

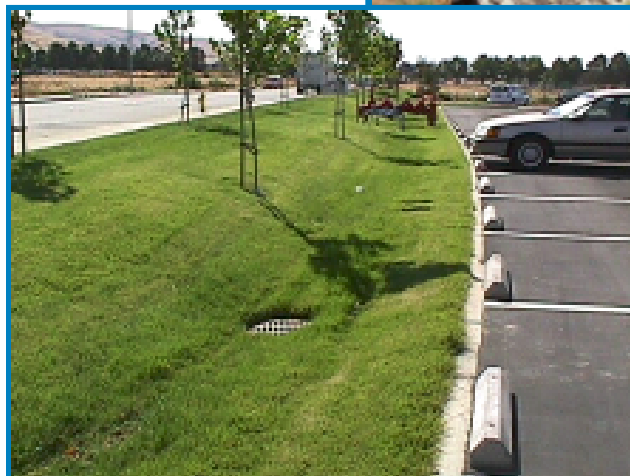
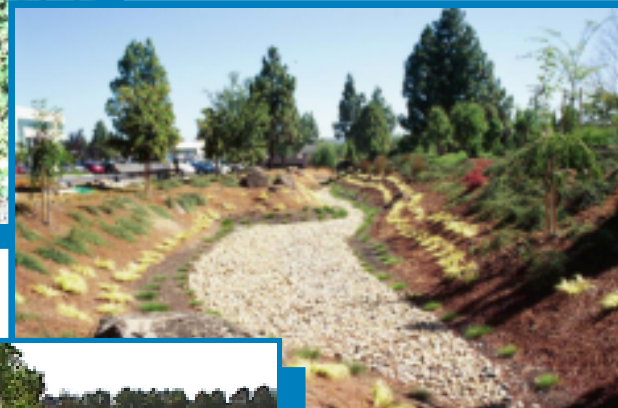
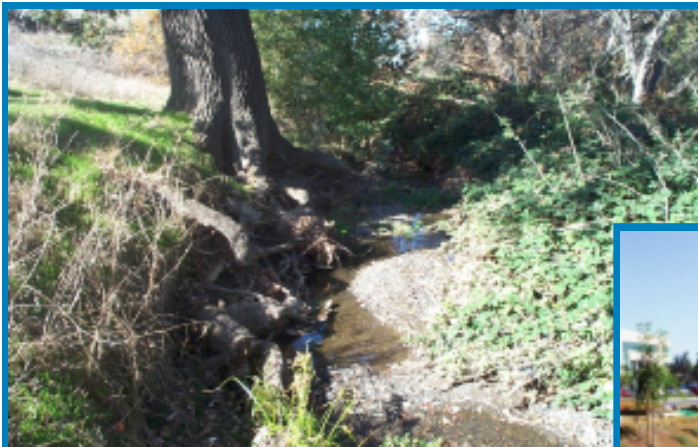


Santa Clara Valley  
*Urban Runoff*  
Pollution Prevention Program

April 21, 2005

# HYDROMODIFICATION MANAGEMENT PLAN

## Final Report Appendices



---

## **CREDITS**

---

This document was prepared by the Santa Clara Valley Urban Runoff Pollution Prevention Program (Program) for use by the Program Co-permittees, other local agencies, and the land development community. The Program expresses its appreciation to all those who contributed to this document.

### **Program Management Consultant:**

*Eisenberg, Olivieri, & Associates, Inc.*  
1410 Jackson Street  
Oakland, CA 94612  
(510) 832-2852

### **Technical Review/Quality Assurance**

*Adam Olivieri, Dr. PH, P.E.*  
*Jean Follette, P.E., Technical Editing*

### **Project Manager**

*Jill Bicknell, P.E., Assistant Program Manager*

### **Project Staff**

*Lucy Buchan, Senior Scientist*  
*Paul Randall, Senior Scientist*

### **Consultant Team**

Peter Mangarella, Ph.D., P.E. and Gary Palhegyi, P.E. and Staff  
GeoSyntec Consultants  
Balance Hydrologics  
Philip Williams and Associates

This document was developed under the guidance of the Program's Management Committee and HMP Work Group. The final report was approved by the Management Committee on April 21, 2005. We appreciate the comments, suggestions, and guidance provided by the participating members.

Credits for cover photographs go to Gary Palhegyi; GeoSyntec Consultants; Mike Campbell, HMH Engineers (formerly RBF Consulting); and Wendy Edde, EOA, Inc.

**HMP Work Group Representative List – Active Members**

Joe Teresi .....	Palo Alto	Joe Vafa .....	San Jose
Maria Angeles .....	San Jose	Fariborz Heydari .....	Milpitas
Anastazia Aziz .....	San Jose	Roger Narsim .....	SCVWD
James Downing .....	San Jose	Dipankar Sen .....	SCVWD
Jenny Nusbaum .....	San Jose	Lorrie Gervin .....	Sunnyvale
Steven Osborn .....	San Jose	Kristy McCumby-Hyland .....	Sunnyvale
Bill Scott .....	San Jose	Jan O’Hara .....	RWQCB
Randolph Shipes .....	San Jose	Keith Lichten .....	RWQCB
Melody Tovar .....	San Jose	Trish Mulvey .....	CLEAN South Bay

The Program also recognizes the HMP Expert Panel: Professor Brian Bledsoe, Colorado State University; Professor Tom Dunne, UC Santa Barbara; and Professor Matt Kondolf, UC Berkeley who reviewed and provided input on several key documents during the HMP development process through September 2004. The Expert Panel’s review included this document, and their input has been incorporated into the Final Report.

EOA, Inc., as the Program management consultant, coordinated and compiled the information and was responsible for the overall preparation of this document.

**SCVURPPP Management Committee**

David Chesterman, Chair .....	SCVWD	Rick Mauck .....	Santa Clara
Randolph Shipes, Vice Chair .....	San Jose	Steve Homan .....	Santa Clara County
Lavenia Millar .....	Cupertino	Lorrie Gervin .....	Sunnyvale
Larry Lind .....	Los Altos	Cheri Donnelly .	West Valley Communities:
Richard Chen .....	Los Altos Hills	Lynn Penoyer .....	Campbell
Darryl Wong .....	Milpitas	John Curtis .....	Los Gatos
Eric Anderson .....	Mountain View	Brian Leventhal .....	Monte Sereno
Joe Teresi .....	Palo Alto	John Cherbone .....	Saratoga

The HMP Report and Appendices  
can be viewed on the SCVURPPP  
website: [www.scvurppp.org](http://www.scvurppp.org)

---

**REFERENCES**

**GLOSSARY OF TERMS**

**APPENDICES** (Separate Document, Available on SCVURPPP website, [www.scvurpp.org](http://www.scvurpp.org))

- Appendix A HMP Work Plan
- Appendix B Hydromodification Management Plan Literature Review
- Appendix C Technical Memoranda
  - TM #1 — HMP Assessment Methodology
  - TM #4 — Evaluation of the Range of Storms for HMP Performance Criteria
  - TM #5 — Evaluation of Volume Control Effectiveness
  - TM #6 — Volume Control Sizing Example and Cost Analysis
  - TM #7 — Flow Duration Control Example
  - TM #8 — Sizing Flow-Duration Controls for a Small Development Project in San Jose
- Appendix D Expert Panel Review Comments
- Appendix E Complete Set of the Results of the Geomorphic Assessment
- Appendix F Complete Summary of Model Procedures and Results (Peak Flows and Discharge Volumes)
- Appendix G Supplemental Data on Exempt Channels
- Appendix H Chapters 3, 4, 5, and 9 from “Draft Hydromodification Report,” Prepared for Santa Clara Valley Water District, June 2004