The Mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes.

The Mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Acknowledgments
for Second Edition

The original compilation and preparation of this manual involved many engineering geologists and geophysicists within Reclamation. Their input is greatly appreciated. This second edition incorporates comments on the first edition and technological changes since the first edition was prepared approximately 10 years ago. Without the comments and input from the Denver, Regional, and Area Offices the revision would not have happened. Special thanks to Sam Bartlett, Engineering Geology Group 1 Manager, for his support and input throughout the preparation of the manual.

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FOREWORD
TO THE SECOND EDITION

Approximately 10 years have gone by since the first edition was published, and technology and missions have changed significantly. This second edition incorporates many modifications and additions. The Global Positioning System (GPS) has revolutionized how we survey and locate ourselves in the field, computers are used extensively to collect and evaluate data, and computer aided modeling, design, and drafting are almost universal. Reclamation has a greater emphasis on maintenance and safety of infrastructure, dam safety analyses and modifications, and water resource management than on design and construction of new hydraulic structures. Techniques for these activities and environmental restoration/hazardous waste remediation activities are reflected in this edition.

A few of the most significant changes to the manual are the addition of a section on concrete core logging, a chapter on hazardous waste site investigations, and an index to facilitate finding relevant information. Many other suggested revisions and improvements collected since the manual was first published also are incorporated. The manual now is in two volumes. Volume I contains material commonly needed in the field, and Volume II includes reference or other material.

As in the first edition, the Engineering Geology Field Manual presents the practices for the collection of geologic data obtained by the Bureau of Reclamation. The manual establishes common guidelines, procedures, and concepts for the collection, evaluation, and presentation of geologic information. The analysis of geologic conditions, the preparation of designs and specifications, and effective construction monitoring and use of geological information to assess site characteristics and risk, require consistent, comprehensive, and timely geologic
information. The use of these guidelines by all Reclamation engineering geologists collecting, documenting, evaluating, and presenting geological and geotechnical data promotes consistency, helps assure that the required evaluations and data are complete, and promotes integration and coordination of geological and engineering activities.

The Engineering Geology Field Manual, in conjunction with the Engineering Geology Office Manual, forms the basis for the mutually beneficial exchange of ideas by Reclamation geologists. Experienced geologists will find useful reminders and new procedures and special techniques, while less experienced engineering geologists and those from other disciplines can use the manual to expand their familiarity with geology as practiced in the Bureau of Reclamation.

Review and comments on the manual are encouraged, and if you have comments or suggested additions, please forward them to the Technical Service Center Engineering Geology Groups.

Richard Throner
Leadership Team Member
Geotechnical Services