



---

# North Beach Flood Hazard Management Plan

Prepared for

**Grays Harbor County  
Board of Commissioners**

Funded in Part by a Washington State  
Department of Ecology FCAAP Grant



**CH2MHILL**

June 199

---

# **North Beach Flood Hazard Management Plan**

---

Prepared for

**Grays Harbor County  
Board of Commissioners**

Funded in Part by a Washington State  
Department of Ecology FCAAP Grant

**DRAFT**



**CH2MHILL**

---

**JULY 1999**

---

## CONTENTS

---

<b>1.</b>	<b>Executive Summary</b>	<b>1-1</b>
	Introduction	
	Problems, Issues, and Goals	
	Major Findings	
	Summary of Proposed Solutions	
	List of Recommended Actions	
<b>2.</b>	<b>Recommended Flood Hazard Reduction Plan</b>	<b>2-1</b>
	Policy and Program Recommendations	
	Structural Improvements	
	Costs	
	Funding	
	Schedules and Length of Time of Benefits	
	Conformance with Goals	
<b>3.</b>	<b>Background</b>	<b>3-1</b>
	Legal Authority and Scope	
	Project Background	
	Planning Process	
	Description and Characteristics of Planning Area	
	Regulatory Overview	
<b>4.</b>	<b>Engineering Methods</b>	<b>4-1</b>
	Overview of Engineering Methods	
	Conner Creek	
	Local Drainage Problems	
<b>5.</b>	<b>Alternative Flood Hazard Reduction Measures</b>	<b>5-1</b>
	Structural Improvements	
	Non-Structural Alternatives	
	Environmental Impacts	
	Costs	
	Funding	
	Schedules and Length of Time of Benefits	
	Conformance with Goals	

**Appendices**

- Appendix A. Conner Creek Hydrologic and Hydraulic Analysis
- Appendix B. Hydrologic Analysis of Local Flood Problems
- Appendix C. Surveyed Drainage System Maps
- Appendix D. Principles of Comprehensive Flood Hazard Management and Flood Control Assistance Account Programs
- Appendix E. Description of Relevant Regulatory and Capital Improvement Programs

**Tables**

- Table 1-1. North Coast Flood Hazard Management Plan Recommendations
- Table 2-1. North Coast Flood Hazard Management Plan Recommendations
- Table 2-2. Project Highlights for Figure 2-1
- Table 3-1. Regulations Pertaining to Flood Hazard Management
- Table 5-1. Stage-Storage Table for the Low Spot near Johnson's Mercantile
- Table 5-2. Alternative for Funding Flood Hazard Management Plan Implementation Measures

**Figures**

- Figure 1-1. Study Area
- Figure 2-1. Local Drainage Study Sites
- Figure 3-1. Study Area
- Figure 3-2. Grayland Monthly Precipitation Normals
- Figure 3-3. Flood Prone Areas from FEMA Flood Insurance Map
- Figure 3-4. Water Surface Profiles for the Lower Portion of Conner Creek
- Figure 3-5. Wetland Areas
- Figure 4-1. Local Drainage Study Sites
- Figure 5-1. Local Drainage at Silver Maple
- Figure 5-2. Drainage Along Heath Road
- Figure 5-3. Local Drainage at Johnson's Mercantile
- Figure 5-4. Highway 109 Ditch and Pipe Profile in the Northern Part of the Study Area