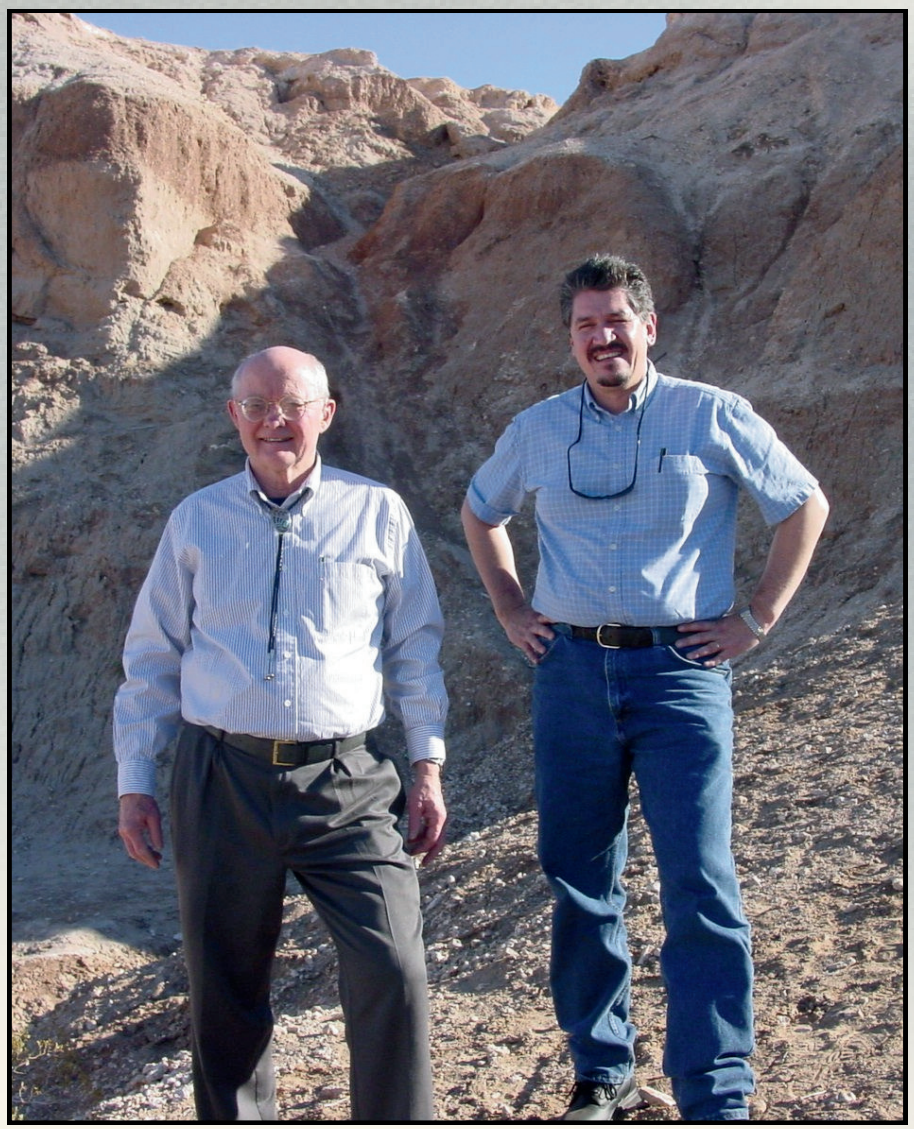
Hydrogeologic Framework of the Mesilla Basin Region of New Mexico, Texas, and Chihuahua (Mexico)—Advances in Conceptual and Digital-Model Development

Appendix B
Bibliography of Topics Related to the Hydrogeology of Transboundary-Aquifer Systems in the New Mexico, Trans-Pecos Texas, and Northern Mexico Region

Compiled and categorized by

John W. Hawley

Alfredo Granados Olivas



John W. Hawley (left) and Alfredo Granados Olivas standing at an exposure of Upper Santa Fe Group basin fill near the southwestern end of the Hueco Bolson. Photo taken near the Pan-American Highway (Mex 45), and about 10 km (6 mi) south of the Ciudad Juárez airport.

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APPENDIX B[1]

BIBLIOGRAPHY ON TOPICS RELATED TO THE HYDROGEOLOGY OF TRANSBOUNDARY–AQUIFER SYSTEMS IN THE NEW MEXICO, TRANS-PECOS TEXAS, AND NORTHERN MEXICO REGION

Emphasis is on Hydrogeologic Controls on Groundwater Flow and Chemistry
(2,252 entries as of 10/15/2025)

Alphanumeric Codes Assigned to the Nine Major Topic and 31 Subtopic Categories Designed to Facilitate Cross-Referencing and EndNote® Bibliographic Compilations

Part 1: Topical and Sub-Topical Compilation

Part 2: Alphabetical Compilation

Compiled and Categorized by

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[1]APPENDIX B *in* Hawley, J.W., Swanson, B.H., Walker, J.S., Glaze, S.H., and Ortega Klett, C.T., 2025, Hydrogeologic Framework of the Mesilla Basin Region of New Mexico, Texas, and Chihuahua (Mexico) – Advances in Conceptual and Digital Model Development: New Mexico Water Resources Research Institute Report No 363, 359 p., 8 Appendices.

Topic/Subtopic Categories, with Alphanumeric Cross-Reference Codes (Appendix B)

A. Bibliographies, Dictionaries, Glossaries, Biographies, Reviews, and News Items
- A1. Bibliographies, Dictionaries, and Glossaries
- A2. Biographies and Reviews
- A3. News Items

B. Time: Geologic, Prehistoric, and Historic
- B1. Geologic and Prehistoric Time
- B2. Prehistoric Perspective: US Southwest and Northern Mexico
- B3. Historic Perspective: US Southwest and Northern Mexico

C. Environmental, Physiographic, and Geologic Setting
- C1. Climatic, Hydrographic, Ecologic, and Paleoenvironmental Setting
- C2. Geologic and Geomorphic Setting
  - C2a. Geologic and Geomorphic Setting: Pre-1990
  - C2b. Geologic and Geomorphic Setting: Post-1989
- C3. Soil-Geomorphic Relationships and Soil Surveys
- C4. Geophysical/Geochemical Data and Interpretations

D. Basic Hydrogeologic Concepts
- D1. Conceptual Models, Definitions, and Regional Overviews
- D2. Groundwater-Flow Systems, Including Recharge

E. GIS/Remote Sensing and GW-Resource Management/Planning
- E1. GIS/Remote Sensing
- E2. Resource Management/Planning
  - E2a. Desalination
  - E2b. Recharge and Recovery
  - E2c. Groundwater-Quality Projection and Waste Management
- E3. Legal and Environmental Issues and Constraints

F. Transboundary Regional Hydrogeology and Geohydrology
- F1. Binational
- F2. USA
- F3. México

G. Early Documents on Mesilla Basin Regional Aquifer Systems (1858-1970)
- G1. 1858 to 1935
- G2. 1935 to 1970

H. Contemporary Documents on Mesilla Basin Regional Aquifer Systems
- H1. Hydrogeology
- H2. Hydrochemistry
- H3. Flow Models

I. Paleohydrology: Ancestral Fluvial and Pluvial Lake Systems
- I1. Regional Overviews
- I2. Transboundary Region Paleohydrologic Systems
- I3. Evolution of the Rio Grande Fluvial System

APPENDIX B—PART 1: TOPICAL/SUB-TOPICAL COMPILATION

Bibliography on Topics Related to Transboundary Aquifer Systems of the New Mexico, Trans-Pecos Texas, and Northern Mexico Region (with Alphanumeric Cross-Reference Codes*)

Topical/Sub-topical Categories, with Alphanumeric Cross-Reference Codes

A. Bibliographies, Dictionaries, Glossaries, Biographies, Reviews, and News Items 2
A1. Bibliographies, Dictionaries, and Glossaries 2
A2. Biographies and Reviews 3
A3. News Items 8

B. Time: Geologic, Prehistoric, and Historic 16
B1. Geologic and Prehistoric Time 16
B2. Prehistoric Perspective: US Southwest and Northern Mexico 21
B3. Historic Perspective: US Southwest and Northern Mexico 28

C. Environmental, Physiographic, and Geologic Setting 36
C1. Climatic, Hydrographic, Ecologic, and Paleoenvironmental Setting 37
C2. Geologic and Geomorphic Setting 53
C2a. Geologic and Geomorphic Setting: Pre-1990 53
C2b. Geologic and Geomorphic Setting: Post-1989 68
C3. Soil-Geomorphic Relationships and Soil Surveys 82
C4. Geophysical/Geochemical Data and Interpretations 88

D. Basic Hydrogeologic Concepts 98
D1. Conceptual Models, Definitions, and Regional Overviews 98
D2. Groundwater-Flow Systems, Including Recharge 111

E. GIS/Remote Sensing and GW-Resource Management/Planning 116
E1. GIS/Remote Sensing 116
E2. Resource Management/Planning 118
E2a. Desalination 123
E2b. Recharge and Recovery 125
E2c. Groundwater-Quality Projection and Waste Management 126
E3. Legal and Environmental Issues and Constraints 129

F. Transboundary Regional Hydrogeology and Geohydrology 132
F1. Binational 132
F2. USA 142
F3. México 145

G. Early Documents on Mesilla Basin Regional Aquifer Systems (1858-1970) 152
G1. 1858 to 1935 152
G2. 1935 to 1970 153

H. Contemporary Documents on Mesilla Basin Regional Aquifer Systems 155
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H3. Flow Models 171

I. Paleohydrology: Ancestral Fluvial and Pluvial Lake Systems 178
I1. Regional Overviews 178
I2. Transboundary Region Paleohydrologic Systems 179
I3. Evolution of the Rio Grande Fluvial System 182

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I. Paleohydrology: Ancestral Fluvial and Pluvial Lake Systems

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APPENDIX B—PART 2: ALPHABETICAL COMPILATION

Bibliography on Topics Related to Transboundary Aquifer Systems of the New Mexico, Trans-Pecos Texas, and Northern Mexico Region (with Topical/Sub-Topical Alphanumeric Cross-Reference Codes*)

Topical/Sub-Topical Categories, with Alphanumeric Cross-Reference Codes

A. Bibliographies, Dictionaries, Glossaries, Biographies, Reviews, and News Items
- A1. Bibliographies, Dictionaries, and Glossaries
- A2. Biographies and Reviews
- A3. News Items

B. Time: Geologic, Prehistoric, and Historic
- B1. Geologic and Prehistoric Time
- B2. Prehistoric Perspective: US Southwest and Northern Mexico
- B3. Historic Perspective: US Southwest and Northern Mexico

C. Environmental, Physiographic, and Geologic Setting
- C1. Climatic, Hydrographic, Ecologic, and Paleoenvironmental Setting
- C2. Geologic and Geomorphic Setting
  - C2a. Geologic and Geomorphic Setting: Pre-1990
  - C2b. Geologic and Geomorphic Setting: Post-1989
- C3. Soil-Geomorphic Relationships and Soil Surveys
- C4. Geophysical/Geochemical Data and Interpretations

D. Basic Hydrogeologic Concepts
- D1. Conceptual Models, Definitions, and Regional Overviews
- D2. Groundwater-Flow Systems, Including Recharge

E. GIS/Remote Sensing and GW-Resource Management/Planning
- E1. GIS/Remote Sensing
- E2. Resource Management/Planning
  - E2a. Desalination
  - E2b. Recharge and Recovery
  - E2c. Groundwater-Quality Projection and Waste Management
- E3. Legal and Environmental Issues and Constraints

F. Transboundary Regional Hydrogeology and Geohydrology
- F1. Binational
- F2. USA
- F3. México

G. Early Documents on Mesilla Basin Regional Aquifer Systems (1858-1970)
- G1. 1858 to 1935
- G2. 1935 to 1970

H. Contemporary Documents on Mesilla Basin Regional Aquifer Systems
- H1. Hydrogeology
- H2. Hydrochemistry
- H3. Flow Models

I. Paleohydrology: Ancestral Fluvial and Pluvial Lake Systems
- I1. Regional Overviews
- I2. Transboundary Region Paleohydrologic Systems
- I3. Evolution of the Rio Grande Fluvial System

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APPENDIX B Topic/Subtopic Categories, with Alphanumeric Cross-Reference Codes

A. Bibliographies, Dictionaries, Glossaries, Biographies, Reviews, and News Items
- A1. Bibliographies, Dictionaries, and Glossaries
- A2. Biographies and Reviews
- A3. News Items

B. Time: Geologic, Prehistoric, and Historic
- B1. Geologic and Prehistoric Time
- B2. Prehistoric Perspective: US Southwest and Northern Mexico
- B3. Historic Perspective: US Southwest and Northern Mexico

C. Environmental, Physiographic, and Geologic Setting
- C1. Climatic, Hydrographic, Ecologic, and Paleoenvironmental Setting
- C2. Geologic and Geomorphic Setting
  - C2a. Geologic and Geomorphic Setting: Pre-1990
  - C2b. Geologic and Geomorphic Setting: Post-1989
- C3. Soil-Geomorphic Relationships and Soil Surveys
- C4. Geophysical/Geochemical Data and Interpretations

D. Basic Hydrogeologic Concepts
- D1. Conceptual Models, Definitions, and Regional Overviews
- D2. Groundwater-Flow Systems, Including Recharge

E. GIS/Remote Sensing and GW-Resource Management/Planning
- E1. GIS/Remote Sensing
- E2. Resource Management/Planning
  - E2a. Desalination
  - E2b. Recharge and Recovery
  - E2c. Groundwater-Quality Projection and Waste Management
- E3. Legal and Environmental Issues and Constraints

F. Transboundary Regional Hydrogeology and Geohydrology
- F1. Binational
- F2. USA
- F3. México

G. Early Documents on Mesilla Basin Regional Aquifer Systems (1858-1970)
- G1. 1858 to 1935
- G2. 1935 to 1970

H. Contemporary Documents on Mesilla Basin Regional Aquifer Systems
- H1. Hydrogeology
- H2. Hydrochemistry
- H3. Flow Models

I. Paleohydrology: Ancestral Fluvial and Pluvial Lake Systems
- I1. Regional Overviews
- I2. Transboundary Region Paleohydrologic Systems
- I3. Evolution of the Rio Grande Fluvial System

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