

# Chapter 1

## INTRODUCTION

This manual provides guidelines and instructions for performing and documenting field work. The manual is a ready reference for anyone engaged in field-oriented engineering geology or geotechnical engineering. The manual is written for general engineering geology use as well as to meet Reclamation needs. The application of geology to solving engineering problems is emphasized, rather than academic or other aspects of geology. The manual provides guidance for:

- Geologic classification and description of rock and rock discontinuities
- Engineering classification and description of soil and surficial deposits
- Application of standard indexes, descriptors, and terminology
- Geologic mapping, sampling, testing, and performing discontinuity surveys
- Exploratory drilling
- Soil and rock logging
- Acquisition of groundwater data
- Core logging
- Soil logging
- Investigation of hazardous waste sites

## FIELD MANUAL

Although the methods described in this manual are appropriate for most situations, complex sites, conditions, or design needs may require modification or expansion of the suggestions, criteria, and indices to fit specific requirements.

Many of the chapters in this manual will always need revision because they cover material that changes as technology changes. Critical comments, especially suggestions for improvement, are welcome from all users, not just the Bureau of Reclamation.

The appendix contains abbreviations and acronyms commonly used in engineering geology.