

Las Virgenes Creek Restoration Project

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Slides prepared by
Questa Engineering Corporation

Background

- Las Virgenes Gateway Master Plan (1998)
- Feasibility Study (2000)
- Obtain easement from LA County
- Grant applications







Consultant selection

- RFP- 7 proposals received
- 4 firms interviewed
- Awarded contract to Questa Engineering Corporation

Conceptual Design Plan

- Stakeholder meeting
- Public review and comment
- City Council approval

Project Description/Goals

- Restore 400 feet of trapezoidal concrete channel within a urban setting
- Increase the wildlife corridor
- Provide extended riparian zone
- Create a stable channel
- Protect existing infrastructure
- Maintain current level of flood control



Project Constraints/Issues

- Constraints include;
 - Buried sewer lines
 - Top of bank commercial use
 - High design flows
 - Sandy sub-soils
 - Significant slope 1.7%
 - Power lines and other utility concerns
 - Right-of-way boundaries







Analysis Completed

- Geomorphic
- Biologic reconnaissance
- Sediment Bedload characteristics
- Hydrologic
- Hydraulic

Alternatives Examined

- Moving Utilities
- Bank Slope Configurations
- Erosion Protection Options
- Fish Passage Options
- Sinuosity Potential

Proposed Design

- Compound channel geometry
- Maintain existing right-of-way
- Protect in-place existing utilities
- Create step pool morphology
- Rock bank toe protection for bank slope stability
- Low floodwalls to maintain Capitol flood protection

Artist Rendering of Conceptual Design



Summary

- Balanced design that makes some compromises for:
 - Infrastructure safety
 - Right-of-way constraints
 - Cost considerations
 - Implementation ease

