

Attachment 4. Budget
Rancho Palos Verdes
San Ramon Canyon Stormwater Flood Reduction Project

Table 6: Project Budget

Table 6 - Project Budget						
Proposal Title: <u>San Ramon Canyon Stormwater Flood Reduction Project</u>						
Project Title: <u>San Ramon Canyon Stormwater Flood Reduction Project</u>						
		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	\$475,000	\$475,000		\$950,000	50%
(b)	Land Purchase/Easement	\$53,300	\$121,700		\$175,000	30%
(c)	Planning/Design/Engineering/ Environmental Documentation	\$1,358,400	\$0		\$1,358,400	100%
(d)	Construction/Implementation	\$6,590,528	\$6,590,527		\$13,181,055	50%
(e)	Environmental Compliance/ Mitigation/Enhancement		\$300,000		\$300,000	0%
(f)	Construction Administration		\$790,000		\$790,000	0%
(g)	Other Costs		\$200,000		\$200,000	0%
(h)	Construction/Implementation Contingency	\$987,500	\$987,500		\$1,975,000	50%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$9,464,728	\$9,464,727		\$18,929,455	50%
<p>*List sources of funding: RPV has a very strong local match/financial plan including fee-based programs (e.g. storm drain fees), city reserves, and cash/in-kind contributions from Los Angeles City and the County of Los Angeles. The City has already expended \$600,000 in local funds for the Project Study Report/Preliminary Engineering and has budgeted an additional \$758,400 for Final Design and CEQA Compliance (line c above totaling \$1,358,400).</p>						

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Budget Narrative to Accompany Table 6

a) Direct Project Administration

Total Line Item Cost: \$950,000 (5% of total project cost)
Local Match: \$475,000
Grant Funding: \$475,000
Work Plan: Tasks 1, 2, and 3

Tasks 1 and 3 (from Work Plan) - includes grant administration and project administration. Grant administration will be the responsibility of the City of Rancho Palos Verdes (RPV) Finance Director, and his designee, while project administration will be the responsibility of the RPV Associate Engineer (i.e. Project Administrator) with oversight by the Public Works Director and City Manager. The following estimated costs are based upon confirmed pay rates (fully burdened including fringe benefits) and the estimated number of hours city staff will be assigned to work on the project. More specific tasks are detailed in the Work Plan (Attachment 3). The estimated time per month is an average over the life of the project. The City realizes that as the project moves through various phases, more (or less) hours will be required. The fully burdened rates were provided by the RPV Department of Finance. The life of the project is estimated at 32 months.

Grant Administration: City Staff

Finance Director	3 hrs/month x 32 months x \$265/hr =	\$25,440
Deputy Finance Director	4 hrs/month x 32 months x \$225/hr =	\$28,880
Staff Accountant	5 hrs/month x 32 months x \$159/hr =	\$25,440

Project Administration: City Staff

RPV City Manager	2 hrs/month x 32 months x \$285/hr =	\$18,000*
RPV Public Works Director	5 hrs/month x 32 months x \$278/hr =	\$44,000*
RPV Project Administrator	28 hrs/month x 32 months x \$177/hr =	\$158,596**
RPV Support Staff	17 hrs/month x 32 months x \$151/hr =	\$82,144

*rounded

**\$4 added to round to final

Project Administration: Consultant Labor

Professional Services Attendance	1% of construction costs =	\$132,000
-1% x \$13,181,055 = \$132,000		
-for Design Engineer to attend to the Project during the construction phase		
-1% based upon City's experience with other projects similar in scope and size		

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c) Planning/Design/Engineering/Environmental Documentation

Total Line Item Cost:	\$1,358,400
Local Match:	\$758,400 (costs currently being borne by City; City requests to use these funds toward the local match commitment; majority of funds are expected to be expended prior to a grant agreement with DWR)
Local Match:	\$600,000 (costs already borne by the City after September 2008 ; City requests to use these funds toward the local match commitment)
Grant Funding:	\$0
Work Plan:	Tasks 4, 5, and 6

Task 4: Project Study Report/Preliminary Engineering – The City of RPV has already completed the Project Study Report (PSR) with sufficient detail for preliminary engineering. The PSR was completed in January 2011 and presented to the RPV City Council for approval in March 2011. The cost to complete the PSR/PE document was \$600,000, which can be verified by contract and payments through the RPV Finance Department. The work was completed by Harris & Associates, Inc. The PSR had substantial geotechnical and environmental components and therefore the PSR/PE document is integral to the Final Design phase because these components will only need to be enhanced for Final Design (not repeated).

Task 5 and 6: Final Design and Environmental Documentation - The City of RPV is currently in negotiations with a qualified engineering firm to perform Final Design work. Final Design will produce PS&E documents, bid documentation, and geotechnical investigations, to name a few. Final Design will also include all work necessary to comply with the California Environmental Quality Act.

The City anticipates the Final Design cost (based upon current negotiations) to cost approximately \$688,400 plus a 10% contingency for a total cost of \$758,400. The 10% contingency is based upon the City's experience with other projects similar in size and scope and the City's engineering consultant's experience with similar projects in the region. The following Final Design detail is provided **as required by the PSP**:

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City of Rancho Palos Verdes								
San Ramon Canyon Stormwater Flood Reduction System - PS&E Phase								
Table of Tasks/Personnel/Time per Task						March 25, 2011		
TASK	QA/QC PD	PROJ. MGR	SR. PROJ. ENGR	DESIGN. ENGR	B & C REVIEW	DIRECT COST & SUBS	MARK-UP ON COSTS 10%	TOTAL COST
\$ PER HOUR	\$220	\$200	\$165	\$120	\$155			
PHASE I: DATA COLLECTION/BASE SHEETS								
A. Kick-Off Meeting, Data Collection and Review	2	12	12	8				\$5,780
B. Supplemental Ground Survey - 5-days		8	8	8		\$10,000	\$1,000	\$14,880
C. Base Sheets (up to 28+/- Plan & Profile Sheets at 20' and 40' scale)		8	24	120				\$19,960
D. Supplemental Geotech. Services, 2 deep Borings, QA/QC Reviews		8	8	8		\$98,000	\$9,800	\$111,680
Phase I Subtotal	2	36	52	144	0	\$108,000	\$10,800	\$152,300
PHASE II: DESIGN DEVELOPMENT								
A. Field Review		12	24	24				\$9,240
B. Refine Preliminary Project Elements		80	100	160				\$51,700
C. City FeedBack Meeting (1) & Progress Meetings (8)	6	24	50					\$14,370
Phase II Subtotal	6	116	174	184	0	\$0	\$0	\$75,310
PHASE III: CONSTRUCTION DOCUMENTS								
A. MND & CEQA / NEPA Environmental Compliance includes printing costs		40	24	16		\$48,000	\$4,800	\$66,680
B. Structural Designs & Structure Details		20	40	40		\$35,000	\$3,500	\$53,900
C. Construction Plans								
C1. Title Sheet		2	4	12				\$2,500
C2. Detail & Typical Section Sheets (10 sheets)		40	100	140				\$41,300
C3. Storm Drain Plan & Profile Sheets (10 Sheets at 20' Scale)		50	125	160				\$49,825
C4. Canyon Fill / Grading Plan & Profile Sheets (3 Sheets at 20' Scale)		24	50	80				\$22,650
C5. Access Road / Grading Plan & Profile Sheets (2 Sheets at 20' Scale)		24	50	80				\$22,650
C6. Access Road Retaining Wall Plan & Profile Sheets (2 Sheets at 20' Scale)		24	60	80				\$24,300

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City of Rancho Palos Verdes San Ramon Canyon Stormwater Flood Reduction System - PS&E Phase								
Table of Tasks/Personnel/Time per Task							March 25, 2011	
TASK	QA/QC PD	PROJ. MGR	SR. PROJ. ENGR	DESIGN. ENGR	B & C REVIEW	DIRECT COST & SUBS	MARK-UP ON COSTS 10%	TOTAL COST
C7. Canyon & "Hiking Trail" Erosion Control Plan Sheets (4 Shts at 40' Scale)		16	40	60				\$17,000
C8. Hiking Trail Grading Plan and Profile Sheets (3 Sheets at 20' Scale)		16	32	48				\$14,240
C9. Landscape Planting Plan Sheets (4 Sheets at 40' Scale)		4	8			\$16,000	\$1,600	\$19,720
D. Specifications		24	60					\$14,700
E. Opinion of Probable Construction Cost		16	24	24				\$10,040
F. Utility Coordination		16	24	48				\$12,920
G. Construction Document Processing of PS&E		40	100	120				\$38,900
QA/QC Review and Bidability/Constructability Review	32	8	40	60	75			\$34,065
H. Drainage / Access Road Easement LD & Maps - 7 total (No PTR's)						\$14,000	\$1,400	\$15,400
Phase III Design Subtotal	32	364	781	968	75	\$113,000	\$11,300	\$460,790
						Design Subtotal =		\$688,400
GRAND TOTAL HOURS	40	516	1007	1296	75			
GRAND TOTAL COSTS	\$8,800	\$103,200	\$166,155	\$155,520	\$11,625	\$221,000	\$22,100	\$688,400
Add: 10% Contingency (rounded)								\$70,000
GRAND TOTAL WITH CONTINGENCY								\$758,400

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d) Construction/Implementation

Total Line Item Cost:	\$13,181,055
Local Match:	\$6,590,528
Grant Funding:	\$6,590,527
Work Plan:	Tasks 8, 9, and 10

The following table provides detailed construction costs including the quantity of materials used, the unit cost and number of units as required by the PSP. The costs were developed by Harris & Associates as part of the Project Study Report and ***include factoring for the appropriate prevailing wage rates.***

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City of Rancho Palos Verdes

San Ramon Canyon Storm Drain = ALTERNATE 1A

Tunnel Alignment Recommended

PRELIMINARY Opinion of Probable Construction

Costs

January 11, 2011

Tasks	Description	Quantity	Unit	Unit Price	Total
1	Mobilization (5%)	1	LS	\$620,000	\$620,000
2	Clearing & Grubbing (includes ALL removals)	1	LS	\$65,000	\$65,000
3	Open Trench Shoring & Plating	1	LS	\$65,000	\$65,000
4	Traffic Control	1	LS	\$30,000	\$30,000
5	SWPPP	1	LS	\$85,000	\$85,000
6	Construction Survey	1	LS	\$55,000	\$55,000
7	Sewer Relocation (construction)	1	LS	\$200,000	\$200,000
8	Canyon Improvements - Fill / Grading Operations	44,770	CY	\$65	\$2,910,050
9	Canyon Improvements -12 inch Perforated Sub-drain	1,100	LF	\$155	\$170,500
10	RC Inlet Structure 54" Pipe (includes RC wing wall structure, medium debris basin) U/S Tarapaca	1	LS	\$125,000	\$125,000
11	Outlet Structure and apron onto beach (including decorative wall rock pattern / rock in invert / railing)	1	LS	\$250,000	\$250,000
12	80" Diameter "Slant Drain" Tunnel Installation - At Beach	295	LF	\$3,670	\$1,082,650
13	80" Diameter Tunnel - Steel Rib with Wood lagging 4' to 5' increments - north of South Rancho Palos Verdes Drive	1,900	LF	\$2,170	\$4,123,000
14	54" HDPE for Tunnel Installation (DR15.5)	2,195	LF	\$249	\$546,555
15	54" Pipe - Open Trench Installation (in open space flat plain) (DR-17)	1,900	LF	\$340	\$646,000
16	Annular Space backfill (light weight cellular grout between 54" HDPE and 80" Tunnel)	1,300	CY	\$125	\$162,500

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Tasks	Description	Quantity	Unit	Unit Price	Total
17	Manhole Structures	5	EA	\$25,000	\$125,000
18	Lean Concrete Seepage Dam (with 8" PVC - Outlet System at each MH)	5	EA	\$10,000	\$50,000
19	Catch Basin Inlets	4	EA	\$9,500	\$38,000
20	Tunneling Spoil Haulage and Disposal	3,000	CY	\$30	\$90,000
21	Launch Pits	1	LS	\$250,000	\$250,000
22	Deep Vertical Ground Movement Monitoring Systems (Geokon MPBX Model # A3 Extensometer, etc.)	1	LS	\$20,000	\$20,000
23	Deep Horizontal Ground Movement Monitoring Systems (Geokon Inclinator Casing, etc.)	1	LS	\$20,000	\$20,000
24	Temporary Bluff Rock Fall Barrier System (such as "Geobruigg") for Bluff Outlet Construction	1	LS	\$50,000	\$50,000
25	Temporary / permanent Bluff shoring and soldier pile system for Outlet Structure construction	100	VF	\$990	\$99,000
26	Beach Access Road / Trail	1	LS	\$140,000	\$140,000
27	Upper Inlet Access Road from Tarapaca Road (Flexible Pavement)	14,500	SF	\$25	\$362,500
28	Upper Inlet Access Road Retaining Wall	910	LF	\$220	\$200,200
29	Landscape Planting and Establishment (for Mitigation Measures)	200,000	SF	\$2.50	\$500,000
30	PCC Interceptor Drain adjacent to back of retaining wall	910	LF	\$110	\$100,100
Construction Total =					\$13,181,055

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e) Environmental Compliance/Mitigation/Enhancement

Total Line Item Cost: \$300,000
 Local Match: \$0
 Grant Funding: \$300,000
 Work Plan: Task 11

Task	Description	Quantity	Unit	Unit Price	Total
1	Audit Services	5	Years	\$6,000	\$30,000
2	Monitoring and Reporting	60	Months	\$500	\$30,000
3	Temporary Irrigation (operational)	60	Months	\$1,000	\$60,000
4	Weed Abatement and Plant Replacement (operational)	60	Months	\$3,000	\$180,000
	Total				\$300,000

f) Construction Administration

Total Line Item Cost: \$790,000
 Local Match: \$0
 Grant Funding: \$790,000
 Work Plan: Task 12

The construction administration is 6 percent of the total construction cost (.06 x \$13,181,055 = \$790,000, rounded). This percentage is based upon the City of RPV's experience with similar projects in size and scope. The construction administration estimate was also confirmed as appropriate by the City's engineering consultant, KOA Engineering, who has vast experience with similar projects in the region.

g) Other Costs

Total Line Item Cost: \$200,000
 Local Match: \$0
 Grant Funding: \$200,000
 Work Plan: Task 7

Based upon the size and scope of other projects the City of RPV has completed, the cost for permitting fees is estimated to be \$200,000. Actual permitting fees will not be known until the permit applications are accepted and reviewed by the various resource agencies. Permits that will be required (known at the time of this writing) include, the *Army Corp of Engineers (ACOE)*: Section 9 and 10 of Rivers and Harbors Act will likely require Section 10 permit; *California Department Fish and Game (CDFG)*: a CDFG 1602 permit will be required along with a 401 permit; *Los Angeles Regional Water quality Control Board (LARWQCB)*: Permanent Best Management Practices (BMP's) will be required along with a National Pollutant Discharge Elimination System (NPDES) construction document as part of the LARWQCB requirements or as part of LAC Municipal Separate Storm Sewer System (MS4) Permit; *Coastal Resource*

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Management (CRM) District: construction area lies within the CRM District with a terrestrial designation CRM-10. All marine resources are to be protected against construction impacts; *City Natural Community Conservation Plan (NCCP)*: anticipated loss of habit has already been mitigated.

h) Construction/Implementation Contingency

Total Line Item Cost: \$1,975,000
 Local Match: \$987,500
 Grant Funding: \$987,500
 Work Plan: Not applicable

The construction contingency is 15 percent of the total construction cost (.15 x \$13,181,055 = \$1,977,158, rounded to \$1.9 million). This is based upon the City of RPV's experience with similar projects in size and scope. The contingency estimate was also confirmed as appropriate by the City's engineering consultant, KOA Engineering, who has vast experience with similar projects in the region.

Source of Local Match

The City of RPV has a very strong local match/financial plan including fee-based programs (e.g. storm drain fees), city reserves, and cash/in-kind contributions from Los Angeles City and the County of Los Angeles. The City has already expended \$600,000 in local funds for the Project Study Report/Preliminary Engineering and has budgeted an additional \$758,400 for Final Design and CEQA Compliance (line c above totaling \$1,358,400).

Table 7: Summary Budget

Table 7 - Summary Budget						
Proposal Title: <u>San Ramon Canyon Stormwater Flood Reduction Project</u>						
Individual Project Title		Non-State Share (Funding Match)	Requested Grant Funding (DWR Grant Amount)	Other State Funds Being Used	Total	% Funding Match
(a)	San Ramon Canyon Flood Reduction Project	\$9,464,728	\$9,464,727	\$0	\$18,929,455	50%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$9,464,728	\$9,464,727	\$0	\$18,929,455	50%