964

Presents monthly records of suspended-sediment loads from sampling stations and gives locations.

B6411 Chemical Quality of Surface Waters in the Hubbard Creek Watershed, Texas, Progress Report, September 1963
By C. H. Hembree, J. F. Blakey
November 1964

Presents data collected in a study to determine chemical quality of water, source areas and extent of rapidly increasing dissolved solids, especially chloride, and stratification patterns; to analyze effects of bottom-withdrawals on stratification patterns; and to determine optimum rate at which saline water can be released from the bottom of the reservoir without withdrawal of better quality water in the upper layers.

B6412 Occurrence and Quality of Ground Water in Stephens County, Texas
By D. C. Bayha
September 1964

Gives information on ground-water occurrence in the major geologic formations, variation in chemical quality of the water, oil-field brine production and disposal, and alteration of native chemical quality of water. General hydrologic principles are discussed in the appendix.

B6413 Water-Supply Limitations on Irrigation from the Rio Grande in Starr, Hidalgo, Cameron, and Willacy Counties, Texas
By J. J. Vandertulip, L. L. McDaniels, C. O. Rucker
November 1964

Summarizes the results of a study to determine the amount of water necessary to satisfy domestic, municipal, and industrial requirements in order to project the total number of acres of land which could be irrigated each year from the available water supply of the Rio Grande.

B6413A Appendices to B6413, Water-Supply Limitations on Irrigation from the Rio Grande in Starr, Hidalgo, Cameron, and Willacy Counties, Texas
By J. T. Carr, Jr., I. G. Janca, R. T. Warzecha, R. B. Hendricks
August 1965

Supplements Bulletin 6413 by providing detailed supporting data. Presents separate reports on climate, soils, cropping pattern, water transmission losses to irrigators, hydrology of the Rio Grande from 1900-56, computational procedures and irrigation diversion requirements, and economic evaluation of agricultural water use.

B6414 Analysis of Unit Hydrographs for Small Watersheds in Texas
By W. L. Meier, Jr.
August 1964

Provides a detailed mathematical and graphical analysis of the use of hydrograph-curves of flood runoff commonly used in design predictions in three small watersheds in the Trinity and Colorado River Basins.

B6415 Occurrence and Quality of Ground Water in Young County, Texas
By D. E. Morris
December 1964

Discusses each geologic formation in the county, the occurrence and quality of water found in the formations, and the need for protecting the water-bearing formations from oil-field brine contamination. A section on general hydrologic principles is given in the appendix.

B6501 Chemical Composition of Texas Surface Waters, 1962
By L .S. Hughes, J. F. Blakey
January 1965

Contains the same type of information as Bulletin 5905.

B6502 Reconnaissance Investigation of the Ground-Water Resources of the Rio Grande Basin, Texas
By M. E. Davis, E. R. Leggat, J. B. Brown, L. T. Rogers
July 1965

Presents estimates of ground-water supplies potentially available from principal water-bearing formations as part of statewide reconnaissance; includes descriptions of geography, geology, water quality, and ground-water utilization.

B6503 Base-Flow Studies, Guadalupe River, Comal County, Texas, Quantity, March 1962
By P. H. Holland
March 1965

Studies the interchange of surface and ground waters in the Guadalupe River Basin in Comal County to determine whether significant changes have occurred since the drought of 1955.

B6504 The Current Status of Weather Modification, A Summary - 1964
By J. T. Carr, Jr.
April 1965

Summarizes the brief history of weather modification experiments and reviews literature of more current experiments and investigations. Discusses various cloud-seeding agents, how they are dispensed, and their actions on common cloud types. Analyzes some salient features of existing weather control, generally rain-making, in other states. Also describes the history of proposed federal legislation.

B6505 Base-Flow Studies, Llano River, Texas, Quantity and Quality
By P. H. Holland, H. B. Mendieta
March 1965

Presents the results of a study to determine the quality of water and interchange of surface and ground water in the Llano River below Junction. Compares findings with results of earlier investigations.

B6506 Base-Flow Studies, Lampasas River, Texas, Quantity and Quality, June 3-6, 1963
By W. B. Mills, Jack Rawson
March 1965

Gives the results of a study to determine the quantity and quality of water, including suitability for use, and the interchange of surface and ground water.

B6507 Water-Level Data from Observation Wells in Pecos and Reeves Counties, Texas
By W. R. Muse
April 1965

Presents selected water-level records and supplements previous detailed ground-water studies in Pecos County (Bulletin 6106) and Reeves County (Bulletin 6214).

B6508 Analog Model Study of Ground Water in the Houston District, Texas
By L .A. Wood, R. K. Gabrysch, E. P. Patten, Jr.
May 1965

Describes the use of available aquifer data to construct an electrical analog model of the aquifer, useful in determining the order of magnitude of future water levels. Contains a section on design, construction, and use of electric analog models.

B6509 Water-Delivery Study, Nueces River, Texas, Quantity and Quality, August 1963
By S. P. Sauer, J. F. Blakey
April 1965

Studies the gains or losses of flow and changes in chemical quality of water in the Nueces River channel reach from Lake Corpus Christi to Calallen Dam.

B6510 Base-Flow Studies, San Gabriel River, Texas, Quantity and Quality, March 16-18, 1964
By D. K. Leifeste, J. T. Smith
April 1965

Presents the results of a study to determine the apparent gains or losses in the channel reach, and the effects of geology, cultural influences, and vegetation on the quantity and quality of the base flow. Evaluates water for municipal, irrigation, and industrial uses.

B6511 Base-Flow Studies, Cibolo Creek, Texas, Quantity and Quality, March 5-7, 1963
By P. H. Holland, C. T. Welborn
April 1965

Describes the results of an investigation to determine the gains or losses of flow, changes in chemical quality, and suitability for use during a period when flow was sustained by sewage effluent and ground-water discharge.

B6512 Symposium on Consideration of Droughts in Water Planning (A Series of Technical Papers Presented at the April 28-30, 1965 Meeting of the Texas Section, American Society of Civil Engineers)
April 1965

Presents eight discussions concerning droughts and their relationship to reservoir planning.

B6513 Availability and Quality of Ground Water in Leon County, Texas
By R. C. Peckham
May 1965

Discusses the location and extent of the county's underground water supplies, the potential for development of the three major aquifers in the county, and the quality of water in the aquifers. Appendices contain tables of basic data and descriptive plates.

B6514 Development of Ground Water in the El Paso District, Texas, 1960-63, Progress Report No. 9
By M. E. Davis
May 1965

Presents up-to-date information on ground-water development and pumpage, fluctuation of water levels, changes in chemical quality, and related information. Includes tables of well records and chemical quality.

B6515 Inventory of Texas Irrigation, 1958 and 1964
By P. T. Gillett, I. G. Janca
June 1965

Contains essentially the same type information as Bulletin 6018, with 1964 irrigation data added for comparative purposes.

B6516 Geology and Ground-Water Resources of Orange County, Texas
By J. B. Wesselman
July 1965

Describes the occurrence, availability, dependability, quality, and quantity of ground water, particularly with reference to sources of water suitable for public supply, industrial, and irrigation uses.

B6517 Ground-Water Resources of Camp, Franklin, Morris, and Titus Counties, Texas
By M. E. Broom, W .H. Alexander, Jr., B. N. Myers
July 1965

Describes the ground-water resources of the four counties, including an analytical discussion of the occurrence and availability of ground water. Includes tabulations of basic data.

B6518 Ground-Water Resources of DeWitt County, Texas
By C. R. Follett, R. K Gabrysch
August 1965

Describes the ground-water resources of De Witt County, and includes tables of well records, electric logs, drillers' logs, chemical analyses, climatological data, and results of eight pumping tests.

B6519 Ground-Water Conditions in Menard County, Texas
By R .C. Baker, O. C. Dale, G. H. Baum
August 1965

Presents the results of an investigation of ground-water conditions to serve as a basis for the protection and conservation of fresh-water supplies and the determination of any changes in chemical quality as a result of possible pollution from increasing oil production and exploration.

B6520 Ground-Water Resources of LaSalle and McMullen Counties, Texas
By H. B. Harris
August 1965

Presents an analytical discussion of the occurrence and availability of ground water. Includes well records and chemical analyses.

B6521 Investigation of Ground-Water Contamination, Rhineland Area, Knox County, Texas
By H. D. Holloway
August 1965

Describes the general geology and occurrence of ground water. Presents evidence of contamination--about 70 percent of the shallow water-supply wells contained coliform bacteria. Includes recommendations for improving the quality of domestic water supplies.

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CIRCULARS

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C 0977 Don't Waste A Drop!
September 1977

Practical pointers on household water conservation include leak detection, bathroom conservation, kitchen savings, utility room tips, and conservation out-of-doors.

C 62-01 Present Reconnaissance Study Program of the Chemical Quality of Streams in Texas
April 1962

C 62-02 Drainage Areas of Texas Streams, Sabine River Basin and Sabine-Neches Coastal Area
October 1962

C 62-03 Drainage Areas of Texas Streams, Neches River Basin and Neches-Trinity Coastal Area
October 1962

C 62-04 Texas Index of Surface Water Records, 1882-1961, Discharge, Sediment, Chemical Quality, and Water Temperature
November 1962

C 62-05 Drainage Areas of Texas Streams, San Jacinto River Basin and San Jacinto-Brazos Coastal Area
October 1962

C 62-06 Publications of the Texas Water Commission
October 1962

C 63-01 Drainage Areas of Texas Streams, Trinity River Basin and Trinity-San Jacinto Coastal Area
February 1963

C 63-02 Texas Gulf Coast Industrial Water Survey
By W. L. Meier
April 1963

C 63-03 Development of the Science of Hydrology
By P. B. Jones
April 1963

C 63-04 Annotated bibliography of surface water publications and open-file reports of the Texas Water Commission and U. S. Geological Survey for Texas through June 1962
By W. B. Mills
May 1963

C 63-05 Summary of Ground-Water Aquifers in the Rio Grande Basin
By R. C. Peckham
June 1963

C 63-06 Publications of the Texas Water Commission, as of August 31, 1963
November 1963

C 63-07 Drainage Areas of Texas Streams, San Antonio River Basin
October 1963

C 64-01 Water Levels and Chemical Analyses from Observation Wells in the Dell City, Area, Hudspeth and Culberson Counties, Texas, 1948 through January 1964
By J. W. Dillard
March 1964

C 64-02 Annotated Bibliography of Ground Water Publications and Open-File Reports of the Texas Water Commission and U. S. Geological Survey for Texas through August 1963
By R. C. Baker
December 1963

C 64-03 Publications of the Texas Water Commission as of December 31, 1964
December 1964

C 65-01 Drainage Areas of Texas Streams, Coastal Areas Between the Brazos River and Rio Grande
April 1965

C001 Municipal Water Pollution Control and Abatement - A Local Responsibility
September 1977

Briefly explains the provisions of the 1971 Texas law which requires all cities in the state with 5,000 population or more to establish their own water pollution control and abatement programs.

C002 Texas Tomorrow: Wastewater Treatment Management Alternatives
February 1978

Defines seven types of problems encountered in developing waste management programs to protect the waters of the state and identifies solution alternatives to the problems.

C003 Help Use Keep it Clean, Skipper
November 1977

Provides a summary of the regulations for disposal of sewage from boats, including those for pump-out stations.

C004 20 Questions About Water Quality
November 1977
A quiz on the quality of the water in Texas lakes and streams and water quality in general.

C005 First Reader on Water Quality
By Joe P. Teller
May 1978

Discusses sewerage systems, both domestic and industrial; the more common problems associated with waste treatment and collection; and a listing of the more significant definitions.

C006 A Commitment for Clean Water
May 1978

Contains a comparative study of Fiscal Year 1975 general expenditures for certain municipal services in cities of varying sizes to point out that sewerage expenditures are reasonable when compared to other general expenditures of municipalities.

C007 Nonpoint Sources of Water Pollution, 1978
1978

Describes the factors of urban runoff, construction, agriculture and silviculture, mining, disposal activities, salt water intrusion, and hydrographic modification as nonpoint sources of water pollution.

C008 Texas Department of Water Resources, 1978
1983

Brief descriptions of the work of various divisions and sections of the department. An organization chart showing alignment of the department appears in the center of this brochure.

C009 Water...Half-A-Hundred Ways to Save it, 1978
1978

Here are 50 easy ways to reduce water consumption in and around your home, and lower the water bill while you're doing it.

C010 Hazardous Waste Management in Texas
1982

A brief description of responsibilities for solid waste management, including definitions, rules and regulations, permits, and penalties for violations.

C011 Basic Information Regarding Permits and Other Authorizations Issued by the Texas Department of Water Resources
1982

Requirements for various types of permits, registration and licenses which are under the jurisdiction of the Texas Department of Water Resources are outlined.

C012 Publications Catalog
1985

C013 HIPLEX in Texas: High Plains Cooperative Program
September 1979

A brief description of the Hiplex Program which promotes weather modification research in the High Plains of Texas.

C014 Second Reader on Water Quality
By Joe P. Teller
May 1974

Discusses measurement of water quality--in particular, BOD, DO, Ph, and Mpn. Also discusses eutrophication.

C015 Texas Environment
October 1981
Introduction to our state's land, water, and air resources and pollution problems. Gives a few hints about what a citizen can do to keep both our quality of life and environmental quality high.

C016 Records and Library Services
1982

C017 Water (Conservation) and Water Reuse in Texas, A Status Report
1983
Provides an overview of past and present water conservation in Texas, and includes recommendations for the future.

C018 Water Planning in Texas, Past-Present-Future
1984

Gives a brief historical overview of Texas water administration and planning starting with the 1904 Constitutional Amendment which authorized the first Public Development of Water Resources. Also examines the implications of projected population and economic growth, and discusses revisions to the Texas Water Plan.

C019 Texas Water Facts
1984

C020 Summary of Water for Texas A Comprehensive Plan for the Future, 1984
1984

The major provisions and recommendations of the Water Plan are presented in this brochure.

General Publications

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GP-1-001 Rules of Procedure - Texas Water Commission
1978

GP-1-002 Permanent Rules - Texas Water Development Board
January 1978

GP-2-001 Report of the Texas Department of Water Resources for the Biennium - September 1, 1977 through August 31, 1979
1980
—MF Available—

GP-2-002 Report of the Texas Department of Water Resources for the Biennium - September 1, 1979 through August 31, 1981
1982

GP-2-003 Report of the Texas Department of Water Resources for the Biennium - September 1, 1981 through August 31, 1983
1985

GP-3-002 State of Texas Oil and Hazardous Substances Pollution Contingency Plan
April 1978

Provides procedures for a coordinated response to spills or accidental discharges of oil or other hazardous materials into the waters or adjacent to the waters of the state. It also outlines methods by which such spills and accidental discharges will be reported to state agencies having regulatory responsibility.

GP-4-001 Water for Texas (2 Vols.)
1984

Pursuant to state law, the Executive Director of the Texas Department of Water Resources prepared and the Texas Water Development Board adopted in September 1984 a revised Texas Water Plan. Volume 1 of the amended plan is an Executive Summary and Volume 2 is a technical document which provides details on each river and coastal basin of the state.

GP-5-1 Water for Texas: Today and Tomorrow
December 1990

This summary document presents current and prospective water uses, identifies water supplies, and estimates facility needs and costs. The Plan also describes water problems and opportunities, outlines significant environmental concerns and water issues, and offers program and policy recommendations.

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Hydrologic Atlases

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HA 1 Hydrologic Atlas No. 1 - Water-Level Changes in the High Plains Aquifer of Texas, 1980 - 1990
By John B. Ashworth
1991

Includes three maps: 1990 Water Level, 1980-1990 Water-Level Rise, and 1980-1990 Water-Level Decline

HA 2 Hydrologic Atlas No. 2 - Areas Experiencing Significant Ground-Water Level Decline, 1980-1990
By Janie Payne
1991

Delineates water-level declines in major aquifers, both water-table and artesian, throughout Texas and includes hydrographs of selected wells.

HA 3 Hydrologic Atlas No. 3 - Water Quality in the Edwards-Trinity (Plateau) Aquifer, Edwards Plateau and Trans-Pecos, Texas
By Janie Hopkins
November 1995

Contains maps illustrating concentrations of dissolved solids, chloride, sulfate, iron, and manganese, fluoride, nitrate, and naturally occurring radioactive constituents in the Edwards-Trinity (Plateau) aquifer. Discussion of analyses of samples collected from the aquifer between 1988 and 1993 and comparison with analyses from earlier sampling events appear to indicate a slight deterioration in water quality since the early ’60s.

HA 4 Hydrologic Atlas No. 4 - Water Quality in the Woodbine Aquifer, North-Central Texas
By Janie Hopkins
September 1996*

Describes overall ground-water quality with maps illustrating location of wells containing dissolved constituents in excess of secondary Maximum Contaminant Levels (MCL’s), tables listing averages and ranges of major anions, cations, trace metal constituents, nutrients, and radioactive particles from the most recent sampling of 78 wells throughout the aquifer. As indicated by larger dissolved constituent values, ground-water quality is poorest in the southeast downdip portion of the aquifer, possibly in association with oil-field practices.

HA 5 Hydrologic Atlas No. 5 - Water Quality in the Sparta Aquifer, East Texas
By Merrick Biri
November 1996

Includes maps depicting location of wells containing dissolved solids in excess of 1,000 mg/l ad chloride, sulfate, iron, and manganese in excess of their secondary MCL’s. Tables list averages and ranges of other dissolved inorganics, trace metal constituents, nutrients, and radioactive particles from the most recent sampling of 55 wells throughout the aquifer. The increase in all constituents during the past 28 years suggests a slight deterioration in water quality, particularly in the southwest portion of the aquifer, or Burleson, Lee, Gonzales, and Atascosa counties.

HA 6 Hydrologic Atlas No. 6 - Water Quality in the Queen City Aquifer, East Texas
By Eric Brown
November 1996

Includes maps depicting location of wells containing dissolved solids in excess of 1,000 mg/l and chloride, sulfate, iron, and manganese in excess of their secondary MCL's. Tables list averages and ranges of other dissolved inorganics, trace metal constituents, nutrients, and radioactive particles from the most recent sampling of 103 wells throughout the aquifer. No decrease in water quality over time appears to have occurred. Overall water quality is good, with the exception of some constituents in excess of secondary standards mainly confined to the southwest portion of the aquifer.

HA 7 Hydrologic Atlas No. 7 - Areas Experiencing Significant Water-Level Decline, 1985-1995
By Janie Hopkins
December 1996

Includes maps delineating water-level declines in major aquifers, both water-table and artesian, and hydrographs of selected wells.

HA 8 Hydrologic Atlas No. 8 - Water Quality in the Capitan Reef Aquifer
by Eric Brown
December 1997

Includes maps depicting location of wells containing dissolved solids in excess of 1,000 mg/l; chloride, sulfate, iron, and manganese in excess of their secondary MCLs; and radioactive particles in excess of their primary MCLs. Tables list averages and ranges of other dissolved inorganics, trace metal constituents, nutrients, and radioactive particles from the most recent sampling of 17 wells throughout the aquifer and one spring. Overall water quality is poor in both the eastern and western portions of the aquifer, with the exception of one well in Brewster County, several wells in Culberson and Hudspeth counties, and the spring in Culberson County. These sites are close to recharge areas where time available to dissolve minerals from the formation has been limited.

HA 9 Hydrologic Atlas No. 9 - Water Quality in the Rustler Aquifer
by Eric Brown
January 1998

Most of the 18 wells recently sampled in this far west Texas aquifer are used for irrigation and livestock, four were collected in the Rustler Hills in eastern Culberson County where the aquifer crops out, and the remainder were collected from the subsurface portion of the aquifer in Loving, Reeves, and Pecos counties. The atlas includes maps depicting location of wells containing dissolved solids in excess of 1,000 mg/l; chloride, sulfate, iron, and manganese in excess of their secondary MCLs; and radioactive particles in excess of their primary MCLs. Tables list averages and ranges of other dissolved inorganics, trace metal constituents, nutrients, and radioactive particles. Overall water quality is poor, considering the high levels of naturally occurring radioactive constituents, sulfate, and total dissolved solids.

INTENSIVE MONITORING SURVEYS

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IMS 001	Intensive Surface Water Monitoring Survey for Segment No. 1414 (Pedernales River)
IMS 002	Intensive Surface Water Monitoring Survey for Segment No. 1421 (Concho River)
IMS 003	Intensive Surface Water Monitoring Survey for Segment No. 0507 (Lake Tawakoni)
IMS 004	Intensive Surface Water Monitoring Survey for Segment No. 0815 (Bardwell Reservoir)
IMS 005	Intensive Surface Water Monitoring Survey for Segment No. 0823 (Lake Lewisville)
IMS 006	Intensive Surface Water Monitoring Survey for Segment No. 0821 (Lake Lavon)
IMS 007	Intensive Surface Water Monitoring Survey for Segment No. 1417 (Pecan Bayou)
IMS 008	Intensive Surface Water Monitoring Survey for Segment No. 0820 (Lake Ray Hubbard)
IMS 009	Intensive Surface Water Monitoring Survey for Segment No. 0803 (Lake Livingston)
IMS 010	Intensive Surface Water Monitoring Survey for Segment No. 0504 (Toledo Bend Reservoir)
IMS 011	Intensive Surface Water Monitoring Survey for Segment No. 2303 (Falcon Lake)
IMS 012	Intensive Surface Water Monitoring Survey for Segment No. 0610 (Sam Rayburn Reservoir)
IMS 013	Intensive Surface Water Monitoring Survey for Segment No. 1232 (Clear Fork of the Brazos River)
IMS 014	Intensive Surface Water Monitoring Survey for Segment No. 0508 (Adams Bayou)
IMS 015	Intensive Surface Water Monitoring Survey for Segment No. 1233 (Hubbard Creek Reservoir)
IMS 016	Intensive Surface Water Monitoring Survey for Segment No. 0701 (Taylor Bayou)
IMS 017	Intensive Surface Water Monitoring Survey for Segment No. 0302 (Lake Wright Patman) By Steve R. Twidwell March 1976
IMS 018	Intensive Surface Water Monitoring Survey for Segment No. 0303 (Sulphur River) By Steve R. Twidwell March 1976
IMS 019	Intensive Surface Water Monitoring Survey for Segment No. 0828 (Lake Arlington) By J. S. Kirkpatrick April 1976
IMS 020	Intensive Surface Water Monitoring Survey for Segment No. 1212 (Lake Somervell) By David V. Petrick
IMS 021	Intensive Surface Water Monitoring Survey for Segment No. 2305 (Amistad Reservoir) By J. S. Kirkpatrick
IMS 022	Intensive Surface Water Monitoring Survey for Segment No. 0818 (Cedar Creek Reservoir) By Clyde E. Bohmfalk June 1976

IMS 023 Intensive Surface Water Monitoring Survey for Segment No. 0826 (Grapevine Reservoir)
By Francoise Brasier
April 1976

IMS 024 Intensive Surface Water Monitoring Survey for Segment No. 0102 (Lake Meredith)
By J. S. Kirkpatrick
April 1976

IMS 025 Intensive Surface Water Monitoring Survey for Segment No.1425 (O. C. Fisher Reservoir)
By Steve R. Twidwell
April 1976

IMS 026 Intensive Surface Water Monitoring Survey for Segment No.1404 (Lake Travis)
By Francoise Brasier
May 1976

IMS 027 Intensive Surface Water Monitoring Survey for Segment No. 1422 (Lake Nasworthy)
By Steve R. Twidwell
May 1976

IMS 028 Intensive Surface Water Monitoring Survey for Segment No. 1423 (Twin Buttes Reservoir)
By Steve R. Twidwell
April 1976

IMS 029 Intensive Surface Water Monitoring Survey for Segment No. 2103 (Lake Corpus Christi)
By Steve R. Twidwell
June 1976

IMS 030 Intensive Surface Water Monitoring Survey for Segment No. 1901 (San Antonio River)
By Steve R. Twidwell

IMS 031 Intensive Surface Water Monitoring Survey for Segment No. 0505 Sabine River (Toledo Bend Headwater to US 271 Near Gladewater)
By Steve R. Twidwell

IMS 032 Intensive Surface Water Monitoring Survey for Segment No.1207 (Possum Kingdom Reservoir)
By Donald D. Ottmers

IMS 033 Intensive Surface Water Monitoring Survey for Segment No. 1203 (Whitney Reservoir)
By Donald D. Ottmers

IMS 034 Intensive Surface Water Monitoring Survey for Segment No.1804 (Lake Dunlap and Lake McQueeney)
By Donald D. Ottmers
July 1976

IMS 035 Intensive Surface Water Monitoring Survey for Segment No. 0203 (Lake Texoma)
By John M. Pettitt

IMS 036 Intensive Surface Water Monitoring Survey for Segment No.1305 Caney Creek - Above Tidal
By Charles E. Ezell
April 1976

IMS 037 Intensive Surface Water Monitoring Survey for Segment No. 1205 (Lake Granbury)
By Charles E. Ezell
May 1976

IMS 038 Intensive Surface Water Monitoring Survey for Segment No. 1902 (Cibolo Creek)
By Michael H. Tomme

IMS 039 Intensive Surface Water Monitoring Survey for Segment No. 0403 (Lake O' the Pines)
By David V. Petrick

IMS 040 Intensive Surface Water Monitoring Survey for Chiltipin Creek
By David V. Petrick

IMS 041 Intensive Surface Water Monitoring Survey for Segment No.1002 (Lake Houston)
By J. S. Kirkpatrick

IMS 042 Intensive Surface Water Monitoring Survey for Segment No.1403 (Lake Austin)
By Donald D. Ottmers
June 1976

IMS 043 Intensive Surface Water Monitoring Survey for Segment No. 0219 (Lake Wichita)
By Michael G. Dick

IMS 044 Intensive Surface Water Monitoring Survey for Segment No. 1408 (Lake Buchanan)
By Francoise Brazier

IMS 045 Intensive Surface Water Monitoring Survey for Segment No. 1906 (Lion Creek)
By H. Dwayne Rathburn

IMS 046 Intensive Surface Water Monitoring Survey for Segment No.1903 (Medina River)
By Steve R. Twidwell

IMS 047 Intensive Surface Water Monitoring Survey for Segment No. 0105 (Rita Blanca Lake)
By Charles E. Ezell

IMS 048 Intensive Surface Water Monitoring Survey for Segment No. 0406 (Black Bayou)
By Steve R. Twidwell
April 1977

IMS 049 Intensive Surface Water Monitoring Survey for Segment No. 0407 (James' Bayou)
By Steve R. Twidwell
April 1977

IMS 050 Intensive Surface Water Monitoring Survey for Segment No. 0401 (Caddo Lake)
By J. S. Kirkpatrick
April 1977

IMS 051 Intensive Surface Water Monitoring Survey for Segment No. 0404 (Big Cypress Creek - Above Lake O' the Pines to Fort Sherman Dam)
By Steve R. Twidwell
May 1977

IMS 052 Intensive Surface Water Monitoring Survey for Segment No. 0834 (Lake Amon G. Carter)
By Michael G. Dick
May 1977

IMS 053 Intensive Surface Water Monitoring Survey for Segment No.2101 (Nueces River Tidal)
By James Bowman, David A. Jensen
May 1977

IMS 054 Intensive Surface Water Monitoring Survey for Segment No.1106 (Bastrop Bayou - Above Tidal)
By Charles E. Ezell
June 1977

IMS 055 Intensive Surface Water Monitoring Survey for Segment No. 0601 (Neches River Tidal)
By Augustine De La Cruz

IMS 056 Intensive Surface Water Monitoring Survey for Segment No. 0225 (McKinney Bayou)
By David V. Petrick
July 1977

IMS 057 Intensive Surface Water Monitoring Survey for Segment Nos. 0804, 0805, 0806, 0819 & 0822 (Trinity River)
By Clyde E. Bohmfalk
July 1977

IMS 058 Intensive Surface Water Monitoring Survey for Segment No. 2312 (Red Bluff Reservoir)
By J. S. Kirkpatrick
July 1977

IMS 059 Intensive Surface Water Monitoring Survey for Segment No. 1418 (Lake Brownwood)
By Donald D. Ottmers
July 1977

IMS 060 Intensive Surface Water Monitoring Survey for Segment No.1108 (Chocolate Bayou)
By Charles E. Ezell

IMS 061 Intensive Surface Water Monitoring Survey for Segment No. 0211 (Little Wichita River)
By John M. Pettitt
July 1977

IMS 062 Intensive Surface Water Monitoring Survey for Segment Nos. 1101 and 1102 (Clear Creek - Tidal and Above Tidal)
By Clifford Shaw
September 1977

IMS 063 Intensive Surface Water Monitoring Survey for Segment No.1412 (Colorado River)
By Moody Meixner

IMS 064 Intensive Surface Water Monitoring Survey for Segment No.1110 (Oyster Creek - Above Tidal)
By J. S. Kirkpatrick
September 1977

IMS 065 Intensive Surface Water Monitoring Survey for Segment No. 1009 (Cypress Creek)
By J. S. Kirkpatrick, Clyde E. Bohmfalk
September 1977

IMS 066 Intensive Surface Water Monitoring Survey for Segment No. 2482 (Nueces Bay)
By David A. Jensen, James Bowman
November 1977

IMS 067 Intensive Surface Water Monitoring Survey for Segment No. 0204 (Red River)
By Michael G. Dick
November 1977

IMS 068 Intensive Surface Water Monitoring Survey for Segment No. 1227 (Nolands River)
By Michael G. Dick
November 1970

IMS 069 Intensive Surface Water Monitoring Survey for Segment No. 0220 (Pease River)
By Ronald H. Dutton
January 1978

IMS 070 Intensive Surface Water Monitoring Survey for Segment No. 2453 (Lavaca Bay)
By James Bowman, David A. Jensen
January 1978

IMS 071 Intensive Surface Water Monitoring Survey for Segment Nos. 1103 and 1104 (Dickinson Bayou Tidal- Dickinson Bayou Above Tidal)
By J. S. Kirkpatrick
December 1977

IMS 072 Intensive Surface Water Monitoring Survey for Segment No. 2201 (Arroyo Colorado - Tidal)
By Steve R. Twidwell
February 1978

IMS 073 Intensive Surface Water Monitoring Survey for Segment No. 0824 (Elm Fork of the Trinity River)
By David V. Petrick
March 1978

IMS 074 Intensive Surface Water Monitoring Survey for Segment No. 2105 (Nueces River Basin)
By Augustine De La Cruz
April 1978

IMS 075 Intensive Surface Water Monitoring Survey for Segment No. 0607 (Pine Island Bayou)
By William H. Adsit, Lawrence R. Hagen
April 1978

IMS 076 Intensive Surface Water Monitoring Survey for Segment No. 0103 (Canadian River)
By Ronald H. Dutton
April 1978

IMS 077 Intensive Surface Water Monitoring Survey for Segment No.1225 (Lake Waco)
By Donald E. Wyrick
1978

IMS 078 Intensive Surface Water Monitoring Survey for Segment No. 0814 (Chambers Creek and Richland Creek)
By John M. Pettitt
1978

IMS 080 Intensive Surface Water Monitoring Survey for Segment Nos. 2426, 2427, 2429, and 2430 (Houston Ship Channel)
By Clyde E. Bohmfalk
1978

IMS 080 Intensive Surface Water Monitoring Survey for Segment No. 0509 (Lake Murvaul)
By Charles E. Volz
1978

IMS 081 Intensive Surface Water Monitoring Survey for Segment No. 0611 (Angelina River)
By H. Dwayne Rathburn
1978

IMS 082 Intensive Surface Water Monitoring Survey for Segment No. 2308 Rio Grande (Riverside Diversion Dam to New Mexico State Line)
By Donald D. Ottmers
1979

Intensive Surveys

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IS-01 Intensive Survey of the Guadalupe River, Segment No.1803 (Bacteriological)
By Steve R. Twidwell
May 1979

IS-02 Intensive Survey of the Neches River, Segment No.0606 (Hydrology, Field Measurements, Water Chemistry, Sediment Chemistry, Biology)
By Joe D. Woodard
1979

IS-03 Intensive Survey of the Angeline River, Segment No. 0609 (Hydrology, Field Measurements, Water Chemistry, Sediment Chemistry, Biology)
By Lawrence R. Hagen, William H. Adsit
1979

IS-04 Intensive Survey of the Brazos River, Segment No.1201 (Hydrology, Field Measurements, Water Chemistry, Sediment Chemistry, Biology)
By J. S. Kirkpatrick
1979

IS-05 Intensive Survey of Clear Creek and Clear Creek Tidal, Segment Nos. 1102 and 1101 (Hydrology, Field Measurements, Water Chemistry, Bacteria, Reaeration Rates)
By J. S. Kirkpatrick
January 1980
—MF Available—

IS-06 Intensive Survey of Bosque River, Segment 1226 (Hydrology, Field Measurements, Water Chemistry, Sediment Chemistry, Biology)
By Charles E. Ezell
January 1980
—MF Available—

IS-07 Intensive Survey of Horsepen Bayou (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand)
By Steve R. Twidwell
March 1980
—MF Available—

IS-08 Intensive Survey of Dickinson Bayou, Segment 1104 (Hydrology, Field Measurements, Water Chemistry)
By J. S. Kirkpatrick
April 1980
—MF Available—

IS-09 Intensive Survey of South Sulphur River Segment 0303 (Hydrology, Field Measurements, Water Chemistry, Reaeration Rates, Benthal Oxygen Demand, Biology)
By Richard O. Respess
May 1980
—MF Available—

IS-10 Intensive Survey of Rock Creek (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand, Fecal Coliforms)
By Richard O. Respess
April 1980
—MF Available—

IS-11 Intensive Survey of Cypress Creek, Segment 1009 (Hydrology, Field Measurements, Water Chemistry, Reaeration Rates, Benthal Oxygen Demand)
By David V. Petrick
April 1980
—MF Available—

IS-12 Intensive Survey of Salatrillo Creek (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand)
By Steve R. Twidwell
April 1980
—MF Available—

IS-13 Intensive Survey of Bastrop Bayou, Segment 1106 (Hydrology, Field Measurements, Water Chemistry)
By Donald D. Otters
May 1980
—MF Available—

IS-14 Intensive Survey of Oyster Creek, Segment 1110 (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand, Reaeration Rates)
By J. S. Kirkpatrick
February 1980
—MF Available—

IS-15 Intensive Survey of Spring Creek, Segment 1008 (Hydrology, Field Measurements, Water Chemistry, Reaeration Rates, Benthal Oxygen Demand)
By David V. Petrick
April 1980
—MF Available—

IS-16 Intensive Survey of the San Gabriel River, Segment 1214 (Including Brushy Creek Below Round Rock), (Hydrology, Field Measurements, Water Chemistry, Reaeration Rates, Benthal Oxygen Demand)
By Charles E. Ezell
March 1980
—MF Available—

IS-17 Intensive Survey of the West Fork of the San Jacinto River Segment 1004 (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand, Biology)
By Steve R. Twidwell
June 1981

IS-18 Intensive Survey of Brays Bayou (Hydrology, Field Measurements, Water Chemistry)
By David Buzan
June 1981

IS-19 Intensive Survey of the Sabine-Neches Canal Segment 0703 (Hydrology, Field Measurements, Water Chemistry)
By Donald D. Ottmers
June 1981
—MF Available—

IS-20 Intensive Survey of Armand Bayou (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
June 1981
—MF Available—

IS-21 Intensive Survey of Hunting Bayou (Hydrology, Field Measurements, Reaeration Rates, Water Chemistry)
By David V. Petrick
June 1981
—MF Available—

IS-22 Intensive Survey of Elm Fork Trinity River, Segment 0824
By J. S. Kirkpatrick
June 1981

IS-23 Intensive Survey of Martinez Creek
By Donald D. Ottmers
June 1981

IS-24 Intensive Survey of Sims Bayou (Hydrology, Field Measurements, Measurements, Reaeration Rates, Water Chemistry)
By David V. Petrick
March 1982

IS-25 Intensive Survey of Rowlett Creek (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1981

IS-26 Intensive Survey of the Houston Ship Channel Segments 1005, 1006 and 1007 Tabbs Bay-Segment 2426, San Jacinto Bay-Segment 2427, Scott Bay - Segment 2429, Burnett Bay - Segment 2430
By J. S. Kirkpatrick
March 1982

IS-27 Intensive Survey of Nolan Creek Segment 1218 (Hydrology, Field Measurements, Reaeration Rates, Water Chemistry)
By David V. Petrick
March 1982

IS-28 Intensive Survey of Buffalo Bayou-Above Tidal (Hydrology, Field Measurements, Water Chemistry, Reaeration Rates)
By J. S. Kirkpatrick
1981

IS-29 Intensive Survey of Pecan Bayou Segment 1417 (Hydrology, Field Measurements, Water Chemistry, Biology)
By David Buzan
1982

IS-30 Intensive Survey of Greens Bayou (Hydrology, Field Measurements, Water Chemistry)
By Donald D. Ottmers
1982

IS-31 Intensive Survey of Halls Bayou (Hydrology, Field Measurements, Water Chemistry)
By Donald D. Ottmers
1982

IS-32 Intensive Survey of White Oak Bayou (Hydrology, Physiochemistry)
By David Buzan
1982

IS-33 Intensive Survey of Days of Creek Segment 0304 (Hydrology, Field Measurements, Water Chemistry, Fecal Coliforms)
By Richard O. Respess
1982

IS-34 Intensive Survey of Dickinson Bayou Tidal Segment 1103 (Hydrology, Field Measurements, Water Chemistry)
By Donald D. Ottmers
1982

IS-35 Intensive Survey of Black Bayou Segment 0406 (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1982

IS-36 Intensive Survey of Onion Creek Segment 1427 (Field Measurements, Water Chemistry, Hydrology)
By Richard O. Respess
1982

IS-37 Intensive Survey of Cibolo Creek Segment 1908 (Hydrology, Field Measurements, Water Chemistry Bacteriological, Biological)
By Charles E. Ezell
1982

IS-38 Intensive Survey of the Wichita River Segment 0214 (Hydrology, Field Measurements, Water Chemistry)
By Charles E. Ezell
1982

IS-39 Intensive Survey of Cibolo Creek Segment 1902 (Hydrology, Water Chemistry, Biology, Reaeration Rates)
By David Buzan
1982

IS-40 Intensive Survey of the San Gabriel River Segment 1214 (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand, Reaeration Rates, Biological
By Charles E. Ezell
1982

IS-41 Intensive Survey of Wilson Creek (Hydrology, Field Measurements, Water Chemistry)
By Charles E. Ezell
1982

IS-42 Intensive Survey of Salado Creek Segment 1910 (Hydrology, Water Chemistry, Biology)
By David Buzan
1982

IS-43 Intensive Survey of East Fork of the Trinity River Segment 0819 (Hydrology, Field Measurements, Water Chemistry, Biology)
By Steve R. Twidwell
1982

IS-44 Intensive Survey of Brushy Creek Segment 1244 (Hydrology, Field Measurements, Water Reaeration Rates, Biology)
By Charles E. Ezell
1982

IS-45 Intensive Survey of Bull Creek (Hydrology, Field Measurements, Water Chemistry, Biology)
By Donald D. Ottmers
1982

IS-46 Intensive Survey of James Bayou (Jims Bayou) Segment 0407 (Hydrology, Field Measurements, Water Chemistry)
By David V. Petrick
1982

IS-47 Intensive Survey of Neches River Segment 0606 (Hydrology, Field Measurements, and Water Chemistry)
By Donald D. Ottmers
1983

IS-48 Intensive Survey of Aransas River-Above Tidal Segment 2004 (Hydrology, Field Measurements, Water Chemistry, Biology)
By Steve R. Twidwell
1983

IS-49 Intensive Survey of the Arroyo Colorado Segment 2201 (Hydrology, Field Measurements, Water Chemistry)
By Jack R. Davis
1983

IS-50 Intensive Survey of South Brushy Creek and Avery Reservoir (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand)
By Steve R. Twidwell
1983

IS-51 Intensive Survey of Medio Creek (Hydrology, Field Measurements, Water Chemistry, Benthal Oxygen Demand)
By Steve R. Twidwell
1983

IS-52 Intensive Survey of West Fork San Jacinto River Segment 1004 (Hydrology, Field Measurements, and Water Chemistry)
By Steve R. Twidwell
983

IS-53 Intensive Survey of the Trinity River Segment 0805 (Hydrology, Field Measurements, Water Chemistry)
By Jack R. Davis
1983

IS-54 Intensive Survey of East Fork Trinity River Segment 0819 (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1983

IS-55 Intensive Survey of the Brownsville Ship Channel Segment 2494 (Field Measurements, Water Chemistry, Sediment Chemistry, Biological Indices)
By William F. Bowles, Jr.
1983

IS-56 Intensive Survey of Concho River Segment 1421 (Hydrology, Field Measurements, Water Chemistry, and Biology)
By Charles E. Ezell

IS-57 Intensive Survey of Texas City Ship Channel Segment 2437 (Hydrology, Field Measurements, Water Chemistry, Sediment Chemistry)
By J. S. Kirkpatrick
1984

IS-58 Intensive Survey of East Fork Trinity River Segment 0819 (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1984

IS-59 Intensive Survey of San Antonio River Segment 1901 (Hydrology, Field Measurements, Water Chemistry, Biology)
By Steve R. Twidwell
1984

IS-65 Intensive Survey of the Adams Bayou Segment 0508 (Hydrology, Field Measurements, Water Chemistry)
By Fred Werkenthin, Jr.
1984

IS-66 Intensive Survey of Nolan Creek Segment 1218 - April 1983 (Hydrology, Field Measurements, Water Chemistry)
By David V. Petrick
1984

IS-67 Intensive Survey of the Trinity River Segment 0805, July 1983 (Hydrology, Field Measurements, Water Chemistry)
By Jack R. Davis
1984

IS-68 Intensive Survey of Port Mansfield (Field Measurements, Water Chemistry, Sediment Chemistry, Biological Indices)
By William F. Bowles, Jr.
1984

IS-69 Intensive Survey of the Arroyo Colorado Segment 2201, August 22-25, 1983 (Hydrology, Field Measurements, Water Chemistry)
By Jack R. Davis
1985

IS-70 Intensive Survey of Plum Creek Segment 1810, September 6-9, 1983 (Hydrology, Field Measurements, Water Chemistry)
By Richard O. Respess
1985

IS-71 Intensive Survey of Rowlett Creek and Lake Ray Hubbard Segment 0820 April 23-26, 1984 (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1985

IS-72 Intensive Survey of San Antonio River Segments 1901 and 1911, July 23 - August 1, 1984 (Hydrology, Field Measurements, Water Chemistry)
By Steve R. Twidwell
1985

IS-73 Intensive Survey of Chambers Creek Segment 0814, July 25-29, 1983
By David V. Petrick
1985

IS-74 Intensive Survey of Big Cypress Creek Segment 0404, August 8-12, 1983 (Hydrology, Field Measurements, Water Chemistry)
By David V. Petrick
1985

IS-75 Intensive Survey of the Colorado River Below Austin Segment 1428, December 10-12, 1984 (Field Measurements, Water Chemistry, Biology)
By Fred B. Werkenthin
1985

IS-76 Intensive Survey of Angelina River Segment 0611, September 10-13, 1984 (Hydrology, Field Measurements, Water Chemistry)
By Jack R. Davis
1985

IS-77 Intensive Survey of Cow Bayou Segment 0511, August 30 - September 1, 1982 (Hydrology, Field Measurements, Water Chemistry)
By J. S. Kirkpatrick
1985

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LIMITED DISTRIBUTION REPORTS

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LD-0162-MR City of Hawkins, Wood County, Texas
By S. C. Burnitt
March 1963

LD-0163-MR Bacteriological Pollution of Ground Water in the Big Spring Area, Howard County, Texas
By H. D. Holloway
June 1963

LD-0164-MR Definitions and Use of the Terms, Flood, Floodwater, Floodflow, and Baseflow, and Use of Discharge Hydrographic Analysis to Separate These Components of Streamflow
By L. L. McDaniels
January 1964

LD-0165 Manual of Computing and Modeling Techniques and Their Application to Hydrologic Studies
January 1965

LD-0262-MR Henderson Oil Field Area, Rush County, Texas
By S. C. Burnitt
October 1962

LD-0263-MR Ground-Water Availability at Whitney, Hill Country, Texas
By J. R. Mount
December 1963

LD-0264-MR A Summary of Recreation Facilities at Major Reservoirs in Texas
By L .B. Seward
January 1964

LD-0265 Investigation of Ground Water Contamination in the Vealmoor Oil Field, Howard and Borden Counties Texas
By R. L. Crouch
January 1965

LD-0362-MR City of Valera, Coleman County, Texas
By H. D. Holloway
November 1962

LD-0364-MR Investigation of Ground-Water Contamination in the Juliana and West Jud Oil Fields, Haskell and Stonewall Counties, Texas
By R. L. Crouch
March 1964

LD-0365 Investigation of Ground- and Surface-Water Contamination near Harrold, Wilbarger County, Texas
By B. E. Fink
February 1965

LD-0464-MR Investigation of Alleged Ground-Water Contamination Tri-Rue and Ride Oil Fields, Scurry County, Texas
By R .L. Crouch
March 1964

LD-0564-MR Investigation of Ground-Water Contamination Coleto Creek Oil Field, Victoria County, Texas
By J. T. Thornhill
March 1964

LD-0664 Investigation of Alleged Ground-Water Contamination near Kilgore, Gregg County, Texas
By H. D. Holloway
April 1964

LD-0764 Investigation of Ground-Water Contamination, P.H.D., Hackberry, and Storie Oil Fields, Garza County, Texas
By S. C. Burnitt
June 1964

LD-0864 Investigation of Ground-Water Contamination by Cotton Seed Delinting Acid Waste, Terry County, Texas
By B. E. Fink
October 1964

Limited Printing

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LP-001 Texas HIPLEX Monthly Progress Reports for June, 1976 - February, 1981
September 1977

This series of reports, initiated by the Texas Water Development Board, provides a summary of weather modification operations performed under the Texas-Hiplex Program during the funded period. Covers work done both by department staff and by Texas A & M University, Texas Tech University, and Colorado River Municipal Water District under contract.

LP-002 Weather Modification Today: An Update on the Technology, Operations, Research, Socioeconomic, and Legal Aspects of Weather Modification

The conference held in Austin, Texas, on November 8,1977, was designed to provide the latest information on the state-of-the-art weather modification with emphasis on the operational, research, socioeconomic, and legal aspects of the technology. Subject matter covered relates to various types of weather modification activities including a comprehensive and cooperative research endeavor known as the High Plains Cooperative Program (Hiplex), and several commercial cloud-seeding programs to enhance rainfall and suppress hail fall.

LP-003 (Self Reporting System) Pursuant to Texas Water Quality Board Order 69-1219-1 for Permits to Dispose of Wastes Under Provisions of Chapter 21 of the Texas Water Code
December 1976

LP-004 Ground-Water Conditions in the Vicinity of Jacksboro, Jack County, Texas
By Richard D. Preston
September 1977

The major purpose of this study was to determine the depth to or altitude of the base of usable-quality water in the Jacksboro area.

LP-005 Radar Evaluation of Big Spring Weather Modification Program
August 1977

The Colorado River Municipal Water District (CRMWD) has sponsored a cloud seeding operation to increase rainfall and, consequently, runoff into Lake J. B. Thomas and E. V. Spence Reservoir since 1971. The final report of that evaluation culminates three years of careful study of the seeding effects, as practiced by the CRMWD, on West Texas summertime convective clouds.

LP-006 Municipal Water Pollution Control and Abatement Program Directors: September 1977 Roster
September 1977

LP-007 Manpower Planning Criteria Manual
September 1977

This manual is a compilation of the manpower planning criteria used to relate numbers and types of personnel with the defined workloads of the Texas Water Quality Board Construction Grants Section. The manual also provides guidance for application of the criteria in assessing manpower and training needs and incorporating these identified needs into the budget and planning process.

LP-008 Manpower Planning for Municipal Wastewater Treatment in Texas
December 1977

Includes manpower forecasts, training loads, characteristics of Texas Municipal Wastewater Treatment Plant certified personnel and data on current employment status of certified personnel not engaged in wastewater treatment. Guides and analyses provided as well as manpower planning for the wastewater workforce of Texas.

LP-009 Report on Pilot Test of State Agency Manpower Planning Methodology for the Texas Water Quality Board Construction Grants Section
September 1977

Objectives of test were to assess and improve the EPA Manpower Planning Methodology; to obtain guidance in determining the staffing and training needs of the Texas Water Quality Board (TWQB); and to obtain guidance in the development of a systematic and reliable approach which the TWQB could use for budget and planning purposes on an on-going basis.

LP-010 Texas HIPLEX Mesoscale Experiment Summer 1977 Data Tabulations
December 1977

This report describes a mesoscale experiment that was conducted in West Texas as part of the High Plains cooperative experiment (Hiplex). Data was presented for ten special surface stations and four rawinsonde stations. Radar-observed convective activity is presented for each day for the entire period.

LP-011 Texas HIPLEX Interim Progress Report
October 1977

This begins a series of reports covering April 1977 - March 1981. Includes a description of activity in each of the program areas addressed; a brief statement of work planned for the next six-month reporting period; a list of personnel involved; and three appendices containing information on studies conducted by the department staff in support of the Texas Hiplex program.

LP-013 Texas Gulf Region Specific Problem Analysis Summary Report, 1975. National Assessment of Water and Related Land Resources
August 1977

The 1975 assessment considers the competition for water and short-and long-range conservation, development, use, and management planning needs for the nation's limited water and related land resources.

LP-015 Low Flow Nutrient Loss in the Mid-Trinity River
January 1978

Results of a study conducted by the Planning and Environmental Management Division of the Trinity River Authority for which data were collected from August 1975 through August 1976. The nutrient loss phenomenon is examined, considering loss due to uptake by periphyton and macrophytes; loss to the sediments through algal die-off and suspended sediment affinity; and loss to the atmosphere through ammonia stripping and denitrification.

LP-016 Mathematical Simulation Capabilities in Water Resources Systems Analysis
1984

This report is an introduction to the application of these systems analysis techniques to water resources planning investigations. Contains a description of these models, their potential applications, and their limitations.
–MF Available—

LP-017 Municipal and Industrial Water Conservation in Texas
By Black & Veatch
May 1977

Accelerated growth in urban areas aggravated by new and increasing industrial demands has resulted in projections of water deficits in some areas of Texas. The water conservation measures discussed herein are intended to provide a checklist of potential courses of action.

LP-018 Economic Impact of the Safe Drinking Water Act (Pub. 93-523) on the State of Texas
By Bernard Johnson, Inc..
August 1977

Based upon an evaluation of available data for cities with populations less than 50,000, there are problems of compliance in over 500 water supplies in the State of Texas relative to the national interim primary Drinking Water Regulations issued under the Safe Drinking Water Act (Pub.L. 93-523). The problem addressed in this study and report relates to excessive nitrate and fluoride concentrations only.

LP-019 1977: From One Extreme to the Other
By George W. Bomar
February 1978

Summarizes rainfall, drought, snowfall, temperature, hurricanes and tropical storms, and unusual events in Texas weather.

LP-021 Part 1 The Economic Effects of Weather Modification Activities; Part 1 - Crop Production
By William Allaway, Lawrence Lippke, Robert F. Riggio, Comer Tuck
November 1975

The purpose of this study was to quantify the relationships between yield, technology, and weather for three crops in a 14-county region of Texas in order to estimate the economic effects of weather modification activities.

LP-021 Part 2 The Economic Effects of Weather Modification Activities; Part II - Range Production and Interindustry Analysis
By Lawrence Lippke
August 1976

LP-021 Part 3 The Economic Effects of Weather Modification Activities; Part III Irrigated and Dryland Agriculture with Estimates of Production, Employment, and Income Effects on the Area Economy
By Mike Kengla, Roy Mey, Jim Hull, H. W. Grubb
August 1979

LP-022 Base Flow Geohydrology in the Pecos River Between Acme and Artesia, New Mexico
February 1978

The purpose of this study is to document the depletion of ground water as a result of man's activities and, if possible, prove that these activities have caused a decrease in the base flow gain to the Pecos River between the Acme and Artesia gages.

LP-023 Geohydrology of Major Johnson Springs and Carlsbad Springs, New Mexico
February 1978

The purpose of this study is to document the depletion of ground water as a result of man's activities, to prove that these activities have caused depletions of the "new water" contributions to the flows of Johnson Springs and Carlsbad, New Mexico.

LP-024 The Texas INPUT-OUTPUT Model, 1972
March 1978

The discussion presents a history of Input-Output analysis, definitions and concepts used in the model, description of the three major Input-Output matrices or tables and illustrations of the uses for the model.
–MF Available–

LP-025 Wasteload Evaluation for Segment 0508 of the Adams Bayou Basin (Above Tidal)
1978

Waste load evaluation reports define treatment levels for discharges and specify other program actions that need to be taken in order to obtain and maintain the water quality standards.

LP-026 Wasteload Evaluation for Segment 0601 of the Neches River Basin (Above Tidal)
1978

LP-027 Wasteload Evaluation for Segment 0701 of the Taylor Bayou Basin (Above Tidal)
1978

LP-028 Wasteload Evaluation for Segment 1001 of the San Jacinto River Basin (Above Tidal)
1978

LP-029 Wasteload Evaluation for Segment 1008 of the Spring Creek Basin
1978

LP-030 Wasteload Evaluation for Segment 1009 of the Cypress Creek Basin
1978

LP-031 Wasteload Evaluation for Segment 1102 of the Clear Creek Basin (Above Tidal)
1978

LP-032 Wasteload Evaluation for Segment 0301 of the Sulphur River Basin
1978

LP-033 Wasteload Evaluation for Segment 2484 of the Corpus Christi Inner Harbor
1978

LP-034 Wasteload Evaluation for Segment 1901 of the San Antonio River Basin
1978

LP-035 Wasteload Evaluation for Segment 1902 of the Cibolo Creek Basin
1978

LP-036 Wasteload Evaluation for Segment 1903 of the Medina River Basin
1978

LP-037 Wasteload Evaluation for Segments 1906 and 1907 of the Leon Creek Basin
1978

LP-038 Statewide Monitoring Network Station Inventory Report
January 1978

Provides information on stations within segments of 25 river basins.

LP-039 Biogeochemical Cycling of Carbon, Nitrogen, and Phosphorus Nutrients in River Delta Marshes of Lavaca Bay, Texas
February 1978

Presents biological and hydrological data for the purpose of developing a working knowledge of the relationships that exist among freshwater inflows, tidal exchange, nutrients, and biological productivity of the bays and estuaries. This report is a consolidation of three related bays and estuaries program studies.

LP-040 Hurricane Anita, Operations Log
April 1978

Includes brief discussion, log, and charts of August 1977 Hurricane Anita.

LP-041 Water Quality Management Program Continuing Planning Process
1984

This revision of the 1980 publication describes operating policies and procedures and practices that comprise the water quality management program.

LP-042 Projected Land Use Maps Year 2000 Guadalupe Basin
1978

This and following reports represent the present best estimate of where people and activities can be expected to be found in the future.

LP-043 Projected Land Use Maps Year 2000 Canadian Basin
1978

LP-044 Projected Land Use Maps Year 2000 Sulphur Basin
1978

LP-045 Projected Land Use Maps Year 2000 Nueces Basin
1978

LP-046 Projected Land Use Maps Year 2000 San Jacinto Basin
1978

LP-047 Projected Land Use Maps Year 2000 San Antonio Basin
1978

LP-048 Projected Land Use Maps Year 2000 Red Basin
1978

LP-049 Projected Land Use Maps Year 2000 Colorado Basin
1978

LP-050 Projected Land Use Maps Year 2000 Brazos Basin
1978

LP-051 Projected Land Use Maps Year 2000 Sabine Basin
1978

LP-052 Projected Land Use Maps Year 2000 Trinity Basin
1978

LP-053 Projected Land Use Maps Year 2000 Lavaca Basin
1978

LP-054 Projected Land Use Maps Year 2000 Neches Basin
1978

LP-055 Projected Land Use Maps Year 2000 Cypress Basin
1978

LP-056 Projected Land Use Maps Year 2000 Rio Grande
1978

LP-057 Texas HIPLEX Monthly Progress Report: October 1, 1977 - March 31, 1978
April 1978

The report discloses a description of activity in each of the program areas addressed in the Texas Hiplex 1977-78 Operations Plan; a brief statement of work planned for the next six-month reporting period; a list of personnel involved in the Texas Hiplex Program; and three appendices, consisting of studies conducted by department staff members.

LP-058 Work Program for Industrial Solid Waste Planning, FY-1979

Published annually since 1978, these work programs accompany requests by the department for Federal Grant Assistance in order to: (1) provide for an approved state hazardous waste program, (2) develop the Industrial aspects of a state solid waste plan, and (3) conduct an industrial solid waste disposal site inventory.

LP-059 The State of Texas Water Quality Inventory 7th Edition, 1984
1984

The report is designed to concisely summarize the existing water quality conditions in the state. The report also deals, to a lesser degree, with a description of the nature and extent of nonpoint sources of pollutants and an estimate of the economic and social impact of achieving water quality consistent with the 1983 goals of the Federal Water Pollution Control Act.
–MF Available–

LP-060 Present and Future Surface-Water Availability in the Colorado River Basin, Texas
June 1978

Emphasis in this study is on the surface-water availability from existing and proposed reservoir projects in the basin. This hydrologic investigation represents an on-going effort by the department to provide detailed evaluations of the water resource needs within the state through the year 2030 and alternative means of meeting these needs.

LP-061 Results of an Infiltration Study on the Carrizo Sand Outcrop in Atascosa County, Texas
By William J. Opfel, Glenward R. Elder
July 1978

Study to determine the amount of deep percolation that recharges the Carrizo Aquifer within the 470 acre drainage basin of the study area. It is estimated that about 229 acre-feet (0.28 cubic hectometers) of rainfall went to recharge the Carrizo Aquifer.

LP-062 Land Use/Land Cover Maps of Texas
February 1977

LP-063 Precipitation and Climatology for the HIPLEX Southern Region
By Donald R. Haragan
April 1978

Results include the frequency of rain periods, the distribution of rainfall amounts during a rain period, the duration of rain periods and the variation of precipitation based on seven-day running means during the rainy season. Patterns of clouds and precipitation which characterize the HIPLEX southern region and meso-synoptic events responsible for precipitation are identified.

LP-064 A Radar-Echo Climatology for Southern HIPLEX, Volume I
By Dennis M. Driscoll
May 1978

This study reports the climatological characteristics of convective rain cells (Echoes) in and around the southern (Texas) Hiplex area. The characteristics described are time variations (annual, monthly, daily, and diurnal), regions of occurrence, durations to 8 km diameter and to maximum size, and speed and direction of echo movement.

LP-065 Mesoscale Characteristics of the Texas HIPLEX Area During Summer 1976
By J. R. Scoggins, H. E. Fuelbert, S. F. Williams, M. E. Humbert
May 1978

Composite analyses of selected surface variables and atmospheric energetics are presented. Charts of analyzed fields determined from data placed on a 15-km grid are compared with radar data coded on a similar grid. The results show pronounced interactions between the environment and convective activity.

LP-066 Flood Hazard Evaluation Guidelines for Texas State Agencies
June 1978

Presents guidelines to reduce the risk of flood losses by implementing a broad state effort, directly and by example, to preclude the uneconomic, hazardous, or unnecessary use of floodplains along streams and coastal areas.

LP-067 Guidelines for Accounting Procedures for Construction Grant Projects
1984

The guidelines and examples contained in this publication were compiled to aid grantees in meeting the financial management requirements of Construction Grant Projects.
–MF Available–

LP-068 Water Quality Management Program: Annual Work Program FY-1982

Published annually in conjuction with the "State of Texas Water Quality Management Five Year Strategy" since 1979. This program translates the goals and policy commitments of the strategy into specific objectives and performance workload measures, and becomes part of the Section 106 Water Quality Management Grant Application.

LP-069 An Analysis of Weather Conditions Relative to Occurrence of Flash Flooding Rains in Central Texas During the Period of July 30 - August 4, 1978
By George W. Bomar
October 1978

Discusses how "Amelia," the first tropical storm of 1978, thrived for so long once on shore and released flood-producing rains.

LP-070 Hydrological and Biological Studies of the Trinity River Delta, Texas
By Espey-Huston, UT Civil Engineering
September 1978

This report describes the significant physical, chemical, and biological relationships in the Trinity River Delta.

LP-071 Texas Surface Water Quality Standards
April 1981

The surface water quality standards are the current revision of a document, Water Quality Requirements, which the Texas Water Quality Board staff developed in early 1967. Water quality standards were written and based on the strategies which are being developed to meet the 1983 goals of Pl 95-217. These goals require that, where attainable, water quality will support aquatic life and contact recreational Uses.

LP-072 The State of Texas Disaster Plan Annex V
1978

This plan has been prepared to serve as a guide for TDWR personnel involved in emergency operations conducted by the State Division of Disaster Emergency Services.

LP-073 Texas HIPLEX 1978 Field Operations Summary
By Robert F. Riggio, William O. Alexander
October 1978

This report includes a weather summary for each Hiplex day; surface and airborne weather observations; and the status of equipment during the period when cloud seeding was conducted and when data from aircraft, radar, special surface instruments, and rawinsondes were collected.

LP-074 A Texas HIPLEX Forecast (Decision Tree)
By William O. Alexander, Robert F. Riggio
1978

The report summarizes a study which began with post-stratification of all 1976 and 1977 Texas Hiplex forecast days on the basis of surface observations. Forecast predictor variables were identified for operational forecast day delineation, and a first generation forecast decision tree was developed on the basis of the results.

LP-075 A Completion Report on Techniques for Evaluating the Effects of Water Resource Development on Estuarine Environments
1978

This report describes: (1) the techniques developed to measure the environmental impact of water resources development on estuarine environments, and (2) the application of these techniques to a prototype Texas river basin/estuarine system to demonstrate the methodology.

LP-076 Guadalupe Estuary: An Analysis of Bay Segment Boundaries, Physical Characteristics, and Nutrient Processes
March 1981

This report is one in a series of reports on major Texas estuaries. The objective is to analyze existing data on the Guadalupe Estuary for the purpose of water quality planning under Section 208 P.L. 92-500.

LP-077 Water District Accounting Manual, 1975 Edition
1975

All districts which provide water and/or sewer services to household users as the primary function of the district are required to provide uniformity in the accounting, auditing, and reporting of districts' fiscal affairs.

LP-078 Lavaca-Tres Palacios Estuary: An Analysis of Bay Segment Boundaries, Physical Characteristics and Nutrient Processes
February 1981

This report is one in a series of reports on major Texas estuaries. The objective is to analyze existing data on the Lavaca-Tres Palacios Estuary for the purpose of Water Quality Planning under Section 208 of P.L. 92-500.
–MF Available–

LP-079 Hydrological and Biological Studies of the Colorado River Delta, Texas
1978

The purpose of this study was to investigate the physical, chemical, and biological relationships in the Colorado River deltaic marsh and to utilize this information to assess the impacts of alternative surface water development in the Colorado River Basin upon the delta.

LP-080 Texas HIPLEX Mesoscale Experiment, Summer 1978 Data Tabulations
April 1979

This report describes a mesoscale experiment that was conducted in West Texas as part of the High Plains cooperative experiment (Hiplex). Data was presented for 16 special surface stations and four rawinsonde stations. Radar-observed convective activity is presented for each day for the entire period.

LP-081 Water Conservation Bibliography
By Charles G. Chandler
December 1978

This document is intended to provide a basic point of reference for those interested in the multidisciplinary field of water conservation.

LP-082 Coordination of (Non-Rule Making) Public Hearings
January 1979

Includes information on all aspects of delegation of key duties, responsibilities, and examples of the documents used.

LP-083 Nueces and Mission-Aransas Estuaries: An Analysis of Bay Segment Boundaries, Physical Characteristics, and Nutrient Processes
1982

This report is one in a series of reports on major Texas estuaries. The objective is to analyze existing data on the Nueces and Mission-Aransas estuaries for the purpose of Water Quality Planning under Section 208 of P.L. 92-500.

LP-084 Texas HIPLEX 1978 Satellite and Radar Summary
By Texas Tech University
February 1979

This report documents the collected satellite imagery data, and presents the plan position indicator radar data and an inventory and samples of the aircraft data.

LP-085 Texas HIPLEX Interim Progress Report
January 1979

This begins a series of reports covering April - September 1978. Includes a description of activity in each of the program areas addressed; a brief statement of work planned for the next six-month reporting period; a list of personnel involved; and three appendices containing information on studies conducted by the department staff in support of the Texas Hiplex program.

LP-086 Trinity-San Jacinto Estuary: An Analysis of Bay Segment Boundaries, Physical Characteristics, and Nutrient Processes
January 1979

This report is one in a series of reports on major Texas estuaries. The objective is to analyze existing data on the Trinity-San Jacinto estuary for the purpose of Water Quality Planning under Section 208 of P.L. 92-500.

LP-087 Program Information for Federal Construction Grants to Build Municipal Wastewater Treatment Facilities
1980

LP-088 A Review of Texas' Weather in 1978: A Year of Rare Extremes
By George W. Bomar
January 1979

This document is an attempt to describe the more noteworthy elements of the Texas weather scene during 1978. Examines the causes and effects of the significant weather systems that affected the State during the year.
–MF Available–

LP-089 1978: Drought in the East – Floods Out West
By George W. Bomar
January 1979

Data similar to LP-19 for 1978 included.

LP-092 Determination of Cloud Properties from Bispectral Satellite Measurements
By Gerald M. Jurica, Shwe-Yi Chi
March 1979

An analysis technique is presented to determine cloud parameters from geostationary satellite data. Through a cloud summary computer program, cloud size, and mean and standard deviation of brightness value for every individual cloud are found, categorized, and compared in time series.

LP-093 Development and Interpretation of a M-33 Radar Climatology for the Texas HIPLEX Region
March 1979

The M-33 data along with WSR-57 data from the National Weather Service allowed two length and time scales of echo patterns to be analyzed. A radar echo climatology was generated for each scale using the classifications as a basis for analysis. Statistical relationships between echo groups and mesoscale variables are presented.

LP-094 Bacteriological Survey of the Atascosa River (Segment 2107)
By Donald D. Ottmers
April 1979

Water samples were collected with fecal coliform and fecal streptococcus analyses performed. Includes a description of the survey area, discussion of data, and tables.

LP-095 The Step 1 Construct Grant Application
August 1980

This booklet has been compiled to assist the grantee in preparing a complete and correct Step 1 Grant Application. It contains an example application that has all the necessary documents filled out in an acceptable manner.
–MF Available—

LP-096 Construction Grants Management Planning Guide

Utilization of this guide will provide a checklist of required elements and events, a basis for good planning and scheduling, a basis for accurate communication with your consultant and documentation of management efficiency towards any future state or federal projects.

LP-097 Radar Echo Organization and Development in the Mesoscale Environment: A Case Study Approach
By P. C. Chen, M. E. Humbert, T. B. Smith
May 1979

The prime objective of this study was to understand the relationship between the mesoscale organization and development of clouds (echoes) and the environmental atmospheric conditions. The synoptic conditions, the convective stability, wind shear and wind structure as well as the organization, movement, and evolution of echoes as shown by the M-33 radar were analyzed in each case study.

LP-098 State of Texas Water Quality Assessment
April 1979

Provides information on segments within 23 river basins including a summary of TDWR surface water monitoring data for each segment.

LP-099 Mesoscale Characteristics of the Texas HIPLEX Area During Summer 1977
By James R. Scoggins, Gregory S. Wilson, Steven F. Williams
May 1979

This report contains a description of the mesoscale experiment for 1977, a brief discussion of data and processing procedures, methods of data analysis, results for each case study day, a composite analysis of surface data, average conditions of upper-level kinematic and atmospheric energetics during times with and without convective activity, and average moisture processes as a function of convective activity.

LP-100 Texas HIPLEX Interim Progress Report: For the Period October 1, 1978 - March 31, 1979
April 1979

This report consists of a compilation of individual reports prepared by the department and each of the Texas Hiplex participants. For content of individual reports See LP-11.

LP-101 The State of Texas Environmental Protection Agency Agreement for Fiscal Year-1981

Published annually 1979-1982, includes brief statements on the environmental goals and issues to be acted upon during the fiscal year. A detailed work program that documents activities and resources used to meet Sea Priority Commitments, Annual Grant Work Programs, and an Executive Summary.

LP-102 Water Quality Management Program Annual State Strategy FY 84
1984

Published annually since 1979, the document encompasses programs conducted under the Federal Clean Water Act, as well as the Federal Resource Conservation and Recovery Act and the Federal Safe Drinking Water Act. It addresses problem assessment, goals and priorities, and planning strategies for water quality management, the Underground Injection Program, and the Solid Waste Management Program.

LP-103 A Digital Model for Simulation of Ground-Water Hydrology in the Houston Area, Texas
By W. R. Meyer, Jerry E. Carr
August 1979

This report documents the construction and calibration of a digital model for the simulation of hydrologic conditions in the Chicot and Evangeline Aquifers. The properties and processes modeled were ground-water withdrawals, transmissivities, storage coefficients of the clays, and vertical hydraulic conductivity and vertical leakage.

LP-104 Simulated Effects of Ground-Water Pumping in Portions of the Hueco Bolson in Texas and Mexico During the Period 1973 through 2029
By Tommy R. Knowles, Henry J. Alvarez
August 1979

The model incorporates geologic and hydrologic data to simulate (1) the hydrologic regime of the area, (2) response to pumping from wells in both the Mesa and Artesian areas of the Hueco Bolson, and (3) variable rates of leakage between the two aquifers (Alluvium and Bolson Deposits) and between the Alluvium and the Rio Grande.

LP-105 Population Projections for Texas: State, County, State Planning Region and 208 Water Quality Designated Area
August 1979

Contains County, State Planning Region and 208 Water Quality Designated Area population projections proposed for use in the development of waste-treatment facility plans.

LP-106 Lavaca-Tres Palacios Estuary: A Study of the Influence of Freshwater Inflows
June 1980

Addresses relationship of freshwater inflow to the heath of living estuarine resources, and presents methods of providing and maintaining a suitable ecological environment. The technical analyses characterize the relationships which have maintained the estuarine environments historically and which have provided for the production of living resources at observed historic levels. This is part of a series of reports covering the seven major estuaries on the Texas coast.

LP-107 Guadalupe Estuary: A Study of the Influence of Freshwater Inflows
August 1980
See LP-106
–MF Available–

LP-108 Nueces and Mission-Aransas Estuaries: A Study of the Influence of Freshwater Inflows
November 1979
See LP-106
–MF Available–

LP-109 A Suggested Model Sewer Use Ordinance
1982

This suggested ordinance has been compiled from various information sources from city, state, and federal entities. It is intended that it be used by the applicant as a guide in adopting an ordinance that will satisfy local conditions and applicable state-federal requirements.
–MF Available–

LP-110 Texas HIPLEX Interim Progress Report
December 1979

See LP-100
–MF Available–

LP-112 Texas HIPLEX 1979 Field Operations Summary
By William O. Alexander, Robert F. Riggio
January 1980

A summary of the daily events pertaining to the 1979 Texas Hiplex Field Program is provided. A brief description of weather conditions, aircraft observations, and equipment status are provided. Also includes a tabular summary of the operations of the 1979 field program, rawinsonde data, and precipitation data tables.
–MF Available–

LP-113 Trinity-San Jacinto Estuary: A Study of the Influence of Freshwater Inflows
March 1981

See LP-106
–MF Available–

LP-114 Playa Lake Monitoring for the Llano Estacado Total Water Management Study Texas, Oklahoma, New Mexico, Colorado, and Kansas
January 1980

This report presents the results of a cooperative project to develop a methodology for inventorying and determining the availability of water in the Playa Lakes.
–MF Available–

LP-115 Influence of Freshwater Inflows Upon the Major Bays and Estuaries of the Texas Gulf Coast - Executive Summary
1982

The objective of these technical analyses was to describe and quantify the freshwater inflow-salinity/biological relationships of the estuarine environments and to estimate the annual and seasonal freshwater inflows associated with the production of finfish and shellfish at observed historic levels.
–MF Available–

LP-116 Sabine-Neches Estuary: A Study of the Influence of Freshwater Inflows
July 1981

See LP-106
–MF Available–

LP-117 Models of Atmospheric Water Vapor Budget for the Texas HIPLEX Area
By Steven F. Williams, James R. Scoggins
January 1980

Models were developed for convective and non-convective conditions as a function of echo height, areal coverage, and type (isolated cells, clusters of cells, and lines of cells) of convective activity. Intra- and inter-comparisons of the Water Budget Models indicate that greater amounts of water vapor are processed by increased depth and areal coverage of convective activity.
–MF Available–

LP-118 Texas HIPLEX Mesoscale Experiment Summer 1979 Data Tabulations
By Steven F. Williams, Myron L. Gerhard, James R. Scoggins
February 1980

This report describes a mesoscale experiment that was conducted in the High Plains of West Texas. Data are presented for five special (manual) surface stations and seven rawinsonde stations. Radar observed convective activity taken from Midland and NWS Radar data is presented for each day during the period May 21 through July 19, 1979.
–MF Available–

LP-119 1979: Too Much Rain – Then Not Enough
By George W. Bomar
February 1980

Summarizes 1979 weather events in Texas. The foremost highlights noted were the April 10 tornado outbreak, the ruinous floods of July and September, and the absence of a hurricane striking the Texas coast.

LP-120 Processing of the M-33 Snyder, Texas Radar Data
By G. J. Mulvey, M. Young
March 1980

The work covered by this report includes the preliminary data processing, the quality control checks, and the development of calibration coefficients for the S-Band Data Section. The data formats, calibration data, errors, and corrective procedures are described.
–MF Available–

LP-121 Investigations of the Radar-Echo Climatology of Southern HIPLEX
By Dennis M. Driscoll
March 1980

This study reports on the synoptic climatology of the region, develops a correction for radar bias from Ppi films from the Amarillo and Midland National Weather Service Wsr-57 radars (10 Cm), and attempts an analysis of the effects of seeding on convective cell characteristics as deduced from radar echoes on a smaller scale than was previously possible.

LP-122 Houston Ship Channel Monitoring Program 1973-1978
April 1980

Includes analysis of the biological communities in their own habitat for characterizing the water quality of the channel. The identification of organisms in the channel has provided some of the fundamental information necessary for assessing what has occurred, what is occurring, and what can be expected to occur in the aquatic environment.
–MF Available–

LP-123 Mesoscale Characteristics of the Texas HIPLEX Area During Summer 1978
By M. E. Siekiewicz, J. R. Scoggins, S. F. Williams, M. L. Gerhard
March 1980

Mesoscale surface and upper air data were obtained for the Texas Hiplex area. Rawinsonde soundings were made on 17 of 26 days at four sites, while surface data were available from 20 stations for all 26 days. Presents composite analyses of surface variables, and upper level kinematic, moisture, atmospheric and energy processes associated with convective activity.
–MF Available–

LP-124 Preliminary Cloud Microphysics Studies for Texas HIPLEX 1979
By Alexis B. Long
April 1980

The objective is to determine important natural precipitation mechanisms in summertime convective clouds in the Big Spring, Texas area.
–MF Available–

LP-125 HIPLEX 1980 Operations Plan, Big Spring, Texas
1980

This plan contains the operations aspects of the field program which includes data processing and documentation.
–MF Available–

LP-126 Population Projections for Texas State, County, State Planning Region and 208 Water Quality Designated Areas
January 1980

Revision of population projections data present in LP-105.

LP-127 Determination of Cloud and Precipitation Characteristics from Satellite, Radar and Raingage Analysis: HIPLEX Report for the Period 1 January 1979 to 31 December 1979
By Donald R. Haragan, Jerry Jurica, Colleen A. Leary
June 1980

Presents recording raingage, digitized radar, and geostationary satellite radiance data. Includes individual analyses and results derived from integration of several data sources into a more complete case study of certain dates.
–MF Available–

LP-128 Texas HIPLEX Interim Progress Report
May 1980

Includes progress reports on mesoscale data evaluation; development of a radar-echo climatology; analysis of satellite; radar and precipitation gauge data; and the processing of 1976-78 Snyder, Texas M-33 digital radar data.
–MF Available–

LP-129 Evaluating the Ground-Water Resources of the High Plains of Texas: Results of Test Hole Drilling
By John B. Ashworth, Jr.
July 1980

The scope of this investigation included the drilling and selective coring of the 41 test holes through the High Plains Aquifer, the geophysical logging of each test hole, laboratory testing of cuttings and selected cores, and the interpretation of these tests to determine permeability and specific yield.
–MF Available–

LP-130 Evaluating the Ground-Water Resources of the High Plains of Texas: Results of Surface Electrical Resistivity Surveys
By Daniel A. Muller
July 1980

The Wenner Configuration of Electrodes was employed to investigate subsurface electrical values of the High Plains Aquifer to depths of 700 feet and more. Qualitative variations in hydrologic properties are shown in terms of the aquifer's apparent formation factor and computer-calculated resistivity.
–MF Available–

LP-131 Hydrochemical Data for the Edwards Aquifer in the San Antonio Area, Texas
By Robert W. Maclay, P. L. Rettman, T. A. Small
October 1980

The report includes the results of chemical analyses of 159 water samples from 123 wells and springs; tritium analyses for 242 water samples from 120 wells and springs; isotope and redox-potential analyses of 31 water samples from wells, springs, and streams; and calculated dissolved carbonate, partial Co_2 pressures, and saturation indices of selected minerals in 98 water samples from 81 wells, springs, and streams.
–MF Available–

LP-132 Texas River and Coastal Basins Segment Identification Maps
October 1980

The stream segments have been established by the Department of Water Resources to facilitate planning activities, issuance of permits, allocation of Construction Grant Funds for municipal facilities, and other programs necessary to implement the Clean Water Act Amendments of 1977. The term (segment) refers to the surface waters of an approved planning area exhibiting common biological, chemical, hydrological, natural, and physical characteristics and processes.

LP-133 Water-Level, Recharge, Discharge, Specific-Capacity, Well-Yield, and Aquifer-Test Data for the Edwards Aquifer in the San Antonio Area, Texas
By Robert W. Maclay, T. A. Small, P. L. Rettman
December 1980

This report presents data and information, and indicates other sources of data.
–MF Available–

LP-134 A Review of Texas' Weather in 1979: The Year of Devastating Tornadoes and Flash Floods: An Annual Overview and Month-by-Month Analysis of the Year's Important Weather Developments
By George W. Bomar
December 1980

This report is an attempt to describe the noteworthy elements of the Texas weather scene throughout 1979. Explains the causes and effects of the weather systems that affected Texans during the year.
–MF Available–

LP-135 Analysis of Digitized M-33 Radar Data from Texas HIPLEX, 1976-1978
By J. L. Sutherland, H. R. Swart, D. A. Griffith
November 1980
Data were analyzed to examine seeding effects, produce an echo summary, generate hourly radar-derived rainfall maps, and determine environmental controls on echo occurrence. Possible seeding effects were detected in terms of increases in echo volume and area.
–MF Available–

LP-136 Texas HIPLEX Interim Progress Report: April 1, 1980 - September 30, 1980
November 1980

Includes progress reports on mesoscale data evaluation, investigation of cloud microphysics, entrainment, analysis of satellite and precipitation gage data, radar data analyses and interpretation, and operational cloud-sampling and seeding activities.

LP-137 V2 Solid Waste Management Plan for Texas 1980-1986, Volume II - Industrial Solid Waste
1981

Encompasses activities associated with the collection, handling, storage, processing and disposal of industrial solid waste. Examines the interrelationship of all state, regional, and local authorities involved in the management of industrial solid waste. Volume I concerns the management of municipal solid waste in Texas and is available from the Texas Department of Health.

LP-138 Texas HIPLEX Field Operations Summary 1980
By William O. Alexander, Robert F. Riggio
1980

Documents the daily operational activities of the 1980 Texas Hiplex field season. Include summaries of equipment used, weather monitoring procedures (including observations and forecasts), aircraft operations and data acquisition.
–MF Available—

LP-139 Application and Analysis of Borehole Data for the Edwards Aquifer in the San Antonio Area, Texas
By Robert W. Maclay, T. A. Small, P. L. Rettman
March 1981

The specific objectives of the logging program were to identify the top and base of the Edwards Aquifer, to identify and correlate lithologic subunits within the aquifer, to determine porosity distribution, to characterize porosity into total and secondary porosities, to estimate the mineralogic composition of the aquifer, to determine vertical changes in water quality and temperature, and to identify zones where water enters or leaves the boreholes.

LP-140 A Study of Clouds Using Satellite Radiance Data in Comparison with Raingage Network and Radar Observations
By Gerald M. Jurica, Shih-Cheng Chao
January 1981

The objective of this study is to use visible and infrared radiance data to determine cloud characteristics, including cloud population, albedo, cloud-top temperature and height, and changes of cloud parameters with time.

LP-141 Water Use Projected Water Requirements, and Related Data and Information for the Standard Metropolitan Statistical Areas in Texas
March 1981

Presents a statewide perspective on water resources, their development and use, water quality planning, floodplain management, information about each of the SMSAs and the State, and water supply outlook and problems in Texas and in each of the SMSAs.
–MF Available—

LP-142 Evaluating the Ground-Water Resources of the High Plains Texas: Neutron-Probe Measurements of Deep Soil Moisture as an Indication of Aquifer Recharge Rates
By William B. Klemt
April 1981

The neutron moisture logging method was employed in both dryland and irrigated land to evaluate the depth to which rainfall and irrigation water percolate through the soil mantle overlying the aquifer. The likelihood of appreciable recharge by downward percolation of precipitation and applied irrigation appears remote.
–MF Available–

LP-143 Public Participation in the Construction Grants Program for Wastewater Treatment Facilities
March 1981

Includes several references and models to assist in meeting public participation requirements set forth in federal regulations.
–MF Available–

LP-144 Water Quality Management Program Public Participation Handbook
December 1980

Prepared as an update to the department's public participation workbook published in December 1980. This handbook is to be used by the department staff to ensure the public is adequately involved in water quality decision-making.

LP-145 Drainage Areas of Texas Streams Colorado River Basin
By F. H. Tovar, B. N. Maldonado
1981

This report gives the drainage areas as determined by measurements at 429 points within the Colorado River Basin.
–MF Available—

LP-146 A Summary of Weather in Austin
March 1981

Presents brochure with charts characterizing Austin's climate based on records for the past 54 years—including normals and extremes of precipitation and temperature, freeze data, and snowfall accumulations.

LP-147 Texas HIPLEX Mesoscale Experiment Summer 1980 Data Tabulations
By Meta E. Sienkiewicz, Myron L. Gerhard
June 1981

Contains the mesoscale data collected at sixteen manual surface stations and seven rawinsonde stations during the period 15 May through 30 June 1980, and a summary of radar-observed convective activity in the area of the National Weather Service (NWS) radar at Midland, Texas.

LP-148 Plan Summary Report for the Sabine Basin Water Quality Management Plan
June 1978

Under the requirements of Section 208 of the Clean Water Act of 1977, this report presents the recommended plan for water quality management and the legal, financial, and institutional requirements of that plan. Also includes a description of feasible alternatives, an environmental assessment, and a summary of public participation activities conducted in the development of the plan. This is part of a series of reports dealing with the 15 planning areas for water quality management.

LP-149 Plan Summary Report for the Trinity Basin Water Quality Management Plan
July 1978

See LP-148
–MF Available–

LP-150 Plan Summary Report for the Lower Nueces Basin (San Antonio-Nueces and Nueces-Rio Grande Coastal Basins) Water Quality Management
June 1978

See LP-148

LP-151 Plan Summary Report for the San Antonio Basin Water Quality Management Plan
December 1978

See LP-148
–MF Available–

LP-152 Plan Summary Report for the Cypress Creek Basin Water Quality Management Plan
August 1978
See LP-148
–MF Available–

LP-153 Plan Summary Report for the Canadian Basin Water Quality Management Plan
1978

See LP-148

LP-154 Plan Summary Report for the Brazos Basin and Adjacent Coastal Areas Water Quality Management Plan
July 1978

See LP-148

LP-155 Plan Summary Report for the Guadalupe Basin Water Quality Management Plan
June 1978

See LP-148

LP-156 Wastewater Facility Needs Middle Rio Grande Basin: Interim Report (Draft)
1981

As part of the continuing planning process under Section 208 of the Clean Water Act of 1977, this report focuses on wastewater facility needs for the first program work year.

LP-157 Summary Report Wastewater Facility Needs Middle Rio Grande Basin (Draft)
April 1981

The City of Del Rio (Silver Lake service area), was reviewed in detail. This SPA was evaluated for existing and expected water-quality problems, service or facility planning area boundaries, existing and projected population through the year 2005, effluent limitations, existing and projected wastewater volume, existing and projected wasteloads, cost estimates, and management agency requirements.

LP-158 Plan Summary Report for the Lower Portion of Water Quality Management Plan
June 1978

See LP-148

LP-159 Plan Summary Report for the Sulphur River Basin Water Quality Management Plan
May 1978

See LP-148
–MF Available–

LP-160 Plan Summary Report for the Lavaca Basin Water Quality Management Plan
July 1978

See LP-148
–MF Available–

LP-161 Texas HIPLEX Interim Progress Report, October 1, 1980 - March 31, 1981
April 1981

Includes progress on the reduction analysis, and interpretation of mesoscale ambient air, radar, precipitation gage, and satellite radiance data.
–MF Available—

LP-162 Plan Summary Report for the Upper Portion of the Neches River Basin Water Quality Management Plan
June 1978

See LP-148
–MF Available—

LP-163 Plan Summary Report for the Red River Study Area Water Quality Management Plan
1978

See LP-148

LP-164 Plan Summary Report for the Upper Nueces Basin Water Quality Management Plan
1978

See LP-148

LP-165 Plan Summary Report for the Upper Colorado Study Area Water Quality Management Plan
June 1978

See LP-148
–MF Available–

LP-166 Plan Summary Report for the Rio Grande Basin Water Quality Management Plan
1978

See LP-148

LP-167 Plan Summary Report for the Lower Colorado Basin Water Quality Management Plan
June 1978

See LP-148
–MF Available–

LP-168 Plan Summary Report for the San Jacinto Basin Water Quality Management Plan
June 1978

See LP-148

LP-169 Plan Summary for the Middle Colorado Basin Water Quality Management Plan
June 1978

See LP-148
–MF Available–

LP-170 Potential Flow Models of Thunderstorm - Environment Interaction
By Myron L. Gerhard, James R. Scroggins
October 1981

Three potential flow models are developed which represent the kinematics of the environment around an isolated, growing thunderstorm.
–MF Available–

LP-171 Test-Hole Data for the Edwards Aquifer in the San Antonio Area, Texas
By T. A. Small, Robert W. Maclay
January 1982

Contains descriptive geologic data collected by the U.S. Geological Survey during a test-hole program from 1970 to 1978 used to develop a factual concept of the distribution of porosity and permeability within the Edwards Aquifer in the San Antonio area.

LP-172 Annual Audit Report Requirements for Texas Water Districts and Authorities
1982
Lists report requirements for each water district.

LP-173 V1 Evaluating the Ground-Water Resources of the High Plains of Texas, Final Report, Volume 1
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
1982

This 4-Volume Report is to be included in the U.S. Geological Survey's eight-state study of the High Plains Aquifer. Two primary purposes of the study were to improve the database describing the aquifer and to develop a computer model capable of predicting future conditions.

LP-173 V2 Evaluating the Ground-Water Resources of the High Plains of Texas, Final Report, Volume 2, Basic Data for Middle Third of Region
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
1982

LP-173 V3 Evaluating the Ground-Water Resources of the High Plains of Texas, Final Report, Volume 3, Basic Data for Middle Third of Region
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
1982

LP-173 V4 Evaluating the Ground-Water Resources of the High Plains of Texas, Final Report, Volume 4, Basic Data for Middle Third of Region
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
1982

LP-174 Investigations of Summary Convective Cloud Systems in the Texas High Plains
By Gerald M. Jurica, Donald R. Haragan, Colleen A. Leary
1982

Describes several studies conducted to acquire an understanding of the precipitation process leading to the development of a method to increase rainfall in the area.
–MF Available—

LP-175 Representation of the Mesoscale Wind Field Using A Line Integral Technique
By John S. Tares, Jr., P. Das
1982

Develops a procedure for ascertaining the most optimal strategy for determining the initial wind field in order to carry out numerical weather predictions.

LP-176 Wastewater Facility Needs Upper and Middle Rio Grande Basins: Summary Report (Draft)
1982

As part of the continuing planning process under Section 208 of the Clean Water Act of 1977, this report focuses on wastewater facility needs for the second program work year.

LP-177 Community Relations Plan for Remedial Action at the French Limited Hazardous Waste Site, Crosby, Texas
1982

Outlines the anticipated community relations program for the continuing stages of remedial action for clean-up of contaminants.

LP-178 Community Relations Plan for Remedial Action at the Bio-Ecology Hazardous Waste Site, Grande Prairie, Texas
1982

Outlines the anticipated community relations program for the continuing stages of remedial action for clean-up of contaminants.

LP-179 Wastewater Facility Needs Upper and Middle Rio Grande Basins: Interim Report (Draft)
1982

A continuation of the wastewater facility needs for the Middle Rio Grande Basin Report prepared in 1981. Current work involves the identification of other point source facility needs in this planning area.

LP-180 Community Relations Plan for Remedial Action at the Sikes Hazardous Waste Site, Crosby, Texas
1982

Outlines the anticipated community relations program for the continuing stages of remedial action for clean-up of contaminants.

LP-181 TAMU Texas HIPLEX Studies for 1979
By James R. Scoggins, Dusan Djuric, P. Das, George L. Huebner
1982

As one in a series of reports aimed at establishing a base of knowledge of Texas Hiplex clouds and their mesoscale environment, this report concerns mesoscale analysis, development of a mesoscale numerical model, cloud physics, and radar echo variability.

LP-182 Laguna Madre Estuary: A Study of the Influence of Freshwater Inflows
1983

See LP-106

LP-183 1981: A Year of Torrential Downpours: A Review of Texas' Weather During the Year
By George W. Bomar
1982

An explanation of both the causes and effects of the many and varied weather systems that affected Texas during the 1981.

LP-184 Texas HIPLEX Summary Report 1975-1980
By R. F. Riggio, W. O. Alexander, T. J. Larkin, G. L. Huebner
1983

Presents a summary of the Texas Hiplex research. Purpose is to synthesize the important findings of the individual studies which comprised the program and to offer recommendations concerning the design for a rainfall augmentation experiment.

LP-185 Investigation of the Feasibility of Secondary Recovery of Ground Water from the Ogallala Aquifer: A Report to the Sixty-Eighth Legislature
1982

Sites with a saturated clay layer overlying the injection zone of the aquifer appear to offer good prospects of secondary recovery by air injection. However, the cost of such recovery probably is economically feasible only for municipalities whose existing water supply is almost exhausted.

LP-186 Summer Convective Precipitation on the Texas High Plains
By Gerald M. Jurica, Colleen A. Leary, Donald R. Haragan, A. Edd
1983

The objective of this study was to acquire an understanding of storm behavior on the South Texas Plains. Results indicate that most of the recorded precipitation is associated with a few storms. The study also shows that an experiment to enhance summer precipitation in this area is feasible.

LP-187 1980: When Scorching Heat Gripped Texas: A Review of Texas' Weather During the Year
By George W. Bomar
1983

Describes all of the notable aspects of weather in Texas during 1980, with supporting pictorial, numeric, and graphical data. Also gives accounts of how those elements impacted the people and economy of the state.

LP-188 Mesoscale Analyses and Models for the Texas HIPLEX Area
By James R. Scoggins, James P. McGuirk, Dusan Djuric
1983

Includes a brief review of previous modeling efforts in mesometeorology, the mesoscale analysis for eleven days during 1979 and 1980 on which data were available from seven rawinsonde stations, and the presentation of preliminary Mesoscale Environmental Models for the Texas Hiplex area for several classifications of convective activity.

LP-189 The Texas Input-Output Model, 1979
By Mickey L. Wright, Albert H. Glasscock, Roy Easton
1983

Update and revision of the Texas Input-Output Model of the Texas economy (LP-24) examines major structural changes in Texas when compared to the previous version based on 1972 data.

LP-190 Weather Modification Activities in Texas, 1978-1982
By Robert F. Riggio, Thomas J. Larkin
1983

Presents a brief description of weather modification activities in Texas during 1978-1982, and reports preliminary results of weather modification to augment West Texas water supplies.

LP-191 Irrigation System and Pumping Plant Efficiency Evaluations: 1978-1981
1983

This publication was produced in the interest of promoting cooperative programs to improve irrigation water use efficiency through the use of irrigation water conservation practices.

LP-192 Climatic Atlas of Texas
By Thomas J. Larkin, George W. Bomar
1983

Illustrates the statewide distribution of primary climatic components: precipitation, temperature, evaporation, and wind by use of contour analysis of data points on state maps.

LP-193 Texas Manufacturing Water Use Long-Term Projections
1983

Presents documentation for the projected manufacturing water requirements shown in the draft Planning Report (*Water for Texas –Planning for the Future*), concentrating the five largest water-using industries: chemicals, petroleum, paper and pulp, metals, and food processing.

LP-194 The Keystone Siting Process Handbook - A New Approach to Siting Hazardous Waste Management Facilities
1984

This handbook presents guidance for identifying and resolving the issues associated with the siting of hazardous waste management facilities. It suggests forming a local review committee that meets with the developer prior to the submittal of a permit application and steps to follow when preparing a report.

LP-195 1982: When A Tornado Hit Paris, A Review of Texas' Weather During the Year
By George W. Bomar
1983

Describes Texas' weather during 1982, the most notable event being the tornado that ravaged Paris on April 2.

LP-196 Ground-Water Conditions of the Triassic Aquifer in Deaf Smith and Swisher Counties
By Gail L. Duffin
December 1984

This study was prompted by the consideration that was being given to locating high-level nuclear waste repository sites in Deaf Smith and Swisher Counties. Results include a discussion of the occurrence of ground water and a tabulation of basic data.

LP-197 Corpus Christi Inner Harbor Water Quality Survey August 1982
By James Bowman, David A. Jensen
1985

A special study was conducted during the week of August 8-14, 1982, as part of the continuing surveillance of the Corpus Christi Inner Harbor, Segment 2484. Results showed that water quality has Improved over the past ten years. Sediments, however, are still contaminated with heavy metals, organics, and PCBs.

LP-198 Self-Reporting Systems General Instructions for Industrial Solid Waste Reports of the Self-Reporting System
1985

Pursuant to the State of Texas Solid Waste Disposal Act, the Texas Water Development Board has promulgated industrial solid waste rules. Portions of these rules pertain to the notification and reporting requirements of generators, transporters and treatment, storage and disposal facility owners, and operators of Industrial Waste. This publication has been prepared to provide assistance to those entities who are required to comply with the requirements of the Industrial Solid Waste Rules.

LP-199 Identification and Tabulation of Geological Contacts in the Edwards Aquifer, San Antonio Area, Texas
By T. A. Small
1985

Geological contacts were picked on logs of about 480 wells in the San Antonio area of the Edwards Aquifer. The base of the Del Rio Clay is the most frequently picked contact because it is the top of the Edwards Aquifer and also because it is easily identified on either gamma-ray or electric logs. Other important formation contacts identified were the Austin Group, the Eagle Ford Group, the Buda Limestone, and the Glen Rose Formation. These contacts were usually easy to identify on either gamma-ray or electric logs.

LP-200 Water Quality Survey of Carancahua Bay (Segment 2456) Field Data, Water Chemistry, and Metals and Pesticides in Water and Sediment
By David A. Jensen, James Bowman
1985

An intensive survey of Carancahua Bay, Segment 2456, was conducted on September 23, 1982. High turbidities are common to Carancahua Bay due to wind and wave action stirring up silty riverine sediments from the upper reaches of this shallow system. The bay is also characterized by several distinct biotopes. Morphological features and compartmentalized circulation limit mixing of fresh and saline waters in the upper portion of the bay. Water and sediment quality were good and no violations of standards were detected.

LP-201 Water Use, Projected Water Requirements, and Related Data and Information for the Metropolitan Statistical Areas in Texas
1985

This report provides current and projected data and information on each of the twenty-seven (27) MSAs with respect to economic, population and employment conditions, water quality management planning, floodplain management, water needs and supply, and water supply outlook and problems.

LP-202 Investigation of the Feasibility of Secondary Recovery of Ground Water from the Ogallala Aquifer. A Report to the 69th Legislature
December 1985

Presents data resulting from the investigation of the feasibility of enhanced recovery of ground water in the Ogallala aquifer. Results indicate that the injection of air into the unsaturated zone of the aquifer will increase the volume of water recoverable from the aquifer.

LP-203 Evaluation of the Santa Rosa Aquifer in Glasscock County
By John A. Ashworth
January 1986

Presents results of an investigation using samples collected during test-hole drilling to determine if usable-quality ground water could be obtained from the Santa Rosa aquifer; water sample analyses revealed the presence of high concentrations of dissolved minerals which would limit use of the ground water for most purposes, especially irrigation.

LP-204 Drainage Areas of Texas Stream Rio Grande Basin
October 1986

Joint USGS-TDWR report delineates the drainage area of the Rio Grande Basin as determined by measurements at 186 points within the basin using data from International Boundary and Water Commission publications: latitude and longitude of the point of determination, drainage area in square miles above each point, and the distance in miles from the point to the mouth of the stream.

LP-205 Ground-Water Conditions of the Trinity Group Aquifer in Western Hays County
By Daniel A. Muller, Wesley McCoy
January 1987

Discusses hydrological characteristics of the aquifer, chemical quality of the ground water, establishment of and recommendations concerning water-level and water-quality monitoring programs, and ground-water pumpage.

LP-206 Progress Report Pilot Program for Low Interest Loans for Agricultural Water Conservation Equipment: A Report to the 70th Legislature
February 1987

Discusses the Pilot Loan Program, created to supplement existing water conservation efforts in the private and public sector; reviews its operation, its administration, the repayment of conservation loans, the results of the program, and the feasibility and demand for an expanded conservation loan program.

LP-207 Investigation of Alternative Methods of Financing Underground Water Districts: A Report to the 70th Legislature
January 1987

Report summarizes current financing methods including: ad valorem taxes, pumpage fees, and miscellaneous sources such as fees imposed to plug open boreholes, deposits for well permits, or requests for information. Financing methods not yet used but considered potentially significant sources of revenue include water sales and the issuing of bonds and notes. Funds could be derived from permit application, well, and pumpage fees, and payment for inspection and monitoring activities that could be transferred from State agencies to the districts.

LP-208 A Digital Model of the Carrizo-Wilcox Aquifer Within the Colorado River Basin of Texas
By David Thorkildsen, Roger Quincy, Richard Preston
January 1989

Joint TWDB-LCRA report describes the construction of a three-dimensional computer model which simulates ground-water movement within the Carrizo-Wilcox aquifer and predicts the response of the aquifer to future projected pumping conditions.

LP-209 Ground-Water Quality and Availability In and Around Bruni, Webb County, Texas
By Eric O. Adidas
March 1991

Evaluates the quality of the ground water produced by the Bruni Water Works to determine if local uranium mining operations have contaminated or dewatered tertiary aquifers; analyses indicate that the naturally-occurring uranium and arsenic are limited to a specific ground-water producing interval. Recommends guidelines for production of good-quality water.

LP-210 Ground-Water Quality in Garden City, Texas
By John B. Ashworth, Phillip L. Nordstrom, Rick Harston
September 1991

Evaluates ground-water quality problems in the area; water-quality analyses indicate that the high concentration of septic systems and water wells has resulted in a degradation of the chemical quality of the underlying ground water.

LP-211 Ground-Water Programs and Studies of the Texas Water Development Board for Fiscal Years 1990-1991
By Ground Water Staff
October 1991

Describes activities conducted by the Ground Water Section of the TWDB including: data-collection activities such as water-level and water-quality monitoring; well development control; support functions; public and interagency assistance; ground-water study activities such as detailed, special, critical area, and basic data-collection studies; ground-water pumpage; and recommendations for areas of concentration in the future.

LP-212 Delineation of Criteria for the Major and Minor Aquifer Maps of Texas
By John B. Ashworth, Robert R. Flores
June 1991

Documents the criteria and sources by which each aquifer was delineated. Contains selected references used specifically in the delineation of each aquifer.

LP-213 Data-Collection Programs of the Hydrologic Monitoring Section for Fiscal Years 1992 and 1993
By Hydrologic Monitoring Staff
March 1994

Describes activities conducted by the Hydrologic Monitoring Section of the TWDB: ground water-level and water-quality monitoring; well development control; public and interagency assistance; geotechnical support functions; and surface-water data-collection programs, including the hydrographic survey.

LP-214 Evaluation of Ground-water Quality in Texas Counties Bordering the Rio Grande
By Janie Hopkins
February 1995

Discusses the results of the 1994 ground-water study of 150 samples collected in three major aquifers—the Edwards-Trinity (Plateau), Carrizo-Wilcox, and Gulf Coast—and several minor aquifers within a 100-km corridor in 11 counties along the Rio Grande. The best quality water exists in the Edwards-Trinity in Terrell and Val Verde counties; water with the highest dissolved solids, chloride, and sulfate occurs in the Rio Grande Alluvium, the Laredo, and the Gulf Coast aquifers in Maverick and Cameron, Zapata, and Starr and Hidalgo counties, respectively. No organics in excess of maximum constituent levels were detected in water from the sites selected for screening.

Memorandum Reports

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MR 62-01 Ground Water Conditions in the Vicinity of Burnet, Texas
By J. R. Mount
February 1962

MR 62-02 Reconnaissance Survey of Salt Water Disposal in the Mexia, Negro Creek, and Cedar Creek Oil Fields, Limestone County, Texas
By S. C. Burnitt
May 1962

MR 63-01 Brazos River Basin Reservoir Studies, Progress Report, May 1962, Chemical Quality and Stratification of Belton, Whitney, and Possum Kingdom Reservoirs
By H. B. Mendietta
February 1963

MR 63-02 Reconnaissance of Soil Damage and Ground Water Quality, Fisher County, Texas
By S. C. Burnitt
September 1963

MR 63-03 Investigation of Ground Water Resources Near Fredericksburg, Texas
By J. R. Mount
November 1963

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MISCELLANEOUS PUBLICATIONS

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M001 Ground-Water Resources of the Area Southwest of Amarillo, Texas
By W. H. Alexander, Jr.
September 1946

M002 Artesian Water in the Elkhart Area, Southern Anderson County, Texas
By L. G. McMillion
November 1956

M003 Records of Wells, Andrews County, Texas (South Half)
By S. F. Turner
December 1937

M004 Records of Wells, Andrews County, Texas
May 1940

M005 Records of Wells, Aransas County, Texas
April 1940

M006 Records of Wells, Armstrong County, Texas
September 1940

M007 Ground-Water Resources of Atascosa County, Texas, Progress Report
August 1945

M008 Records of Wells, Austin County, Texas
February 1938

M009 Records of Wells, Bailey County, Texas (Northeast Part)
June 1936

M010 Records of Wells, Bailey County, Texas
June 1937

M011 Ground-Water Resources of the Balmorhea Area in Western Texas
By W. N. White
February 1938

M012 Records of Wells, Bee County, Texas
June 1940

M013 Ground-Water Resources of Bexar County, Texas
By Penn Livingston
May 1947

M014 Records of Wells, Blanco County, Texas
By B. A. Barnes
January 1942

M015 Texas Board of Water Engineers (Review of Boards' Functions and Duties)
September 1950

M015A Brief of State Board of Water Engineers of Texas. Treaty Between the United States of America and the Republic of Mexico Respecting the Division and Diversion of Waters of the Lower Rio Grande Between...
By J. E. Sturrock
October 1938

M016 Ground-Water Resources of Borden County, Texas
By W. C. Ellis
September 1949

M017 Records of Wells, Brazoria County, Texas (West of the Brazos River)
September 1937

M018 Records of Wells, Brazoria County, Texas (East of the Brazos River)
By S. F. Turner
April 1939

M019 Ground-Water Resources of Brazoria County, Texas
By C. R. Follett
November 1947

M020 Investigation of Contamination Complaint, Clemens Prison Farm, Brazoria County, Texas (Contamination Report No. 9)
By R. C. Peckham
August 1960

M020A Quality of Water of Brazos River in Vicinity of Possum Kingdom Dam, Texas
By W. W. Hastings
February 1944

M021 Records of Wells, Briscoe County, Texas
By J. H. Dante
September 1946

M022 Records of Wells, Brooks County, Texas

M023 Records of Wells, Brown County, Texas
June 1938

M024 Ground Water in the Vicinity of Bryan and College Station, Texas
By S. F. Turner
January 1938

M025 Ground Water Supply of Bryan, Texas
By B. A. Barnes
August 1944

M026 Records of Wells, Burleson County, Texas
August 1937

M027 Geology and Ground-Water Resources of Caldwell County, Texas
By W. C. Rasmussen
May 1947

M028 Records of Wells, Calhoun County, Texas
May 1941

M029 Records of Wells, Callahan County, Texas
November 1940

M030 Records of Wells, Camp, Franklin, and Titus Counties, Texas
February 1943

M031 Results of Pumping Tests of Wells at Camp Hood, Texas
By W. F. Guyton
January 1943

M032 Records of Wells, Carson County, Texas
April 1939

M033 Records of Wells, Cass County, Texas
By C. R. Follett
March 1942

M034 Records of Wells, Castro County, Texas
By L. J. Ruman
December 1939

M035 Records of Wells, Chambers County, Texas
March 1942

M036 Chemical Composition of Texas Surface Waters, 1938-1944
By W. W. Hastings
March 1945

M037 Chemical Composition of Texas Surface Waters,1938-1945
By W. W. Hastings
September 1946

M038 Chemical Composition of Texas Surface Waters, 1946
By W. W. Hastings
July 1947

M039 Chemical Composition of Texas Surface Waters, 1947
By Burdge Irelan
September 1948

M040 Chemical Composition of Texas Surface Waters, 1948
By Burdge Irelan
June 1949

M041 Chemical Composition of Texas Surface Waters, 1949
October 1950

M042 Chemical Composition of Texas Surface Waters, 1950
March 1952

M043 Chemical Composition of Texas Surface Waters, 1951
December 1954

M044 Chemical Composition of Texas Surface Waters, 1952
February 1956

M045 Chemical Composition of Texas Surface Waters, 1953
July 1956

M046 Chemical Composition of Texas Surface Waters, 1954
December 1956

M047 Chemical Composition of Texas Surface Waters, 1955
July 1957

M048 Review of Chemical Quality-of-Water Data Collection Program in the Brazos River Basin
January 1961

M049 Records of Wells, Cherokee County, Texas
December 1936

M050 Records of Wells, Childress County, Texas
By W. O. George
May 1942

M051 Rules and Regulations (1914) Rules and Regulations of the Board of Water Engineers for the State of Texas
July 1914

M052 Rules and Regulations (1917) Rules and Regulations of the Board of Water Engineers for the State of Texas
June 1917

M053 Rules and Regulations (1925) Rules and Regulations of the Board of Water Engineers for the State of Texas
September 1925

M054 Rules and Regulations (1945) Rules and Regulations of the Board of Water Engineers for the State of Texas
April 1945

M055 Records of Wells, Coleman County, Texas
March 1938

M056 Records of Wells, Collingsworth County, Texas
April 1939

M057 Records of Wells, Colorado County, Texas
March 1938

M058 Records of Wells, Comal County, Texas
August 1937

M059 Geology and Ground Water Resources of Comal County, Texas
By W. O. George
February 1947

M059A Coastal Area Water Conference at Houston, Texas
October 20, 1948

M059B South Texas Water Conference at Corpus Christi, Texas, August 13, 1948

M059C West Texas Water Conference at Big Spring, Texas,
January 20, 1948

M059D East Texas Water Conference at Tyler, Texas, May 21, 1948

M059E Central Texas Water Conference at Waco, Texas, July 8, 1948

M060 Underground Water Conservation Districts in Texas
By F. A. Rayner
August 1960

M061 Water Requirements for Certain Irrigated Crops in Texas
By R. C. Garrett
August 1951

M062 Records of Wells, Crosby County, Texas
August 1939

M063 Memorandum on Ground-Water Resources in the Vicinity of Crowell, Texas
By W. O. George
May 1941

M064 Records of Wells, Dallam County, Texas
August 1937

M065 Records of Wells Producing Water from the Travis Peak Formation in the Dallas Area, Texas
By Chris Gard
January 1957

M066 Records of Wells, Dallas County, Texas
By J. C. Cumley
December 1943

M067 Records of Wells, Dawson County, Texas
By J. C. Cumley
December 1938

M068 Records of Wells, Deaf Smith County, Texas (1938)
By J. W. Lang
November 1938

M069 Records of Wells, Deaf Smith County, Texas (1946)
By W. H. Alexander, Jr.
October 1946

M072 Records of Wells, DeWitt County, Texas
June 1938

M073 Records of Wells, Donley County, Texas
June 1942

M074 Influence of Natural Depletion of River Flow Upon the Quantity of Water Available for Diversion
June 1951

M075 Occurrence of Ground Water in the Palagana Brine Field, Duval County, Texas
By A. M. Austin
April 1959

M076 Records of Wells, Eastland County, Texas
December 1937

M077 Records of Wells, Ector County, Texas
August 1937

M078 Records of Wells, Edwards County, Texas
July 1939

M079 Ground-Water Resources of the El Paso Area Texas, Progress Report No. 6
By R. A. Scalapino
October 1949

M080 Records of Wells, Fayette County, Texas
February 1943

M082 Records of Wells, Floyd County, Texas (1938)
By W. L. Broadhurst
June 1938

M083 Records of Wells, Floyd County, Texas (1946)
By C. R. Follett
April 1946

M084 Records of Wells, Foard County, Texas
May 1936

M085 Records of Wells, Fort Bend County, Texas (West of the Brazos River)
March 1937

M086 Records of Wells, Fort Bend County, Texas (East of the Brazos River)
By Penn Livingston
April 1939

M087 Ground Water Resources of Fort Worth and Vicinity, Texas
By W. O. George
September 1942

M088 Records of Wells, Freestone County, Texas
June 1937

M089 Records of Wells, Gaines County, Texas
By G. H. Cromack
February 1946

M090 Occurrence of Ground Water in the Trinity Group Near Gainesville, Cooke County, Texas, Report of Preliminary Investigation of the
By R. W. Harden
October 1960

M091 Records of Wells, Galveston County, Texas (1939)
By Penn Livingston
April 1939

M092 Records of Wells, Galveston County, Texas (1941)
By B.A. Barnes
October 1941

M093 Records of Wells, Gillespie County, Texas
June 1937

M094 Records of Wells, Glasscock County, Texas
November 1937

M095 Records of Wells, Gonzales County, Texas
May 1939

M096 Ground Water in the Greenville Area, Hunt County, Texas
By N. A. Rose
June 1945

M097 Records of Wells, Gregg County, Texas (1937)
February 1937

M098 Records of Wells, Gregg County, Texas (1943)
April 1943

M099 Water Resources of Gregg County, Texas
By W. L. Broadhurst
September 1945

M100 Records of Wells, Grimes County, Texas (1939)
By S. F. Turner
April 1939

M101 Records of Wells, Grimes County, Texas (1943)
March 1943

M102 Estimated Use of Ground Water in Watersheds of Texas
January 1957

M103 Records of Wells, Guadalupe County, Texas
October 1937

M104 Records of Wells, Hale County, Texas (1938)
By W. L. Broadhurst
April 1938

M105 Records of Wells, Hale County, Texas (1946)
By R. B. Merritt
July 1946

M106 Records of Wells, Hansford County, Texas
September 1936

M107 Records of Wells, Hardeman County, Texas
October 1936

M108 Records of Wells, Hardin County, Texas
December 1942

M109 Records of Wells, Harris County, Texas
By Penn Livingston
April 1939

M110 Water Resources of Harrison County, Texas
By W. L. Broadhurst
May 1943

M111 Water Resources of Harrison County, Texas
By W. L. Broadhurst
September 1943

M112 Records of Wells, Harrison County, Texas
December 1942

M113 Records of Wells, Hartley County, Texas
July 1938

M114 Records of Wells, Hays County, Texas (1938)
By B.A. Barnes
November 1938

M115 Records of Wells, Henderson County, Texas
September 1936

M116 Records of Wells, , Hidalgo County, Texas (1938)
By J. T. Lonsdale
September 1938

M117 Records of Wells, Hidalgo County, Texas (1941)
May 1941

M117A Ground Water in the Linn District, North-Central Hidalgo County, Texas
By W. O. George
June 1947

M118 Occurrence and Development of Ground Water in the Linn-Faysville Area, Hidalgo County, Texas
By C. R. Follett
September 1949

M119 Ground Water in the High Plains in Texas (1940)
By W. N. White
December 1940

M120 Ground Water in the High Plains in Texas, Progress Report (1943)
By W. H. Alexander, Jr.
April 1943

M121 Ground Water in the High Plains in Texas, Progress Report (1944)
By W. L. Broadhurst
May 1944

M122 Ground Water in the High Plains in Texas, Progress Report No. 5
By W. H. Alexander, Jr.
May 1945

M123 Ground Water in the High Plains in Texas, Progress Report No. 6
By W. L. Broadhurst
January 1947

M124 Cost of Pumping Water for Irrigation, Texas High Plains, Field Investigations - 1947
Irrigation, Texas High Plains, Field Investigations - 1947 Irrigation Season
By W. F. Hughes
August 1951

M125 Geology and Ground Water in the Irrigated Region of the Southern High Plains in Texas, Progress Report No. 7
By J. R. Barnes
March 1949

M126 Records of Wells, Hockley County, Texas
By C. B. Mueller
May 1940

M127 Records of Wells, Hopkins County, Texas
March 1943

M128 Ground-Water Resources of the Houston District, Texas, Progress Report on
By W. N. White
June 1937

M129 Ground-Water Resources of the Houston District, Texas, Progress Report on
By W. N. White
July 1938

M130 Ground-Water Resources of the Houston-Galveston Area and Adjacent Region, Texas
By W. N. White
1939

M131 Ground-Water Resources of the Houston District, Texas, Progress Report on
By W. N. White
March 1939

M132 Ground-Water Resources of the Houston District, Texas, Progress Report on
By W. N. White
November 1940

M133 Ground-Water Resources of the Houston District, Texas, Progress Report with Records of Wells, Harris County and Adjoining Parts of Fort Bend and Waller Counties, Texas
By W. N. White
January 1942

M134 Ground-Water Resources of the Houston District, Texas, Progress Report on
By W. N. White
January 1942

M135 Pump Settings and Pumping Levels in Houston District, Texas
By N. A. Rose
May 1943

M136 Exploratory Water-Well Drilling in the Houston District, Texas
By N. A. Rose
June 1943

M137 Progress Report of the Ground-Water Resources of the Houston District, Texas
By N. A. Rose
November 1944

M138 Ground-Water Resources of the Houston District, Texas, Progress Report for 1946, with Section on Results of Pumping Tests at New Southwest Pumping Plant
By J. W. Lang
December 1946

M139 Memorandum on Multiple-Step Drawdown Tests, Southwest Well Field, Houston, Texas
By M. I. Rorabaugh
September 1949

M140 Records of Wells, Howard County, Texas
April 1937

M142 Records of Wells, Irion County, Texas
June 1941

M143 Chemical Quality Standards for Irrigation Waters
October 1956

M143A General and Special Irrigation Laws of the State of Texas
December 1920

M144 Records of Wells, Jackson County, Texas
By C. R. Follett
February 1943

M145 Records of Wells, Jasper and Newton Counties, Texas
December 1942

M146 Water Well Data, Jefferson County, Texas
April 1942

M147 Records of Wells, Jim Hogg County, Texas (Northern Part)
1940

M148 Records of Wells, Jim Wells County, Texas
1940

M149 Reconnaissance Report on Alleged Contamination of California Creek Near Avoca, Jones County, Texas (Contamination Report No. 5)
By V. M. Shamburger, Jr.
December 1958

M150 Reconnaissance of Alleged Salt-Contamination of Soils Near Stamford, Jones County, Texas (Contamination Report No. 6)
By V. M. Shamburger, Jr.
January 1960

M151 Records of Wells, Karnes County, Texas
October 1937

M152 Records of Wells, Kendall County, Texas
August 1940

M153 Records of Wells, Kenedy County, Texas
1940

M154 Records of Wells, Kinney County, Texas
1940

M155 Records of Wells, Knox County, Texas
November 1937

M156 Investigation of Contamination Complaint in South-Central Knox County, Texas (Contamination Report No. 7)
By D. C. Draper
January 1960

M157 Records of Wells, Lamb County, Texas
January 1938

M158 Records of Wells, Lavaca County, Texas
June 1936

M159 Records of Wells, Lee County, Texas
November 1937

M160 Records of Wells, Leon County, Texas
October 1937

M161 Ground-Water Resources of Liberty County, Texas (1945)
By W. H. Alexander, Jr.
October 1945

M162 Records of Wells, Live Oak County, Texas
1940

M163 Reconnaissance Investigation of Alleged Contamination of Irrigation Wells Near Lockett, Wilbarger County, Texas (Contamination Report No. 8)
By Jack Stearman
March 1960

M164 Duty of Water on the Lower Rio Grande Valley, Season 1914-1920
By R. G. Hemphill
November 1920

M165 Water Table Survey in the Lower Rio Grande Valley, Part 9, Sec. 1 - Cameron County W.I.D. No. 6. WPA Proj. 1759
1937

M165A Water Table Survey in the Lower Rio Grande Valley, Part 9, Sec. 2 - Cameron County W.I.D. No.6. WPA Proj. 1759
1937

M166 Water Table Survey in the Lower Rio Grande Valley, Part 8 - Cameron County W.I.D. No.1 and Cameron County W.I.D. No.15. WPA Proj. 1759
1937

M167 Water Table Survey in the Lower Rio Grande Valley, Part 7, Sec.2 - Hidalgo and Cameron Counties W.C.&I.D. No.9. WPA Proj. 1759
1937

M168 Water Table Survey in the Lower Rio Grande Valley, Part 6 - Cameron County W.C.&I.D. No.5. WPA Proj. 1759
1937

M169 Water Table Survey in the Lower Rio Grande Valley, Part 7, Sec. 1 - Hidalgo and Cameron Counties W.C.&I.D. No.9. WPA Proj. 1759
1937

M170 Water Table Survey in the Lower Rio Grande Valley, Part 5 - Hidalgo County W.I.D. No.2. WPA Proj. 1759
1937

M171 Water Table Survey in the Lower Rio Grande Valley, Part 4 - Laferia W.C.&I.D. Cameron County No..3. WPA Proj. 1759
1937

M172 Water Table Survey in the Lower Rio Grande Valley, Part 3 - Donna Irrigation District, Hidalgo County No. 1. WPA Proj. 1759
1937

M173 Water Table Survey in the Lower Rio Grande Valley, Part 2 - Cameron County W.I.D. No.2. WPA Proj. 1759
1937

M174 Water Table Survey in the Lower Rio Grande Valley, Part 1 - Willacy County, Texas. WPA Proj. 1759
1937

M175 Records of Wells, Lubbock County, Texas (1937)
October 1937

M176 Records of Wells, Lubbock County, Texas (1945)
By J. W. Lang
April 1945

M177 Water Resources of the Lubbock District, Texas
By J. W. Lang
July 1945

M179 Records of Wells, Marion County, Texas
February 1943

M180 Water Resources of Marion County, Texas
By W. L. Broadhurst
December 1943

M181 Records of Wells, Martin County, Texas
December 1936

M182 Records of Wells, Mason County, Texas
July 1940

M183 Records of Wells, Matagorda County, Texas
May 1944

M184 Ground-Water Resources of Matagorda County, Texas
(1949)
By R. W. Sundstrom
April 1949

M185 Memorandum Report of Mathematical Method of Comparing Chemical Analyses
By F. A. Rayner
April 1960

M186 Ground Water Conditions in the Memphis Area, Texas
By J. W. Lang
June 1943

M187 Records of Wells, Midland County, Texas
January 1938

M188 Records of Wells, Milam County, Texas
March 1937

M189 Memorandum on Ground-Water Irrigation in Mitchell County, Texas
By O. C. Dale
July 1953

M190 Ground-Water Resources in the Vicinity of Nocona, Montague County, Texas
By W. L. Broadhurst
December 1944

M191 Records of Wells, Montgomery County, Texas (1939)
By Penn Livingston
April 1939

M192 Records of Wells, Montgomery County, Texas (1943)
April 1943

M193 Pumping Costs, Selected Pumping Plants in Moore and Hansford Counties, Texas
By W. F. Hughes
March 1955

M194 Records of Wells, Morris County, Texas
By C. R. Follett
June 1942

M195 Records of Wells, Nacogdoches County, Texas
February 1937

M196 Ground Water in Northwestern Nolan County, Texas (Records of Wells)
By D. B. Knowles
June 1947

M197 Records of Wells, Nueces County, Texas
By W. A. Lynch
1934

M198 Records of Wells, Ochiltree County, Texas
June 1939

M199 Records of Wells, Oldham County, Texas
November 1938

M200 Water Wells, Orange County, Texas
By Penn Livingston
March 1942

M201 Review of the Proposed Sunday Canyon Reservoir Project, Palo Duro State Park, Texas, Prepared for the Texas State Parks Board
October 1961

M202 Records of Wells, Panola County, Texas
April 1938

M203 Records of Wells, Parmer County, Texas
April 1938

M208 Records of Wells and Springs in Northern Pecos County, Texas
By J. H. Dante
July 1947

M209 Reconnaissance of Ground-Water Development in the Fort Stockton Area, Pecos County, Texas
By G. L. Audsley
September 1956

M209AV1 Water Resources of the Pecos River Basin V. 1 Pecos River Joint Investigation - Part 3, Report B, Geology and Ground Water, by Staff of the U. S. Geological Survey
March 1941

M209AV2 Water Resources of the Pecos River Basin. V. 2 Records of Wells
By P. E. Dennis
March 1941

M209AV3 Water Resources of the Pecos River Basin. V. 3. Records of Auger Holes
By P. E. Dennis
February 1941

M210 Reconnaissance Report of the Bishkin-Meyers Well Near Pierce, Wharton County, Texas (Contamination Report No. 4)
By V. M. Shamburger, Jr.
December 1958

M211 Records of Wells, Potter County, Texas
January 1938

M212 Ground-Water Conditions in Premont-Lagloria-Falfurrias District, Texas
By G. H. Cromack
May 1944

M213 Public Water Supplies in Central and North-Central Texas
By R. W. Sundstrom
July 1947

M214V1 Public Water Supplies in Eastern Texas. V. 1 Anderson County Through Harris County
By R. W. Sundstrom
February 1945

M214V2 Public Water Supplies in Eastern Texas. V.2 Harrison County Through Wood County
By R. W. Sundstrom
February 1945

M215 Public Water Supplies in Southern Texas
By W. L. Broadhurst
July 1946

M216 Public Water Supplies in Western Texas
By W. L. Broadhurst
June 1949

M217 List of Ground-Water Publications (Texas Board of Water Engineers and U. S. Geological Survey)
February 1954

M218 List of Ground-Water Publications (Texas Board of Water Engineers and U. S. Geological Survey)
November 1955

M219 List of Ground-Water Publications (Texas Board of Water Engineers and U. S. Geological Survey)
July 1957

M220 List of Publications (Texas Board of Water Engineers)
December 1960

M221 List of Available Publications (Texas Board of Water Engineers)
June 1961

M223 Records of Wells, Rains County, Texas
February 1943

M224 Records of Wells, Randall County, Texas
February 1938

M226 Preliminary Report on Geology and Ground-Water Resources of Reeves County, Texas
By D. B. Knowles
July 1947

M227 Records of Wells, Refugio County, Texas
June 1936

M228 Records of Wells, Refugio County and Part of Goliad County, Texas
June 1938

M231 Records of Wells, Roberts County, Texas
November 1940

M232 Records of Wells, Robertson County, Texas
February 1942

M233 Rules and Regulations (1931), Rules and Regulations of the Texas Board of Water Engineers
May 1931

M234 Rules and Regulations (1953), Rules, Regulations, and Modes of Procedure, Board of Water Engineers, State of Texas
August 1953

M235 Rules and Regulations (1955), Rules, Regulations, and Modes of Procedure, Board of Water Engineers, State of Texas. 1955 Revision
September 1955

M235A Rules and Regulations (1964), Rules, Regulations, and Modes of Procedure of the Texas Water Commission. 1964 Revision
February 1964

M236 Reconnaissance of Water Well Pollution and the Occurrence of Shallow Ground Water, Runnels County, Texas
By V. M. Shamburger, Jr.
March 1959

M236A Water Supply in the Sandflat Area and Adjacent Territory in Rusk, Nacogdoches, and Shelby Counties, Texas
By W. L. Broadhurst
April 1942

M237 Records of Wells, Rusk County, Texas
September 1937

M238 Records of Wells, Rusk County, Texas (Northwestern Part)
September 1943

M239 Records of Wells, Sabine and San Augustine Counties, Texas
April 1943

M240 Few Interesting Facts Regarding the Natural Flow from Artesian Well Four Owned by the San Antonio Public Service Company, San Antonio, Texas
By Penn Livingston
June 1942

M241 Ground-Water Resources of San Jacinto County, Texas
By W. H. Alexander, Jr.
February 1947

M242 Records of Wells, San Patricio County, Texas
October 1939

M243 Records of Wells, San Saba County, Texas
August 1939

M244 Water Supply for the City of San Saba, Texas
By W. O. George
June 1944

M245 Records of Wells, Scurry County , Texas (Snyder Area and Southeastern Part)
October 1946

M246 Seepage Losses From Canals in Texas
July 1946

M247 Records of Wells, Shelby County, Texas
March 1938

M248 Ground-Water Investigation of Shelby County, Texas
By J. W. Dillard
May 1960

M249 Ground-Water Resources at Sherman, Texas
By Penn Livingston
November 1945

M250 Investigation of Salt Water Contamination in a Woodbine Well Near Sherman, Grayson County, Texas (Contamination Report No. 10)
By J. W. White
April 1961

M251 The Silt Load of Texas Streams (Progress Report as of Sept. 20, 1939)
By D. W. Bloodgood
September 1940

M252 The Silt Load of Texas Streams-Part II (a Progress Report as of Oct. 1, 1939 To Sept. 30, 1941)
By D. W. Bloodgood
December 1941

M253 The Silt Load of Texas Streams - Part III (a Progress Report as of Oct. 1, 1940 To Sept. 30, 1941)
By D. W. Bloodgood
August 1942

M254 The Silt Load of Texas Streams - Part IV (a Progress Report as of Oct. 1, 1941 To Sept. 30, 1942)
By D. W. Bloodgood
May 1943

M255 The Silt Load of Texas Streams-Part V (a Progress Report as of Oct. 1, 1942 To Sept. 30, 1943)
By D. W. Bloodgood
May 1944

M256 The Silt Load of Texas Streams-Part VI (a Progress Report as of Oct. 1, 1943 To Sept. 30, 1944)
By D. W. Bloodgood
December 1945

M257 The Silt Load of Texas Streams-Part VII (a Progress Report as of Oct. 1, 1944 To Sept. 30, 1945)
By D. W. Bloodgood
September 1946

M258 The Silt Load of Texas Streams-Part VIII (a Progress Report as of Oct. 1, 1945 TO Sept. 30,1946)
By D. W. Bloodgood
July 1947

M259 The Silt Load of Texas Streams-Part IX (a Progress Report as of Oct. 1, 1946 to Sept. 30, 1947)
By D. W. Bloodgood
August 1948

M260 Silt Load of Texas Streams Progress Report No. 10 (1947-1948)
By D. W. Bloodgood
August 1949

M261 Silt Load of Texas Streams Progress Report No. 11 (1948-1949)
By D. W. Bloodgood
August 1950

M262 Silt Load of Texas Streams Progress Report No. 12 (1949-1950)
By D. W. Bloodgood
August 1951

M263 Silt Load of Texas Streams Progress Report No. 13 (1950-1951)
By D. W. Bloodgood
August 1953

M264 Silt Load of Texas Streams Fourteenth Annual Report, 1951-1952, and A Summary of Silt Studies Made in Texas
By D. W. Bloodgood
August 1953

M265 Silt Load of Texas Streams Fifteenth Annual Report for Water Year 1952-1953
By D. W. Bloodgood
October 1954

M266 Silt Load of Texas Streams Sixteenth Annual Report for Water Year, 1953-54
By D. W. Bloodgood

M267 Records of Wells, Smith County, Texas
September 1937

M268 Study of the Movement of Moisture in Soils
By W. L. Rockwell
October 1948

M269 A Report on Model Spillway Studies
September 1954

M270 Records of Wells, Stephens County, Texas
June 1937

M271 Records of Wells, Sterling County, Texas
By W. O. George
May 1942

M272 Surface Water Reservoirs of Texas
December 1956

M273 Inventory of the Surface Water Resources of Texas
By R. L. Lowry, Jr.
August 1956

M274 Records of Wells, Swisher County, Texas (1938)
By C. R. Follett
April 1938

M275 Records of Wells, Swisher County, Texas (1946)
By J. H. Dante
May 1946

M276 Records of Wells, Taylor County, Texas
By H. A. Smith
January 1940

M277 Records of Wells, Terry County, Texas
By G. H. Cromack
November 1944

M278 Texas Floods, April-May-June 1957
October 1957

M279 Records of Wells, Tom Green County, Texas
September 1941

M280 Results of Pumping Test of Municipal Wells at Tyler, Texas
By W. L. Broadhurst
October 1944

M281 Survey of the Underground Waters of Texas
By W. N. White
February 1931

M282 Records of Wells, Travis County, Texas (1941)
August 1941

M282A Unit Hydrograph - Its Construction and Uses
By R. C. Garrett
August 1951

M283 Records of Wells, Upshur County, Texas
August 1942

M284 Relationship of Ground Water to the Discharge of the Leona River in Uvalde and Zavala Counties, Texas
By Penn Livingston
April 1947

M285 Records of Wells, Val Verde County, Texas
March 1940

M286 Ground Water Resources in the Vicinity of Vernon, Texas
By C. R. Follett
February 1944

M287 Records of Wells, Victoria County, Texas
1940

M288 Results of Tests on Wells at Waco Texas
By W. O. George
August 1945

M289 Records of Wells, Waller County, Texas
By S .F. Turner
April 1939

M290 Records of Wells, Washington County, Texas
April 1943

M291 Water Resources Committee, Report to
April 1954

M292 Results of Pumping Tests on the City Wells at Waxahachie, Texas
By R. W. Sundstrum
May 1948

M293 Historical Ground-Water Uses by Municipalities for the Years 1955 through 1959 for Selected Areas in Texas
January 1961

M294 Water Use Reported by Municipalities and Industries in Texas
June 1958

M296 Records of Wells, Wharton County, Texas
1940

M297 Ground Water Resources of Wharton County, Texas
By J. R. Barnes
November 1948

M298 Records of Wells, Williamson County, Texas
By J. C. Cumley
January 1942

M299 Records of Wells, Wilson County, Texas
August 1936

M300 Water Well Contamination in the Saspamco Area, Wilson County, Texas Memorandum Report on (Contamination Report No. 3)
By V. M. Shamburger, Jr.
September 1958

M301 Records of Wells, Winkler County, Texas
May 1941

M302 Records of Wells, Winter Garden District, Dimmit and Zavala Counties and Eastern Maverick County, Texas (1940)
1940

M303 Records of Wells, Wood County, Texas
By C. R. Follett
June 1942

M304 Records of Wells, Yoakum County, Texas
By G. H. Cromack
May 1945

M305 Contamination of Surface and Ground Water in Southeast Young County, Texas
By R. T. Littleton
June 1956

Planning Reports

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P02 Texas Water Resources Planning at the End of the Year 1958. A Progress Report to the Fifth-Sixth Legislature
December 1958

P03 Plan for Meeting the 1980 Water Requirement of Texas
May 1961

P04 Comments of State Agencies, Political Subdivisions (River Authorities and Conservation Districts), and Others on the Proposed Report of the U. S. Study Commission - Texas - Which were submitted to the Board...
December 1961

P06 Texas Water Planning - A State Responsibility
October 1964

P07 Water for Texas, A Plan for the Future (Preliminary)

Discussion of the nature and benefits of a comprehensive water plan, containing a statewide summary of tentative water-development proposals as of May 1966 (the preliminary Texas Water Plan).

P08 Preliminary Plan for Proposed Water Resources Development in the Brazos River Basin
June 1966

Reports P08-P30 were published from June to August 1966 summarizing regional hydrology, water use, projected water needs, and the water-development projects tentatively proposed in the respective 23 major river and coastal basins of Texas. (Basin names and locations are shown on list of publications.) These reports were widely distributed in preparation for 27 public hearings on the proposed plan held during the summer of 1966.

P09 Preliminary Plan for Proposed Water Resources in the Brazos-Colorado Coastal Basin
June 1966

P10 Preliminary Plan for Proposed Water Resources Development in the Canadian River Basin
August 1966

P11 Preliminary Plan for Proposed Water Resources Development in the Colorado River Basin
July 1966

P12 Preliminary Plan for Proposed Water Resources Development in the Colorado-Lavaca Coastal Basin
July 1966

P13 Preliminary Plan for Proposed Water Resources Development in the Cypress Creek Basin
June 1966

P14 Preliminary Plan for Proposed Water Resources Development in the Guadalupe River Basin
July 1966

P15 Preliminary Plan for Proposed Water Resources Development in the Lavaca River Basin
July 1966

P16 Preliminary Plan for Proposed Water Resources Development in the Lavaca-Guadalupe Coastal Basin
July 1966

P17 Preliminary Plan for Proposed Water Resources Development in the Neches River Basin
June 1966

P18 Preliminary Plan for Proposed Water Resources Development in the Neches-Trinity Coastal Basin
June 1966

P19 Preliminary Plan for Proposed Water Resources Development in the Nueces River Basin
July 1966

P20 Preliminary Plan for Proposed Water Resources Development in the Nueces-Rio Grande Coastal Basin
July 1966

P21 Preliminary Plan for Proposed Water Resources Development in the Red River Basin
June 1966

P22 Preliminary Plan for Proposed Water Resources Development in the Rio Grande Basin
August 1966

P23 Preliminary Plan for Proposed Water Resources Development in the Sabine River Basin
June 1966

P24 Preliminary Plan for Proposed Water Resources Development in the San Antonio River Basin
July 1966

P25 Preliminary Plan for Proposed Water Resources Development in the San Antonio-Nueces Coastal Basin
July 1966

P26 Preliminary Plan for Proposed Water Resources Development in the San Jacinto River Basin
June 1966

P27 Preliminary Plan for Proposed Water Resources Development in the San Jacinto-Brazos Coastal Basin
June 1966

P28 Preliminary Plan for Proposed Water Resources Development in the Sulphur River Basin
June 1966

P29 Preliminary Plan for Proposed Water Resources Development in the Trinity River Basin
June 1966

P30 Preliminary Plan for Proposed Water Resources Development in the Trinity-San Jacinto Coastal Basin
June 1966

P31 Texas Water Plan Summary
November 1968

This volume summarizes the most essential features of the Texas Water Plan, and has been reproduced in large quantities for widespread distribution.

P32 The Texas Water Plan
November 1968

This document presents in detail the Texas Water Plan, proposing means of meeting the water needs of Texas to and beyond the year 2020. The Texas Water Plan reflects numerous changes made in the earlier planning proposals as a result of re-evaluations following the 27 public hearings. The Texas Water Plan was formally adopted by the Water Development Board on April 25, 1969, as a flexible guide to the orderly future development of the State's water resources.

P34 Continuing Water Resources Planning and Development
May 1977

This document constitutes Phase I of a continuing process to update and revise the Texas Water Plan. Volume I contains information about the climate, water resources, and importance of water to the economy of Texas, state and national legislation, and planning concepts. Volume II deals with a basin-by-basin analysis of current and future water needs, water supply, and possible ways of meeting requirements through the year 2030.

P35 Report of Findings - Public Input to Amend the Texas Water Plan
1982

Presents results of the public input phase to reevaluate the Texas Water Plan adopted in 1969. This phase covered five basic tasks: clarification of the issues, public forums, written comments, interviews, and analysis.

P36 Water for Texas: Planning for the Future (2 Vols.)
1983

Presents a draft of the Water Resources Planning Report for purposes of revising and amending the Texas Water Plan which was adopted by the Texas Water Development Board in 1969. Public input was obtained through public meetings, personal interviews and comments, and a public opinion survey.

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REPORTS

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R001 Ground-Water Resources of Jackson County, Texas
By E. T. Baker, Jr.
October 1965

Describes the occurrence, quantity, quality, availability, and dependability of the ground-water supply, including a determination of the location and extent of fresh water-bearing sands, chemical quality of the water they contain, chemical quality of the water being pumped, and the effects of this pumping on water levels and water quality. Lists well records, drillers' logs, water levels, and chemical analyses.
–MF Available—

R002 Base-Flow Studies, Nueces River, Texas, Quantity and Quality, November 23-25, 1964
By W. E. Reeves, P. B. Rohne, J. F. Blakey, C. R. Gilbert
October 1965

Examines the changes in quantity and chemical quality of base flow in a 52.2-mile reach from U.S. Highway 290 to Farm Road 1025 north of Crystal City.
–MF Available—

R003 Hydrologic Studies of Small Watersheds, Deep Creek, Colorado River Basin, Texas, 1951-61
By W. B. Mills, H. N. McGill, M. W. Flugrath
November 1965

Presents an interpretive report on a small-watershed investigation, part of an 11-state area program to determine the effects of floodwater-retarding structures on the regimen of flow at downstream points.
–MF Available—

R004 Ground-Water Resources of Gonzales County, Texas
By G. H. Shafer
November 1965

Presents information and data that can be used as a guide to the development of the available ground-water supplies in the county. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available—

R005 Reconnaissance of the Chemical Quality of Surface Waters of the Neches River Basin, Texas
By L. S. Hughes, D. K. Leifeste
November 1965

Gives data similar to Bulletin 6405 as part of a statewide chemical-quality reconnaissance.

R006 Hydrologic Studies of Small Watersheds, Mukewater Creek, Colorado River Basin, Texas, 1952-60
By S. P. Sauer
November 1965

Presents an interpretive report on a small-watershed investigation, similar to Report 3.

R007 Chemical Composition of Texas Surface Waters, 1963
By L. S. Hughes, D. K. Leifeste
December 1965

Presents data similar to Bulletin 5905.
–MF Available–

R008 Reuse of Effluent in the Future with an Annotated Bibliography
By G. A. Whetstone
December 1965

Cites two major forces responsible for increased use of effluent in the future: one is water economics – a constant supply and an increase in demand lead to re-use; the other is the improvement in sewage treatment. Also includes an extensive annotated bibliography on water re-use.
–MF Available–

R009 Use of Sewage Effluent for Production of Agricultural Crops
By Clark Harvey, Ronald Cantrell
December 1965

Presents the results of a statewide survey of the use of sewage effluent for agricultural and recreational purposes. Concludes that a resource of great economic value is not being used and that crop irrigation with effluent can contribute to the economy of the area and satisfactorily solve the sewage disposal problem.
–MF Available—

R010 Studies of Playa Lakes in the High Plains of Texas
By Texas Tech College
December 1965

Contains two sections, "Playa Lake Use and Modification in the High Plains" by W. F. Schwiesow and "Public Health Aspects of High Plains Water" by E. W. Huddleston and V. C. Riggs. These studies point out that proper modification of playas not only reduces the health hazards caused by mosquitoes, but also permits irrigators to salvage much of the water trapped by the playas to augment their well-water supplies.
–MF Available–

R011 Importance of Irrigation Water to the Economy of the Texas High Plains
By H. W. Grubb
January 1966

Analyzes the economic importance of irrigation in the area. Emphasizes that while ground water is abundant, it is also exhaustible, and predicts declining irrigation beginning about 1980.
–MF Available–

R012 Ground-Water Resources of Caldwell County, Texas
By C. R. Follett
January 1966

Gives the results of a study to determine ground-water resources of the county. Includes pumping tests, well records, drillers' logs, and chemical analyses.
–MF Available—

R013 Reconnaissance of the Chemical Quality of Surface Waters of the San Jacinto River Basin, Texas
By L.S. Hughes, J.Rawson
January 1966

Describes chemical quality and geographic variations in quality of streams, reservoirs, and potential reservoirs in the river basin; discusses effects of environmental factors on quality, and the relation of water quality to use.

R014 Hydrologic Studies of Small Watersheds, Little Elm Creek, Trinity River Basin, Texas, 1956-62
By E. E. Schroeder
January 1966

Presents an interpretive report on a small-watershed investigation, similar to Report 3.

R015 Ground-Water Resources of Gaines County, Texas
By P. L. Rettman, E. R. Leggat
February 1966

Summarizes and evaluates ground-water resources of the county. Includes a discussion of contamination of ground water; records of wells; location of oil-field brine disposal pits; electric, radioactivity, and drillers' logs of wells; and chemical analyses.
–MF Available—

R016 Water-Level Data from Observation Wells in Davis, Presidio, and Brewster Counties, Texas
By W. R. Muse
February 1966

R017 Ground-Water Resources of Bee County, Texas
By B. N. Myers, O. C. Dale
February 1966

Presents data on quantity, quality, occurrence, availability, and dependability of ground water. Delineates the location and extent of fresh to slightly saline water-bearing sands. Includes well records, drillers' logs, pumping tests, and chemical analyses.
–MF Available—

R018 Ground-Water Resources of Houston County, Texas
By G. R. Tarver
March 1966

Describes the occurrence, availability, and quantity of ground water in the county, including well records and chemical analyses.
–MF Available–

R019 Ground-Water Resources of Guadalupe County, Texas
By G. H. Shafer
March 1966

Presents a discussion of occurrence and availability of ground water, location and extent of water-bearing formations, and possible problems resulting from oil-field brine disposal. Includes well records and chemical analyses.
–MF Available–

R020 Ground-Water Resources of Lee County, Texas
By G. L. Thompson
March 1966

Estimates available ground water and considers ground-water problems. Includes well records, drillers' logs, and chemical analyses.
–MF Available–

R021 Water-Level Data from Observation Wells in the Southern High Plains of Texas
By S. W. Gammon, W. R. Muse
April 1966

R022 Water-Delivery and Low-Flow Studies, Pecos River, Texas, Quantity and Quality, 1964 and 1965
By R. U. Grozier, H. W. Albert, J. F. Blakey, C. H. Hembree
May 1966

Reports on two studies made to determine changes in quantity and quality of flow along the stream reach from Red Bluff Reservoir to Girvin, Texas. One study was made during a period of uniform flow of water from Red Bluff Reservoir, the other when no water was being released from the reservoir.

R023 Study of Some Effects of Urbanization on Storm Runoff from a Small Watershed
By W. H. Espey, Jr., C. W. Morgan, F. D. Masch
August 1966

Evaluates the effects of urbanization on the hydrologic characteristics of Waller Creek, a small urban watershed within Austin, Texas. Results indicate that urban development in the watershed has caused extensive changes in the discharge hydrograph and runoff yield. The effects of future development are predicted to follow the same trends toward shorter time sequence of the discharge hydrograph, greater peak discharge, and greater unit yield.
–MF Available—

R024 Effect of an Increased Heat Load on the Thermal Structure and Evaporation of Lake Colorado City, Texas
By G. E. Harbeck, Jr., J. S. Meyers, G. H. Hughes
August 1966

Presents the results of a follow-up study to determine the effects of increased powerplant cooling-water disposal to the reservoir.

R025 Base-Flow Studies, Little Cypress Creek, Upshur, Gregg, and Harrison Counties, Texas, Quantity and Quality, January and June 1964
By J. T. Smith, J. H. Montgomery, J. F. Blakey
August 1966

Describes the source, quantity, and quality of base flow; evaluates effects of geology, vegetation, and human activity; and presents tables of discharge measurements and chemical analyses.

R026 Base-Flow Studies, Big Elkhart and Little Elkhart Creeks, Trinity River Basin, Texas, Quantity and Quality, September 15-16, 1965
By W. B. Mills
August 1966

Presents data on quantity and quality of streamflow; evaluates surface and ground water relationships, and examines suitability of streamflow for domestic, municipal, irrigation, and industrial uses.

R027 Ground-Water Resources of Harrison County, Texas
By M. E. Broom, B. N. Myers
August 1966

Describes the source, distribution, availability, quality, and quantity of ground water suitable for public supply, industrial, and irrigation uses. Includes records of wells, drillers' logs, and chemical analyses.

R028 Analog Model Study of the Hueco Bolson Near El Paso, Texas
By E. R. Leggat, M. E. Davis
September 1966

Presents the results obtained from analyses of available hydrologic data by means of an electrical-analog model. Summarizes the geohydrology of the district and development of ground-water supplies.

R029 Base-Flow Studies, Upper Guadalupe River Basin, Texas, Quantity and Quality, March 1965
By H. L. Kunze, J. T. Smith
September 1966

Determines the interchange of ground and surface waters, evaluates effects of geology and environmental changes on quantity and quality, and evaluates suitability of the water for use when flow is sustained entirely by ground-water effluent and evaporation and transpiration are at a minimum.

R030 Texas Droughts, Causes, Classification and Prediction
By J. T. Carr, Jr.
November 1966

Summarizes drought forecasting research carried out over much of the world. Presents two different views on causes of drought: some believe drought occurs randomly, while others believe it occurs cyclically and is caused by extra-terrestrial influences. However, the report concludes that the literature reviewed reflects no method by which droughts have been consistently forecast in the past.
–MF Available—

R031 Technical Papers on Selected Aspects of the Preliminary Texas Water Plan. (Three Technical Papers Presented at the October 1, 1966 Meeting of the Texas Section, American Society of Civil Engineers)
September 1966

Presents the following discussions: The preliminary Texas Water Plan, the proposed state water project, and water quality aspects of the preliminary Texas Water Plan.
–MF Available—

R032 Ground-Water Resources of Atascosa and Frio Counties, Texas
By W. H. Alexander, Jr., D. E. White
December 1966

Presents information and data as a guide to the development of the available ground-water supplies; includes records of wells and chemical analyses.
–MF Available—

R033 Symposium on Consideration of Some Aspects of Storms and Floods in Water Planning (Eight Technical Papers Presented at the October 7-9, 1965, meeting) of the Texas Section, American Society of Civil Engineers
November 1966

Presents eight papers on water-related fields such as hydrometeorology, climatology, and hydraulic engineering.
–MF Available—

R034 Ground-Water Resources of the San Antonio Area, Texas, a Progress Report on Studies, 1960-64
By Sergio Garza
November 1966

Supplements previously published reports on geology and hydrology of the Edwards and Associated Limestones in the San Antonio area, with hydrologic data through 1964. Estimates recharge to and discharge from the aquifer and summarizes quality of water in the zone of transition.
–MF Available–

R035 Quality of Water of Big Mineral Arm and Tributaries, Lake Texoma, Texas, January 18-20 and February 10-11, 1966
By H. B. Mendieta, P. W. Skinner
November 1966

Presents the results of a survey to determine suitability of water for municipal supply and indicates possible sources of good water as well as problem areas and possible sources of contamination.

R036 Comparative Results of Sediment Sampling With the Texas Sampler and the Depth-Integrating Sampling With the Texas Sampler and the Depth-Integrating Samplers, and Specific Weight of Fluvial Sediment Deposits in Texas
By C. T. Welborn
January 1967

Presents the results of an effort to determine coefficients to correlate results of sediment sampling by Texas sampler (surface sampler) and depth-integrating sampler.
–MF Available—

R037 Ground-Water Resources of Sabine and San Augustine Counties, Texas
By R. B. Anders
January 1967

Gives information on occurrence, quality, availability, quantity, use, and dependability of ground-water resources; contains well records and chemical analyses.
–MF Available—

R038 Additional Technical Papers on Selected Aspects of the Preliminary Texas Water Plan (Four Technical Papers) Presented at the February 6-9, 1967, Environmental Engineering Conference of the ASCE.
February 1967

Includes discussions on the following topics: the role of ground water in the Texas Water Plan, irrigation under the Texas Water Plan, water quality aspects of the Texas Water Plan, and tidal inlets for preservation of estuaries.
–MF Available—

R039 Hydrologic Studies of Small Watersheds, San Antonio River Basin, Texas, 1955-63
By F. W. Kennon, J. T. Smith, C. T. Welborn
February 1967

Presents an interpretive report on a small watershed investigation, similar to Report 3.

R040 Progress of Topographic Mapping in Texas, 1958-1966
By G. E. Blomquist
February 1967

Includes sections on definitions of technical terms, the historical progress of topographic mapping, Work of the Texas Mapping Advisory Committee, and an explanation of the Texas Code Index. Tables and illustrations show the extent of completed and needed mapping throughout Texas, expenditures for the State-Federal Cooperative Mapping Program, a diagrammatic explanation of the Code Index System, and other aspects of topographic mapping in the state.
–MF Available—

R041 Ground Water in the Flood-Plain Alluvium of the Brazos River, Whitney Dam to Vicinity of Richmond, Texas
By J. G. Cronin, C. A. Wilson
March 1967

Describes the results of an investigation of the Brazos River Alluvium, including extent, thickness, and physical and hydrological properties; amount and areal extent of withdrawals and recharge; quantity and quality of ground water available; and hydrologic relationships between the alluvium and the underlying or adjoining bedrock and the ground and surface water relations. Includes tabulations and ground-water data.

R042 Cost of Transporting Water by Pipeline
By Lockwood, Andrews, and Newman, Inc.
March 1967

Provides cost data developed for use in planning water resource development. Cost estimates are made for different pipe diameters and for moving various quantities of water different distances and through a range of elevation differences.
–MF Available—

R043 Water for Preservation of Bays and Estuaries, A New Concept
By Lockwood, Andrews, and Newman, Inc.
April 1967

Discusses new ways of permitting reasonable maximum river development, preservation, and enhancements of the Texas coastal bays and estuaries. Increased and improved distribution of Gulf water inflow into the estuaries may be a good substitute for some of the apparent large fresh water needs.
–MF Available—

R044 Future Water Requirements for the Production of Oil in Texas
By P. D. Torrey
April 1967

Projects future water requirements for the production of oil in Texas to the year 2020 and emphasizes the hazards associated with projections for such an extended period of time. Calculations and estimations are presented in tabular form at the end of the report.
–MF Available–

R045 Suspended-Sediment Load of Texas Streams, Compilation Report, October 1961- September 1963
By H. M. Cook
April 1967

Contains essentially the same type of information as Bulletin 6410.

R046 Occurrence and Quality of Ground Water in Brown County, Texas
By D. R. Thompson
May 1967

Gives information on the rock units that are found at or below the surface in Brown County, the occurrence and quality of water in the rock units, oil-field brine production and disposal, and alteration of water quality. Includes tabulations of ground-water data.
–MF Available–

R047 Occurrence and Quality of Ground Water in Crockett County, Texas
By H. H. Iglehart
May 1967

Discusses the geology, ground-water hydrology, and quality of ground water. Tables and maps present basic data which include records of 1,107 wells and chemical analyses of 879 water samples.

R048 Dams and Reservoirs in Texas, Historical and Descriptive Information, December 31, 1966
By C. L. Dowell, S. D. Breeding
June 1967

Revises and updates to December 31, 1966, Bulletin 6408. Provides the name, location, ownership, authorization, purpose, history of development, availability or record of contents, information on sedimentation surveys, and physical description of 152 major reservoirs in Texas.
–MF Available–

R049 Hurricanes Affecting the Texas Gulf Coast
By J. T. Carr, Jr.
June 1967

Discusses the recurring hurricane problem, tells what causes hurricanes and tropical storms. Gives statistics on past hurricanes, and tells what is being done to modify them and describes a Master Plan for protecting the Texas Coast from tidal flooding through the use of a levee systems.
–MF Available—

R050 Ground-Water Resources of Mitchell and Western Nolan Counties, Texas
By V. M. Shamburger, Jr.
June 1967

Presents the results of a detailed study of ground-water occurrence and development in the two counties. Includes a compilation, review, and analysis of all previously collected data, and correlation thereof with data collected during this study.

R051 Reconnaissance Investigation of the Ground-Water Resources of the Colorado River Basin, Texas
By J. R. Mount, F. A. Rayner, V. M. Shamburger, Jr., R. C. Peckham
July 1967

Contains the same type of information as Bulletin 6306.

R052 Occurrence and Quality of Ground Water in Archer County, Texas
By D. E. Morris
July 1967

Gives information on the occurrence and chemical quality of ground water. Cites examples of possible alteration of native quality ground water by improper oil-field brine disposal. Includes tabulations of ground-water data.

–MF Available—

R053 The Climate and Physiography of Texas
By J. T. Carr, Jr.
July 1967

Emphasizes that the two most important elements affecting climate are precipitation and temperature and that regional physiography, or surface configuration of the earth, strongly affects both. Tables and illustrations are used to present data and show climatic patterns.
–MF Available–

R054 Hydrologic Studies of Small Watersheds, Pin Oak Creek, Trinity River Basin, Texas, 1956-62
By J. T. Smith, C. T. Welborn
August 1967

Presents an interpretive report on a small-watershed investigation, similar to Report 3.

R055 Study and Interpretation of Chemical Quality of Surface Waters in the Brazos River Basin, Texas
By Jack Rawson
July 1967

Gives the results to date of a continuing program to determine the nature and concentrations of mineral constituents; the geologic, hydrologic, and cultural factors that influence the chemical quality; the suitability of waters for various uses; and provides data and interpretations to aid in the management of existing and proposed reservoirs.

R056 Availability and Quality of Ground Water in Fayette County, Texas
By L. T. Rogers
August 1967

Describes the physical characteristics and water-bearing properties of geologic units, ground-water hydrology, and chemical quality and availability of ground water. Points out that the water-bearing formations are capable of yielding many times the present production of fresh to slightly saline water that is suitable for most purposes. Includes tabulations of ground-water data.

R057 Occurrence and Quality of Ground Water in Coleman County, Texas
By Loyd E. Walker
September 1967

Describes the rock units and the availability and quality of ground water in the rock units. The report reveals that water-well development is concentrated mainly in the northwest part of the county. Includes tabulations of ground-water data.
–MF Available–

R058 Occurrence and Quality of Ground Water in Montague County, Texas
By D. C. Bayha
August 1967

Gives information on the amount and quality of ground water in the rock formations, and points out that most areas of the county have water of usable quality. Includes tabulations of ground-water data.
–MF Available–

R059 Ground-Water Resources of Jasper and Newton Counties, Texas
By J. B. Wesselman
September 1967

Describes the occurrence, availability, dependability, quality, and quantity of ground-water resources, with particular emphasis on evaluating sources of water for public supply, industry, and irrigation. Includes well records, drillers' logs, and chemical analyses.
–MF Available–

R060 Ground-Water Resources of Kendall County, Texas
By R. D. Reeves
September 1967

Discusses the occurrence, quality, availability, and dependability of the county's ground-water resources, and includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R061 Ground-Water Resources of Brooks County, Texas
By B. N. Myers, O. C. Dale
October 1967

Determines the occurrence, availability, dependability, quality, and quantity of ground water, particularly those sources suitable for public supply, irrigation, and industrial use. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R062 Ground-Water Resources of Ellis County, Texas
By G. L. Thompson
October 1967

Presents the location and extent of important fresh water-bearing formations, chemical quality, pumpage, and estimate of ground water available, and a consideration of significant ground-water problems. Includes well records, drillers' logs, and chemical analyses.

R063 Development of Ground Water in the Houston District, Texas, 1961-65
By R. K. Gabrysch
October 1967

Brings up to date records on pumpage, water-level changes, land-surface subsidence, and ground-water development in the district which includes Harris and Galveston Counties, and parts of Chambers, Liberty, Montgomery, Waller, Fort Bend and Brazoria Counties.

R064 Monthly Reservoir Evaporation Rates for Texas, 1940 through 1965
By J. W. Kane
October 1967

Revised edition of Bulletin 6006, with evaporation rates for 1958 through 1965 added.
–MF Available–

R065 Temperature of Texas Streams
By W. H. Goines
November 1967

Presents in tabular form, stream temperature data collected through September 30, 1966.
–MF Available–

R066 Low-Flow Studies, Sabine and Old Rivers Near Orange, Texas, Quantity and Quality, April 12, October 31 - November 4, 1966
By Jack Rawson, D. R. Reddy, R. E. Smith
November 1967

Studies the distribution of flow in the main stem and anabranches of the Sabine River, the quantity and quality of tributary inflow, fresh-water inflow to downstream sites in the tidal reach, and the effects of tide on water quality.

R067 Reconnaissance of the Chemical Quality of Surface Waters of the Trinity River Basin, Texas
By D. K. Leifeste, L. S. Hughes
December 1967

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R068 Ground-Water Resources of Austin and Waller Counties, Texas
By C. A. Wilson
December 1967

Presents data on the occurrence, availability, dependability, and quality of ground-water resources. Includes well records, drillers' logs, water levels, and chemical analyses.
–MF Available–

R069 Characteristics of Tide-Affected Flow in the Brazos River Near Freeport, Texas, March 29-30, 1965
By S .L. Johnson, Jack Rawson, R. E. Smith
December 1967

Presents the results of a study that includes measurements of flow and salinity during a complete tidal cycle in an effort to determine flow characteristics; determination of the presence, character, and changes of salinity stratification; and investigation of the stratified flow regimen and alternate methods of determining a continuous record of discharge.

R070 Water-Level Data from Observation Wells in the Northwestern Gulf Coastal Plain of Texas
By J. W. Howard
January 1968

R071 Reconnaissance of the Chemical Quality of the Colorado River Basin, Texas
By D. K. Leifeste, M. W. Lansford
March 1968

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R072 Ground-Water Resources of Liberty County, Texas
By R. B. Anders, Gene D. McAdoo, W. H. Alexander, Jr.
April 1968

Determines the occurrence, availability, dependability, quality, and quantity of the ground-water resources and records of wells, drillers' logs, water levels, and chemical analyses.
–MF Available–

R073 Ground-Water Resources of Nueces and San Patricio Counties, Texas
By G. H. Shafer
May 1968

Presents a study to determine the occurrence, availability, dependability, quality, and quantity of ground-water resources, as a guide for developing, protecting, and obtaining maximum benefits from available supplies. Records of wells, water levels, drillers' logs, and chemical analyses are also included.
–MF Available—

R074 Ground-Water Resources of Tyler County, Texas
By G. R. Tarver
May 1968

Describes a study to determine occurrence, availability, dependability, quality, and quantity of ground water suitable for development. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R075 Water-Delivery Study, Lower Nueces River Valley, Texas
By Sergio Garza
May 1968

Presents the results of an investigation to determine causes of losses or gains of water along the Lower Nueces River and the causes of changes in mineralization of water.
–MF Available–

R076 Water-Delivery Study, Pecos River, Texas, Quantity and Quality, 1967
By R. U. Grozier, H. R. Hejl, Jr., C. H. Hembree
May 1968

Describes a study to determine changes in quantity and quality of a uniform release of water between Red Bluff Reservoir and Girvin, Texas.

R077 Evaporation from Brine Solutions Under Controlled Laboratory Conditions
By Jaroy Moore, J. R. Runkles
May 1968

Provides information on evaporation rates from water of various concentrations of minerals under different air and water temperatures, humidities, and wind speeds. Controlled laboratory experiments with sodium chloride solutions showed that at a constant water temperature, increases in either air temperature, relative humidity, or salt concentration slowed evaporation; however, higher wind speed increased evaporation.
–MF Available–

R078 Ground-Water Resources of Upton County, Texas
By D. E. White
May 1968

Presents the results of an investigation to determine and evaluate the county's ground-water resources, and includes records of wells and chemical analyses.
–MF Available–

R079 Ground-Water Resources of Wood County, Texas
By M .E. Broom
August 1968

Gives an appraisal of the ground-water resources for future planning and development. The report includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R080 Ground-Water Resources of San Jacinto County, Texas
By W. M. Sandeen
August 1968

Presents information and data on occurrence, availability, dependability, quality, and quantity of ground-water resources. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R081 Major Hydroelectric Power Plants in Texas - Historical and Descriptive Information
By F. A. Godfrey, C. L. Dowell
August 1968

Provides historical information and specific details about generators, turbines, and other equipment at 25 of the state's largest hydroelectric powerplants. The report also describes plant development and gives records of power generation at each plant, where available.

R082 Ground-Water Resources of Polk County, Texas
By G. R. Tarver
August 1968

Describes an investigation of the ground-water resources and suitability for development. Also includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R083 Floods from Hurricane Beulah in South Texas and Northeastern Mexico, September-October 1967
By R. U. Grozier, A. E. Hulme, D. C. Hahl, E. E. Schroeder
September 1968

Includes all the documented flood data: a discussion of the storm, tabulations of rainfall data, description of the floods, a damage report, a section on the effect of fresh-water inflow on water quality in the bays, ground-water recharge, and ponded water on the coastal plain.

R084 Economic Evaluation of Water-Oriented Recreation in the Preliminary Texas Water Plan
By H. W. Grubb, J. T. Goodwin
September 1968

Presents a recreation visitation prediction equation to measure the dollar value of various reservoir sites that were proposed for inclusion in the Preliminary Texas Water Plan. Recreation demand curves for each decade between 1970 and 2020 were made from the visitation equation for 54 proposed reservoirs.
–MF Available–

R085 Quality of Water and Stratification of Possum Kingdom, Whitney, Hubbard Creek, Proctor, and Belton Reservoirs
By D. K. Leifeste, B. P. Popkin
October 1968

Describes the results of a study to define the seasonal changes in quality of water in the reservoirs and to determine the major factors controlling mixing and stratification.
–MF Available–

R086 Reconnaissance of the Chemical Quality of Surface Waters of the Canadian River Basin, Texas
By H. L. Kunze, J. N. Lee
December 1968

Gives data similar to Bulletin 6405, as part of a Statewide Chemical-Quality Reconnaissance.

R087 Reconnaissance of the Chemical Quality of Surface Waters of the Sulphur River and Cypress Creek Basins, Texas
By D. K. Leifeste
December 1968

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R088 Reconnaissance of the Chemical Quality of Surface Waters of the Guadalupe River Basin, Texas
By Jack Rawson
December 1968

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R089 Laws and Programs Pertaining to Water and Related Land Resources
By D. B. Yarbrough
December 1968

Introduces the reader to the history of the state's water laws and their present development; describes the different state agencies concerned with Texas water; and discusses the roles of districts, local agencies, and interstate compacts in coordinating the state's water laws and programs.

R090 Quantity and Quality of Low Flow in Sabine and Old Rivers Near Orange, Texas, September 12-15, 1967
By Jack Rawson, S. L. Johnson, R. E. Smith
January 1969

Continues a study of distribution of flow in the main stem and anabranches of the Sabine River; earlier investigations are presented in Report 66.
–MF Available—

R091 Ground-Water Resources of Matagorda County, Texas
By W. W. Hammond, Jr.
March 1969

Describes the occurrence, chemical quality, quantity, and availability of ground water in Matagorda County. Recommends that any future intensive development be limited to the central and northern areas of the county to avoid contamination of fresh ground water by salt-water encroachment from the Gulf of Mexico. Includes tabulations of ground-water data.

R092 Reconnaissance of the Chemical Quality of Surface Waters of the Lavaca River Basin, Texas
By H. L. Kunze
March 1969

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R093 Reconnaissance of the Chemical Quality of Surface Waters of the San Antonio River Basin, Texas
By Jack Rawson
April 1969

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R094 Ground-Water Resources of Johnson County, Texas
By G. L. Thompson
April 1969

Gives the location and extent of important aquifers, water quality, quantity of ground water withdrawn, an estimate of water available for development, and consideration of significant ground-water problems. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R095 Ground-Water Resources of Kimble County, Texas
By W .H. Alexander, Jr., J. H. Patman
May 1969

Gives the results of a study to determine occurrence, availability, dependability, quality, and quantity of ground-water resources. Records of wells, drillers' logs, and chemical analyses are included.
–MF Available–

R096 A Statistical Study of the Depth of Precipitable Water in Western Texas and Eastern New Mexico
By S. E. Baker
June 1969

Provides frequency distributions which describe the depth of precipitable water (the total amount of water vapor in the atmosphere at a given time) for Amarillo, Big Spring, El Paso, and San Antonio, Texas and Albuquerque, New Mexico. From these, the probability that a given depth of precipitable water will exist at any time during the year can be computed.
–MF Available–

R097 Base-Flow Studies, Leon and Lampasas Rivers, Texas, Quantity and Quality, January 16-17, 1968
By Jack Rawson, G. K. Schultz
June 1969

Presents the results of an investigation to determine quantity of tributary inflow, interchange of surface and ground water, and relation of water quality to geology and activities of man, and to evaluate the water supply.
–MF Available–

R098 Compilation of Results of Aquifer Tests in Texas
By B. N. Myers
July 1969

Presents in graph form results of approximately 480 aquifer tests. also includes a section on methods of analyzing aquifer tests and a table of transmissibilities estimated from one drawdown measurement for wells on the Southern High Plains.

R099 Hydrologic Studies of Small Watersheds, Cow Bayou, Brazos River Basin, Texas, 1955-64
By W. B. Mills
October 1969

Presents an interpretive report on a small-watershed investigation similar to Report 3.

R100 Occurrence and Quality of Ground Water in Shackelford County, Texas
By Richard D. Preston
October 1969

Presents information on the location and extent of fresh water-bearing strata; the chemical quality of the ground water; the geology and its relationship to the depth and occurrence of ground water; and the effects on water quality that may be caused by surface or subsurface disposal of oil-field brines, inadequate surface casing, or improperly plugged wells in the county. Includes tabulations of ground-water data.
–MF Available–

R101 Ground-Water Resources of Gregg and Upshur Counties, Texas
By M. E. Broom
October 1969

Provides a guide for the optimum development of available ground water in the report area and includes tables of geologic units, pumpage and use of ground water, records of wells, drillers' logs, and chemical analyses.
–MF Available–

R102 Ground-Water Resources of Kerr County, Texas
By R. D. Reeves
November 1969

Determines the occurrence, availability, dependability, and quality of ground-water resources and includes records of wells, drillers' logs, and chemical analyses.
–MF Available—

R103 Records of Water-Level Measurements in Observation Wells in Harris County, Texas
By R. K. Gabrysch, W. L. Naftel, Gene D. McAdoo
December 1969
–MF Available–

R104 Water-Loss Studies of Lake Corpus Christi, Nueces River Basin, Texas, 1949-65
By C. R. Gilbert
January 1970

Shows the magnitude of surface-water losses which can occur from impoundment of water in a new reservoir. Percolation into underground formations was found to be significant and greater than evaporative losses during several of the years of initial reservoir filling.
–MF Available–

R105 Reconnaissance of Water Temperature of Selected Streams in Southeastern Texas
By Jack Rawson
January 1970

Presents tables of temperature data at selected cross sections of Texas streams.
–MF Available–

R106 Suspended-Sediment Load of Texas Streams, Compilation Report, October 1963-September 1965
By H. M. Cook
January 1970

Contains the same type of information as Bulletin 6410 and Report 45.

R107 Quantity and Quality of Low Flow in the Pecos River Below Girvin, Texas, February 6–9, 1968
By V. L. Spiers, H. R. Hejl, Jr.
February 1970

Describes a study to determine the changes in quantity and quality of flow between Girvin, Texas and mouth of Pecos River. (see Reports 22 and 76)

R108 Biochemical Oxygen Demand, Dissolved Oxygen, Selected Nutrients, and Pesticide Records of Texas Surface Waters, 1968
By A. J. Dupuy, D. B. Manigold, J. A. Schulze
February 1970

Presents data collected as part of a continuing statewide water-quality investigation established in 1968 to provide additional base-line information on quality of surface waters of the State.

R109 Ground-Water Resources of Bastrop County, Texas
By C. R. Follett
March 1970

Gives the results of an investigation to determine ground-water resources, and includes well records, drillers' logs, pumping tests, and chemical analyses.
–MF Available–

R110 Ground-Water Conditions in Angelina and Nacogdoches Counties, Texas
By W. F. Guyton & Association.
March 1970

Describes the occurrence, availability, and quality of the ground-water resources of Angelina and Nacogdoches counties. In particular, the report determines the sources of moderate to large supplies of water suitable for public supply, industrial, and irrigation uses. The Carrizo Sand is the most productive aquifer in the two Counties, although numerous other formations produce some fresh water of usable quality. Includes tabulations of ground-water data.

R111 An Investigation of Clouds and Precipitation for the Texas High Plains
By Donald R. Haragan
March 1970

Considers the relationship between cloudiness, precipitable water vapor, water vapor flux, stability, and precipitation information which is useful in weather modification experimentation and research. A cloud census gives the annual and diurnal variations of cloud types and amounts. The most common cloud types are altocumulus and cirrus, and total cloud cover is greatest during winter and least during fall.
–MF Available–

R112 Quantity and Chemical Quality of Low Flow in Cibolo Creek, Texas, March 4-8, 1968
By W. E. Reeves, H .L. Kunze
April 1970

Defines the changes in quantity and inorganic chemical quality of base flow, and compares results with the investigation described in Bulletin 6511.

R113 Occurrence and Quality of Ground Water in Throckmorton County, Texas
By Richard D. Preston
April 1970

Provides information on the surface and subsurface geology as it relates to the depth and occurrence of ground water, and the amount and chemical quality of ground water in the producing formations. More than 87 percent of the wells in the county are completed in the Lueders formation and the quaternary alluvial deposits. Includes tabulations of ground-water data.
–MF Available—

R114 Records of Water Levels and Chemical Analyses from Selected Wells in Parts of the Trans-Pecos Region, Texas, 1965-68
By M. E. Davis, J. D. Gordon
April 1970

R115 Time of Travel of Translatory Waves on the Brazos, Leon, and Little Rivers, Texas
By W. B. Mills
April 1970

Determines the time required for translatory waves to travel through the reach of the Brazos River from Whitney Reservoir to Richmond, and through the Leon, Little, and Brazos Rivers from Belton Reservoir to Bryan.
–MF Available–

R116 Quantity and Chemical Quality of Low Flow in the Prairie Dog Town Fork Red River Near Wayside, Texas, February 6-9, 1968
By J. N. Lee, M. L. Maderak
May 1970

Determines changes in quantity and chemical quality of low flow from one mile below Lake Tanglewood to Wayside.

R117 Chemical and Physical Characteristics of Water in Estuaries of Texas, September 1963 - September 1968
By D. C. Hahl, Karl W. Ratzlaff
May 1970

Presents the first annual basic data report in a study to determine occurrence, source, and distribution of nutrients; current patterns, directions, and rates of movements; physical, organic, and inorganic water quality and variations; occurrence, quantity, and dispersion of land drainage; and chemical and physical characteristics of Gulf water that enters the estuaries.
–MF Available–

R118 Systems Simulation for Management of a Total Water Resource, A Completion Report, V. 1 Introduction
By Water Resources Engineers
May 1970

Summarizes research that represents a first step towards developing a computer-oriented methodology for use in the planning, design, and long-range operation and management of a system of interconnected reservoirs and canals involving many river basins such as envisioned in the Texas Water Plan.
–MF Available–

R119 Ground-Water Resources of Collingsworth County, Texas
By J. T. Smith
July 1970

Gives data on the occurrence, location, and quality of ground-water resources, with particular reference to the sources of water supply. The report also includes records of wells and chemical analyses.
–MF Available–

R120 Biochemical-Oxygen-Demand, Dissolved-Oxygen, Selected-Nutrients, and Pesticide Records of Texas Surface Waters, 1969 Water Year
By J. A. Schulze, A. J. Dupuy, D. B. Manigold
September 1970

Continues data collection as presented in Report 108.
–MF Available–

R121 Water-Level Data from Observation Wells in the Southern High Plains of Texas, 1965-70
By A. Wayne Wyatt
November 1970

R122 Records of Water-Level Measurements in Wells in Harris County, Texas, 1966-69
By R. K. Gabrysch, C. W. Bonnet, W. L. Naftel
November 1970

R123 Records of Water-Level Measurements in Wells in Galveston County, Texas, 1894-1969
By R. K. Gabrysch, Gene D. McAdoo, C. W. Bonnet
December 1970

R124 Ground-Water Resources of Aransas County, Texas
By G. H. Shafer
December 1970

Presents the results of a study to determine the occurrence, availability, dependability, quality, and quantity of ground water as a guide for developing, protecting, and obtaining maximum benefits. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R125 Water Resources of Ward County, Texas
By D. E. White
February 1971

Gives the results of an investigation to determine the occurrence and availability of ground water and surface water supplies. Includes records of wells, chemical analyses, and uses of water.

R126PT1 Dams and Reservoirs in Texas, Part 1
By C. L. Dowell, R. G. Petty
October 1974

Provides engineering documentation on all dams and reservoirs in Texas of 5,000 acre-feet or more capacity. Includes structural details, hydraulic characteristics, and photographs (projects in the Canadian, Red, Sulphur, Cypress, Sabine, and Neches Basins, and the Neches-Trinity Coastal Basin,1974).

R126PT2 Dams and Reservoirs in Texas, Part 2
By C. L. Dowell, R. G. Petty
November 1973

Provides engineering documentation on all dams and reservoirs in Texas of 5,000 acre-feet or more capacity. Includes structural details, hydraulic characteristics, and photographs (projects in the Trinity, San Jacinto and Brazos Basins, 1973).

R126PT3 Dams and Reservoirs in Texas, Part 3
By C. L. Dowell, R. G. Petty
February 1971

Provides engineering documentation on all dams and reservoirs in Texas of 5,000 acre-feet or more capacity. Includes structural details, hydraulic characteristics, and photographs (projects in the Colorado, Lavaca, Guadalupe, San Antonio, Nueces, and Rio Grande Basins and intervening Coastal Basins, 1971).

R127 Inventories of Irrigation in Texas, 1958, 1964, and 1969
May 1971

Continuation of data presented in B6019 and B6515 with 1969 irrigation data added for comparative purposes.

R128 Simulation of Water Quality in Streams and Canals – Theory and Description of the QUAL-I Mathematical Modeling System
By Masch and Associates.
May 1971

Describes the development of a digital computer model that can simulate the following parameters through a one-dimensional, fully mixed, branching stream system: (1) temperature, (2) biochemical oxygen demand and dissolved oxygen, and (3) conservative materials.
–MF Available–

R129 Reconnaissance of the Chemical Quality of Surface Waters of the Red River Basin, Texas
By D. K. Leifeste, J. F. Blakey, L. S. Hughes
May 1971

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R130 Reconnaissance of the Chemical Quality of the Coastal Basins of Texas
By J. F. Blakey, H. L. Kunze
June 1971

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R131 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems, A Completion Report
By Water Resources Engineers
July 1971

Demonstrates how modern-day computers can be used to thoroughly evaluate complex river basins that have a host of possible combinations of streams, reservoirs, canals, and water uses in order to show the least costly methods of obtaining water supplies.
–MF Available–

R132 Water Well and Ground Water Chemical Analysis Data, Schleicher County, Texas
By Daniel A. Muller, H. E. Couch
August 1971
–MF Available–

R133 Ground-Water Resources of Chambers and Jefferson Counties, Texas
By Saul Aronow, J. B. Wesselman
August 1971

Presents the results of an investigation to determine the occurrence, availability, dependability, quality, and quantity of ground water suitable for public supply, industrial use, and irrigation. Contains a previously unpublished section on Quaternary geology of the area. Includes tabulations of ground-water data.
–MF Available–

R134 Reconnaissance of the Chemical Quality of Surface Waters of the Nueces River Basin, Texas
By H. L. Kunze
September 1971

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.

R135 Ground-Water Resources of Cass and Marion Counties, Texas
By M. E. Broom
October 1971

Presents the results of an investigation to determine and describe the ground-water resources of the two counties. The report includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R136 Ground-Water Resources of Montgomery County, Texas
By B. P. Popkin
November 1971

Describes an investigation to determine the occurrence, quality, and quantity of ground-water resources, and the availability and dependability of water sources, as well as areas of present or potential pollution. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R137 Water-Level Data from Observation Wells in the Northern Panhandle of Texas
By A. Wayne Wyatt
December 1971

R138 Relation of Ponded Floodwater from Hurricane Beulah to Ground Water in Kleberg, Kenedy, and Willacy Counties, Texas
By E. T. Baker, Jr.
December 1971

Presents the results of an investigation to determine the relationship of the water table to ponded water resulting from Hurricane Beulah; the changes in the quality of the water; the approximate amount of recharge to shallow ground water; and the rate of return of the hydrologic system to pre-hurricane conditions.
–MF Available–

R139 Records of Wells, Drillers' Logs, and Chemical Analyses of Ground Water in Galveston County, Texas, 1952-1970
By R. K. Gabrysch, Gene D. McAdoo, W. L. Naftel
December 1971
–MF Available–

R140 Water-Quality Records for Selected Reservoirs in Texas and Adjoining Areas, April 1965 - September 1969
By H. L. Kunze, Jack Rawson
February 1972

Continuation of data in Report 85, with addition of Lake Texoma, Sam Rayburn Reservoir, and Red Bluff Reservoir.

R141 A Comparison of Mass-Transfer and Climatic-Index Evaporation Computations from Small Reservoirs in Texas
By R. O. Hawkinson
February 1972

Provides the results of a study to evaluate methodology for estimating evaporation from small reservoirs.
–MF Available–

R142 Reconnaissance of the Oxygen Balance and the Variation of Selected Nutrients in the San Antonio River During Low Flow
By Jack Rawson
February 1972

Describes the process of waste assimilation, delineates the critical reach of the river, and determines the concentrations of selected nutrients in the river during the low-flow period, June 16-19.
–MF Available–

R143 Water Well and Ground-Water Chemical Analysis Data, Glasscock County, Texas
By Daniel A. Muller, H. E. Couch
March 1972

R144 Chemical and Physical Characteristics of Water in Estuaries of Texas October 1968 - September 1969
By D. C. Hahl, Karl W. Ratzlaff
April 1972

Continuation of data as presented in Report 117.
–MF Available—

R145 Water Well and Ground-Water Chemical Analysis Data, Reagan County, Texas
By Daniel A. Muller, H. E. Couch
April 1972

R146 Water Well and Ground-Water Chemical Analysis Data, Irion County, Texas
By J. R. Pool
April 1972

R147 Water Well and Ground-Water Chemical Analysis Data, Sutton County, Texas
By Daniel A. Muller, J. R. Pool
May 1972

R148 Water Well and Ground-Water Chemical Analysis Data, Sterling County, Texas
By J. R. Pool
May 1972

R149 Selected Water-Quality Records for Texas Surface Waters, 1970 Water Year
By A. J. Depuy, J. A. Schulze
June 1972

Continuation of data as presented in Reports 108 and 120.

R150 Ground-Water Conditions in Anderson, Cherokee, Freestone, and Henderson Counties, Texas
By W. F. Guyton & Associates
August 1972

Describes the occurrence, availability, and quality of the ground-water resources in the counties and particularly the sources of moderate to large supplies of water suitable for public supply, industrial, and irrigation uses. The report points out that the four counties have plenty of fresh ground water for most of their future needs. Includes tabulations of ground-water data.

R151 Water Budget and Quality of Water Studies of Hubbard Creek Reservoir, Texas, 1963-67 Water Years
By B. N. Myers
June 1972

R152 Development of Ground Water in the Houston District, Texas, 1966-69
By R. K. Gabrysch
June 1972

Continuation of an investigation described in Report 63.

R153 Development of Ground Water in the El Paso District, Texas, 1963-70
By W. R. Meyer, J. D. Gordon
August 1972

Continuation of a study presented in Bulletin 6514.
– MF Available—

R154 Hydrologic Studies of Small Watersheds, Calaveras Creek, San Antonio River Basin, Texas, 1955-68
By J. T. Smith, W. B. Mills
August 1972

Presents an interpretive report on a small-watershed investigation similar to Report 3.

R155 Ground-Water Resources of Fort Bend County, Texas
By J. B. Wesselman
August 1972

Gives the results of an investigation to determine and evaluate the ground-water resources of the county and includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R156 Development of Ground-Water Resources in the Orange County Area, Texas and Louisiana, 1963-71
By R. K. Gabrysch, Gene D. McAdoo
August 1972

Presents the latest data in a continuing ground-water study, includes an inventory of pumpage, determines land-surface subsidence, and correlates data with previously collected data.

R157V1 Survey of the Subsurface Saline Water of Texas, V. 1. A Descriptive Inventory of the Principal Saline Aquifer and Their Characteristics
By Core Lab. Inc.
October 1972

Provides information on the occurrence, availability, and quality of saline and brackish ground-water resources within the state. The report gives the depth, thickness, and areal extent of aquifers, along with their salt content and ideal producing capacities. (General information on the scope of the project, how results are presented, and general geology and hydrology along with over 100 tables, figures, maps, and cross sections.)

R157V2 Survey of Subsurface Saline Water of Texas, V. 2. Chemical Analyses of Saline Water
By Core Lab Inc.
September 1972

R157V3 Survey of Subsurface Saline Water of Texas, V. 3 Aquifer Rock Properties
By Core Lab Inc.
September 1972

Includes porosity, permeability, ideal specific flow rate data.

R157V4 Survey of Subsurface Saline Water of Texas, V. 4 Geologic Well Data. West Texas
By Core Lab, Inc.
September 1972

Includes formation depths in wells, thicknesses, and lithologies.

R157V5 Survey of the Subsurface Saline Water of Data, Panhandle
By Core Lab, Inc.
September 1972

Includes formation depths in well, thicknesses, and lithologies.

R157V6 Survey of Subsurface Saline Water of Texas, V. 6 Geologic Well Data, Central Texas
By Core Lab, Inc.
September 1972

Includes formation depths in wells, thicknesses, and lithologies.
–MF Available–

R157V7 Survey of Subsurface Saline Water of Texas, V. 7 Geologic Well Data, East Texas
By Core Lab, Inc.
September 1972

Includes formation depths in wells, thicknesses, and lithologies.

R157V8 Survey of Subsurface Saline Water of Texas, V.8 Geologic Well Data, Gulf Coast
By Core Lab. Inc.
September 1972

Includes formation depths in wells, thicknesses, and lithologies.
–MF Available—

R158 Ground Water in Dickens and Kent Counties, Texas
By J. G. Cronin
November 1972

Presents data on occurrence, location, and quality of ground water, emphasizing aquifers providing public supply and other aquifers from which additional supplies might be obtained. Includes records of wells, drillers' logs, and chemical analyses.

R159 Hydrologic Studies of Small Watersheds, Green Creek, Brazos River Basin, Texas 1955-66
By B. B. Hampton
November 1972

Presents an interpretive report on a small-watershed investigation as described in Report 3.

R160 Ground-Water Resources of Navarro County, Texas
By G. L. Thompson
November 1972

Describes a study of the ground-water resources of the county and the methods of deriving maximum benefits from the available supplies. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available—

R161 Ground-Water Resources of Hardeman County, Texas
By M. L. Maderak
November 1972

Presents the results of an investigation to obtain data on the county's ground-water resources, with emphasis on sources suitable for public supply, industrial use, and irrigation. Includes records of wells, water levels, and chemical analyses.
–MF Available–

R162 Ground-Water Resources of Washington County, Texas
By W. M. Sandeen
November 1972

Provides information on the occurrence, availability, dependability, quality, and quantity of ground water, with emphasis on sources of water suitable for public supply, industrial use, and irrigation. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available—

R163 Ground-Water Resources of Brazoria County, Texas
By W .M. Sandeen, J. B. Wesselman
February 1973

Gives the results of an investigation to determine the occurrence, availability, dependability, quality, and quantity of ground-water resources, to be used as a guide in developing the available supplies. Also includes records of wells, pumpage, drillers' logs, and chemical analyses.
–MF Available–

R164 Ground-Water Resources of Donley County, Texas
By B. P. Popkin
February 1973

Presents the results of a study to obtain and interpret basic data concerning the occurrence, location, and quality of ground water in the county. Includes records of wells, drillers' logs, tolerance of crops to slightly saline water, and chemical analyses.
–MF Available–

R165 Ground-Water Resources of Motley and Northeastern Floyd Counties, Texas
By J. T. Smith
March 1973

Describes an investigation of the occurrence, location, and quality of ground-water resources, with emphasis on those aquifers supplying water for municipal supply, industrial use, and irrigation. Includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R166 Ground-Water Resources of Coke County, Texas
By C. A. Wilson
March 1973

Presents an evaluation of ground-water resources, with particular emphasis on the source, occurrence, quality, and availability of ground water suitable for municipal supply, industrial use, and irrigation. Includes records of wells, pumpage, production and disposal of oil-field brine, and chemical analyses.
–MF Available–

R167 Ground-Water Resources of Hall and Eastern Briscoe Counties, Texas
By B. P. Popkin
April 1973

Gives the results of an investigation to obtain data on the occurrence, location, and quality of ground water; recommends more detailed future investigation. Records of wells and chemical analyses are also included.
–MF Available–

R168 Woody Phreatophytes Along the Brazos River and Selected Tributaries Above Possum Kingdom Lake
By F. E. Busby, Jr.
April 1973

Provides an inventory of phreatophytes along the Brazos River. Gives the kinds, amounts, distribution, history of spread, and volume density of phreatophytes along with their relation to flood-plain location.

R169 Ground-Water Resources of Rains and Van Zandt Counties, Texas
By D. E. White
April 1973

Presents a determination and an evaluation of ground-water resources of the two counties and an analytical discussion of the occurrence and availability of supply. Also includes records of wells, use of water, and chemical analyses.
–MF Available–

R170 Ground-Water Resources of Wheeler and Eastern Gray Counties, Texas
By M. L. Maderak
May 1973

Presents data on the occurrence, location, and quality of ground water in the two counties, with emphasis on the source and suitability of water for public supply, industrial use, and irrigation. Includes records of wells, use of water, production and disposal of oil-field brine, and chemical analyses.
–MF Available–

R171 Chemical and Physical Characteristics of Water in Estuaries of Texas, October 1969 - September 1970
By D. C. Hahl, Karl W. Ratzlaff
June 1973

Continuation of data presented in Reports 117 and 144.
–MF Available–

R172 Ground-Water Resources of Val Verde County, Texas
By R. D. Reeves, T. A. Small
June 1973

Describes the results of an investigation to determine the occurrence, availability, dependability, and quality of ground-water resources. Includes records of wells, drillers' logs, water-level measurements, and chemical analyses.
–MF Available–

R173 Ground-Water Resources of Kleberg, Kenedy, and Southern Jim Wells Counties, Texas
By G. H. Shafer, E. T. Baker, Jr.
July 1973

Presents data on the occurrence, availability, dependability, quality, and quantity of ground-water resources, with particular reference to sources of water suitable for public supply, industrial use, and irrigation, and identification of areas with potential or present ground-water problems. Includes records of wells, water levels, drillers' logs, and chemical analyses.
–MF Available—

R174 Ground-Water Resources of Blanco County, Texas
By C. R. Follett
July 1973

Describes an investigation to determine the occurrence, quality, availability, and dependability of ground-water resources and includes records of wells, drillers' logs, and chemical analyses.
–MF Available–

R175 Weather Modification Activities in Texas, 1970-72
By Weather Modification, Division
August 1973

Describes weather modification projects conducted in Texas during the three-year period, 1970-72. The report shows who sponsored the project, who carried it out, and the details of the project activities. Includes number of cloud cells seeded, amount of chemicals used, methods of application, and other relevant statistics.
–MF Available–

R176 Selected Water-Quality Records for Texas Surface Waters, 1971 Water Use
By J. A. Schulze, A. J. Dupuy, Emma McPherson
August 1973

Continuation of data presented in Reports 108, 120, and 14.
–MF Available–

R177 Water-Quality Records for Selected Reservoirs in Texas, 1970-71 Water Years
By Jack Rawson, H. L. Kunze, Helen J. Davidson
September 1973

Continuation of data presented in Reports 85 and 140.

R178V1 Ground-Water Data for Harris County, Texas, V.1 Drillers' Logs of Wells, 1905-1971
By R. K. Gabrysch, Gene D. McAdoo, C. W. Bonnet
November 1973

Drillers' logs of wells, 1905-1971.
–MF Available–

R178V2 Ground-Water Data for Harris County, Texas, V.2 Records of Wells, 1892-1972
By R. K. Gabrysch, Gene D. McAdoo, W. L. Naftel, C. W. Bonnet
January 1974

Records of wells, 1892-1972.
–MF Available–

R178V3 Ground-Water Data for Harris County, Texas, V.3 Chemical Analyses of Water from Wells, 1922-71
By R. K. Gabrysch, Gene D. McAdoo, W. L. Naftel
February 1974

Chemical analyses of water from wells, 1922-1971.
–MF Available–

R179 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems, A Completion Report
By Systems Engineering Division
February 1974

Describes computer programs and procedures necessary for determining the number of dollars that any particular amount of new irrigation water can bring to an agricultural region. The report is primarily helpful to water resource planners and administrators interested in developing and managing large-scale water resource programs with the aid of computers.
–MF Available–

R180 Reconnaissance of the Chemical Quality of Surface Waters of the Rio Grande Basin, Texas
By H. B. Mendieta
March 1974

Gives data similar to Bulletin 6405, as part of a statewide chemical-quality reconnaissance.
–MF Available–

R181 Ground-Water Resources of Duval County, Texas
By G. H. Shafer
March 1974

Presents the results of an investigation to determine the occurrence, availability, dependability, quality, and quantity of ground-water resources as guides for developing, protecting, and obtaining maximum benefits from available supplies. Includes records of wells, water levels, drillers' logs, and chemical analyses.
–MF Available–

R182 Woody Phreatophytes along the Colorado River from Southeast Runnels County to the Headwaters in Borden County, Texas
By D. C. Larner, R. M. Marshall, S. C. Burnitt
April 1974

Discusses the historical change in vegetation from native grasses to dense growths of phreatophytes along the Upper Colorado River. Determines the kinds, amounts, density, and distribution of woody phreatophytes in the floodplain.
–MF Available–

R183 Analytical Techniques for Planning Complex Water Resource Systems, A Summary Report
April 1974

Describes the uses of a comprehensive set of computer programs that simulate streamflows, surface-water storage and transfer systems, ground water, agricultural demands for water, water quality, and the behavior of estuaries.
–MF Available–

R184 Suspended-Sediment Load of Texas Streams, Compilation Report, October 1965 - September 1971
By James Miribal
May 1974

Contains essentially the same type of information as Bulletin 6410 and Reports 45 and 106.
–MF Available–

R185 Ground-Water Resources of Brazos and Burleson Counties, Texas
By C. R. Follett
June 1974

Presents an evaluation of ground-water resources of the two counties with emphasis on determination of the source, occurrence, quantity, and quality of ground water. Includes records of wells, drillers' logs, water levels, and pesticide and chemical analyses.
–MF Available–

R186 Ground-Water Resources of Grimes County, Texas
By E. T. Baker, Jr., C. R. Follett, G. D. McAdoo, C. W. Bonnet
September 1974

Evaluates the ground-water resources of the county, particularly emphasizing the source, occurrence, quantity, and quality of the ground water suitable for public-supply, industrial, and irrigation use.
–MF Available–

R187 Weather Modification Activities in Texas, 1973
By Weather Modification Division
November 1974

During calendar year 1973, nine weather modification projects were conducted in the State of Texas. These projects included seven operational cloud seeding projects, one precipitation management research project, and one rain augmentation evaluation project. In all cases the objectives of the cloud seeding projects were to increase rainfall, to decrease hailfall, or both.
–MF Available–

R188 Land-Surface Subsidence in the Houston-Galveston Region, Texas
By R. K. Gabrysch, C. W. Bonnet
February 1975

Includes studies on the development of ground water, declines in water levels, compaction and land-surface subsidence, and planned development and subsidence in the Houston-Galveston region.
–MF Available–

R189 Major and Historical Springs of Texas
By Gunnar Brune
March 1975

Detailed information is given separately for each of 281 springs, including the location, geologic setting, historical background, and discharge.
–MF Available–

R190 Analog-Model Studies of Ground-Water Hydrology in the Houston District, Texas
By D. G. Jorgensen
February 1975

Describes means for forecasting declines in the altitudes of the potentiometric surfaces (levels to which water will rise in tightly cased wells) under different pumping conditions. Because of the complexity of the hydrologic system, an electric analog model was chosen as the most suitable device for analyzing the system and simulating future responses.
–MF Available–

R191 Chemical and Physical Characteristics of Water in Estuaries of Texas, October 1970 - September 1971
By D. C. Hahl, Karl W. Ratzlaff
May 1975

Continuation of data as presented in Reports 117, 144, and 171.

R192 Evaporation Data in Texas, Compilation Report, January 1907 - December 1970
By John P. Dougherty
June 1975

Presents a complete compilation of all available historical pan-evaporation data which have been obtained in Texas, spanning a 64-year period from January 1907 through December 1970.
–MF Available–

R193 An Evaluation of Weather Modification Activities in the Texas High Plains
By James R. Scoggins, John F. Griffiths
June 1975

Presents results of a study to evaluate the effectiveness of cloud seeding in the Texas High Plains for the months of May through October during the four-year period 1970-73.
–MF Available–

R194 Water-Quality Records for Selected Reservoirs in Texas, 1972-73 Water Years
By Jack Rawson, Helen J. Davidson
August 1975

Contains the results of water-quality surveys of nine reservoirs and chemical analyses of samples collected periodically from 54 reservoirs.
–MF Available–

R195V1 Ground-Water Resources of Part of Central Texas with Emphasis on the Antlers and Travis Peak Formations
By William B. Klemt, Robert D. Perkins, Henry J. Alvarez
November 1975

Determines the occurrence, availability, dependability, quality, and quantity of ground water used for public supply, industry, and irrigation to establish a relationship between pumpage and water-level decline.

R195V2 Ground-Water Resources of Part of Central Texas with Emphasis on the Antlers and Travis Peak Formations
By William B. Klemt, Robert D. Perkins, Henry J. Alvarez
January 1976

Contains basic data on the occurrence and availability of ground water including well location maps, records of wells, drillers logs, water levels in wells, and chemical analyses of water.

R196 Inventories of Irrigation in Texas 1958, 1964, 1969, and 1974
October 1975

Continuation of data presented in B6019, B6515, and R127 with 1974 irrigation data added for comparative purposes.

R197 Ground-Water Data for Orange County and Vicinity, Texas and Louisiana, 1971-1974
By C. W. Bonnet
December 1975

Includes water-level measurements in observation wells, water-sample collection data, an inventory of new large-capacity wells, and pump test data on new large-capacity wells.
–MF Available–

R198 Water-Level and Water-Quality Data from Observation Wells in Northeast Texas
By Howard D. Taylor
February 1976

Tabulations include current and historical water-level measurements, chemical analyses of the ground water, summaries of ground-water quality by aquifers, and reported amounts of ground water pumped for industrial and municipal purposes.

R199 Annotated Bibliography of Texas Water Resources Reports of the Texas Water Development Board and United States Geological Survey Through August 1974
By Herbert A. Wolff, Charlotte Friebele
February 1976

Presents, in summarized form, the results of basic hydrologic investigations and studies related to the development of water resources in Texas and the resulting basic data and interpretive reports written by the Texas Water Development Board and the U.S. Geological Survey.
–MF Available–

R200 Analytical Study of the Ogallala Aquifer in Hale County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
February 1976
–MF Available–

R201 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Brazoria, Fort Bend, and Waller Counties, Texas, 1966-74
By W. L. Naftel, Kenneth Vaught, Bob Fleming
March 1976
–MF Available–

R202 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Chambers, Liberty, and Montgomery Counties, Texas, 1966-74
By W. L. Naftel, Kenneth Vaught, Bob Fleming
March 1976

R203 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Harris and Galveston Counties, Texas, 1970-74
By W. L. Naftel, Kenneth Vaught, Bob Fleming
March 1976

R204 Analytical Study of the Ogallala Aquifer in Lamb County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
May 1976
—MF Available—

R205 Analytical Study of the Ogallala Aquifer in Parmer County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
May 1976
—MF Available—

R206 Analytical Study of the Ogallala Aquifer in Castro County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
May 1976
—MF Available—

R207 Analytical Study of the Ogallala Aquifer in Bailey County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
June 1976
—MF Available—

R208 Chemical and Physical Characteristics of Water in Estuaries of Texas, October 1971-September 1973
By Karl L. Ratzlaff
June 1976
Continuation of Data as Presented in Reports 117, 144, 171, and 191.

R209 Analytical Study of the Ogallala Aquifer in Crosby County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
September 1976
—MF Available—

R210V1 Ground-Water Resources of the Carrizo Aquifer in the Winter Garden Area of Texas. Volume 1
By William B. Klemt, Gail L. Duffin, Glenward R. Elder
September 1976

Contains information on the amounts of water that have been and can be produced from the Carrizo aquifer, its hydrologic characteristics, and the chemical quality of its water. The water-bearing strata of the Wilcox Group and other aquifers of the Claiborne Group are also discussed.

R210V2 Ground-Water Resources of the Carrizo Aquifer in the Winter Garden Area of Texas. Volume 2
By Glenn Marquardt, Eulogio Rodriguez, Jr.
April 1977

Contains supporting basic data including well location maps, records of 3,214 water wells, records of water levels in 474 wells, and chemical analyses of water samples from 1,553 wells.

R211 Analytical Study of the Ogallala Aquifer in Floyd County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
November 1976
–MF Available–

R212 Analytical Study of the Ogallala Aquifer in Briscoe County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
May 1977
–MF Available–

R213 Analytical Study of the Ogallala Aquifer in Deaf Smith County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By A. Wayne Wyatt, Ann E. Bell, Shelly Morrison
July 1977
–MF Available–

R214 Analytical Study of the Ogallala Aquifer in Hockley County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
Ann E. Bell, Shelly Morrison
December 1977
–MF Available–

R215 Occurrence, Quality, and Availability of Ground Water in Jones County, Texas
By Robert D. Price
April 1978

Discusses sources of water suitable for municipal, industrial, irrigation, domestic, and livestock use; cites areas and possible sources of present or potential ground-water contamination; and includes tabulations of ground-water data.
–MF Available–

R216 Analytical Study of the Ogallala Aquifer in Lubbock County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
June 1978
–MF Available–

R217 Analytical Study of the Ogallala Aquifer in Cochran County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
July 1978
–MF Available–

R218 Occurrence and Quality of Ground Water in Baylor County, Texas
By Richard D. Preston
July 1978

Describes location, extent, and hydrologic parameters of fresh water-bearing strata and the quantity and quality of all ground water used or available for use within the county. Includes tabulations of ground-water data.
–MF Available–

R219 Weather Modification Activities in Texas, 1974-77
By Weather Modification Division
August 1978

Describes activities which were conducted during the period 1974-1977 under the cited licenses and permits. Previous reports describe those activities which occurred in years prior to 1974: Report 175 describes weather modification activities for the period 1970-1972, and Report 187 covers activities for 1973.
–MF Available–

R220 Artificial Ground-Water Recharge as a Water-Management Technique on the Southern High Plains of Texas and New Mexico
By Richmond F. Brown, Donald C. Signor, Warren W. Wood
September 1978

Presents case histories of recent recharge experiments on the Southern High Plains, the results of laboratory studies of sediment flocculation of playa-lake water, and a cost analysis of recharge systems.
–MF Available–

R221 Analytical Study of the Ogallala Aquifer in Yoakum County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
September 1978
–MF Available–

R222 Analytical Study of the Ogallala Aquifer in Terry County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
September 1978
–MF Available–

R223 Analytical Study of the Ogallala Aquifer in Lynn and Garza Counties, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
September 1978
–MF Available–

R224 Occurrence, Quantity, and Quality of Ground Water in Taylor County, Texas
By Howard D. Taylor
October 1978

Discusses occurrence, quantity, and quality of the ground-water resources; determines the sources of water suitable for domestic, livestock, public supply, industrial, and irrigation uses; and discusses areas and possible sources of present or potential ground-water contamination.
–MF Available–

R225 Analytical Study of the Ogallala Aquifer in Dawson and Borden Counties, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
November 1978

Includes a description of the Ogallala Aquifer in Dawson and Borden Counties; the procedures used to obtain projections; and projections of saturated thickness, volume of water in storage, pumpage rates, pumping lifts, and well yields.
–MF Available–

R226V1 The Seymour Aquifer: Ground-Water Quality and Availability in Haskell and Knox Counties, Texas
By R. W. Harden & Associates
December 1978

Volume I contains text and related illustrations and tables describing the quality and quantity of the ground-water resources of the Seymour Aquifer.
–MF Available–

R226V2 The Seymour Aquifer: Ground-Water Quality Availability in Haskell and Knox Counties, Texas
By R. W. Harden & Associates
December 1978

Volume II contains supporting basic data consisting of maps and tables.
–MF Available–

R227 Analytical Study of the Ogallala Aquifer in Gaines County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates. {umping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
March 1979
–MF Available–

R228 Water-Level Data from Observation Wells in the Southern High Plains of Texas, 1971-77
By Howard D. Taylor
April 1979

Presents water-level records from approximately 1,800 wells in 31 counties in the Southern High Plains of Texas.

R229 Variations in Specific Yield in the Outcrop of the Carrizo Sand in South Texas as Estimated by Seismic Refraction
By Gail Duffin, Glenward R. Elder
April 1979

Seismic soundings were made at 84 sites, situated along 20 profiles, on the outcrop of the Carrizo Sand in South Texas. These soundings were made to estimate lateral variations in the aquifer's total porosity and specific yield where the aquifer is under water-table conditions.
–MF Available–

R230 Water Quality of Livingston Reservoir on the Trinity River, Southeastern Texas
By Jack Rawson
April 1979

Summarizes the water-quality records and explains the variations of selected chemical constituents and characteristics of the water in Livingston Reservoir during 1970-74 water years.
–MF Available–

R231 Chemical and Physical Characteristics of Water in Estuaries of Texas, October 1973 - September 1974
By William B. Lind, Karl W. Ratzlaff
May 1979

Continuation of data as presented in reports 117, 144, 171, 191, and 208.

R232 Water-Quality Records for Selected Reservoirs in Texas, 1974-75 Water Years
By Jack Rawson, Eleanor S. Chitwood
May 1979

Contains the results of water-quality surveys of 17 reservoirs and chemical analyses of samples collected periodically from 58 reservoirs.
–MF Available–

R233 Suspended-Sediment Load of Texas Streams, Compilation Report, October 1971 - September 1975
By John P. Dougherty
May 1979

This report, covering the 1972 through 1975 water years, is a supplement to Texas Water Development Board Reports 184, 106, and 45, Texas Water Commission Bulletin 6410, and Texas Board of Water Engineers Bulletin 6108.
–MF Available–

R234 Geohydrology of Comal, San Marcos, and Hueco Springs
By W. F. Guyton & Associates
June 1979

Includes a compilation of historical records of the flow of Comal, San Marcos, and Hueco Springs; the quality and temperature of the water; compilation of measurements of tritium contents of the water; and an evaluation of the hydrologic meaning of these measurements.
–MF Available–

R235 Occurrence, Availability, and Chemical Quality of Ground Water in the Edwards Plateau Region of Texas
By Loyd E. Walker
July 1979

Includes the collection and compilation of all available data pertaining to the occurrence, availability, and chemical quality of water in the Edwards-Trinity (Plateau) Aquifer and other aquifers on the Edwards Plateau.
–MF Available–

R236 Stratigraphic and Hydrogeologic Framework of Part of the Coastal Plain of Texas
By E. T. Baker, Jr.
July 1979

Illustrates the stratigraphic and hydrogeologic framework of the Texas coastal plain from the Sabine River to the Rio Grande as a first phase in the construction of a digital ground-water flow model.

R237 Records of Wells, Chemical Analyses, and Water Levels of Selected Edwards Wells, Bexar County, Texas
By Glenn L. Marquardt, Glenward R. Elder
July 1979

Contains basic data on selected wells in Bexar County, Texas, including well-location map, records of 694 water wells, records of water levels in 119 wells, and chemical analyses of water samples from 204 wells.
–MF Available–

R238 Ground-Water Availability in Texas Estimates and Projections Through 2030
By Daniel A. Muller, Robert D. Price
September 1979

Furnishes a comprehensive ground-water reference foundation for future planning efforts at both state and local levels by providing estimates of the amounts of effective recharge and the amounts of water that can be recovered from storage for selected aquifers in the state.

R239 Ground-Water Resources and Model Applications for the Edwards (Balcones Fault Zone) Aquifer in the San Antonio Region
By William B. Klemt, Tommy R. Knowles, Glenward R. Elder, Thomas W. Sieh
October 1979

Determines the occurrence, availability, and dependability of the Edwards (Balcones Fault Zone) Aquifer in the Nueces, San Antonio, and Guadalupe-Blanco River Basins, and develops a ground-water resources management tool for use in a total water-resource management program.
–MF Available–

R240 Occurrence, Quality, and Quantity of Ground Water in Wilbarger County, Texas
By Robert D. Price
November 1979

Determines the occurrence, quality, and quantity of the ground-water resources of Wilbarger County, with emphasis on sources of water suitable for municipal, industrial, irrigation, domestic, and livestock use. Includes tabulations of ground-water data.
–MF Available—

R241 Development of Ground Water in the Houston District, Texas, 1970-74
By R. K. Gabrysch
January 1980
–MF Available–

R242 Analytical study of the Ogallala Aquifer in Carson County, Texas - projections of saturated thickness, volume of water in storage, pumpage rates, pumping lifts, and well yields
By Ann E. Bell, Shelly Morrison
November 1979
–MF Available–

R243 Analytical Study of the Ogallala Aquifer in Gray County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
January 1980
–MF Available–

R244V1 Streamflow and Reservoir-Content Records in Texas; Compilation Report January 1889 through December 1975, Volume 1
By John P. Dougherty
February 1980

Contains data from gaging stations in the Canadian, Red, Sulphur, Cypress Creek, Sabine, Neches, Trinity, and San Jacinto Basins and adjoining coastal basins.
–MF Available–

R244V2 Streamflow and Reservoir- Content Records in Texas; Compilation Report January 1889 through December 1975, Volume 2
By John P. Dougherty
April 1980

Contains data from gaging stations in the Brazos and Colorado Basins and adjoining coastal basins.
–MF Available—

R244V3 Streamflow and Reservoir- Content Records in Texas; Compilation Report January 1889 through December 1975, Volume 3
By John P. Dougherty
April 1980

Contains data from gaging stations in the Lavaca, Guadalupe, San Antonio, Nueces, and Rio Grande Basins and adjoining coastal basins.
–MF Available–

R245 Chemical and Physical Characteristics of Water in Estuaries of Texas, October 1974 - September 1975
By William B. Lind
April 1980

Continuation of data presented in Reports 117, 144, 171, 191, 208, and 231.
–MF Available–

R246 Ground-Water Development in the El Paso Region, Texas with Emphasis on the Lower El Paso Valley
By Henry J. Alvarez, A. Wayne Buckner
June 1980

Documents an investigation to determine the occurrence, availability, dependability, quantity, and quality of ground water in the lower El Paso valley.
–MF Available–

R247 Modern Topographic Mapping of Texas - An Historical Sketch
By C. R. Baskin
May 1980

Documents Modern 71/2-minute mapping coverage of Texas through 1978.
–MF Available–

R248 Water-Level Data from Observation Wells in the Northern Panhandle of Texas, 1972-78
By Howard D. Taylor
June 1980

The principal ground-water reservoir or aquifer in the slightly more than 10,000 square miles (26,000 square km) covered by this report is the Ogallala Formation of the tertiary system.
–MF Available–

R249 Analytical Study of the Ogallala Aquifer in Swisher County, Texas—Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
July 1980
–MF Available–

R250 Analytical Study of the Ogallala Aquifer in Randall County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
July 1980
–MF Available–

R251 Analytical Study of the Ogallala Aquifer in Armstrong County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
August 1980
–MF Available–

R252 Analytical Study of the Ogallala Aquifer in Moore County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
August 1980
–MF Available–

R253 Analytical Study of the Ogallala Aquifer in Sherman County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
September 1980
–MF Available–

R254 Records of Wells, Water Levels, Pumpage and Chemical Analyses of Water From the Carrizo Aquifer in the Winter Garden Area, Texas, 1970 through 1977
By Glenward R. Elder, Gail L. Duffin, Eulogio Rodriguez, Jr.
September 1980
–MF Available–

R255 Occurrence and Quality of Ground Water in the Edwards-Trinity Plateau Aquifer in the Trans-Pecos Region of Texas
By Rhys Rees, A. Wayne Buckner
September 1980
–MF Available–

R256 Availability of Fresh and Slightly Saline Ground Water in the Basins of Westernmost Texas
By Joseph S. Gates, D. E. White, W. D. Stanley, Hans D. Ackermann
September 1980
–MF Available–

R257 Analytical Study of the Ogallala Aquifer in Hansford County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
October 1980
–MF Available–

R258 Analytical Study of the Ogallala Aquifer in Ochiltree County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
October 1980
–MF Available–

R259 Ground-Water Data for the Salt Basin, Eagle Flat, Red Light Draw, Green River Valley, and Presidio Bolson in Westernmost Texas
By D. E. White, Joseph S. Gates, J. T. Smith, Bonnie J. Fry
October 1980
–MF Available–

R260 Analytical Study of the Ogallala Aquifer in Donley County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
January 1981
–MF Available–

R261 Analytical Study of the Ogallala Aquifer in Hartley County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
January 1981
–MF Available–

R262 Analytical Study of the Ogallala Aquifer in Lipscomb County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
February 1981
–MF Available–

R263 Inventories of Irrigation in Texas 1958, 1964, 1969, 1974, and 1979
October 1981

Continuation of data presented in B6019, B6515, R127, and R196 with 1979 irrigation data added for comparative purposes.

R264 Pesticide and PCB Concentrations in Texas-Water, Sediment, and Fish Tissue
By Michael Dick
January 1982

Reviews the history and development of several pesticides, their pathways in the environment, their presence in organisms, and the need for monitoring environmental levels. Discusses sources of data, methods of collection and analysis, criteria used for evaluation, and factors affecting ambient concentrations. Evaluates levels of pesticides in water, sediment, and fish tissue.

R265 Analytical Study of the Ogallala Aquifer in Potter and Oldham Counties, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
January 1982

R266 Analytical Study of the Ogallala Aquifer in Wheeler County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
February 1982
–MF Available–

R267 Analytical Study of the Ogallala Aquifer in Hemphill County, Texas - Projections of Saturated Thickness, Volume of Water in Storage, Pumpage Rates, Pumping Lifts, and Well Yields
By Ann E. Bell, Shelly Morrison
February 1982
–MF Available–

R268 Erosion and Sedimentation by Water in Texas - Average Annual Rates Estimated in 1979
By John H. Greiner, Jr.
February 1982

Rrevises and updates Bulletin 5912. Computes the estimated quantities of gross sheet and rill erosion and gross gully and streambank erosion on all land areas based on generalized land use and soils maps.

R269V1 Occurrence, Availability, and Chemical Quality of Ground Water in the Cretaceous Aquifers of North-Central Texas
By Phillip L. Nordstrom
April 1982

Determines the occurrence, availability, quality, and quantity of ground water used for municipal, industrial, and irrigation purposes from the Woodbine and Trinity Groups of Cretaceous Age. Includes data on minor aquifers. Volume 1 contains interpretive information presented as text and related figures and tables.

R269V2 Occurrence, Availability, and Chemical Quality of Ground Water in the Cretaceous Aquifers of North-Central Texas
By Phillip L. Nordstrom
July 1982

Contains supporting basic data including well location maps, records of wells, water-level measurements, and chemical analyses of water.
–MF Available–

R270 Ground-Water Resources of Colorado, Lavaca, and Wharton Counties, Texas
By Carole L. Loskot, W. M. Sandeen, C. R. Follett
July 1982

Determines the occurrence, availability, dependability, quantity, and quality of the ground-water resources of the area. Emphasizes estimates of quantities of ground water available for development and determinations of the areas most favorable for additional development.
–MF Available—

R271 Water-Quality Records for Selected Reservoirs in Texas, 1976-77 Water Years
By M. W. Flugrath, Eleanor S. Chitwood
September 1982

Contains the results of water-quality surveys of 19 reservoirs and chemical analyses of samples collected periodically from 53 reservoirs.
–MF Available–

R272 Land-Surface Subsidence in the Texas Coastal Region
By Karl W. Ratzlaff
November 1982

Documents the available information on land-surface subsidence in the Texas coastal region. The project was limited to the collection and analysis of readily available subsidence data, but includes brief discussions of the causes of subsidence and the methods of determining subsidence.

R273 Ground-Water Availability of the Lower Cretaceous Formations in the Hill Country of South-Central Texas
By John B. Ashworth
January 1983

Documents study conducted from December 1974 to October 1978 to describe the hydrologic characteristics of the Trinity Group. Includes hydrologic data gathered primarily from high-capacity public supply, industrial, and irrigation wells and perennial springs.

R274 Underground Injection Control Technical Assistance Manual - Subsurface Disposal and Solution Mining
By Charles J. Greene
April 1983

Provides a comprehensive analysis of current injection well practices in Texas and contains information on geologic and hydrologic conditions, planning, design, construction, operation, and closure of injection wells. Discusses regulatory aspects of the Underground Injection Control Program. Can be used as a general guide for persons considering or planning an underground injection project.

R275 Chemical and Physical Characteristics of Water in Estuaries of Texas October 1975 - September 1976
By William B. Lind
May 1983

Continuation of the annual basic-data reports issued since 1970.

R276 Occurrence, Availability, and Quality of Ground Water in Travis County, Texas
By Gunnar Brune, Gail L. Duffin
June 1983

Presents results of the ground-water investigation conducted from January 1966 through April 1979. Includes an analytical discussion of the occurrence and availability of ground-water supplies and tabulation of basic data.

R277 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Brazoria, Fort Bend, and Waller Counties, Texas, 1975-1979.
By Karl W. Ratzlaff, C. E. Ranzau, William B. Lind
July 1983

Presents the results of the hydrologic data collection from 1975-1979 on new large-capacity and other selected wells. Supplements data in the first report (R201) collected from 1966 to 1974.

R278 Occurrence, Quality, and Availability of Ground Water in Callahan County, Texas
By Robert D. Price, Loyd E. Walker, Thomas W. Sieh
August 1983

Discusses the occurrence, quality, and quantity of ground-water resources in Callahan County. The principal source is the Antlers Formation of the Trinity Group.

R279 Occurrence and Quality of Ground-Water in the Vicinity of Brownsville, Texas
By Richard D. Preston
September 1983

Recommends the development of a supplemental supply of ground water for Brownsville. Includes tabulations of ground-water data.

R280 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Chambers, Liberty, and Montgomery Counties, Texas, 1975-1979
By Karl W. Ratzlaff, William B. Lind, C. E. Ranzau
September 1983

Presents the results of the hydrologic data collection on new large-capacity and other selected wells, including well location and completion data, drillers' logs of the strata penetrated, water levels, and chemical quality of the produced water. These water-well data supplement similar data on older wells in these counties and descriptive evaluations of the ground-water resources previously published.

R281 Water Quality of Belton Lake, Central Texas
By H. B. Mendieta, Dale L. Pate
October 1983

Summarizes the water-quality records of Belton Lake and explains the variations of selected water-quality constituents and properties from September 1975 to August 1976.

R282 Chemical and Physical Characteristics of Water in Estuaries of Texas October 1976 - September 1978
By J. C. Fisher
October 1983

Continuation of data presented in Reports 117, 144, 171, 191, 208, 231, and 245.

R283 Development of Ground-Water Resources in Orange County, Texas, and Adjacent Areas, 1971-1980
By C. W. Bonnet, R. K. Gabrysch
October 1983

Presents and analyzes data collected since 1971.

R284 Water Quality of Lake Granbury North-Central Texas
By Freeman L. Andrews, Jeffrey L. Strause
December 1983

Summarizes the water quality records for Lake Granbury during the 1970-1979 water years.

R285 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Harris and Galveston Counties, Texas, 1975-1979
By Karl W. Ratzlaff, C. W. Bonnet, L. S. Coplin
March 1984

Presents data collected from 1975-1979 on new large-capacity and other selected wells as a supplement to previously published data on older wells in these counties.

R286 Ground-Water Withdrawals and Changes in Water Levels in the Houston District, Texas 1975-1979.
By R. K. Gabrysch
April 1984

Presents and analyzes data collected during 1975-79 on the withdrawals of ground water in the Houston District in the Evangeline and Chicot Aquifers.

R287 Ground-Water Withdrawals and Land-Surface Subsidence in the Houston-Galveston Region, Texas, 1906-1980
By R. K. Gabrysch
June 1984

R288V1 Evaluating the Ground-Water Resources of the High Plains of Texas, Volume 1
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
May 1984

A regional ground-water study of the High Plains Aquifer was initiated in 1978 by the Texas Department of Water Resources. The study, partially funded by the U. S. Geological Survey, is to be included in that agency's eight-state study of the High Plains Aquifer. Two primary purposes of the study were to improve the database describing the aquifer and to develop a computer model capable of predicting future conditions. Vol. 1 contains interpretive information. Vol. 2-4 contain supporting basic data for the counties.

R288V2 Evaluating the Ground-Water Resources of the High Plains of Texas: Records of Wells, and Maps Showing Well Locations, Base of Aquifer, Water Levels, and Saturated Thickness, Volume 2
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
August 1984

Contains the basic data for the counties in the northern third of the study area: Armstrong, Carson, Dallam, Donley, Gray, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Potter, Roberts, Sherman, and Wheeler.

R288V3 Evaluating the Ground-Water Resources of the High Plains of Texas: Records of Wells, and Maps Showing Well Locations, Base of Aquifer, Water Levels, and Saturated Thickness, Volume 3
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
August 1984

Contains the basic data for the counties in the middle third of the study area: Bailey, Briscoe, Castro, Crosby, Deaf Smith, Dickens, Floyd, Hale, Lamb, Motley, Oldham, Parmer, Randall, and Swisher.

R288V4 Evaluating the Ground-Water Resources of the High Plains of Texas: Records of Wells, and Maps Showing Well Locations, Base of Aquifer, Water Levels, and Saturated Thickness, Volume 4
By Tommy R. Knowles, Phillip Nordstrom, William B. Klemt
December 1984

Contains the basic data for the counties in the southern third of the study area: Andrews, Borden, Cochran, Dawson, Ector, Gaines, Garza, Glasscock, Howard, Hockley, Lubbock, Lynn, Martin, Midland, Terry, and Yoakum.

R289 Digital Models for Simulation of Ground-Water Hydrology of the Chicot and Evangeline Aquifers Along the Gulf Coast of Texas
By Jerry E. Carr, W. R. Meyer, W. M. Sandeen, Ivy R. McLane
December 1985

Documents the construction and calibration of four digital models for the simulation of hydrologic conditions in the Chicot and Evangeline Aquifers along the Gulf Coast of Texas. The models are five-layer, finite-difference models for simulation of three-dimensional ground-water flow.

R290 Water Quality of Lake Whitney North-Central Texas
By Jeffrey L. Strause, Freeman L. Andrews
December 1984

Summarizes the water-quality records and explains the variations of selected chemical constituents and characteristics of the water in Lake Whitney during the 1970-80 water years.

R291 Underground Injection Operations in Texas: A Classification and Assessment of Underground Injection Activities
By Ben K. Knape
December 1984

Underground injection operations in Texas are regulated by the Texas Department of Water Resources and the Railroad Commission of Texas. This report presents the history of regulatory program development for underground injection operations in Texas, and describes the construction features, operating practices, nature and volume of injected fluids, relative pollution potentials, legal considerations, and regulatory recommendations for various types of injection wells in the State.

R292 Ground-Water Evaluation from Test Hole Drilling Near Mission, Texas
By Seth J. Molofsky
August 1985

During 1983 and 1984, an investigation was conducted to establish additional hydrogeological data in Southwestern Hidalgo County where agricultural activities, including the widespread use of agricultural drainage wells, may be adversely affecting ground-water quality. This report of the investigation contains data on selected wells in the study area, including records of 98 wells and chemical analyses of water samples from 69 wells.

R293 Geohydrology of the Edwards Aquifer in the Austin Area, Texas
By E. T. Baker, R. M. Slade, M. E. Dorsey, G. L. Duffin
March 1986

Joint TWDB-USGS report discusses the areal and subsurface extent of the Edwards aquifer; water quality; and the relationship between ground and surface water, concentrating on discharge at Barton Springs. Includes lithologic and drillers' logs; records of wells, test holes, springs, and oil tests; and water-quality data for selected wells and springs (including Barton Springs) in Travis, Hays, Williamson, and Bell Counties, 1978-1981.

R294 Surveys of Irrigation in Texas, 1958, 1964, 1969, 1974, 1979, 1984
August 1986

Presents information from surveys made cooperatively by the Soil Conservation Service, the U. S. Dept. of Agriculture, the Texas State Soil and Water Conservation Board, and the Texas Water Development Board including: irrigated acreage and crops, water use, sprinkler irrigation acreages, irrigation operations, and irrigation conservation practices. Irrigation acreage and water use are summarized by counties, river and coastal basins, soil and water conservation districts, and 11 principal irrigation regions of the State.

R295 Hydrology of the Jasper Aquifer in the Southeast Texas Coastal Plain
By E. T. Baker, Jr.
October 1986

Joint TWDB-USGS report discusses stratigraphy of the hydrologic units in southeast Texas, well development, and simulation of the ground-water hydrology of the Jasper aquifer by a two-dimensional digital model using a steady-state approach.

R296 Carbonate Geology and Hydrology of the Edwards Aquifer in the San Antonio Area, Texas
By R. W. Maclay, T. A. Small
November 1986

Joint TWDB, USGS, and San Antonio City Water Board report describes the history of the Edwards carbonate sedimentary deposits and their subsequent diagenesis. Interprets the distribution of hydrogeologic characteristics of the aquifer and its confining units to provide a basis for defining the non-homogeneity of the aquifer and for determining its storage characteristics.

R297 Ground-Water Resources of Rusk County, Texas
By W. M. Sandeen
April 1987

Joint TWDB-USGS report describes the occurrence, availability, dependability, and the quality and quantity of ground water suitable for public supply and industrial use in Rusk County. Water levels have declined extensively near Henderson, and water in some of the near-surface beds and deeper Wilcox aquifer sands may have become mineralized due to oilfield operations. Includes tabulations of ground-water data.

R298 Ground-Water Resources of the Antlers and Travis Peak Formations in the Outcrop Area of North-Central Texas
By Phillip L. Nordstrom
June 1987

Provides data on the occurrence, availability, dependability, quality, and quantity of ground water in the Lower Cretaceous and hydrologically connected Paleozoic aquifers in north-central Texas. Concentrates on discussion of sources of water suitable for irrigation and public supply and areas of potential or present ground-water problems. Includes tabulations of ground-water data.

R299 Ground-Water Resources of Limestone County, Texas
By P. L. Rettman
July 1987

Joint TWDB-USGS report describes the occurrence, availability, dependability, quality, and quantity of ground water and sources of water suitable for municipal, industrial, and irrigation use in Limestone County. The Wilcox Group in the eastern part of the county has adequate supplies to meet expected water demands in the forseeable future. The Hosston and Travis Peak Formations, present at depths in excess of 2,000 feet, could be expected to produce water with a temperature of about 150°F that might be used for heating purposes.

R300 Summary of Hydrologic Information in the El Paso, Texas Area, with Emphasis on Groundwater Studies, 1903-80
By D. E. White
August 1987

Joint TWDB, USGS, and City of El Paso Public Service Board report summarizes development of water resources of the El Paso area, concentrating on ground-water use for municipal, military, and industrial supply. Heavy pumpage for municipal purposes has caused water levels to decline 130 feet in downtown sections of El Paso and Ciudad Juarez. Concentrations of dissolved solids are increasing at an average annual rate of about 10 mg/l in Texas and 30 mg/l in Mexico. Includes current projections of future water conditions.

R301 Records of Wells, Water Levels, Pumpage, and Chemical Analyses from Selected Wells in Parts of the Trans-Pecos Region, Texas 1968-1980
By R. W. Rees
August 1987

Presents data on aquifers ranging from Lower Permian Victorio Peak Limestone to Tertiary volcanics and Quaternary alluvium; includes data for municipal, industrial, and selected irrigation wells.

R302 Water Quality of Canyon Lake, Central Texas
By W. R. Roddy, K. M. Waddell
October 1987

Joint TWDB-USGS report summarizes the water-quality analyses of samples collected during surveys completed between 1971 and 1976 and explains the seasonal variations in the concentrations of selected chemical constituents.

R303 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Brazoria, Fort Bend, and Waller Counties, Texas
By J. F. Williams, III, C. E. Ranzau, W. B. Lind, L. S. Coplin
November 1987

Joint TWDB-USGS report presents hydrologic data on new large-capacity and other selected wells.

R304 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Chambers, Liberty, and Montgomery Counties
By J. F. Williams, III, L. S. Coplin, C. E. Ranzau, W. B. Lind
November 1987

Joint TWDB-USGS report presents hydrologic data on new large-capacity and other selected wells.

R305 Ground-Water Resources of the Nacatoch Aquifer
By John B. Ashworth
April 1988

Describes the hydrologic characteristics of the Nacatoch aquifer including: extent, quality and quantity of available ground water, water-level decline, annual recharge, and hydrological variations within the framework of the deltaic depositional complex of the formation. Depth to water-bearing sands, ground-water movement, quality, and quantity are typically controlled by faults associated with the Mexia-Talco system. Includes tabulations of ground-water data.

R306 Suspended-Sediment Load of Texas Streams: Compilation Report, October 1975-September 1982
By Roger M. Quincy
July 1988

This supplement to previous investigations provides suspended sediment-load measurements at permanent observation points from the beginning of record through the end of September 1982.

R307 Occurrence, Availability, and Chemical Quality of Ground Water in the Blossom Sand Aquifer
By Celeste McLaurin
August 1988

Discusses the location, geographical distribution, and extent of the Blossom Sand Formation that contains usable-quality ground water; the quality and quantity of available ground water; the hydrologic characteristics; and the annual recharge to and discharge from the aquifer.

R308 Occurrence and Quality of Ground Water in Jack County, Texas
By Phillip L. Nordstrom
August 1988

Examines the occurrence and quality of the ground-water resources of Jack County; includes the sources of and depth to water suitable for domestic livestock, public supply, and irrigation uses; provides recommendations on how to protect ground water from contamination.

R309 Ground-Water Conditions in Texas, 1980-1985
By Ground Water Unit
October 1988

Includes condensed descriptions of major and minor aquifers in the state; changes, if any, in water quantity and quality since 1980; and ground-water pumpage (usage) statistics for municipal, industrial, irrigation, and other purposes in 1984.

R310 Records of Wells, Drillers' Logs, Water-Level Measurements, and Chemical Analyses of Ground Water in Harris and Galveston Counties, Texas
By J. F. Williams, L. S. Coplin, C. E. Ranzau, W. B. Lind
December 1988

Provides the results of hydrologic data collection on new large-capacity and other selected wells including: well location and completion data, drillers' logs of the strata penetrated, water levels, and chemical quality of the produced water.

R311 Public Supply Ground-Water Use in Western Texas
By John B. Ashworth, Phillip L. Nordstrom
January 1989

Contains descriptions of public-supply wells in 18 counties in west Texas, measured water levels when available, selected water-quality analyses, and 1985 ground-water pumpage data for each water-supply entity.

R312 Evaluation of Ground-Water Resources in Parts of Midland, Reagan, and Upton Counties, Texas
By John B. Ashworth, Prescott Christian
February 1989

Addresses the problems of overdraft and contamination in the Edwards-Trinity (Plateau) aquifer in the area of Midland, Reagan, and Upton Counties, includes occurrence, availability, dependability, quality, and quantity of ground-water resources. The chemical quality of ground water over most of the study area does not meet safe drinking water standards; and although the water is generally acceptable for irrigation use, salt-tolerant crops must be grown in some areas.

R313 Evaluation of Ground-Water Resources in Briscoe, Hale, and Swisher Counties, Texas
By Phillip L. Nordstrom, J. A. Tony Fallin
February 1989

Addresses water-level declines in three High Plains counties; water-level declines of over 140 feet have occurred since irrigation development in the 1940s. Discusses projected water demand, current availability, and recommendations for future ground-water development.

R314 Hydrogeology of Lower Cretaceous Strata Under the Southern High Plains of Texas and New Mexico
By J. A. Tony Fallin
March 1989

Describes the stratigraphy and depositional history of the Cretaceous strata and regional aquifer characteristics: general features, pump test data, water quality and chemistry, regional storage, recharge and discharge, utilization, and regional development.

R315 Evaluation of Ground-Water Resources in Dallam County, Texas
By Prescott Christian
March 1989

Discusses occurrence, availability, and water-quality of aquifers underlying Dallam County; concentrates on ground-water problems due to water-level declines. Irrigation pumpage has lowered the water table by as much as 80 feet under parts of Dallam County since the early 1930s.

R316 Evaluation of Ground-Water Resources in the Lower Rio Grande Valley, Texas
By T. Wesley McCoy
January 1990

Reviews the aquifer stratigraphy, occurrence, current and projected availability water levels, and water-quality problems in Cameron, Hidalgo, Starr, and Willacy Counties. The ground water in most of the study area does not meet safe drinking water standards, and special agricultural techniques must be followed to use ground water for irrigation.

R317 Evaluation of Ground-Water Resources in Parts of Loving, Pecos, Reeves, Ward, and Winkler Counties, Texas
By John B. Ashworth
January 1990

Addresses the problems of overdraft and quality deterioration in part of the Cenozoic Pecos Alluvium aquifer. Water-level declines in excess of 200 feet historically have occurred in the heavily irrigated south-central Reeves/ northwest Pecos Counties area, but have moderated since the mid 1970s. Discusses stratigraphy and water-bearing properities of the aquifer, current and projected water demand and availability, and recommendations for additional ground-water development.

R318 Evaluation of Water Resources in Part of North-Central Texas
By Bernard Baker, Gail Duffin, Robert Flores, Tad Lynch
January 1990

Describes the geohydrologic conditions of the Trinity and other aquifers; identifies existing or expected future problems related to pumpage overdrafts and contamination of ground water in north-central Texas. Severe water-level declines of 100 to 250 feet have occurred over extensive areas in the Antlers and Twin Mountains aquifers from 1976 to 1989; declines of up to 150 feet have occurred in the Paluxy and Woodbine aquifers.

R319 Evaluation of Water Resources in Part of Central Texas
By Bernard Baker, Gail Duffin, Robert Flores, Tad Lynch
January 1990

Describes the geohydrologic conditions of the Trinity and other aquifers; identifies existing or expected future problems related to pumpage overdrafts and contamination of ground water in central Texas. Water-level declines with rates up to 50 feet per year have occurred in parts of McLennan County; less severe declines have also occurred in Bell, Bosque, Falls, and Hill Counties.

R320 Evaluation of Water Resources of Orange and Eastern Jefferson Counties, Texas
By David Thorkildsen, Roger Quincy
January 1990

Addresses problems of overdraft, quality deterioration, and land-surface subsidence in the Chicot and Evangeline aquifers. Historical water-level declines of 40 feet have resulted in land-surface subsidence, and heavy pumpage has caused saline-water encroachment. Includes discussion of stratigraphy and water-bearing properties of the aquifer, current and projected water demand and availability, and recommendations for additional ground-water development.

R321 Evaluation of Water Resources of Fort Bend County, Texas
By David Thorkildsen
January 1990

Describes problems of overdraft, quality deterioriation, and land-surface subsidence with respect to the Chicot and Evangeline aquifers, particularly in northeastern Fort Bend County where ground-water declines in excess of 100 feet have been measured.

R322 Ground-Water Evaluation in and Adjacent to Dripping Springs, Texas
By Daniel A. Muller
March 1990

Evaluates the current ground-water conditions, particularly water quality, and describes the hydrogeological characteristics of the Glen Rose aquifer in order to understand the existing ground-water quality conditions in the area. The presence of nitrate indicates that contaminants at the land surface such as waste-water from septic systems and other man-induced pollutants have reached the shallow water table.

R323 Hydrology of the Terlingua Area, Texas
By J. A. Tony Fallin
March 1990

Concentrates on the stratigraphy and structure of Mesozoic and Cenozoic formations; aquifer dynamics, capacity, and development; and water quality of major water-bearing formations in the area.

R324 Evaluation of Ground-Water Reources in El Paso County, Texas
By John B. Ashworth
March 1990

Addresses problems of overdraft and quality deterioration in the Hueco bolson, Mesilla bolson, and Rio Grande alluvium aquifers. Pumpage in excess of recharge, especially in the vicinity of municipal well fields, has resulted in significant water-level declines in the Hueco bolson aquifer of as much as 150 feet.

R325 Test Well Drilling Investigation to Delineate the Downdip Limits of Usable-Quality Ground Water in the Edwards Aquifer in the Austin Region, Texas
By Robert Flores
April 1990

Evaluates test well data which reveal that the “bad-water” line, where the Edwards aquifer contains water with 3,000 mg/l or more dissolved solids, is generally farther west than indicated by previous information.

R326 Evaluation of Water Resources in Bell, Burnet, Travis, Williamson, and Parts of Adjacent Counties, Texas
By Gail Duffin
January 1991

Summarizes available hydrogeologic data; the occurrence and use of ground water; and ground-water problems associated with the impact of human activities, including the lack of reliable supplies for both short-term drought demand and long-term economic development.

R327 Evaluation of Ground-Water Resources in theVicinity of the Cities of Henderson, Jacksonville, Kilgore, Lufkin, Nacogdoches, Rusk, and Tyler in East Texas
By Richard D. Preston, Stephen W. Moore
February 1991

Discusses occurrence of ground-water, recharge, and hydraulic characteristics of the Carrizo-Wilcox, Queen City, and Sparta aquifers; ground-water quality problems; and present and projected demand and availability of water. The area has experienced significant historical water-level declines of as much as 500 feet due to heavy ground-water pumpage for municipal and industrial uses, especially in the immediate vicinity of Tyler, Nacogdoches, and Lufkin.

R328 Public Supply Ground-Water Use in the Southern High Plains of Texas
By Prescott Christian, John B. Ashworth, Doug Coker
September 1990

Contains an inventory of 77 public supply ground-water systems in 27 counties; lists information on currently used and abandoned wells belonging to the water-supply entities including: descriptions of well construction, hydrological data, and a table of 1988 pumpage for each of the water-supply entities.

R329 Surveys of Irrigation in Texas—1958, 1964, 1969, 1974, 1979, 1984, and 1989
January 1991

Presents information collected from surveys made cooperatively by the Soil Conservation Service of the U. S. Dept. of Agriculture, the Texas State Soil and Water Conservation Board, and the Texas Water Development Board including: irrigated acreage and crops, water use, sprinkler irrigation acreages, irrigation operations, and irrigation conservation practices. Irrigation acreage and water use are summarized by counties, river and coastal basins, soil and water conservation districts, and 11 principal irrigation regions of the State.

R330 Evaluation of Ground-Water Resources In the Southern High Plains of Texas
By John B. Ashworth, Prescott Christian, Theresa C. Waterreus
July 1991

Addresses the problems of overdraft and water-quality deterioration in the Ogallala, Edwards-Trinity (High Plains), and Dockum aquifers. Water-level declines of up to 50 feet have occurred in heavily irrigated areas of western Gaines and Martin Counties; the chemical quality of the Ogallala aquifer is generally poorer in the southern part of the Texas High Plains than it is to the north.

R331 Ground-Water Quality Monitoring of the Trinity Aquifer in the Vicinity of Erath County
By Barbara E. Beynon
June 1991

Presents the TWDB results of a multi-agency study investigating the effects of dairy operations on ground water. Examines the ground-water quality from selected wells completed in the Trinity aquifer in Erath, Bosque, Comanche, Eastland, Hamilton, Hood, and Somervell Counties.

R332 Ground-Water Resources of the Carrizo-Wilcox Aquifer in the Central Texas Region
By David Thorkildsen, Robert D. Price
September 1991

Describes the hydrologic characteristics of the aquifer, the occurrence of ground water, and the chemical quality of the water; presents refined water-availability data for the aquifer between the Trinity and Brazos Rivers.

R333 Joint Ground-Water Quality Project with the Texas Department of Agriculture in Parts of Haskell, Knox, and Stonewall Counties
By Phillip L. Nordstrom
December 1991

Presents the TWDB results of a cooperative study of the Seymour aquifer with the Texas Department of Agriculture (TDA). Discusses the inorganic constituent data and compares them to historical water-quality data. Complements the pesticide data collected by the TDA.

R334 Evaluation of the Ground-Water Resources in the Western Portion of the Winter Garden Area, Texas
By T. Wesley McCoy
October 1991

Discusses ground-water occurrence, present and projected water use, and potential for additional water development. Concentrates on ground-water problems in the Carrizo aquifer and, in particular, on declining ground-water levels and the potential for contamination of ground water by saline waters.

R335 Ground-Water Quality Monitoring Results in the Winter Garden Area, 1990
By Barbara E. Beynon
February 1992

Discusses results of analyses on samples collected from wells in the Carrizo, Queen City and Wilcox Group Formations for dissolved inorganics, nutrients, organics, and radioactivity. Includes a subjective attempt to compare historical water-quality analyses to current analyses from the same wells comparing chloride, sulfate, and dissolved-solids content.

R336 Public Supply Ground-Water Use in the Northern High Plains of Texas
By Doug Coker, Theresa C. Waterreus, Darrell S. Peckham, John B. Ashworth
February 1992

Contains an inventory of 50 public supply ground-water systems in 19 counties; lists information on currently used and abandoned wells belonging to the water-supply entities including: descriptions of well construction, hydrological data, and a table of 1989 pumpage for each of the water-supply entities.

R337 Evaluation of Water Resources in Parts of the Rolling Prairies Region of North-Central Texas
By Gail L. Duffin, Barbara E. Beynon
March 1992

Describes occurrence, quality, use, and availability of ground water in the Blaine, Dockum, and Seymour aquifers. A recognized ground-water problem is the natural pollution of surface water from salt springs and seeps issuing from the Permian; irrigation may be limited in some areas due to high sodium and salinity hazards of the water. Long-term water-level declines in the Seymour aquifer were observed in wells belonging to the cities of Vernon and Childress.

R338 Ground-Water Publication Abstracts, 1991
Edited by Janie Hopkins
March 1992

Contains abstracts and key figures of publications presenting the results of ground-water investigations conducted during 1991.

R339 Evaluation of the Ground-Water Resources of the Paleozoic and Cretaceous Aquifers in the Hill Country of Central Texas
August 1992.
By Robert L. Bluntzer

Describes delineation, relationship, and hydrological continuity of the aquifers; recharge, movement, and discharge of ground water; aquifer hydraulics; and productivity and construction of wells in the area. Discusses unusually high to excessive concentrations of nitrate, fluoride, and sulfate. Water-level declines caused by concentrated withdrawals for public water supply have created the potential for encroachment of poorer quality water and baseflow depletion in nearby effluent streams, increases in pumping lifts, and decreases in well yields. Discusses conjunctive use of ground and surface water in response to these problems.

R340 Model Refinement and Applications for the Edwards (Balcones Fault Zone) Aquifer in the San Antonio Region, Texas
July 1992
By David Thorkildsen and Paul D. McElhaney

Model refinements include the creation and use of realistic monthly recharge and pumpage data sets as well as the implementation of U. S. Geological Survey modeling concepts such as the effects of barrier faults on flow direction, water levels, springflow, and aquifer storage. Different applications of the calibrated model, believed to be a reasonable representation of the regional flow system, indicate that although the model as designed will not adequately address certain site-specific questions concerning the Edwards, it is a useful tool for regional aquifer simulation and management evaluation.

R341 The High Plains Aquifer System of Texas, 1980 to 1990. Overview and Projections
September 1993
By Darrell S. Peckham and John B. Ashworth

An aquifer simulation model of the High Plains Aquifer System, originally constructed in the early 1980s, was updated and revised in 1990 and applied to predict future aquifer conditions. Because of reduced pumpage and increased recharge due to above average annual precipitation, net water-level rises occurred over approximately 40 percent of the region between 1980 and 1990. Current model predictions, which took into account this reduced pumpage, indicate a slight increase in future water availability over 1980 projections; but withdrawal of water will continue to exceed recharge, and water levels will continue to decline.

R342 Water Quality Evaluation of the Ogallala Aquifer, Texas
August 1993
By Janie Hopkins

More than 700 samples were collected in wells completed in the Ogallala between 1989 and 1992. Historically, concentrations of dissolved solids, chloride, sulfate, and fluoride have exceeded primary Maximum Contaminant Levels in numerous wells in the southern part of the study area. Maps illustrating concentrations and locations, and tables listing averages and ranges of these constituents corroborate findings of earlier studies as well as larger concentrations of selenium, radioactive constituents, and nitrate. Data from analyses of major anions and cations taken during the past 20 years appear to indicate a slight amelioration in water quality in the north compared to a somewhat more significant deterioration in water quality in the south during the same period.

R343 Borehole Geophysical Techniques for Determining the Water Quality and Reservoir Parameters of Fresh and Saline Water Aquifers in Texas, Vols. I and II
June 1993
By Hughbert Collier

Examines the use of different logging tools in ground-water studies; discusses existing and develops new borehole geophysical techniques for determining water quality and aquifer parameters; evaluates accuracy of total dissolved solids and specific conductance measurements between logging petroleum and ground-water wells and use of their respective logging tools; and establishes guidelines for logging ground-water wells.

R344 Ground-Water Resources of the Bone Spring-Victorio Peak Aquifer in the Dell Valley Area, Texas
By John B. Ashworth
January 1995

Discusses history of water use in the area, hydrology, water-level fluctuations, and ground-water quality: slightly to moderately saline (1,000 to 6,500 TDS), very hard, and dominated by elevated levels of calcium, sodium, sulfate, and chloride. Irrigation return flow and uncased and poorly constructed wells have resulted in a slow deterioration in water quality. A comparison of water-level and pumpage trends indicates an annual pumpage not in excess of the annual 90,000 to 100,000 acre-feet of recharge can be maintained without continuously lowering the water table.

R345 Aquifers in Texas
by John B. Ashworth and Janie Hopkins
November 1995

Discusses lateral extent, composition, water quality, and water-level changes in the nine designated major aquifers and 20 designated minor aquifers. Includes maps of each aquifer, a short list of selected references for each, and schematic cross-sections of the major aquifers.

R346 The Paleozoic and Related Aquifers of Central Texas
by Richard D. Preston, Dianne J. Pavlicek, Robert L. Bluntzer, and John Derton
March 1996

Discusses the geohydrology, chemical quality, ground-water availability, historical and projected population and water use, possible aquifer modeling, and possible ground-water problems in four Paleozoic aquifers of central Texas. Construction of any aquifer-wide model would not be feasible as a management tool due to the complex geologic structure, especially the extensive faulting which compartmentalizes the aquifers, and the current lack of reliable data.

R347 Surveys of Irrigation in Texas -- 1958, 1964, 1969, 1974, 1979, 1984, 1989, and 1994
January 1996

Presents information collected from surveys made cooperatively by the Natural Resource Conservation Service of the U.S. Department of Agriculture the Texas State Soil and Water Conservation Board, and the Texas Water Development Board including: irrigated acreage and crops, water use, sprinkler irrigation acreage, irrigation operations, and irrigation conservation practices. Irrigation acreage and water use are summarized by counties, river and coastal basins, soil and water conservation district, and irrigated crops.

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Special Reports

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SR2 Intensive Bacteriological Survey Lake Nasworthy
By Fred Teagarden
August 1974

Objectives of the survey were to document a violation of bacteriological standards at the regular lake monitoring station if in fact a violation was occurring and to determine if lake bacteriological quality was being altered by inadequate or faulty household sewage systems.

SR4 Metals Concentrations in Water and Sediment of Texas
By Steve Warshaw
May 1976

Over 4000 individual determinations of metals in water and sediment are compiled and each metal is evaluated, taking into account salinity and water body type.

SR6 Water Quality Evaluation of Barton Creek and Barton Springs
By Steve R. Twidwell
June 1976

Includes a description of the survey area, waste sources, Barton Creek stream quality, and bacterial quality of Barton Springs.

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USER'S MANUALS

UM 7110 Water for Texas Publication System: WD-4200
October 1971

This system provides a statewide mailing inventory of various publication groups (legislators, daily newspapers, colleges and universities, etc.). It also provides mailing inventory checklists and printed mailing labels.

UM 7201 Hydrology Refinement Study HRS-21 User's Manual: WD-6705-00
January 1972

This manual describes how to submit job requests for maintaining the data files associated with the HRS-21 Accountability Model for the running of the model itself.

UM 7206 Report of the Water Oriented Data Programs Section to the Interagency Council on Natural Resources and the Environment on the Establishment of a Natural Resources Information System for the State of Texas
June 1972

UM 7207 Purchase Voucher System: CJ-0201-00; Criminal Justice Council
July 1972

Designed to streamline and expedite the clerical tasks involved in the preparation, processing and ultimate recording of purchase vouchers. Output includes purchase vouchers, address labels, a purchase voucher register and a magnetic tape used as input to the sub-grant information system.

UM 7208 Edit and Title Table System: UT0100
July 1972

The edit and title table system is a multi-purpose system that provides a simplified method of extracting titles for reports and validating data in input transactions.

UM 7209 Water Well Drillers System: WD3200
July 1972

The system maintains a file of all water well drillers who have been licensed by the State of Texas.

UM 7306 Techniques for Identifying and Evaluating Market and Non-Market Benefits and Costs of Water Resource Systems
June 1973

Economic, environmental, and social impacts of water policy alternatives and the application of these techniques to a test case of three existing reservoirs to determine the method’s efficiency.

UM 7308 Water Table Aquifer Model Graphics and Reports System: WD6600
October 1973

This system produces contours of water availability and depletion, three dimensional plots of aquifer conditions and standard plot software to produce line plots of the condition through both the water level measurement file and the geographic base data file.

UM 7309 Water Table Aquifer Model Geographic Base Data: WD6500
October 1973

This system creates and maintains a digitized well location and map base data file. With WD6600, contour plots of saturated thickness values, decline rates, pumping level values, and subsurface elevations are produced.

UM 7310 Water Level Drawdown Model: WD3000
October 1973

The program is designed to evaluate the drawdown produced from pumping one or more wells in a well field. This drawdown can be evaluated at various locations in the squifer and at various time intervals since pumping has started.

UM 7311 Management Information and Control System "MICS": Project Control Module, WD0400
November 1973

This system reports on anticipated and actual financial and personnel activity information and provides a means of assessing accurately the progress of work toward stated objectives in each program area while simultaneously accumulating the costs incurred in conducting the work.

UM 7312 Water Table Aquifer Model; Water Level Measurement Data: WD0200
November 1973

This system provides a means of extracting study data from the state water level measurement file, of converting it for processing, of supplying a complete historical data base, and of calculating and projecting saturated thicknesses, decline rates and pumping levels for each well in an squifer for a specified period of study.

UM 7404 Hydrology Refinement Study; Effects of Agricultural Conservation Measures on Streamflow: (HRS 23 SYSTEM) WD1500
April 1974

Models to calculate the effects of soil conservation service flood retardation structures, farm ponds and land use and treatment on streamflow have been developed for the study. The models furnish an answer in acre-feet of monthly streamflow adjustments by hydrographic unit for each phase to be placed into the accounting model for the development of natural flows.

UM 7406 Water Rights and Uses Analysis System, WD7900
June 1974

The system provides reports pertaining to water rights and usages in the State of Texas. These reports display both descriptive and collected information on water rights and water right claims held by persons or business entities registered with the Texas Water Commission.

UM 7409 Board of Pardons and Paroles Payroll System: PP-0205-00
September 1974

Master file contains a record of payroll information on each employee of the organization or installation utilizing the system and produces periodic payroll reports.

UM 7504 Texas Youth Council Payroll System: TY0100
April 1975

This system was developed for the purpose of maintaining a master file of payroll information and producing periodic payroll reports.

UM 7505 Irrigation Water Requirement System: WD-2905
1984

This system was developed to aid in studying water utilization as related to agricultural irrigation for a given region in the State of Texas. The soil moisture balance accounting method employed provides for the efficient utilization of irrigation water through planned cropping patterns for various soil groups.

UM 7507 Runoff Determination by the Bureau of Reclamation Procedure: WD9000, Phase III
July 1975

This system was designed to compute the expected depletion of runoff resulting from rainfall for various land use and land treatment conditions

UM 7508 Texas Water Oriented Data Bank; Federal, State and Local Project Summaries:: WD8300. Volume 1 - Soil Conservation Service Projects
May 1975

Describes the system which provides and maintains data on soil conservation service projects. Only floodwater retarding structures are stored in the system.

UM 7509 Flood Frequency Analysis System: WD1400
September 1975

The purpose of this system is to fit a Log Pearson III distribution to one or more sets of flood series data in order to determine flood flow frequency.

UM 7510 Senate Payroll System User's Procedures Manual: SS5000
September 1975

This system maintains a master file of payroll information and produces reports from that information.

UM 7511 A Statistical Analysis of Land Prices Near Canyon Lake, Comal County, Texas: WD8600-00
September 1975

Simple regression lines were fitted to yearly average price per acre of land tracts in Comal County, and multiple regression analysis was used to fit regression surfaces to price per acre and net selling price. Results obtained for project and control areas and for different phases of construction of Canyon Lake Reservoir were compared.

UM 7601 Texas Judicial Council Juvenile Probation Activity System: JC0500
January 1976

The system creates a master file containing juvenile probation activity and uses the file to produce various reports, detailed and summarized.

UM 7603 Senate of Texas Accounting Procedures Manual SS0600
March 1976

Financial information, resulting from accounting transactions, is recorded, processed, and reported. The system establishes the classification of accounts, books of original entry, ledgers, and trial balances.

UM 7604 Reservoir Water Conditions System: WD7605-00
June 1976

This system provides monthly water condition statistics for selected major Texas reservoirs (those with a capacity of 5,000 acre-feet or more). The data is the total end-of-month reservoir storage in acre-feet reported for each of the selected reservoirs.

UM 7605 Daily Meteorological Record System; WD2400
May 1976

This system produces a monthly report of daily meteorological data from a network of pan evaporation stations in the State of Texas.

UM 7606 Coastal Data System User Documentation Volume II: Retrieval Reference Manual, WD2510
June 1976

Defines the retrieval of chemical, physical, and biological data on all of the bays and estuaries along the Texas Gulf Coast.

UM 7609 Water Well Measurement System: WD-0500. Volume 1, Data Retrieval
June 1976

This system maintains a continually updated file of water well measurement data and prints reports from the data files.

UM 7611 Texas Water Oriented Data Bank County Economic Data System: Personal Income and Earnings: WD2700
November 1976

This system prints two kinds of income and earnings reports based on the Bureau of Economic Analysis Personal Income Files. Reports by unit of measurement or by year may be printed for any or all of the 254 Texas counties or standard metropolitan statistical areas. In addition, aggregate reports may be printed for the State of Texas, the United States, or a specified combination of counties.

UM 7612 Suspended-Sediment Load System: WD7700
July 1976

This system processes suspended-sediment load data and USGS streamflow discharge data in order to calculate the load of suspended-sediment (in tons) and the percentage of dry sediment by weight on a daily, monthly and annual basis.

UM 7701 Estimated Monthly Runoff System: WD8900
January 1977

The system consists of eight FORTRAN programs that estimate the monthly volume (in acre-feet) of surface runoff for ungaged watersheds along the Texas Gulf Coast.

UM 7702 Coastal Data System User Documentation Volume 1: Storage Reference Manual, WD2505
February 1977

This manual is the first volume of a two-part series of manuals which describes the mechanics of estuarine data storage and retrieval.

UM 7703 County Birth-Death Statistics: WD3400
April 1977

This system reads files maintained by the Department of Health concerning births and deaths by county, race, sex, and year, accumulates totals, and builds disk files containing those totals.

UM 7704 Management Information and Control System "MICS"; Development Fund Module, WD4800
April 1977

This system is designed to create a data base of information on federal government securities, loans, and bonds.

UM 7705 Plot Texas By County: WD3900
April 1977

This system executes the Calform Program, a computer plotting program for producing shaded, conformant maps. Texas county population maps are produced which show the counties shaded according to a user defined population range and a key showing the shading symbolism and population ranges.

UM 7708 School Attendance and Membership by County: WD5500
April 1977

This system provides average daily membership and average daily attendance by county-year-grade.

UM 7711 Economic and Ecological Input-Output Model: WD7200
January 1977

This documentation presents an Input-Output Model which has been modified to include the environmental impact of economic operation. In lieu of market prices for the environmental factors, trade-offs with regional income and employment are estimated for use in regional planning.

UM 7712 Board of Nurse Examiners for the State of Texas: RN0100; User's Guide for Registered Nurses System
May 1977

The RN system data base consists of a run master file, which contains a record for each RN licensee. Each record is uniquely identified by a RN license number. Functions include file maintenance, renewal/licenses, statistical reports, and information reports.

UM 7713 Journal Clerk's Address System: HR0205-00 SS0305-00
February 1977

An automated address system developed for the journal clerks of the House of Representatives and the State Senate, it will be used to facilitate mailing of the journal to individuals and organizations so designated by the members of the legislature.

UM 7715 Gross State Product, Plot U. S., and Texas Economic Indicators, Print U. S. and Texas Economic Indicators: WD3700
April 1977

The Gross State Product Program is used to compute Texas gross product. The plot U. S. and Texas Economic Indicators Program produces up to six graphs, each of which shows various Texas or U.S. economic indicators for a specified number of years. The print system produces a series of economic indicator tables each month.

UM S7010 Simulation of Water Quality in Streams and Canals DOSAG-1
September 1970

Used to simulate the spatial and temporal variations in biochemical oxygen demand (BOD) and dissolved oxygen concentration (DO) under various conditions of temperature and headwater flow.
–MF Available–

UM S7012 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume III - Data Management and Analysis Program Description
December 1970

The programs documented herein represent the majority of those computational and data management routines necessary to develop the modeling input tapes used as input to the SIM-III and AL-II Programs.
–MF Available–

UM S7013 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume IIA-SIM-III Program Description
December 1970

Analyzes both hydrologic and cost performance aspects of a given system of reservoirs and interconnective canals.
–MF Available–

UM S7014 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume IID-DEMAND-II Program Description
December 1970

Used to determine irrigation requirements as a function of the prespecified (historic or stochastic) rain and evaporation input data and to consider deterministic municipal and industrial (M & I) requirements in relation to the total demand.
–MF Available–

UM S7015 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume E IIB-FILLIN-I Program Description
December 1970

Used for filling voids in historical hydrologic data sets, this program completes hydrologic data sets for use in the simulation and optimization models employed in the water resources planning process.
–MF Available–

UM S7016 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume IIF-CAPEX-I Program Description
December 1970

This computer model was developed to select the minimum present value cost plan for increasing the output of a facility over time. It determines the installation time, size, and number of pumps in a pump station facility.
–MF Available–

UM S7017 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume IIE-SEQUEN-I Program Description
December 1970

Describes two programs, SEQUEN-I and COMSTA-I, collectively designed to analyze the synthetic sequences generated in comparison to the historical sequences.
–MF Available–

UM S7018 Stochastic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Volume IIC-ALII Program Description
December 1970

Primary role in plan development is that of obtaining good initial estimates of the canal sizes required to transfer water within a network.
–MF Available–

UM S7207 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems, River Basin Simulation Model. SIMYLD-II
July 1972

A computer program designed to simulate the hydrologic operation of a system of interconnected reservoirs within a basin or a multibasin water resource system.
–MF Available–

UM S7208 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Allocation Model AL-III Program Description
July 1972

A computer program that simulates and optimizes the operation of an inter-connected system of reservoirs, pump canals, and river reaches.

UM S7209 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Multisite Data FILL-IN and Sequence Generation Program MOSS-III Program Description
July 1972

This program completes hydrologic data sets and generates synthetic data sequences for use in the simulation and optimization models employed in the water resources planning process.

UM S7210 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems. Multibasin Water Quality Simulation Model QNET-I Program Description
July 1972

Presents a methodology for simulating the spatial and temporal levels of conservative water quality constituents within a basin or multibasin water resource system. Dissolved solids, sulfates, and chlorides are the constituents used.
–MF Available–

UM S7211 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems, Multibasin Simulation and Optimization Model. SIM-IV
July 1972

A mathematical model designed to simulate and optimize the operation of an inter-connected system of reservoirs, the input consists of physical descriptions of the system, area-capacity coefficients for the reservoirs, and cost coefficients for the reservoirs and pump-canals.

UM S7212 Economic Optimization and Simulation Techniques for Management of Regional Water Resource Systems Dynamic Economic Simulation Model, DES
July 1972

Development of a computationally efficient method of simulating the demand for and use of irrigation water by several competing users in the face of highly variable rainfall, evapotranspiration, and surface supply.
–MF Available–

UM S7302 Well Field Drawdown Model. IMAGEW-L
February 1973

Presents a methodology for evaluating the drawdown produced from pumping one or more wells in a well field located in either a confined or unconfined homogeneous aquifer.
–MF Available–

UM S7305 Simulation of Flood-Flow Hydrodynamics in River/Tidal Systems. RIVTID Program Documentation
By Robert J. Brandes, R. B. Wise
May 1973

This program is capable of simulating the hydrodynamic response under flood-flow conditions of river/tidal systems subject to unsteady downstream controls.

UM S7306 Carrizo Aquifer Digital Model. CARIZO
September 1973

A digital modeling technique used to simulate the Carrizo-Wilcox Aquifer in the Winter Garden area of Texas.

UM S7404 Techniques for Evaluating Market and Non-Market Benefits and Costs of Water Resource Description
April 1974

A deterministic economic simulation model was developed which makes use of intersectoral relationships of Input-Output Models and relates regional consumption to production and production to resource use. The model simulates industrial sector output, population, employment, unemployment, personal incomes, savings, and taxes and selected natural resource use.

UM S7405 Groundwater Simulation Program; GWSIM
May 1974

This program allows simulation of a confined aquifer, an unconfined aquifer, or an aquifer containing both types of groundwater conditions. The output is a description of the water levels or piezometric heads throughout the aquifer after a period of time.
–MF Available–

UM S7504 Computer Program Documentation for the Dynamic Estuary Model with Application to Sabine Lake Estuarine System. DEM
By Robert J. Brandes, Allen E. Johnson
April 1975

The primary objective was to extend the tidal hydrodynamic and salinity modeling capabilities previously developed for other Texas bays and estuaries to all parts of the Sabine Lake estuarine system.
–MF Available–

UM S7506 Optimal Capacity Expansion Model for Surface Water Resources Systems. DPSIM-I
June 1975

A computational procedure for determining the minimum-cost capacity expansion of a general surface water supply system.
–MF Available–

UM S7509 Water Supply Allocation Model. AL-IV
September 1975

A computer program that simulates and optimizes the operation of an interconnected system of reservoirs, pump canals, pipe lines, and river reaches.

UM S7608 An Aquatic Ecologic Model for Texas Bays and Estuaries. ESTECO
By Robert J. Brandes
August 1976

This model was developed in response to the objective to develop and test quantitative techniques (comprised of both manual and computerized methods) for simulating the interrelationships and to define and evaluate the impact of alternative river basin water Development, management, and operation plans on the associated estuarine ecosystems.
–MF Available–

UM001 Texas Department of Community Affairs Grant Management Information System User's Reference Manual: CA-0205-00
April 1978

Automated system designed to accumulate information on TDCA's Grants. Provides information and reports to the Fiscal Division to aid in the preparation of updated Fiscal Status Reports.

UM002 Water Resources Library Book System: WD3800
August 1977

This system produces four catalogs: author, title, subject, and series, which record the water resources library holdings. In addition, a monthly acquisitions list, authority files, and shelf list cards are produced.

UM003 Water Conveyance Pipeline Design Model. PIPEX-I Program Documentation and User's Manual
By Quentin W. Martin
September 1977

Describes a computational procedure for determining the minimum-cost engineering design of a linear water conveyance pipeline system.

UM004 Roadway and Canal Earthwork System User Reference Manual: WD4300
June 1977

The following types of computations are possible: earthwork quantities for roadways or canals; grade sheets and profile checks for roadways or canals; and borrow area quantities.

UM005 WGON-A Model for River-Tidal and Estuarine Hydrodynamics with Options for Water Quality Constituents Simulation User Reference Manual: WD-5905-00
May 1977

WGON is a mathematical model for estuarine hydrodynamics and water quality. The model is applicable to unsteady glow in branched and looped networks of one-dimensional channels. Five water quality constituents are included in the mathematical model: salinity, temperature, BOD, DO, and nitrogen.

UM006 Recreation Survey User's Manual: WD-7405
July 1977

This system builds two files containing interview data obtained by the Texas Parks and Wildlife Department in interviews with anglers along the coast of Texas.

UM007 Public Utility Commission Automated Address System: UC0105-00
August 1977

This system was developed to maintain address information on the subscribers to Public Utility publications and to print mailing labels for the addresses.

UM008 Texas Department of Community Affairs State Property Inventory System User's Manual: CA-8205
October 1977

Designed to provide the ability to maintain a physical and monetary control over all State personal property items in the agency.

UM009 QUAL-II Q User's Manual, TDWR/WRE September 1977 Version of QUAL-II
By Water Resources Engineers
1977

A revision of Section VI of the May, 1973 WRE QUAL-II documentation for the Iowa and Cedar River Basin model project.

UM010 Computer Program Documentation for the Stream Quality Model QUAL-II; an Intermediate Technical Report Prepared for the Environmental Protection Agency, Systems Development Branch by WRE
By Water Resources Engineers, Larry A. Roesner
December 1977

Section I contains background on QUAL-I and introduction to QUAL-II. The theoretical considerations and program structure are discussed in Sections II and III. Sections IV Through VII contain the diagram documentation and User's Manual which replace the QUAL-I Program documentation and User's Manual.

UM011 Texas Department of Water Resources Data Processing Education Program
December 1977

Lists and describes courses with formal classroom instruction and self-study materials available to data processing personnel and to EDP users.

UM012 Library Publications System User's Manual: WD-2100
November 1977

Creates and maintains a master file of publications issued by the Texas Department of Water Resources. An annual publications catalog is produced with author, title, and subject indexes and abstracts. Monthly inventory amounts are also produced.

UM013 Bay Visitation System User's Reference Manual: WD-8805-00
December 1977

Explains control and access to data which estimate total visitation and identify the visitation patterns of the study areas.

UM014 User's Guide for Board of Vocational Nurse Examiners Accredited Vocational Nursing Schools Address System: LN0305-00
January 1978

A management tool which assists the board in accrediting and monitoring vocational nursing schools in Texas by providing a file with address, affiliating hospitals, and other information for each vocational nursing school.

UM015 Boat Certification Program: DW-0805-00; User's Reference Manual
April 1978

Builds a master file record of all applications for certification of boats and houseboats. The record contains the Parks and Wildlife TX number, the TDWR decal number, expiration date of the decal, name and address of the boat owner, length of boat in feet, and location of the boat.

UM016 GWSIM-II Groundwater Simulation Program: Program Documentation and User's Manual
March 1978

Documents a digital modeling technique that is capable of simulating ground-water flow and conservative mass transport.

UM017 Licensed Vocational Nurses System User's Reference Manual: LN-0105-00
1978

The LVN system provides for the maintenance of a computer readable LVN master file (one data record for each LVN)

UM018 Licensed Vocational Nurses Candidate System User's Reference Manual: LN-0205-00
1978

This system is a management tool to assist the Board of Vocational Nurse Examiners in processing Vocational Nurse candidates and reciprocities who are applying for a Texas license. The LVN candidate system (1N0200) provides for the maintenance of a computer readable LVN candidate master file (one data record for each candidate or reciprocity).

UM019 Texas Department of Community Affairs Accounting System User's Reference Manual: CA0600. 2nd Edition

Serves as an operating manual and training guide for the automated accounting system. Contains accounting information and procedures for processing transactions in the system.

UM020 RESOP II Reservoir Operating and Quality Routing Program; Program Documentation and User's Manual
By Lewis E. Browder
1978

Developed to calculate the firm yields of single reservoirs, it simulates the operation of proposed or existing reservoirs on a monthly basis.

UM021 CANAL-I Water Conveyance Canal Design Model; Program Documentation and User's Manual
By Quentin W. Martin
1979

Describes a procedure for establishing the minimum-cost design and route location of a water conveyance system and to document the associated computer program CANAL-I.
–MF Available–

UM022 Texas Department of Water Resources Data Processing Documentation Standards: SP-0106
December 1979

Contains standards for development of a system design specification developed by a systems designer to describe the elements of a system that is to be automated. The purpose of the specification is to document the proposed system to obtain user and management approval and to communicate the design to the programming staff.

UM023 TEC Employment Data System: WD6400
July 1979

This system extracts employment and wages data on business firms in Texas from a quarterly TEC Employment Data File and prints various reports reflecting the extracted data.

UM024 Statewide Monitoring Network User Reference Manual: DW0300
August 1979

The Statewide Monitoring Network (SMN) Data System stores and reports information on the quality of surface water in Texas and consists of data collection forms, a set of master files, supporting files, and the processing of computer programs.

UM026 Computation Center User's Reference Manual: SP-0102
1983

Includes general description of facilities and capabilities, job submission, control cards, deck structure, unit-record equipment and general procedures for using the facilities.

UM027 Soil Summary System User's Reference Manual: WD2300
1983

This system produces a summary of the basic soil data of Texas for the six report classifications: county, land resource area, soil group, land use, slope class and soil type.

UM028 Motor Pool Management System User's Reference Manual: DW3700
1980

Keeps track of the vehicle inventory with brief descriptive information, mileages and costs, and prints management and fiscal reports.

UM029 Watermaster's Address System Off-Line UTS System User's Reference Manual: DW3800
April 1981

This off-line system allows the Watermaster's Office to maintain a file of addresses on a diskette and provides the capability of updating and printing the addresses in a "label-addressing" format on labels or other forms.
–MF Available–

UM030 Texas Department of Water Resources State Agency Payroll System User's Reference Manual: WD5000
September 1977

This system maintains a master file of payroll information and produces reports from that information.

UM031 Texas Department of Water Resources Supply Inventory Management System User's Reference Manual: DW2900
December 1980

This is an automated system to handle the purchase and issue of agency office supplies. It prints a current list of all supply inventory items in alphabetical or item number order; updates the quantities and costs of supplies and handles four types of inventory transactions; and accounts for costs of supplies by means of a service unit billing system.
–MF Available—

UM033 Permits Batch Utility Report Processor "PBURP" User's Reference Manual: DW2500
July 1981

A set of subprograms that will allow one to specify various combinations of record selection and sorting in order to create a unique set of conditions that will apply to the permits file or any other file using the permits format to create one or more standard or user designed reports.
–MF Available—

UM034 Data Processing Project Formulation and Implementation: SP-0103; A Procedure for the Development and Modification of Automated Systems.
October 1976

Includes terms and definitions, systems development plan, project formulation and implementation, project management, and production maintenance.
–MF Available—

UM035 Surface Water Resources Allocation Model AL-V: Program Documentation and User's Manual
October 1981

Describes a computer program that simulates and optimizes the operation of an interconnected system of reservoirs, hydroelectric generating plants, pump canals, pipelines, and river reaches.

UM036 Evaluating the Ground-Water Resources of the High Plains of Texas; GWSIM-III
By Tommy R. Knowles
October 1981

Documents a digital modeling technique which is capable of simulating ground-water flow. The purpose of the program is to determine water levels at the end of a given time period.
–MF Available–

UM038 SIM-V Multireservoir Simulation and Optimization Model; Program Documentation and User's Manual
By Quentin W. Martin
March 1982

The SIM-V Model described in this document is a computer program that simulates and optimizes the operation of an interconnected system of reservoirs, hydroelectric generating plants, pump canals, pipelines, and river reaches.
–MF Available–

UM039 Board of Nurse Examiners for the State of Texas On-Line Inquiry and Update Procedures User's Reference Manual: RN0100
1982

Describes two master files of information: one contains data on all registered nurses licensed by the Board, the other contains data on graduates of accredited nursing schools who are candidates for licensure.

UM040 Texas Department of Water Resources Address Mailing System Users' Reference Manual: DW2100
1983

Designed for use by a variety of organizations, this is a computerized data system designed to handle large volume mailouts.
–MF Available–

UM041 Texas Juvenile Probation Commission Juvenile Probation Activity System User's Reference Manual: JC0500
1982

Creates a master file containing juvenile probation activity and uses it to produce various reports, detailed and summarized.
–MF Available–

UM042 Railroad Commission Secondary Recovery Data Oil Production User's Reference Manual: DB1200
1982

A computerized data system designed to extract and reformat oil production data received from the Texas Railroad Commission.
–MF Available–

UM043 Texas Juvenile Probation Commission Juvenile Justice Personnel System User's Reference Manual: JP0100
1982

Provides instructions in updating the system and in requesting reports about Chief Juvenile Probation Officers, Chairmen of Juvenile Boards, and Juvenile Judges.

UM044 Graphic Arts Data System User's Reference Manual: DW5100
1983

Designed to assist in the daily operation of job order control, time accounting, and supply inventory management.

UM045 Self Reporting Data Retrieval (Card-Image-Format-File) Program User's Reference Manual: DW0700
1983

The purpose of the self-reporting data retrieval program is to provide a requesting entity (e.g.. EPA) with self-reporting effluent data in a manner that will be useful for further analysis. Provides two reports which document the selection criteria and list records that were processed.

UM046 Industrial Waste System User's Reference Manual: DW0500
1984

Provides guidance on the storage and retrieval of information from the automated industrial waste system which contains data on the firms engaged in the generation, transportation and disposal of these wastes, and on the reported disposal activities.

UM047 State Property Inventory System User's Reference Manual: WD8200
1984

This system is designed to provide a state agency with the ability to maintain physical and monetary control over all capital equipment. The file contains a record for each item and collection of items assigned an inventory number.
UM 49 Surface Water Resources Optimal Daily Operation Model
By Quentin W. Martin
March 1986

UM049 Surface-Water Resources Optimal Daily Operation Model MONITOR I: Program Documentation and User's Manual
By Quentin W. Martin
March 1986

Report describes the computer-based, real-time, automated procedure developed to provide rapid and accurate operational assessment of a general surface-water system where the current and projected hydrologic conditions are specified. This generalized procedure is intended to be adaptable to a variety of surface-water storage and conveyance systems.

UM 50 Ground-Water Data System Data Dictionary (Revised)
By Phillip L. Nordstrom, Roger Quincy
August 1991

Standardizes codes used for input of well-record, water-level, and water-quality data into the TWDB ground-water computer database. Includes appendices listing county FIPS codes, well schedule remarks field statement sequence, aquifer codes, selected Storet codes, and maps delineating river basins and zones.

UM 51 A Field Manual for Ground Water Sampling (Revised)
By Phillip L. Nordstrom, Barbara E. Beynon
May 1991

Standardizes the TWDB ground-water sampling program. Explains sample collection and chemical characterization procedure guidelines to be followed during any field sampling event by TWDB personnel or any other authorized party or agent.

UM-52 Explanation of the Texas Water Development Board Ground-water Level Monitoring Program and Water-Level Measuring Manual
by Janie Hopkins
August 1994

Explains the water-level observation well program maintained by the TWDB and other interested water districts and governmental entities, describes water-level and related well schedule data entry in the TWDB database, and outlines methods for measuring ground-water levels to encourage consistency in data collection throughout the state.

WATER QUALITY SEGMENTS REPORTS

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WQS 003 Water Quality Segment Report for Segment Nos. 2104 and 2105 Nueces River
By Steve Warshaw
September 1974

WQS 004 Water Quality Segment Report for Segment No. 2002 Mission River (Above Tidal)
By Larry Bailey
June 1974

WQS 005 Water Quality Segment Report for Segment No. 0201 Red River
By Steve Warshaw
January 1975

WQS 006 Water Quality Segment Report for Segment No. 2004 Aransas River (Above Tidal)
By Larry Bailey
July 1974

WQS 007 Water Quality Segment Report for Segment Nos. 0804 and 0805 Trinity River
By Steve Warshaw
January 1975

WQS 008 Water Quality Segment Report for Segment No. 2311 Pecos River
By Larry Bailey
December 1974

WQS 009 Water Quality Segment Report for Segment No. 2306 Rio Grande
By Steve Warshaw
February 1975

WQS 010 Water Quality Segment Report for Segment No. 2484 Corpus Christi Inner Harbor
By Steve Warshaw
March 1975

WQS 011 Water Quality Segment Report for Segment No. 1402 Colorado River
By Larry Bailey
January 1975

WQS 012 Water Quality Segment Report for Segment No. 0505 Sabine River
By Susan McCarley
April 1975

WQS 013 Water Quality Segment Report for Segment No. 0103 Canadian River
By Susan McCarley
June 1975

WQS 014 Water Quality Segment Report for Segment No. 2491 Laguna Madre
By Steve Warshaw
June 1975

WQS 015 Water Quality Segment Report for Segment No. 2302 Rio Grande
By Steve Warshaw
June 1975

WQS 016 Water Quality Segment Report for Segment No. 1901 San Antonio River
By Susan McCarley
September 1975

WQS 017 Water Quality Segment Report for Segment No.1238 Salt Fork of the Brazos
By Susan McCarley
September 1975

WQS 018 Water Quality Segment Report for Segment No 1236 Lake Fort Phantom Hill
By Susan McCarley
November 1975

WQS 019 Water Quality Segment Report for Segment No. 0502 Sabine River
By Susan Holman
October 1975

WQS 020 Water Quality Segment Report for Segment No. 0508 Adams Bayou
By Susan Holman
April 1976

WQS 021 Water Quality Segment Report for Segment Nos. 2453 and 2454 Lavaca and Cox Bays
By Susan Holman
August 1977

WQS 022 Water Quality Segment Report for Segment No. 2431 Moses Lake
By Steve Warshaw
March 1976

WQS 024 Water Quality Segment Report for Segment No. 1103 Dickinson Bayou Tidal
By Steve Warshaw
October 1976

WQS 025 Water Quality Segment Report for Segment Nos. 1005, 1006, and 1007 Houston Ship Channel
By Steve Warshaw
January 1977

Biennial Reports

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X1	First Report of the Texas Water Development Board Covering the Biennium September 1, 1964 through August 31, 1966
X2	Second Report of the Texas Water Development Board Covering the Biennium September 1, 1966 through August 31, 1968
X3	Report of the Texas Water Development Board for the Biennium September 1, 1968 through August 31, 1970
X4	Report of the Texas Water Development Board for the Biennium September 1, 1970 through August 31, 1972
X5	Report of the Texas Water Development Board for the Biennium September 1, 1972 through August 31, 1974
X6	Report of the Texas Water Development Board for the Biennium September 1, 1974 through August 31, 1976
X7	Report of the Texas Water Development Board for the Year September 1, 1976 through August 31, 1967
	This final report of the Texas Water Development Board describes its operations, programs, and accomplishments for the Fiscal Year 1977.

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County Index