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Demineralization Technologies
Annotated Bibliography and Database

for the
Investigation of Demineralization
Concentrate Management Project

DEMINERALIZATION TECHNOLOGIES
ANNOTATED BIBLIOGRAPHY AND DATABASE

IN SUPPORT OF

EVALUATION OF DEMINERALIZATION CONCENTRATE MANAGEMENT STRATEGIES —
TASK C.1 AND THE DEMINERALIZATION CONCENTRATE MANAGEMENT PLAN — TASK C.2

FOR THE

INVESTIGATION OF DEMINERALIZATION CONCENTRATE MANAGEMENT PROJECT

BY

REISS ENVIRONMENTAL AND
SUBCONSULTANT MALCOLM PIRNIE

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
PALATKA, FLORIDA

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INTRODUCTION

This annotated bibliography is part of the overall scope of the Investigation of Demineralization Concentrate Management Project and is specifically presented in fulfillment of the requirements of Task B.1.a of the project as required by the St. Johns River Water Management District (SJRWMD) and detailed in Contract No. SE418AA. That task requires preparation of an annotated bibliography and subject matrix representing the body of knowledge concerning demineralization technology and the environmental and cultural impacts of demineralization concentrate management.

The bibliography is the result of a literature survey and a review of existing reports, articles, and other literature specifically related to demineralization technology and the environmental and cultural impacts of demineralization concentrate management. The information in those reports and publications has been entered into an electronic database that allows a search of the documents through various listings and tables. This database lists documents that will be used to prepare the final Demineralization Concentrate Management Plan and also lists documents that may not specifically be used in preparing the plan but which contain information of related interest. A data field showing "Reference used in TM" with a yes/no entry in the field, will be used to identify whether the reference was used in the final plan.

For presentation purposes, the database is alphabetized by author, as is the standard for reference formats. Multiple author listings are further arranged by publication date.

BIBLIOGRAPHY CONTENTS

Reiss Environmental developed the bibliography using Microsoft Access software. The bibliography includes a total of 357 individual entries with a 167 of these entries considered most relevant: Each bibliographic entry contains the name of the author, the title of the publication, the date and an abstract of the document. The abstracts used are those provided by the author in the publication. When a publication contained no abstract, a short abstract was prepared from the summary and conclusions or from the text of the publication. The remaining 190 entries contain the same information with the exception of the abstracts.

The bibliographic data base functions as a sortable matrix, based on a system of 8 topics (subject areas), whose corresponding code numbers can

be tracked. Each bibliographic entry has been annotated with up to three of these topic codes that best represent its content. The topic code representing the most significant subject area is shown first, then the second most significant subject area shown second and so on for the third subject area. Through queries and reports, the user may search the data base and create summary tables of bibliographic entries containing specific codes. Because many of the documents are associated with multiple codes, they can be easily cross-referenced to more than a single topic, allowing the user to find sources covering a range of relevant subjects.

USER GUIDE

The data have been entered using Microsoft Access 2000 as the electronic search engine. The database is programmed to use all the procedures associated with the software. The database structure has two tables: *tblCode* and *tblSTJOHN*. The *tblCode* listed in Table 1 contains the topic codes, identifying subject matrix, and number of bibliographic entries per topic code.

Table 1. Codes and bibliographic entries

Topic Number	Topic/Subject Area	Number of Bibliographic Entries
1	Florida-Specific Reference	171
2	Desalination Technology	86
3	Concentrate Disposal Technology	49
4	Concentrate Toxicity/Environmental Impacts	72
5	Protocols, Models, and Methodologies	27
6	Regulations and Permitting	18
7	Desalination Economics	13
8	Media Coverage (Newspapers)	74

Description of Reports

There is a total of ten reports, one based on table data and nine based on queries. Table 2 contains the report names and association with tables and queries.

A description of the database content follows:

- Data: This table contains information such as author, date of publication, title, codes, reference to the technical memoranda (TM), publication, and abstract.

- Author query contains all the names of the authors within the database.

- Topic 1 refers to all the publications related to Florida-Specific Reference.

- Topic 2 refers to all the publications related to Desalination Technology.

- Topic 3 refers to all the publications related to Concentrate Disposal Technology.

- Topic 4 refers to all the publications related to Concentrate Toxicity/Environmental Impacts.

- Topic 5 refers to all the publications related to Protocols, Models, and Methodologies.

- Topic 6 refers to all the publications related to Regulations and Permitting.

- Topic 7 refers to all the publications related to Desalination Economics.

- Topic 8 refers to all the publications related to Media Coverage (Newspapers).

- Publication Query contains all the publications in alphabetical order.

- Publication Form will facilitate the data entry process. All updates should be entered using this form to avoid altering the format of the database.

- Topic 1 Report is a printable form of all the contents of the database that relate to Hydrology.

- Topic 2 Report is a printable form of all the contents of the database that relate to Geology.

- Topic 3 Report is a printable form of all the contents of the database that relate to Deep Well Water.

- Topic 4 Report is a printable form of all the contents of the database that relate to Water Quality.

- Publication w/Abstract Report is a printable form of all the information contained in the database, sorted by author and date.

- Publication /No Abstract Report is a printable form of all the information in the database without the abstract.

Table 2. Report names and association with table and queries

Report	Table	Query
Publication w/ Abstract Report	tblSTJOHN	None
Publication /No Abstract Report	tblSTJOHN	None
Topic 1 Report	None	Topic 1 Query
Topic 2 Report	None	Topic 2 Query
Topic 3 Report	None	Topic 3 Query
Topic 4 Report	None	Topic 4 Query
Topic 5 Report	None	Topic 5 Query
Topic 6 Report	None	Topic 6 Query
Topic 7 Report	None	Topic 7 Query
Topic 8 Report	None	Topic 8 Query