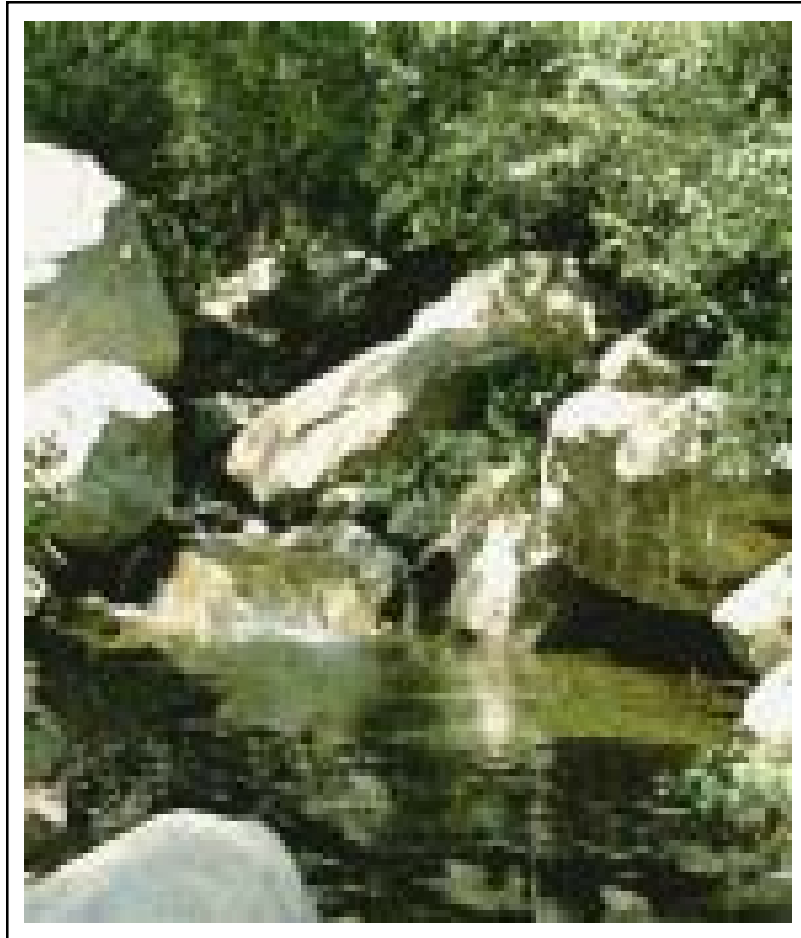


Draft Guidebook
for Reference-Based Assessment
of the Functions of
Riverine Waters/Wetlands Ecosystems
in the South Coast Region of
Santa Barbara County, California





INTRODUCTION

- | | | |
|-----|---|-------|
| 1.1 | Background and Preliminary Description of the Physical Setting | p. 1 |
| 1.2 | Background on the Administrative Context and Objectives for the <i>Draft Guidebook</i> | p. 7 |
| 1.3 | Rationale for Selection of the Hydrogeomorphic Assessment Methodology | p. 9 |
| 1.4 | Background on the National Initiative to Develop a Method for Assessment of Functions of Waters/Wetlands Using the HGM Approach | p. 10 |
| 1.5 | How the HGM Approach can be Used in South Coast Santa Barbara County | p. 13 |
| 1.6 | Consistency with National Guidance on Development of HGM Guidebooks | p. 15 |



OVERVIEW OF THE HYDROGEOMORPHIC APPROACH

2.1	The Hydrogeomorphic Approach	p. 1
2.2	Hydrogeomorphic Classification	p. 1
2.3	Identification, Definition and Description of Functions	p. 4
2.4	Reference Systems	p. 4
2.5	Assessment Model, Protocols and Definition of Functional Indices	p. 8



METHODS USED TO DEVELOP THE SOUTH COAST SANTA BARBARA COUNTY HGM REFERENCE SYSTEM AND ASSESSMENT MODEL

- | | | |
|-----|---|------|
| 3.1 | Selection and Characterization of the Priority Regional Subclasses of Waters/Wetlands | p. 1 |
| 3.2 | Field Verification of the First Approximation Subclass Profiles, Functions, Variables, and Field Indicators | p. 1 |
| 3.3 | Development of the Reference System | p. 3 |
| 3.4 | Refinement of the Draft HGM Assessment Model | p. 3 |
| 3.5 | Future Development of the HGM Approach in Santa Barbara County | p. 5 |



PROFILE OF THE SUBCLASSES

4.1	Introduction and Overview	p. 1
4.2	Reference Domain - Definition and Geographic Extent	p. 2
4.3	Geographic Extent of Potential Reference Domain and Applicability of this Guidebook to Similar Regions	p. 3
4.4	Summary of the Climate Within Geographic Extent of the Reference Domain	p. 5
4.5	Overview of the Geologic and Landscape Settings within the Geographic Extent of the Reference Domain	p. 7
4.6	HGM Class and Subclass Definitions	p. 15
4.7	Hydrology of Stream Channels in the South Coast Santa Barbara County	p. 19
4.8	Soils and Biogeochemistry	p. 40
4.9	Vegetation	p. 66
4.10	Landsat 7 - Enhanced Thematic Mapper (ETM) Data and Analyses	p. 83
4.11	Faunal Support/Habitat	p. 103



ASSESSMENT MODEL FUNCTIONS & VARIABLES

5.1 Overview

p. 1

5.2 Functions

p. 11

5.3 Definition of Variables

p. 53



APPLICATION AND USE OF THE HGM GUIDEBOOK AND MODEL

6.1	Overview	p. 1
6.2	Minimal Submittal Worksheet Requirement	p. 2
6.3	Office Preparation	p. 2
6.4	Field Work	p. 15
6.5	Preparation of an HGM Assessment Report	p. 29



MINIMAL SUBMITTAL WORKSHEETS FOR AN HGM FUNCTIONAL ASSESSMENT REPORT

7.1	Office Preparation	p. 1
7.2	Bounding of Proposed Project Area and Geographic Extent of Waters/Wetlands	p. 2
7.3	Preliminary HGM Classification	p. 5
7.4	HGM Classification	p. 7
7.5	Variable Score Sheet	p. 9
7.6	Data Collection Worksheets	p. 10
7.7	Functional Score Sheets	p. 15
7.8	Preliminary Profile	p. 17



GLOSSARY



LITERATURE CITED



APPENDICES

- A Data Sheets Used to Develop Model
- B Raw Data
- C Data Summaries
- D Methods Used to Develop Model
- E Reference Materials
- F LANDSAT-7 Enhanced Thematic Mapping (ETM)
Land Use Classification Maps