

# AQUIFER STUDIES IN THE ARKANSAS RIVER BASIN

## – *A Digital, Geographic Bibliography*

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This CD contains files relating to the geographic and digital bibliography for the alluvial and bedrock aquifers within the Arkansas River basin of Colorado. Within this CD you will find four folders entitled "Report Documents", "References List", "GIS Data", and "ArcReader files". Please refer to the "Arkansas\_Biblio Report" text document in the "Report Documents" folder to understand the objective of this project, the methodology used and the data limitations, the database compilation and structure, and the GIS application.

The "Report Documents" and "References List" folders contain PDF files viewable using software such as Adobe Reader (available for free at <http://www.adobe.com/>), a Microsoft Excel 'xls' spreadsheet file, and a Microsoft Access 'mdb' database file. These files represent and explain the basic content of the publication in map, text, and tabular data form for end-users who are not familiar with GIS functionality. The "Arkansas\_Biblio Report.pdf" file provides an introduction and basis for understanding the final products produced for this project. The file "Maps of Aquifer Studies in the Arkansas River Basin by Content.pdf" is a set of map images showing the general spatial distribution of references for each of the specific aquifer contents (categorized by study area size) included in the bibliography. The "Arkansas Biblio Reference List.pdf" file is a text list of the bibliography references with details on the content of each and the "Arkansas Biblio\_Supplement.pdf" file lists additional identified references that were not included in the geographic, digital bibliography. Additionally, the bibliography references are included as tabular data in an 'xls' spreadsheet file and an 'mdb' database file located in the "References List" folder.

The "GIS Data" folder contains "interactive" geospatial files that can be viewed and queried using Geographic Information Systems (GIS) software or viewers. These files represent the geographic component of the bibliography. They are provided as feature and annotation classes in two geodatabases (mdb) and as individual shapefiles within similarly named subfolders. Files comprising the background 30-meter digital elevation model (DEM) hillshade are also included in the "Raster files" folder. ESRI's ArcMap 9.3 was utilized to create these feature classes and annotations. The file "Map of Aquifer Studies in the Arkansas River Basin.mxd" is an ArcMap project displaying the the geospatial bibliographic and basemap data contained in the two geodatabases. Users with access to and understanding of ESRI's ArcGIS software will find this file the most valuable for extracting references for a specific location and topic of interest. Individual GIS shapefile coverages for the bibliographic and basemap information are provided within the "Shapefiles" folder to provide greater flexibility across ESRI's previous ArcMap versions and for utilization with other GIS software.

Lastly, the "ArcReader files" folder contains the 'pmf' version of the ArcMap project file for use with the free ArcReader software. This software is available by download from ESRI (<http://www.esri.com/software/arcgis/arcreader/download.html>).

Please refer to the CD File Organization below for a complete list of digital files with brief descriptions of each. Also refer to the section GIS Application in the file "Arkansas\_Biblio Report.pdf" for advice on using these files with GIS software.

## CD FILE ORGANIZATION

This project deliverable CD includes the following files and folders (folders in bold, files in italics)

### 1. **Report Documents**

*Arkansas\_Biblio Report.pdf* – Adobe format text file describing the background, methodology, structure, and application of this product

*Maps of Aquifer Studies in the Arkansas River Basin by Content.pdf* – map images viewable in Adobe format (24”x36” @ 600dpi)

### 2. **References List** (folder containing all references database)

*Arkansas Biblio Reference List.pdf* – complete dataset formatted as text report

*Arkansas Biblio\_Supplement.pdf* – additional identified references not included in the bibliographic database

*Arkansas Biblio References.xls* – complete digital dataset in Microsoft Excel spreadsheet format

*Arkansas River Bibliography – Reference List Database.mdb* – complete digital dataset in Microsoft Access format

### 3. **GIS data** (folder containing GIS files and folders)

*Map of Aquifer Studies in the Arkansas River Basin.mxd* - ArcMap project file

a. **Geodatabase files** (folder contains geodatabase files for “Reference” and “Basemap” feature classes listed below)

b. **Shapefiles** (folder contains all shapefiles for ArcMap project file listed above)

➤ **References** (folder contains 17 shapefiles that are original to this project)

*AllReferences.shp* - the entire digital bibliography dataset

*Alluvial\_AllReferences.shp* – references with alluvial aquifer information

*Alluvial\_\*.shp* – references with information for the four principle alluvial aquifer parameters (configuration, properties, water levels, and water quality)

*Alluvial\_\*Studies.shp* – references with alluvial aquifer information designated small, medium, or large scale

*Bedrock\_AllReferences.shp* – references with bedrock aquifer information

*Bedrock\_\*.shp* – references with information for the four principle bedrock aquifer parameters (configuration, properties, water levels, and water quality)

*Bedrock\_\*Studies.shp* – references with bedrock aquifer information designated small, medium, or large scale

➤ **Basemap** (folder contains 16 unpublished [lacking complete metadata] shapefiles that represent the base coverages referenced in the ArcMap project file listed above)

c. **Raster files** (folder contains basemap hillshade image from 30-meter DEM)

### 4. **ArcReader files** (folder contains files related to ArcReader application)

*Aquifer studies in the Arkansas River basin – A digital geographic bibliography.pmf* - an “interactive” ArcReader map that can be viewed using the free ArcReader software provided by ESRI.