

CVSP TASK FORCE

JANUARY 10, 2005

Composite Core Infrastructure Analysis

HMH Engineers

Purpose: To discuss preliminary cost and understand the infrastructure requirements

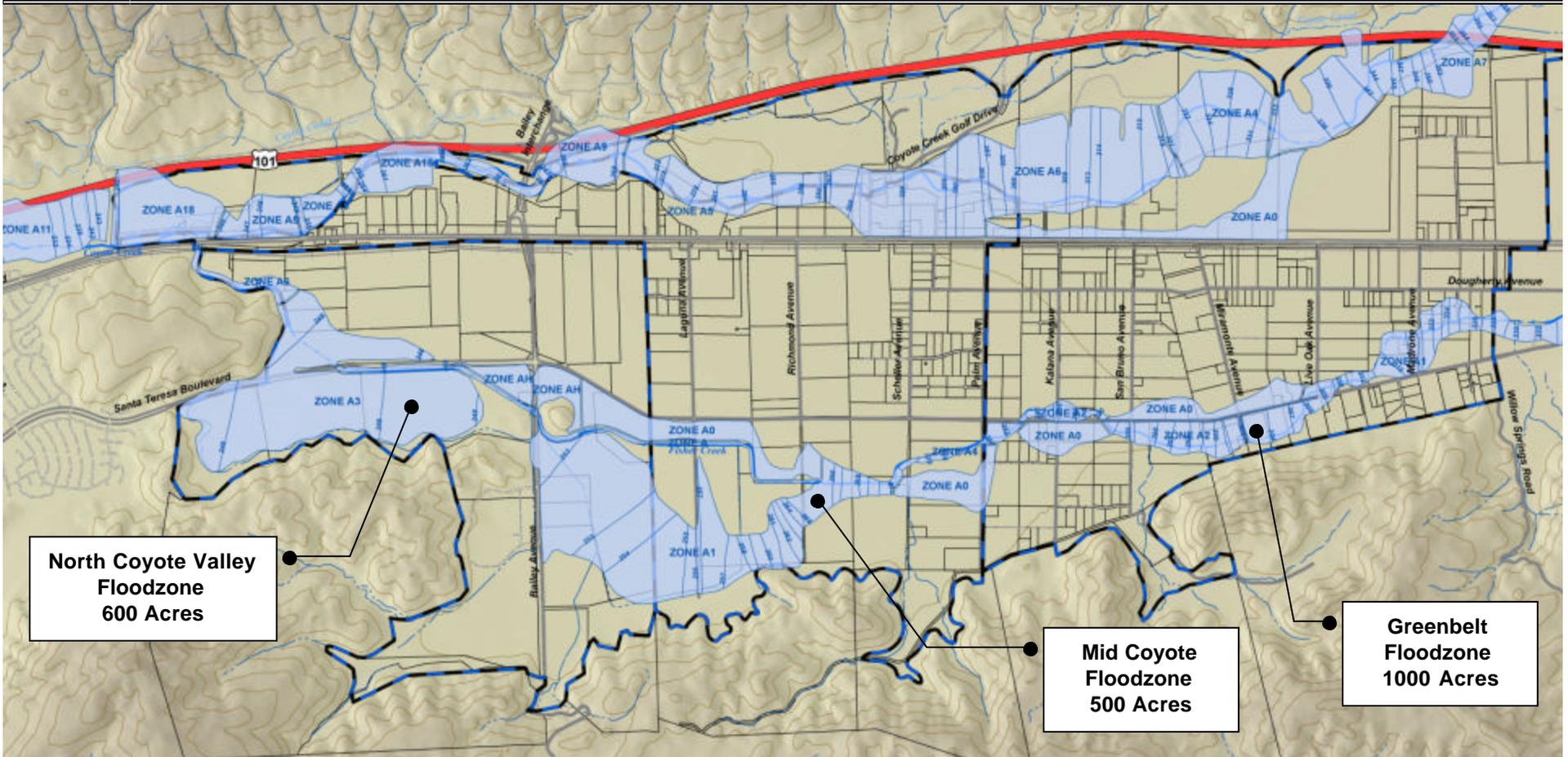
Facility Systems

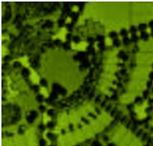
- Transportation and Circulation
- Hydrology & Flood Control
- Storm Drainage
- Sanitary Sewer & Wastewater
- Potable Water
- Recycled Water
- Electricity, Natural Gas & Communications

COYOTE VALLEY SPECIFIC PLAN

FLOODPLAIN MANAGEMENT OBJECTIVE

Existing Conditions: Hydrology and Flood Control





COYOTE VALLEY SPECIFIC PLAN

C.3 REQUIREMENTS

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California Regional Water Quality Control Board:

NDPES Permit No. CAS029718 – Effective November 13, 2001

- Contains revised Provision C.3 to strengthen requirements for stormwater controls in new and redevelopment projects

C.3 Water Quality Provisions:

- Numeric Sizing Criteria for Pollutant Removal Treatment Systems
- Operation and Maintenance Best Management Practices (BMP)

C.3 Water Quantity Provisions:

- Limitation on Increase of Peak Stormwater Runoff Discharge Rates
 - Hydrograph Modification Management Plan (HMP)

COYOTE VALLEY SPECIFIC PLAN

COMPOSITE CORE ALTERNATIVES ANALYSIS – COYOTE VALLEY LAKE

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Facility Alternative	Meets C.3 Water Quality and HMP Objectives?	Provides Floodplain Management ?	Provides Detention Storage?	Other Issues
<i>Coyote Valley Lake</i>	yes	yes	yes	<ul style="list-style-type: none"> • Requires the least total area • Provides source of fill material • Provides potential irrigation supply • Provides groundwater recharge • Creates aesthetic amenity & focal feature • Provides strongest economic benefit
<i>Central Green Alternative</i>	no	yes	yes	
<i>Chain of Lakes Alternative</i>	yes	limited	yes	<ul style="list-style-type: none"> • Requires more land area than central lake to provide adequate flood storage • Operationally more complex • Could require additional maintenance costs and complexities to prevent migration of non-native species

COYOTE VALLEY SPECIFIC PLAN

COMPOSITE CORE ALTERNATIVES ANALYSIS – FISHER CREEK RELOCATION

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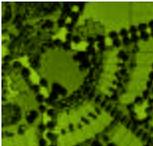
Facility Alternative	Meets C.3 Water Quality and HMP Objectives ?	Provides Floodplain Management?	Provides Detention Storage?	Other Issues
<i>Fisher Creek Relocation</i>	Yes (when combined with Coyote Valley Lake)	yes	yes	<ul style="list-style-type: none">• Eliminates need for artificial levees for flood control• Provides in-stream groundwater recharge• Creek restoration provides wetland and riparian habitat benefits
<i>Avoidance Alternative</i>	no	no	no	<ul style="list-style-type: none">• Could require levees to contain flood flows• Least complicated alternative from a permitting standpoint

COYOTE VALLEY SPECIFIC PLAN

COMPOSITE CORE ALTERNATIVES ANALYSIS – STREET DESIGN

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Facility Alternative	Meets C.3 Water Quality and HMP Objectives?	Provides Detention Storage?	Other Issues
<i>Merge and Loop Parkway</i>	yes	yes	<ul style="list-style-type: none">• Contains new street sections incorporating detention areas and bio-filtration swales within medians, shoulders and loops• Provides flood conveyance in locations where Parkway and Relocated Fisher Creek are adjoined
<i>City Standard Street Section</i>	no	no	



COYOTE VALLEY SPECIFIC PLAN

PRELIMINARY FACILITY COST ANALYSIS

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- Updated estimate of components
- Reflects changes in Composite Core Plan
- Includes coordination with other agencies
- Additional Backbone Infrastructure Facilities identified, scoped and included.
- Estimate of soft costs and associated municipal fees
- Expenditures to date for CVRP infrastructure items
- Identify other potential funding sources

COYOTE VALLEY SPECIFIC PLAN

PRELIMINARY ESTIMATE OF PROBABLE CONSTRUCTION COSTS

1.0	TRANSPORTATION AND CIRCULATION	COST	OTHER POTENTIAL FUNDING	CVSP COST
1.1	INTERCHANGES			
1.1.1	U.S. 101/COYOTE VALLEY PARKWAY INTERCHANGE	\$42,196,000	\$21,098,000	\$21,098,000
1.1.2	U.S. 101/COYOTE CREEK GOLF DRIVE INTERCHANGE	\$19,305,000	\$0	\$19,305,000
1.1.3	MODIFY U.S. 101/BAILEY AVENUE INTERCHANGE TO WIDEN NORTHBOUND OFF-RAMP	\$2,332,000	\$0	\$2,332,000
1.2	REGIONAL TRANSIT SYSTEM			
1.2.1	MULTI-MODAL STATION	\$14,608,000	\$8,000,000	\$6,608,000
1.2.2	CALTRAIN DOUBLE TRACKAGE	\$9,394,000	\$9,394,000	\$0
1.3	INTRA-COMMUNITY TRANSIT SYSTEM			
1.3.1	TRANSIT SYSTEM	\$44,539,000	\$0	\$44,539,000
1.3.2	TRANSIT PLATFORMS AND SHELTERS	\$14,575,000	\$0	\$14,575,000
1.4	GRADE SEPARATIONS			
1.4.1	COYOTE VALLEY PARKWAY GRADE SEPARATION	\$41,173,000	\$0	\$41,173,000
1.4.2	BAILEY AVENUE GRADE SEPARATION MODIFICATION	\$7,579,000	\$0	\$7,579,000
1.4.3	LAGUNA AVENUE GRADE SEPARATION	\$24,816,000	\$0	\$24,816,000
1.4.4	COYOTE CREEK GOLF DRIVE GRADE SEPARATION	\$49,610,000	\$5,000,000	\$44,610,000
1.5	ROADWAYS			
1.5.1	MERGE AND LOOP PARKWAY	\$77,803,000	\$0	\$77,803,000
1.5.2	MONTEREY ROAD RELOCATION	\$19,910,000	\$0	\$19,910,000
1.5.3	NORTH-SOUTH ARTERIAL	\$41,767,000	\$0	\$41,767,000
1.5.4	BAILEY OVER THE HILL	\$27,962,000	\$0	\$27,962,000
1.5.5	SANTA TERESA BOULEVARD	\$7,766,000	\$0	\$7,766,000
1.5.6	BAILEY AVENUE FROM SANTA TERESA BOULEVARD TO IBM	\$9,537,000	\$0	\$9,537,000
1.5.7	ONE WAY COUPLET	\$24,629,000	\$0	\$24,629,000
1.6	NON-VEHICULAR CIRCULATION SYSTEM			
1.6.1	COUNTY PARKS TRAILS/PEDESTRIAN/BICYCLE CIRCULATION SYSTEM	\$13,805,000	\$2,000,000	\$11,805,000
1.0	SUBTOTAL	\$493,306,000	\$45,492,000	\$447,814,000

2.0	HYDROLOGY AND FLOOD CONTROL	COST	OTHER POTENTIAL FUNDING	CVSP COST
2.1	COYOTE VALLEY LAKE	\$45,727,000	\$0	\$45,727,000
2.2	FISHER CREEK RELOCATION			
2.2.1	FISHER CREEK RELOCATION- SEGMENT 1	\$14,267,000	\$0	\$14,267,000
2.2.2	FISHER CREEK RELOCATION - SEGMENT 2	\$28,468,000	\$0	\$28,468,000
2.2.3	FISHER CREEK RELOCATION- SEGMENT 3	\$3,828,000	\$0	\$3,828,000
2.3	DETENTION PONDS	\$6,325,000	\$0	\$6,325,000
2.4	URBAN CANAL			
2.4.1	URBAN CANAL- SEGMENT 1	\$13,354,000	\$0	\$13,354,000
2.4.2	URBAN CANAL- SEGMENT 2	\$3,938,000	\$0	\$3,938,000
2.0	SUBTOTAL	\$115,907,000	\$0	\$115,907,000

COYOTE VALLEY SPECIFIC PLAN

PRELIMINARY ESTIMATE OF PROBABLE CONSTRUCTION COSTS

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3.0	STORM DRAINAGE FACILITIES	COST	OTHER POTENTIAL FUNDING	CVSP COST
3.1	STORM DRAINAGE SYSTEM	\$27,060,000	\$0	\$27,060,000
3.0	SUBTOTAL	\$27,060,000	\$0	\$27,060,000
4.0	SANITARY SEWER AND WASTEWATER FACILITIES	COST	OTHER POTENTIAL FUNDING	CVSP COST
4.1	SANITARY SEWER SYSTEM	\$30,437,000	\$0	\$30,437,000
4.0	SUBTOTAL	\$30,437,000	\$0	\$30,437,000
5.0	POTABLE WATER SYSTEM FACILITIES	COST	OTHER POTENTIAL FUNDING	CVSP COST
5.1.1	GROUNDWATER RECHARGE	\$9,999,000	\$0	\$9,999,000
5.1.2	WATER SUPPLY SANTA CLARA SUB BASIN	\$9,856,000	\$0	\$9,856,000
5.2	POTABLE WATER SYSTEM	\$70,015,000	\$34,661,000	\$35,354,000
5.0	SUBTOTAL	\$89,870,000	\$34,661,000	\$55,209,000
6.0	RECYCLED WATER SYSTEM FACILITIES	COST	OTHER POTENTIAL FUNDING	CVSP COST
6.1	RECYCLED WATER SYSTEM	\$32,329,000	\$5,335,000	\$26,994,000
6.2	ADVANCED TREATED RECYCLED WATER PLANT	\$66,946,000	\$66,946,000	\$0
6.0	SUBTOTAL	\$99,275,000	\$72,281,000	\$26,994,000
7.0	ELECTRICITY, NATURAL GAS AND COMMUNICATIONS	COST	OTHER POTENTIAL FUNDING	CVSP COST
7.1	ELECTRICITY, NATURAL GAS AND COMMUNICATIONS	\$18,073,000	\$0	\$18,073,000
7.0	SUBTOTAL	\$18,073,000	\$0	\$18,073,000
8.0	COYOTE VALLEY RESEARCH PARK	COST	OTHER POTENTIAL FUNDING	CVSP COST
8.1	INFRASTRUCTURE COSTS (Est. including Soft Costs)	\$33,100,000	\$0	\$33,100,000
8.2	ROW COSTS	\$2,700,000	\$0	\$2,700,000
8.3	CFD FORMATION COSTS (Est.)	\$1,600,000	\$0	\$1,600,000
8.0	SUBTOTAL CVRP EXPENDITURES	\$37,400,000	\$0	\$37,400,000
TOTAL PROBABLE CONSTRUCTION COST:		\$911,328,000	\$152,434,000	\$758,894,000