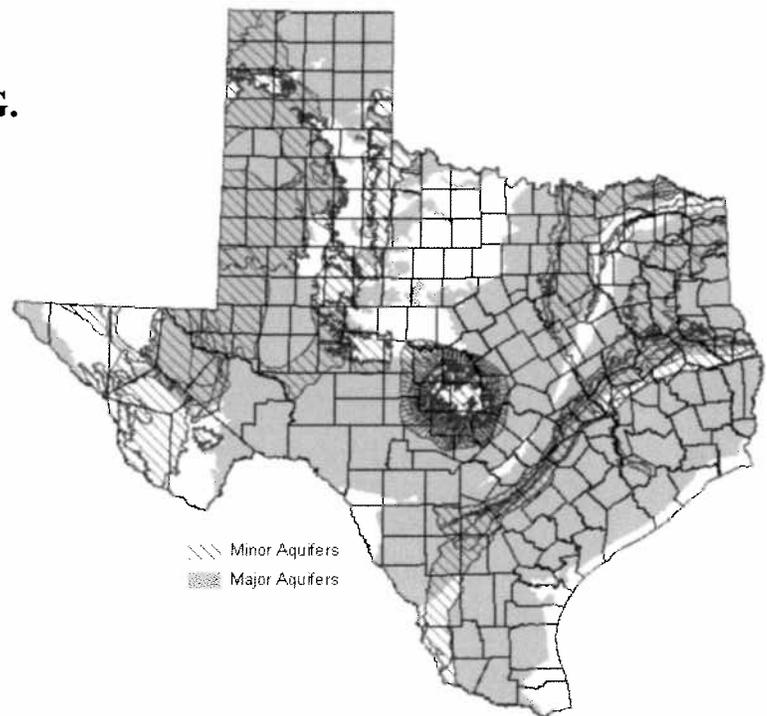


Aquifers of Texas Bibliography to Support the Brackish Resources Aquifer Characterization System (BRACS) Program

Final Report

Prepared by

**Steven C. Young, Ph.D., P.E., P.G.
Bridget Ronayne**



Prepared for:

**Texas Water Development Board
P.O. Box 13231, Capitol Station
Austin, Texas 78711-3231**

**Texas Water
Development Board**

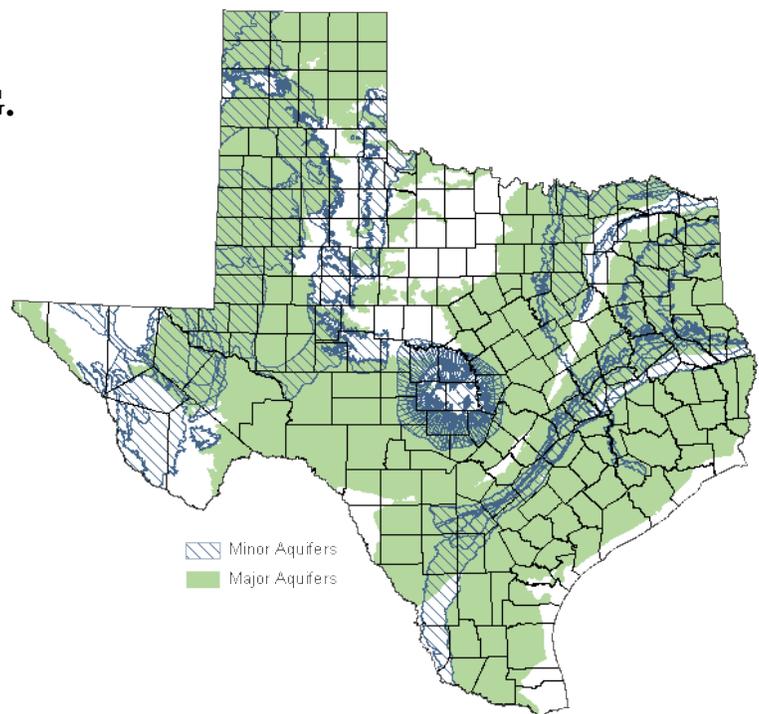
November 2011

Aquifers of Texas Bibliography to Support the Brackish Resources Aquifer Characterization System (BRACS) Program

Final Report

Prepared by

**Steven C. Young, Ph.D., P.E., P.G.
Bridget Ronayne**



Prepared for:

**Texas Water Development Board
P.O. Box 13231, Capitol Station
Austin, Texas 78711-3231**



November 2011



Texas Water Development Board

Aquifers of Texas Bibliography to Support the Brackish Resources Aquifer Characterization System (BRACS) Program

Final Report

by
Steven C. Young, Ph.D., P.E., P.G.
Bridget Ronayne
INTERA Incorporated

November 2011

This page is intentionally blank.

Table of Contents

Executive Summary	vii
1.0 Introduction.....	1-1
1.1 Bibliography Database	1-1
1.2 Literature Search	1-2
2.0 EndNote	2-1
2.1 Selection of EndNote.....	2-1
2.2 Purchasing and Using EndNote.....	2-1
2.3 Creating References	2-2
2.4 Managing References	2-5
2.5 The EndNote Bibliography	2-7
2.5.1 General Description and Comments.....	2-7
2.5.2 Aquifer and County Names in the “Notes” Field.....	2-9
2.5.3 Change Reference Display Preference	2-9
2.5.4 Group by Reference Type	2-10
3.0 Microsoft Access Database.....	3-1
3.1 Software Requirements and Setup	3-1
3.2 Launching the Database Application	3-2
3.3 Using the Database Application	3-3
3-4 Working with a Specific Reference Type	3-3
3.4.1 Record Management Operations	3-4
3.4.2 Additional Information.....	3-5
3.5 Viewing All Reference Records.....	3-6
3.6 Exporting Reference Records to EndNote	3-8
3.7 Database Schema.....	3-8
4.0 Acknowledgements.....	4-1
5.0 References.....	5-1
Appendix A Response to TWDB Comments on Draft Report	

List of Figures

Figure 2-1	An example EndNote form used for entering references from scratch.	2-3
Figure 2-2	An example EndNote form used for entering a batch of references from an endnote import file.	2-4
Figure 2-3	An example EndNote form used for importing references from the Internet.	2-4
Figure 2-4	An EndNote form showing the groups of references in the box on the left and a search function in the right.....	2-6
Figure 2-5	An example of an EndNote form showing the edit function on the left beneath the highlighted “Quick Edit” tab.	2-6
Figure 2-6	An example of an EndNote form that will appear in Microsoft Word when using EndNotes to insert references.	2-7
Figure 2-7	An example of an EndNote form that shows the results of a search of the BRACs database for references associates with Bailey, Andrews, or Gray counties.	2-9
Figure 2-8	An example of an EndNote form that shows the suggested changes to the fields with the default names of “Journal/Secondary Title” and “Notes”.....	2-10
Figure 2-9	An example of an EndNote form used to create a smart group for the book reference type.....	2-11
Figure 3-1	Directory structure required to support the functionality of the Access database.	3-1
Figure 3-2	Form for entering password required for database access.	3-2
Figure 3-3	Form for user sign-in.	3-2
Figure 3-4	Form that provides options for a user to determine how the references will be viewed or searched.....	3-3
Figure 3-5	Entry Form for the reference type Book Chapter.	3-4
Figure 3-6	Form for providing additional information.....	3-6
Figure 3-7	Form for selecting the user permission for viewing all references.	3-7
Figure 3-8	Table showing all references under the read-only permission.....	3-7
Figure 3-9	Schema used by the Microsoft Access Database.....	3-8

List of Tables

Table 1-1	Major and minor aquifers of Texas.....	1-1
Table 2-1	Summary statistics of references in the EndNote bibliography.....	2-8

Executive Summary

To support the Texas Water Development Board (TWDB) Brackish Resources Aquifers Characterization System (BRACS), INTERA has assembled a bibliography for the major and minor aquifers of Texas. Approximately 7,800 references have been compiled from existing bibliographies developed for the Groundwater Availability Model (GAM) Program and other relevant literature published in journals, books, conference proceedings, government agency reports, theses and dissertations, journals, scientific magazines, and abstracts. The bibliography includes, among other things, references to works on geology, geophysics, geochemistry, hydrology, and other pertinent topics that are relevant to the goals of BRACS.

The bibliography has been delivered as an EndNote and as a Microsoft Access database. EndNote is a commercially available personal reference database program designed to help users manage references. EndNote allows users to import references from other data resources, search on-line databases, maintain a database of references, generate a bibliography using over 7,000 style formats, and directly insert references into Microsoft Word documents. The Access database was developed by INTERA as a support tool in the development of the EndNote database. One of the advantages of the Access database is that it is portable and can be used on computers which have Microsoft Office installed.

This page is intentionally blank.

1.0 Introduction

In 2009, the 81st Texas Legislature authorized the Texas Water Development Board (TWDB) to implement a Brackish Resources Aquifer Characterization System (BRACS) to improve the characterization of brackish aquifers. Primary goals of BRACS are to map and characterize the brackish aquifers using existing geophysical well logs and available aquifer data; to build replicable numerical groundwater flow models to estimate aquifer productivity; and to develop parameter-screening tools to help communities assess the viability of their brackish groundwater supplies.

To support BRACS’s primary goals, INTERA has assembled a bibliography for the major and minor aquifers of Texas. The names of the major and minor aquifers of Texas are listed in Table 1-1. These names were adopted from TWDB Report .380 , Aquifers of Texas (George and others, 2011).

Table 1-1 Major and minor aquifers of Texas

Major Aquifers	Carrizo-Wilcox	Edwards-Trinity (Plateau)	Ogallala
	Pecos Valley	Gulf Coast	Seymour
	Edwards (Balcones Fault Zone)	Hueco-Mesilla Bolsons	Trinity
Minor Aquifer	Blaine	Ellenburger-San Saba	Queen City
	Blossom	Hickory	Rita Blanca
	Bone Spring-Victorio Peak	Igneous	Rustler
	Brazos River Alluvium	Lipan	Sparta
	Capitan Reef Complex	Marathon	West Texas Bolsons
	Dockum	Marble Falls	Woodbine
	Edwards-Trinity (High Plains)	Nacatoch	Yegua-Jackson

1.1 Bibliography Database

The bibliography compiled for this project is a comprehensive list of references for the major and minor aquifers in Texas compiled from existing bibliographies developed for the Groundwater Availability Model (GAM) Program and other relevant literature published in journals, books, conference proceedings, government agency reports, theses and dissertations,

journals, scientific magazines, and abstracts. The bibliography includes, among other things, references to works on geology, geophysics, geochemistry, hydrology, and other pertinent topics that are relevant to the major the goals of BRACS.

The bibliography has been entered into the database management software called EndNote. The EndNote is a Personal Reference Database program that is used internationally. The EndNote bibliography is described in Section 2.0.

Prior to entering the bibliography into EndNote, the bibliography was constructed and managed in a Microsoft Office Access (abbreviated henceforth as Access) database. The Access database provided a platform for data entry, for associating keywords with the references, and for checks on duplicate entries. The Access database is described in Section 3.0.

1.2 Literature Search

The literature search produced approximately 7,800 references for the bibliography. The literature search began with compiling documents from state and federal agencies. These references were identified primarily by obtaining publication lists from these agencies and checking the bibliographies of major reports. The majority of the references from the state and federal agencies were obtained from the United States Geological Survey (USGS), the Bureau of Economic Geology (BEG), and the TWDB. Additional references were obtained from the Texas Railroad Commission, the Texas Commission of Environmental Quality, Groundwater Conservation Districts, River Authorities, and Municipalities. The literature search also included references from academia and industry comprised of articles from scientific journals, proceedings from groundwater and geologic conferences, and publications from universities and colleges. These references were identified primarily through the university web sites and Internet search engines such as Google Scholar.

2.0 EndNote

EndNote is a personal reference database program designed to help users manage references. EndNote User Manuals (Thomson and Reuters, 2010a,b) are well documented and training on the software is available through the numerous on-line tutorials. EndNote allows users to:

- import references from other data resources,
- perform on-line database searches
- maintain a database of references,
- generate a bibliography in the correct style for publication, and
- insert references into word-processed documents directly from the database.

2.1 Selection of EndNote

Our search for an appropriate personal reference database program included internet searches, discussions with librarians, and software test runs using trial versions of the software. Our search indicated that the most widely used reference database program is EndNote, which is marketed and supported by Thomson Reuter. Thomson Reuters is the world's leading source of intelligent information for businesses and professionals and are experts in developing reliable business software.

A major reason that INTERA selected EndNote is the software's easy-to-use menus and excellent documentation. Because of its user friendly design, INTERA personnel are able to become efficient with EndNote basic management and on-line operations within just a few hours after uploading a demo version of EndNote. Among the other reasons with selecting EndNote is that compared to other similar software (including ProCite and Reference Manager, which are two other Thomson Reuter products). EndNote is superior in its ability to store and cite images and objects, its compatibility with both Windows and Mac operating systems, its import filters for online database searches, its advance searching capabilities, and its integration with Microsoft Word.

2.2 Purchasing and Using EndNote

EndNote can operate on either a Microsoft Windows or a Mac operating system. Both versions of EndNotes are available for purchase at <http://www.endnote.com/enbuy.asp>. At the time of this report writing, the price for EndNote is approximately \$250 (US) via downloading from the web and approximately \$300.00 via a DVD copy. A 30-day trial version is available at <http://www.endnote.com/endemo.asp>. Users can upgrade their current version of EndNote software to the newest version at the cost of \$99.95 through <http://www.endnote.com/endemo.asp> by providing their serial numbers as a proof of previous software purchase. The minimum system and hardware requirements for EndNote are:

Hardware Requirements

- Pentium 450-megahertz (MHz) or faster processor
- 180MB hard disk space available
- 256 MB RAM

Microsoft Operating Requirements

- Window 7 (32 or 64 bit version)
- Window Vista (32 or 64 bit version)
- Window XP with at least Service Pack 3 installed

2.3 Creating References

Users are allowed to create their references in EndNote by constructing a new reference from scratch, by importing references from other sources, or by downloading references from the Internet. To create a new reference from scratch, a user will need to fill out a EndNote form similar to the one shown in Figure 2-1. To import a batch of references, a user will need to construct an EndNote import file and import this file into EndNote using a form similar to the one shown in Figure 2-2. To import references from web sites such as Google Scholar, a user needs to configure EndNote settings to match the settings of the targeted website and import the results from the web search using a form similar to the one shown in Figure 2-3.

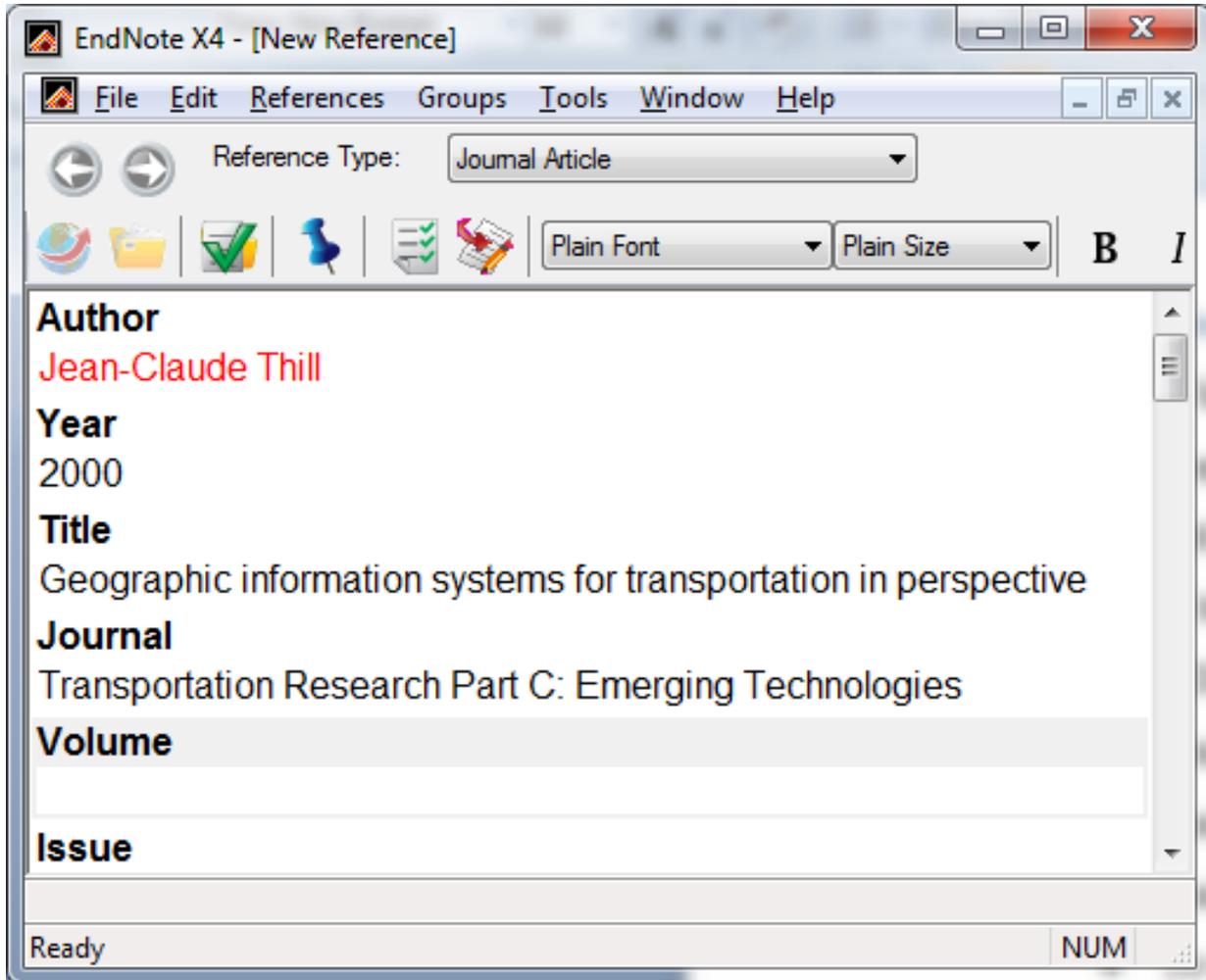


Figure 2-1 An example EndNote form used for entering references from scratch.

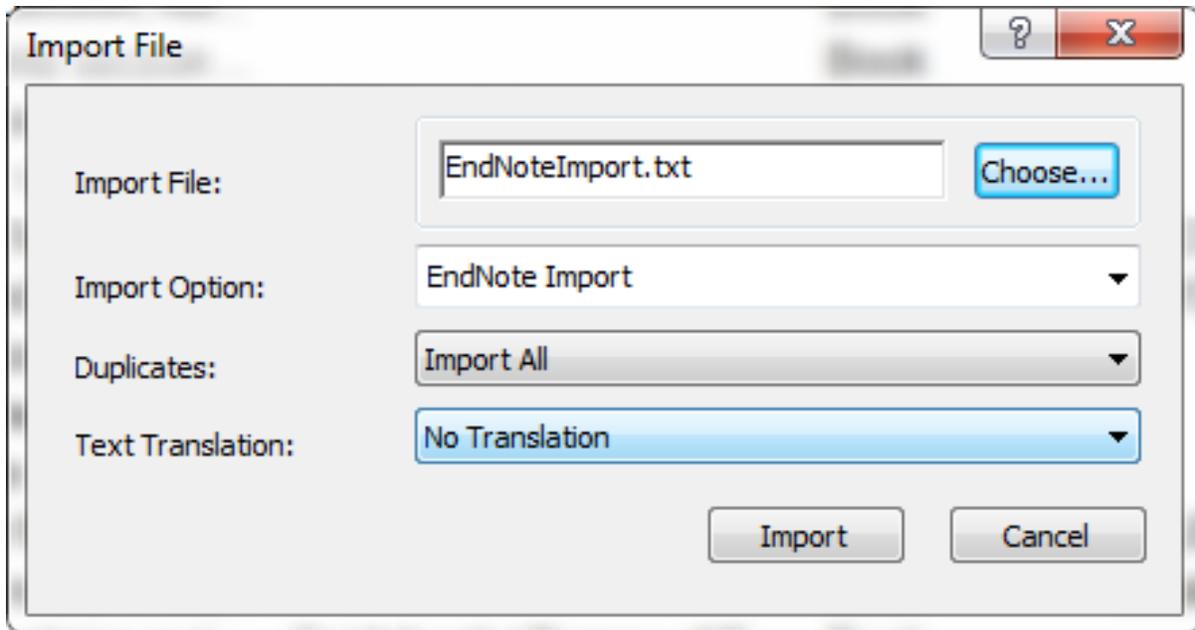


Figure 2-2 An example EndNote form used for entering a batch of references from an endnote import file.

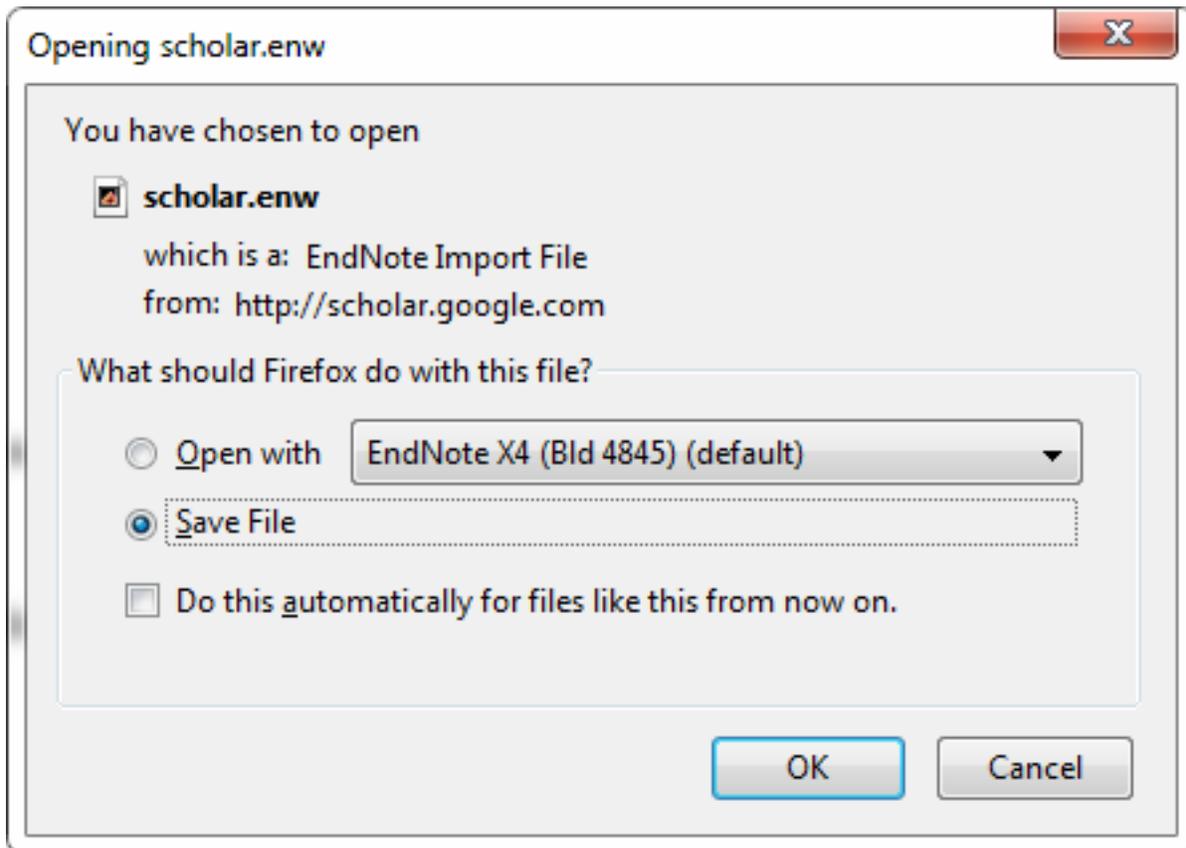


Figure 2-3 An example EndNote form used for importing references from the Internet.

2.4 Managing References

EndNote supports a wide range of functions for managing references. Among the core functions are grouping, searching, editing, outputting and reference insertion. Brief descriptions of these tasks are listed below:

Searching: A user can perform searches on one particular field, or all fields of a reference list. A field represents an attribute of a reference such as title, author, keywords, etc. When a search is performed on a library, all the references containing the search keyword will be returned. Figure 2-4 shows a typical type of form that EndNote supports for searches.

Grouping: A user can create a reference group and embrace references into the group manually. A smart group can also be created based on a reference field. Figure 2-4 shows smart groups on the left in the shaded blue box. The smart groups in Figure 2-4 are based on reference type.

Editing: A user can edit the content of a reference using edit function. Figure 2-5 shows one of the EndNote forms that provides for quick editing of reference information.

Outputting: A user can choose to output an entire library or part of a library to an output format in order to share it with other computers that have EndNote installed.

Reference Insertion: During its installation, EndNote will modify several types of word-processing software to include a link to an EndNote tool. By clicking this link, a user has the ability to search and insert references directly into the active document. Figure 2-6 shows an application of the EndNote tool in Microsoft Word.

Aquifers of Texas Bibliography to Support the BRACS Program

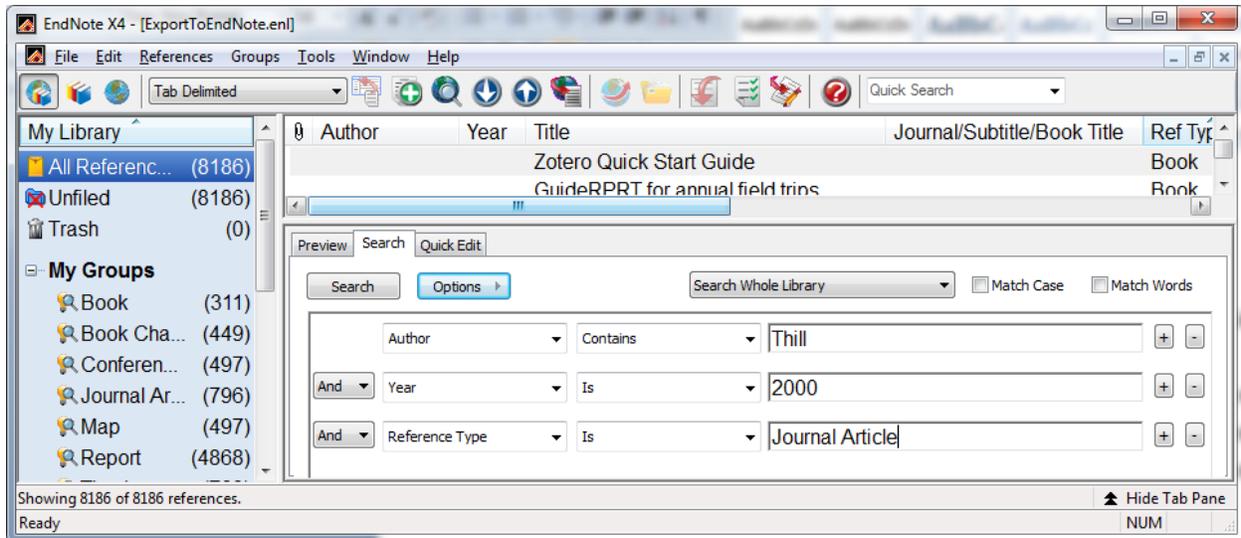


Figure 2-4 An EndNote form showing the groups of references in the box on the left and a search function in the right.

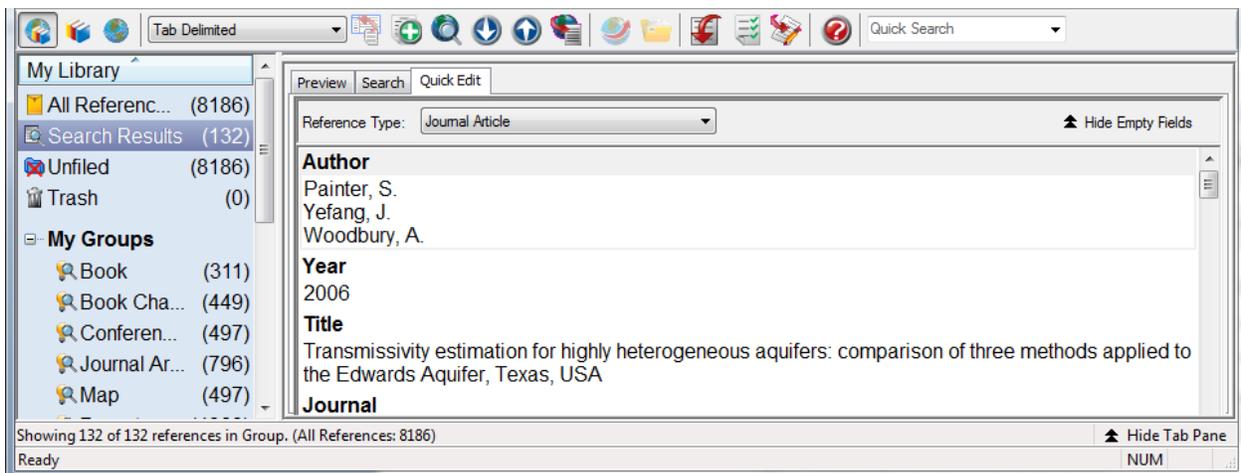


Figure 2-5 An example of an EndNote form showing the edit function on the left beneath the highlighted “Quick Edit” tab.

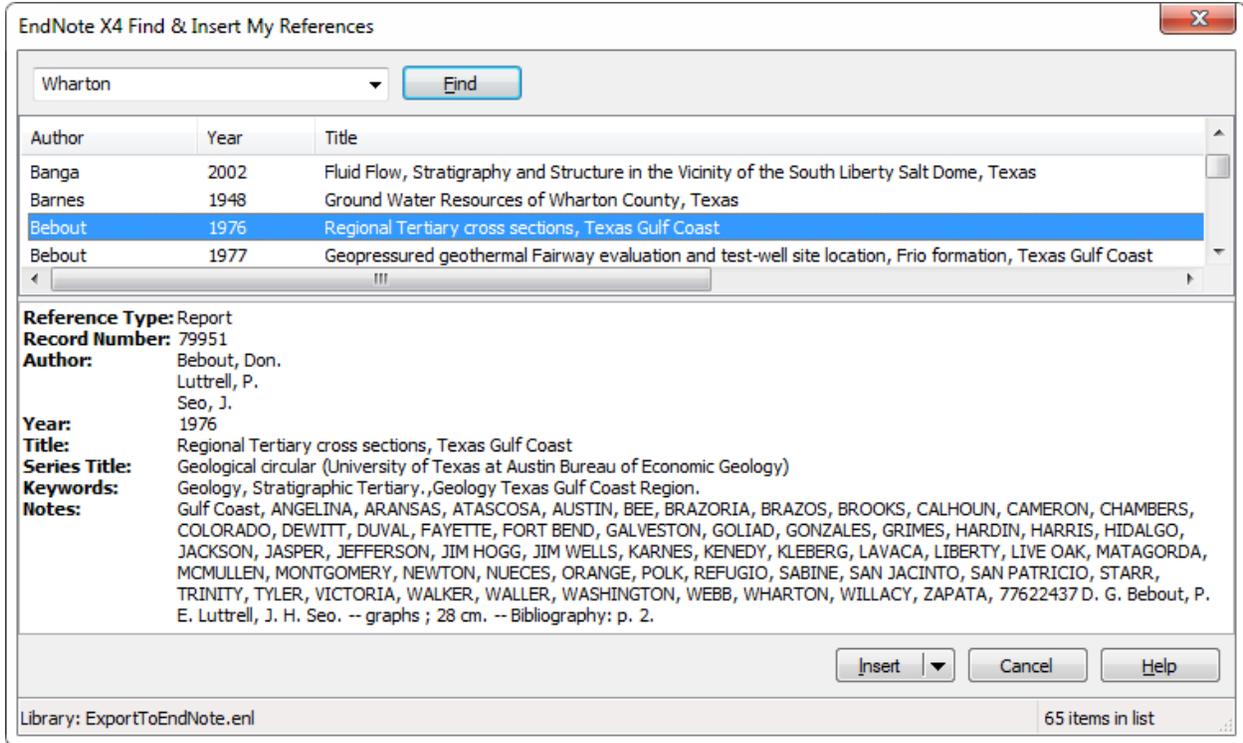


Figure 2-6 An example of an EndNote form that will appear in Microsoft Word when using EndNotes to insert references.

2.5 The EndNote Bibliography

2.5.1 General Description and Comments

The EndNote bibliography contains approximately 7,800 references for the minor and major aquifers in Texas. Among the major problems with constructing the database was eliminating duplicate entries and obtaining complete reference information. The magnitude of these two problems are illustrated by our review of a previously compiled bibliography of groundwater literature in Texas compiled by the USGS (Baker, 2005) and used to identify references for this study. Baker (2005) reports about 10,500 citations of groundwater references for the 254 counties in Texas. In this report, citations are organized by county and citations are also associated with multiple counties. An analysis of these references reveals that despite providing over 10,000 citations, there are only about 1,800 original references and nearly all of the references are missing authors.

Despite considerable effort to provide comprehensive references, we did not obtain complete bibliography information for all references. Most of missing information was relatively minor

Aquifers of Texas Bibliography to Support the BRACS Program

and was not substantial enough to prevent someone from locating the publication. Our most common reference material with missing information were geologic maps with listed publication dates as either “out of print” or “unknown”, agency reports with no listed authors, and guidebooks without a publisher or place of publication. Where appropriate, we have provided reference information based the best available information and our professional judgment. For references to federal and state reports without specific authors, we have used the publication agency as the default author. For references to guidebooks that did not have publication location, we have used the location of the agency that published the guidebook.

In order to make the bibliography as useful as possible, we have attempted to associate keywords, aquifers, and/or counties to the references even though we did not review most of these references. Thus, our associates are based largely on our evaluation of the reference title. Where the title lacks specificity or detail, we did not make keyword or county associations.

Table 2-1 summarizes a few statistics associated with bibliography. The primary references are reports, of which majority were published by the TWDB, the USGS and the BEG. The distribution of the age of the publications exhibits moderate variability among the seven reference types with the majority of the references having a publication date after 1980.

Table 2-1 Summary statistics of references in the EndNote bibliography.

Reference Type	Number	Number Associated with a:		Number of References with a Publication Date Before:					
		County	Keyword	1920	1940	1960	1980	2000	2012
Book	293	69	292	3	6	29	101	231	293
Book Chapter	445	87	445	2	7	23	127	337	445
Conference Paper	505	73	505	3	5	31	118	357	505
Journal Article	789	267	163	12	47	117	265	576	789
Map	423	347	400	3	4	49	113	315	423
Report	4,550	3,196	4,502	69	387	1,138	2,229	3,373	4,550
Thesis	766	419	764	3	16	75	288	649	766
Total	7,771	4,458	7,071	95	472	1,462	3,241	5,838	7,771

2.5.2 Aquifer and County Names in the “Notes” Field

The EndNote bibliography was generated so that references are associated with a county and/or an aquifer under the field called “Notes”. Figure 2-7 shows a search based on county names. Note that the search field should be "Notes" in which county and aquifer information is contained. A total number of 116 results are returned, suggesting 116 articles are relevant to Bailey, Andrews and Gray counties. The user can also refine their search by performing further searches on the "Search Results" (see the red rectangle on the left).

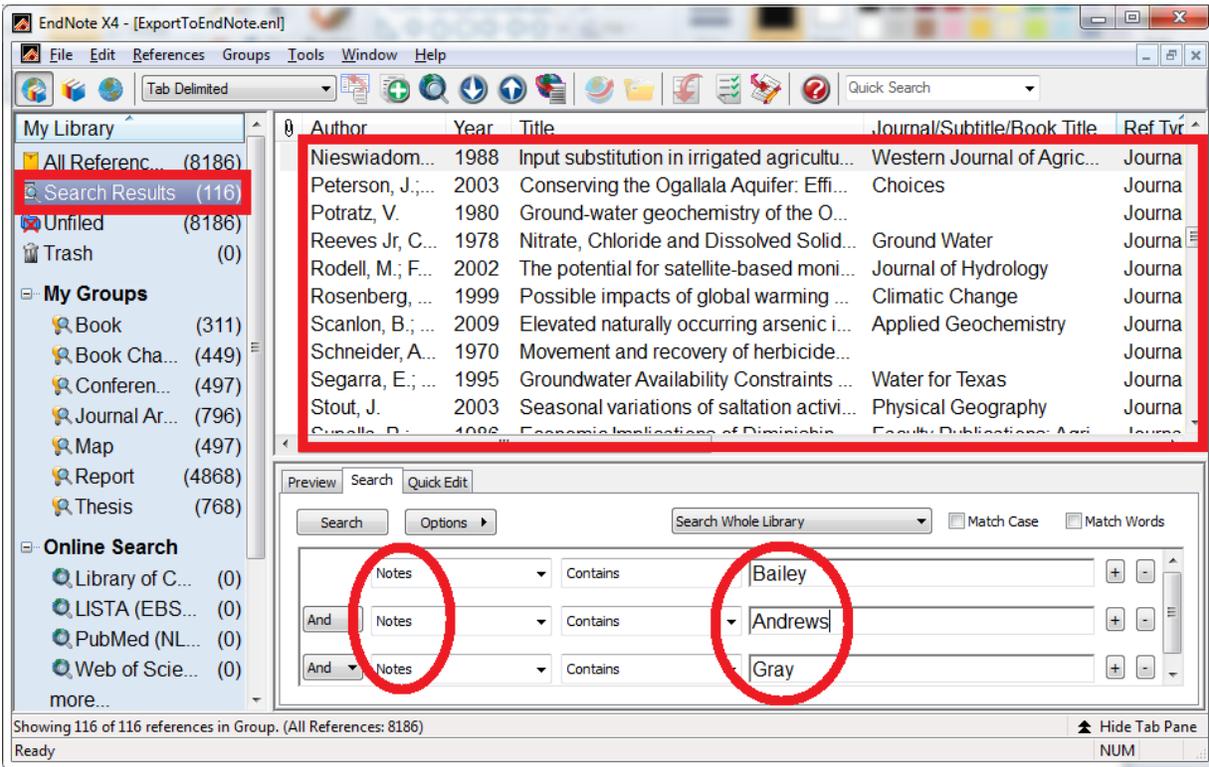


Figure 2-7 An example of an EndNote form that shows the results of a search of the BRACS database for references associates with Bailey, Andrews, or Gray counties.

2.5.3 Change Reference Display Preference

For some search applications, a user may benefit from changing the default display schema in EndNote. This can be done through changing display preference. Figure 2-8 illustrates the display preference in EndNote. Users of the Brackish literature library are suggested to change the heading of "Journal/Secondary Title" field to "Journal/Subtitle/Book" and the "Notes" field to "Notes/County/Aquifer".

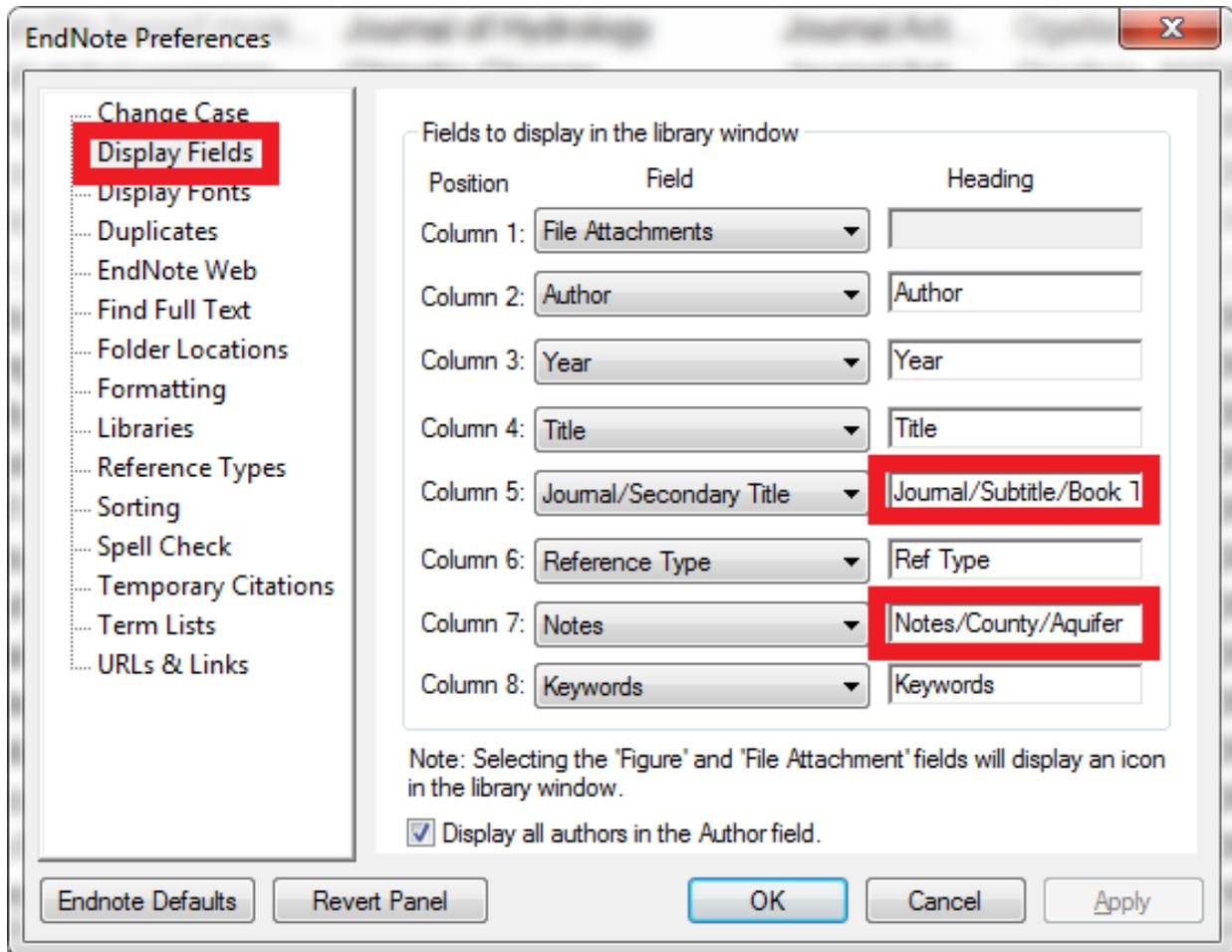


Figure 2-8 An example of an EndNote form that shows the suggested changes to the fields with the default names of “Journal/Secondary Title” and “Notes”.

2.5.4 Group by Reference Type

The EndNote database is constructed so that a user can filter the references based on the smart groups. One of the smart groups created is based on seven reference types, which include reports, book chapters, conference papers, theses, journal articles, and maps. Figure 2-9 shows an example of how to create a smart group in EndNote. In this instance, the smart group called “Book” is created and it encompasses all of the reference type that are considered to be a book.

Aquifers of Texas Bibliography to Support the BRACS Program

The image shows a dialog box titled "Smart Group" with a close button (X) in the top right corner. The "Smart Group Name:" field contains the text "Book". Below this, there are three rows of criteria, each with a dropdown menu on the left, a relationship operator in the middle, and a text field on the right. The first row is highlighted with a red border and contains "Reference Type", "Is", and "Book". The second row contains "And", "Year", and "Contains". The third row contains "And", "Title", and "Contains". To the right of these rows are plus and minus buttons and a scroll bar. At the bottom of the dialog, there are "Create" and "Cancel" buttons, an "Options..." button, and two checkboxes labeled "Match Case" and "Match Words".

Figure 2-9 An example of an EndNote form used to create a smart group for the book reference type.

This page is intentionally blank.

3.0 Microsoft Access Database

The Access database was developed by INTERA as a support tool in the development of the EndNote Bibliography. The purpose of the Access database is to allow for several users to key bibliography records into a single database and support a QA/QC effort before importing records into EndNote. This section serves as a general guide for working with the Access database.

3.1 Software Requirements and Setup

The database can be installed locally for a single user or on a server for multiple simultaneous users. The folder structure shown in Figure 3-1 is necessary for the database to function properly. It can be created at the root or anywhere within an existing folder structure as appropriate. The folder names must be consistent as hyperlinks are constructed using these names. Relative path technology is utilized for the hyperlinks and therefore the drive letter and installation folder name are immaterial. The Access database needs to be installed in the Database folder.

The database was developed using Access 2007 and opens in shared mode so that it can be used simultaneously by more than one user. The Access Utility functions, such as the Backup and Compact/Repair functions, require *exclusive* use of the database and therefore will not be available if another user is working in the database.

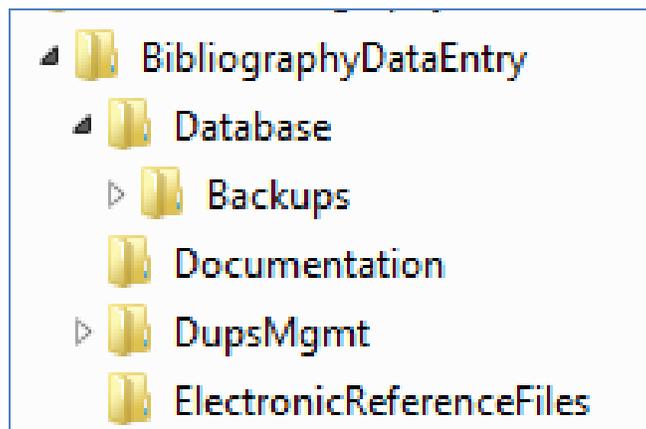


Figure 3-1 Directory structure required to support the functionality of the Access database.

3.2 Launching the Database Application

The database is secured with a Database Password. The purpose of this is to limit the database application to staff who are permitted to make changes to records in the database. Figure 3-2 shows the database prompt. A database user will need to contact the administrator for the database password.

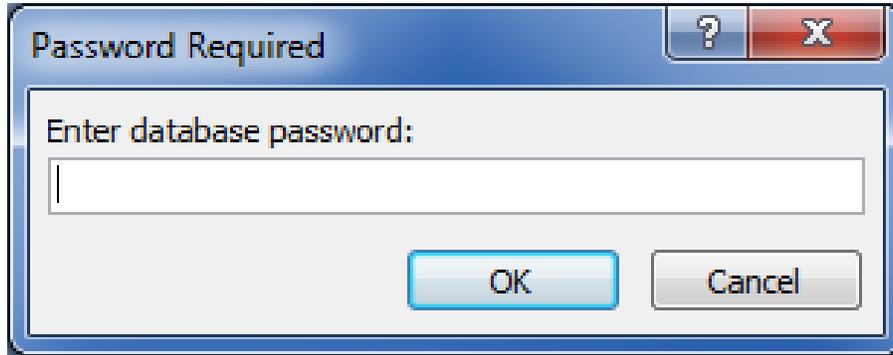


Figure 3-2 Form for entering password required for database access.

Following a successful login, a user is prompted to sign in (Figure 3-3). This allows the application to programmatically document who has made additions and modifications. If you are not listed in the Select Username dropdown list box, then enter your name in the field for first time users and click the Login button.

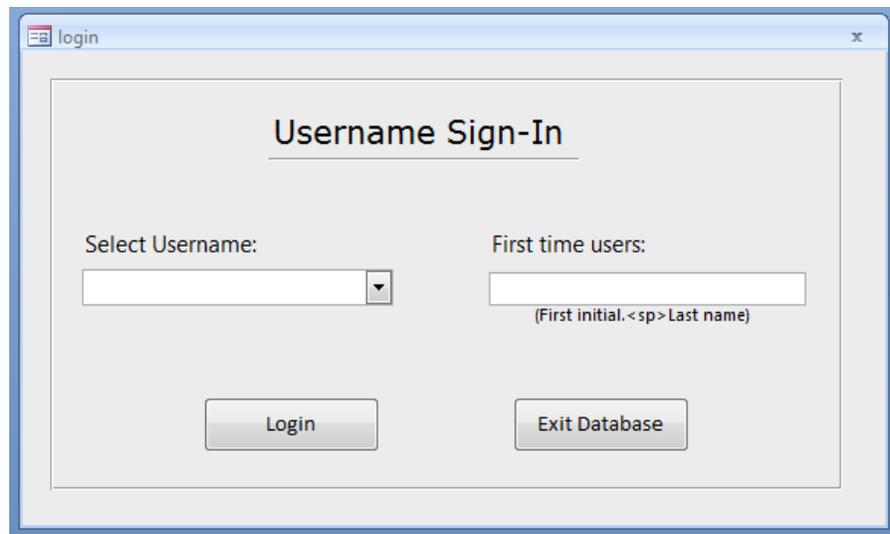


Figure 3-3 Form for user sign-in.

3.3 Using the Database Application

The bibliography records are organized by reference type (e.g., Book, Report, etc.). The main screen, or Options Form, which is shown in Figure 3-4, provides a button that will launch each one of these reference types. To view the all bibliography records together regardless of reference type, use the View All References button under Other Tasks. Also under Other Tasks, the application includes functionality for exporting records by reference type into EndNote.

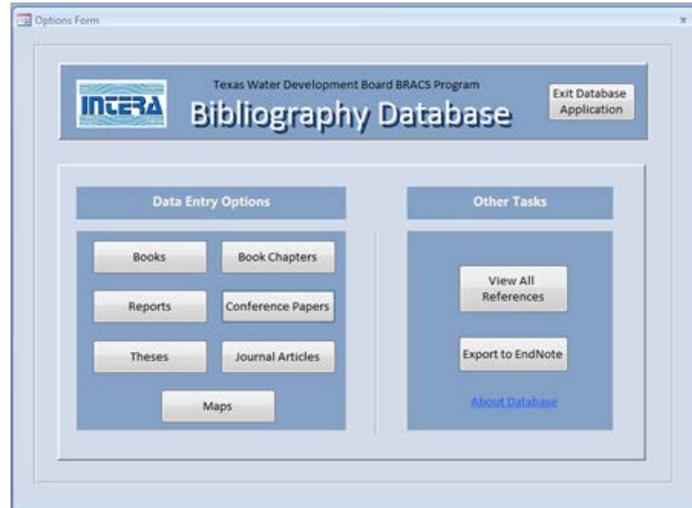


Figure 3-4 Form that provides options for a user to determine how the references will be viewed or searched.

3-4 Working with a Specific Reference Type

If the user selects a reference type on the Options Form, the user will be directed to an Entry form for the reference type. Figure 3-5 shows the Entry Form for viewing, searching, and/or entering Book Chapters. The Entry Form includes fields relevant to the particular reference type. All fields are optional and may be left blank if necessary.

With anticipation that the Access database will continue to be an on-going project, we have provided the database with the capability to link to an electronic file using a portable document format (PDF). For an entry that has a corresponding reference file that is to be launched from within the database, a PDF file must be stored in the folder, **/ElectronicReferenceFiles/** (see Figure 3-1). The file is embedded as a hyperlink as follows:

Aquifers of Texas Bibliography to Support the BRACS Program

- Click the Add/Edit hyperlink check box.
- A message appears as a reminder to be sure that the PDF file name is keyed in the “File Name” text box exactly as it is named in the /ElectronicReferenceFiles/ folder. (*Tip: From Windows File Manager, R-Click on the file and select Rename, CTL-C to copy the file name to the Windows clipboard, be sure to unselect the file. Return to the database and paste the file name, adding the extension.*)
- Then click the Generate Hyperlink button.
- Upon clicking the new hyperlink you may get a security warning, click Yes to continue and launch the file.

The screenshot shows a web-based form titled "Bibliography Entry Form" for a "Book Chapter". The form is divided into several sections:

- Title:** Tectonic Controls On the Hydrogeology of the Salt Basin, Trans-pecos Texas
- Subtitle:** (Empty)
- Author:** A table with columns: Priority, Last Name, First Name, M In, and Company/Agency.

Priority	Last Name	First Name	M In	Company/Agency
1	Nielson	P	D	
2	Sharp	J	M	
- Book Title:** Structure and Tectonics of Trans-pecos Texas
- Editor(s):** West Texas Geological Society
- Additional Reference Data:**

Year Published:	1985	Name:	West Texas Geological Society
Edition:		City:	Midland, TX
Chapter No.:		State or Province:	TX
Start Page:	231	Country:	USA
End Page:	234		
- Publisher:** West Texas Geological Society, Midland, TX, TX, USA
- Record ID:** 23605
- Navigation and Action Buttons:** Undo Changes, Delete Record, Record Navigation (Find Record, Previous, Next, Home, End), New Record, New Duplicate Record.
- Additional Information:** Add/Edit hyperlink file: Click to launch reference:
- Notes:** (Empty)

Figure 3-5 Entry Form for the reference type Book Chapter.

3.4.1 Record Management Operations

Record management operations appear on the right side of the form window in all of the entry forms for the reference types. A brief description of the operational buttons is listed below.

- Record ID – Unique identifier, assigned programmatically
- Undo Changes Button – Restores reference record prior to most recent edits
- Delete Record Button- Deletes current reference record
- Record Navigation Buttons:
 - Find – Place cursor in the field you wish to search on (e.g. Title) then click find and key the desired search string
 - First – Navigates to first record of the current reference category
 - Previous – Navigates to previous record of the current reference category
 - Next – Navigates to next record of the current reference category
 - Last – Navigates to last record of the current reference category
- New Record Button – Opens a blank form for entering a new reference
- New Duplicate Record Button – Creates a duplicate of the current reference record. This is useful for adding records that have minor differences, such as a series of reports for different aquifers.
- Close Button – Closes the form window

3.4.2 Additional Information

The Additional Information Button opens the form shown in Figure 3-6 for adding the following information (if applicable):

- Aquifer list – list relevant aquifers
- Fixed Key Words list – select from fixed key words
- Key words (use commas to separate) – list additional key words
- County list – list relevant Counties. If appropriate, it may save time to use one of the following auto-populate buttons:
 - Append Counties by Aquifer Button – Populates the County Name list based on the listed Aquifer(s)
 - Append Counties by GMA Button — Populates the County Name list based on the specified Groundwater Management Area
- GMA field - specify a particular Groundwater Management Area (this field must be populated to use the Append Counties by GMA Button (listed above)

Figure 3-6 Form for providing additional information.

3.5 Viewing All Reference Records

From the Options Form, if a user selects the View All References button then the window in Figure 3-7 appears and the user has the option of viewing the records with Read-Only or Read/Write permissions. If Read/Write is selected then upon clicking the Open References Table button a warning message will appear to remind the user that they are opening the table with full editing permissions and caution must be exercised. It's advised to use the Read-Only option if edits are not intended. Figure 3-8 shows an example of the references listed for the Read-Only option.

Aquifers of Texas Bibliography to Support the BRACS Program

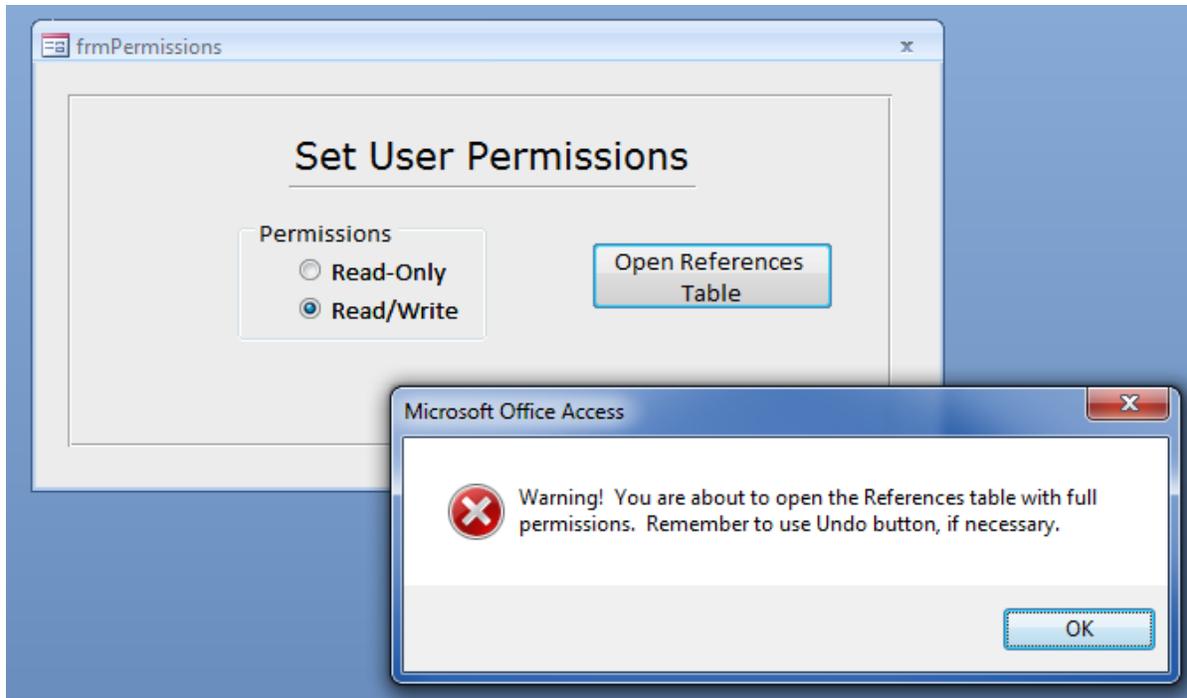


Figure 3-7 Form for selecting the user permission for viewing all references.

Ref_ID	Referen	Title	Subtitle (i	Year Publish	Publisher Name	City Publish	State Publish
23386	Book	An abbreviated natural history a 17th annual		1983	Association of Earth Science Editors	San Antonio, T.	TX
23387	Book	The Seventh Keck Research Sym Abstracts vol		1994	Trinity University	San Antonio, T.	TX
23388	Book	Guidebook 1952 spring field trip		1952	West Texas Geological Society	Midland, TX	TX
23389	Book	Deepwater evaporites in the Be		1982	Society of Economic Paleontologists and Mineralogists	Midland, TX	TX
23390	Book	Geology of the Big Bend and Tra	Guidebook /	1990	South Texas Geological Society	San Antonio, T.	TX
23391	Book	A field guide to Lower Cretaceo	SEPM field tr	1984	Society of Economic Paleontologists and Mineralogists	San Antonio, T.	TX
23392	Book	A field book for the Early Cretac		1996	South Texas Geological Society	San Antonio, T.	TX
23393	Book	Handbook of Log Evaluation Tec		1985	American Association of Petroleum Geologists	Tulsa, OK	OK
23394	Book	Carbonate pore types and wetta		2004	West Texas Geological Society	Midland, TX	TX
23395	Book	Determination of water saturati		2005	West Texas Geological Society	Midland, TX	TX
23396	Book	Modeling the DEW plot (Rt/Rw v		2006	West Texas Geological Society	Midland, TX	TX
23397	Book	Delaware Effect and the Ramse		1997	West Texas Geological Society	Midland, TX	TX
23398	Book	Basic Well Log Analysis for Geol		1982	American Association of Petroleum Geologists	Tulsa, OK	OK
23399	Book	Computerized old e-log analysis		1995	West Texas Geological Society	Midland, TX	TX
23400	Book	Wilcox field trip, Robertson, Mil	Field confer	1968	Baylor Geological Society	Waco, TX	TX
23401	Book	Use of computers to perform old		1995	West Texas Geological Society	Midland, TX	TX
23402	Book	Field excursion : geology of Ulan	Guidebook /	1963	Houston Geological Society	Houston, TX	TX
23403	Book	Gulf coast oil fields; a symposiu	The America	1936	American Association of Petroleum Geologists, London, T. Murby & Co.	Tulsa, OK	OK
23405	Book	South Texas clastic depositional	the 1989 GCA	1989	Corpus Christi Geological Society	Corpus Christi,	TX
23406	Book	Lower Cretaceous depositional		1985	Gulf Coast Section of Society of Economic Paleontologists & Mineralogists Distributed t	Houston, TX	TX
23407	Book	Recent sediments of southeast	Guidebook /	1970	University of Texas Bureau of Economic Geology	Austin, TX	TX
23408	Book	Structural development of evap		1987	El Paso Geological Society	El Paso, TX	TX
23409	Book	New wireline sonic technology		2006	West Texas Geological Society	Midland, TX	TX
23410	Book	South Texas Edwards Trend expl	Ira Rinehart,	1962	Rinehart Oil News Co.	Dallas, TX	TX
23411	Book	Mesozoic - Cenozoic tectonic ev		2003	West Texas Geological Society	Midland, TX	TX
23412	Book	The Stratigraphy, geomorpholog	Field confer	1986	Baylor University	Waco, TX	TX
23414	Book	Austin, Texas and Beyond - Geol		2001	Austin Geologic Society	Austin, TX	TX
23415	Book	Urban Hydrology of Austin, Texa		2009	Austin Geologic Society	Austin, TX	TX
23416	Book	Hydrogeology of the Edwards Ac		1984	San Antonio secton of Geologic Society of America	San Antonio, T	TX
23418	Book	The Trans-Pecos sulphur field, A		1905	University of Texas at Austin	Austin, TX	TX
23420	Book	Geology of the Karnes Uranium		2007	Austin Geologic Society	Austin, TX	TX
23421	Book	Industrial mineral resources of t		1990	Society of Economic Geology	Littleton, CO	CO
23423	Book	Steps for creating a digital well		1997	West Texas Geological Society	Midland, TX	TX
23424	Book	Faults and Fractures in the Balco		1990	Austin Geological Society	Austin, TX	TX
23426	Book	Cretaceous-Wilcox-Frio : sympo		1962	Corpus Christi Geological Society	Corpus Christi,	TX
23428	Book	The complex concept of overex		2000	Fundación Marcelino Botín	Santander, Spa	
23429	Book	Exploring the Edges of Texas		2010	Texas A&M	College Station	TX
23430	Book	Continuous subaqueous deposi		1982	Society of Economic Paleontologists and Mineralogists	Midland, TX	TX
23431	Book	Tertiary formations of Rim Rock	Report of inv	1958	University of Texas Bureau of Economic Geology	Austin, TX	TX

Figure 3-8 Table showing all references under the read-only permission.

3.6 Exporting Reference Records to EndNote

From the Options Form click the Export to EndNote button. The code may take a few minutes to run. Upon completion, a message box appears that says, “Finished exporting!” Click OK. The file called “EndNoteImport.txt” is generated in the directory of the Access database. This file can be directly imported into EndNote (refer to Section 2.2).

3.7 Database Schema

Figure 3-8 shows the schema used by the Access database. Useful information in the schema includes the list of tables used by the database and the relationships used to cross-link the information among the tables.

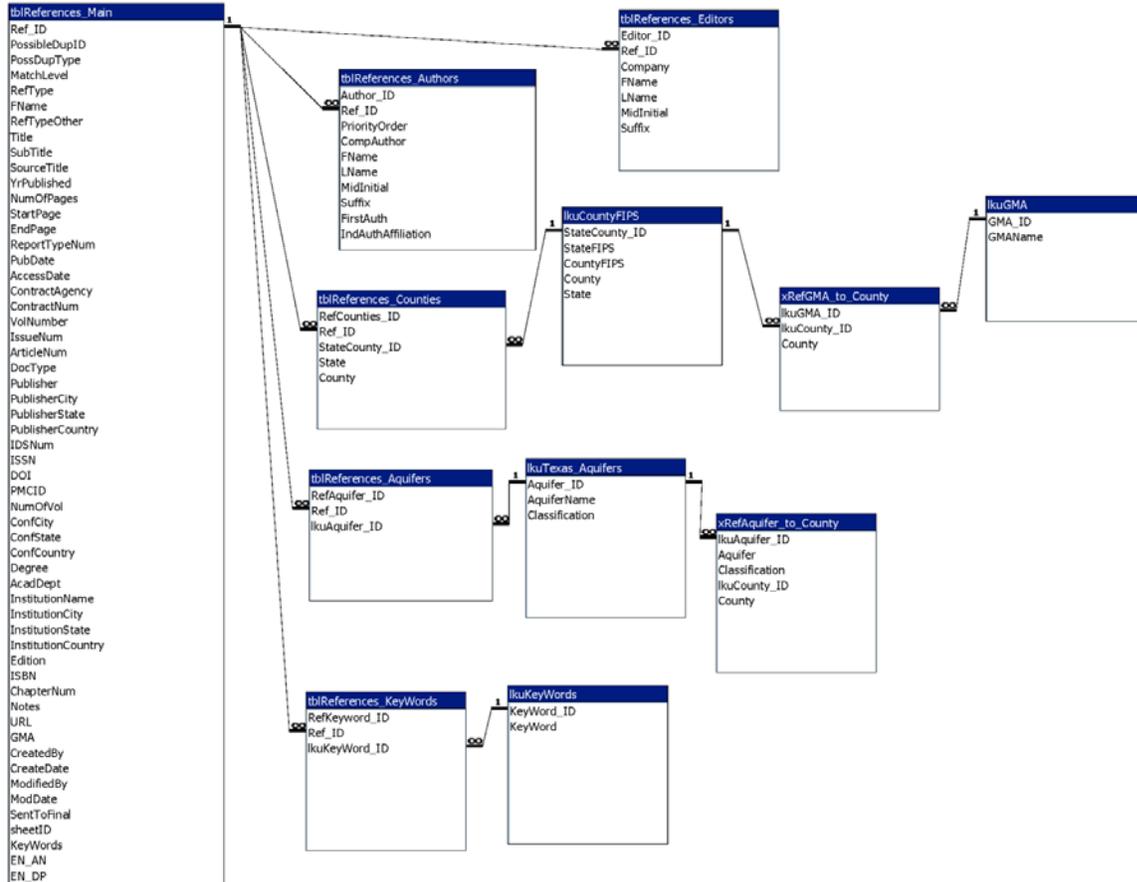


Figure 3-9 Schema used by the Microsoft Access Database.

4.0 Acknowledgements

The authors want to thank Dr. Bridget Scanlon at the Bureau of Economic Geology, Ernie Baker at the United States Geological Survey, and Dr. Sanjeev Kalaswad and John E. Meyer at the Texas Water Development Board for assisting with identifying references from their respective agencies. We also want to acknowledge Dr. Jack Sharp's assistance for helping us hire students from the University of Texas to perform most of the data entry. These students are James Pinkard, Rachel Markoff and Barrett Yeager. Additional thanks are extended to Dr. Sanjeev Kalaswad who not only helped with identifying references but also served as the Texas Water Development Board technical manager for this project.

This page is intentionally blank.

5.0 References

Baker, E.T., Jr., 2005, Bibliography of Ground-Water References for all 254 Counties in Texas, Open-File Report 2005-1270, U.S. Geological Survey, Austin, TX.

George, P.G., Mace, R.E., and Petrossian, R., 2011, Aquifers of Texas, Report 380, Texas Water Development Board, Austin, TX.

Thomson Reuters, 2010a, EndNote: Advance your Research and Publish Instantly; Help, <http://www.endnote.com/support/helpdocs/EndNoteX4Help.pdf> pp 487

Thomson Reuters, 2010b, EndNote: Advance your Research and Publish Instantly; Getting StartedGuide, http://www.endnote.com/support/helpdocs/ENX4_GettingStartedGuideWinMac.pdf

This page is intentionally blank.

Appendix A

Response to TWDB Comments on Draft Report

Aquifers of Texas Bibliography to Support the BRACS Program

This page intentionally left blank.

Appendix A: Response to TWDB Comments on Draft Report

The TWDB provided comments to INTERA on a draft version of this report. This section lists the TWDB comments and provides INTERA's response to the comments.

A.1 General Comments

Comment 1: Overall, the report has done a good job of describing the bibliography that was assembled for the minor and major aquifers of Texas.

Response 1: No response is required.

Comment 2: Please consider adding a short justification for choosing EndNote as the document management software for the project.

Response 2: The report was modified to include the requested justification. This justification is contained in Section 2.1 of the final report.

Comment 3: Please use the name EndNote consistently throughout the report. It's been spelled as Endnote in places (for example, page 2-2).

Response 3: A search and replace has been performed in the final report so that the name EndNote is consistently used throughout the report.

A.2 Page-Specific Comments

Comment 1. Page 1-1, Chapter 1.0, second line: Please change "Brackish Resources Aquifers Characterization System" to "Brackish Resources Aquifer Characterization System".

Response 1. The requested change was made in the final report.

Comment 2. Page 1-1, Chapter 1.0, second paragraph, lines 2 to 4: Please change "The name of the major and minor aquifers of Texas were taken from TWDB Report 345..." to "The name of the major and minor aquifers of Texas were taken from TWDB Report 345... and the 2005 State Water Plan" and cite the state water plan reference here and include it in References (Chapter 4). The Yegua-Jackson Aquifer was not listed in Ashworth and Hopkins; it was added in the 2005 State Water Plan.

Also, please add a justification for using Ashworth and Hopkins (1995) instead of the more recent *Aquifers of Texas* (George, Mace, and Petrossian, 2011): http://www.twdb.state.tx.us/publications/reports/GroundWaterReports/GWReports/R380_AquifersofTexas.pdf.

Response 3. Chapter 1 was modified to use the names of the major and minor aquifers from the reference George and others (2011) instead from the reference Ashworth and Hopkins (1995). We agree that the former reference should be used instead of the

latter reference. This change lead to two modifications in Table 1-1. One modification changed “Cenozoic Pecos Alluvium” to “Pecos Valley.” Another modification changed “Hueco-Mesilla Bolson” to ‘Hueco-Mesilla Bolsos.’”

Comment 3. Page 2-7, Table 2-1. Please add the missing information for the number of books included in the database.

Response 3. The number of books have been added to page 2-7.

A.2 MS Access Database Comments

Comment 1. When viewing the form All References (frmtblReferences_Main_Datasheet) the fields [LName-1st Auth] and [FName-1st Auth] do not consistently show the first author. For example, Ref_ID 36284, returns Galloway as the first author instead of Young. The authors table is correct, so it appears that the query used to build the form does not work correctly. We got the same error when we tried entering a new publication into the database. Please check and correct.

Response 1. We agree that the All References Form was not reliability showing the first author. The database has been amended to correct this problem. The correction involved forcing author priority = 1 and also setting indices in the Author table.