

CITY COUNCIL

**Staff Report
City Engineer
June 6, 2006**

Meeting Date: June 6, 2006

TO: City Manager

FROM: Jerry Helt-City Engineer

SUBJECT: Water, Sewer, Road and Drainage Impact Fee

BACKGROUND: Master Plan Study Reports were prepared for the City of California City in September 2002 & 2004. These Master Plan Study Reports addressed Water, Sewer, and Drainage. The Study area was focused on the area of the First Community with the Rancho Tract being included with only the Water Master Plan Study. Each of these Master Plan Studies addressed project and cost as needed to serve the anticipated new developments. The Master Plan cost for impact fee(s) were updated to present construction cost using Engineering News Construction Cost Index (CCEI). Impact fee(s) for projects addressing road improvements were formulated from the City of California City Pavement Management System.

The Proposed Impact Fee(s) are calculated based on recent ultimate buildout estimates of 15,127 of the First Community.

Impact Fee Cost for Water, Sewer, Road, and Drainage are calculated per attached Table 1, 2A, 2B, 3 & 4 respectively. Impact fee cost per EDU as a cost per acre based on zoning is shown on Table 5. Table 6 shows the EDU Density per acre used to calculate impact fee cost per acre in Table 5. Table 7 & 8 show impact fee without and with drainage included based on lot size and acreage. Projects that retain on-site drainage do not pay drainage impact fees.

RECOMMENDATION: Hold public hearing-receive comments

FISCAL IMPACT: Fees as indicated

ENVIRONMENTAL ACTION: None

NBB

TABLE 1

WATER MASTER PLAN SUMMARY COSTS
CONCEPT LEVEL PLANNING ESTIMATE (1)

ITEM NO.	ITEM CODE	UNIT OF MEASURE	ESTIMATED QUANTITY	PRICE PER UNIT	COST 9/02 (1)	COST 3/06 (2)
1	16-inch water main	L.F.	75980	\$ 60.00	\$ 4,558,800	\$ 5,320,119
2	16-inch water BFV	EA.	25	\$ 2,400.00	\$ 60,000	\$ 70,020
3	10-inch water main	L.F.	5300	\$ 30.00	\$ 159,000	\$ 185,553
4	8-inch water main	L.F.	3500	\$ 25.00	\$ 87,500	\$ 102,112
5	Rancho fire pump	EA.	1	\$ 10,000.00	\$ 10,000	\$ 11,670
6	Water Well	EA.	5+3	\$ 1,125,000.00	\$ 5,625,000	\$ 10,503,000
7	2.5 MG Reservoir	EA.	3+2	\$ 1,055,000.00	\$ 3,165,000	\$ 6,155,925
8	AVEK chlorination system	LS	1	\$ 60,000.00	\$ 60,000	\$ 70,020
	Subtotal				\$ 13,725,300	\$ 22,418,419
	Contingencies @ 15 %				\$ 2,058,795	\$ 3,362,763
	Subtotal				\$ 15,784,095	\$ 25,781,182
	Engineering, Surveying, Inspection, Legal @ 20 %				\$ 3,156,819	\$ 5,156,236
	Total				\$18,940,914	\$ 30,937,418

(1) Water Master Plan By Quad Kraf 9/02

(2) Cost per EDU = (\$30,937,418/15,127 EDUBO) = \$2,045/EDU
 EDU = Equivalent Dwelling Unit
 EDUBO = Equivalent Dwelling Unit Build Out

TABLE 2A

MASTER PLANNED TRUNK SEWERS (1)

ITEM NO.	ITEM CODE	UNIT OF MEASURE	ESTIMATED QUANTITY	PRICE PER UNIT	COST 9/02 (1)	COST 3/06 (2)
1	8" Sewer	L.F.	5400	\$ 35.00	\$ 189,000	\$ 220,563
2	10" Sewer	L.F.	14600	\$ 50.00	\$ 730,000	\$ 851,910
3	12" Sewer	L.F.	15800	\$ 65.00	\$ 1,027,000	\$ 1,198,509
4	15" Sewer	L.F.	31000	\$ 75.00	\$ 2,325,000	\$ 2,713,275
5	18" Sewer	L.F.	16100	\$ 90.00	\$ 1,449,000	\$ 1,690,983
6	24" Sewer	L.F.	5700	\$ 100.00	\$ 570,000	\$ 665,190
7	27" Sewer	L.F.	15000	\$ 105.00	\$ 1,575,000	\$ 1,838,025
8	Manholes	EA.	259	\$ 2,500.00	\$ 647,500	\$ 755,632
	Subtotal				\$ 8,512,500	\$ 9,934,087
	Contingencies @ 15 %				\$ 1,276,875	\$ 1,490,113
	Subtotal				\$ 9,789,375	\$ 11,424,200
	Engineering, Surveying, Inspection, Legal @ 20 %				\$ 1,957,875	\$ 2,284,840
	Total				\$ 11,747,250	\$ 13,709,040

(1) Sewer Master Plan By Quad Knof 9/02

(2) Cost per EDU = (\$13,709,040/15,127 EDUBO) = \$906/EDU
 EDU = Equivalent Dwelling Unit
 EDUBO = Equivalent Dwelling Unit Build Out

TABLE 2B

RELIEF SEWER (1)

ITEM NO.	ITEM CODE	UNIT OF MEASURE	ESTIMATED QUANTITY	PRICE PER UNIT	COST 9/02 (1)	COST 3/06 (2)
1	8" Sewer	L.F.	8400	\$ 35.00	\$ 294,000	\$ 343,098
2	10" Sewer	L.F.	3900	\$ 50.00	\$ 195,000	\$ 227,565
3	15" Sewer	L.F.	20800	\$ 75.00	\$ 1,560,000	\$ 1,820,520
4	21" Sewer	L.F.	12300	\$ 95.00	\$ 1,168,500	\$ 1,363,639
5	Manholes	EA.	114	\$ 2,500.00	\$ 285,000	\$ 332,595
	Subtotal				\$ 3,502,500	\$ 4,087,417
	Contingencies @ 15 %				\$ 525,375	\$ 613,113
	Subtotal				\$ 4,027,875	\$ 4,700,530
	Engineering, Surveying, Inspection, Legal @ 20 %				\$ 805,575	\$ 940,106
	Total				\$ 4,833,450	\$ 5,640,635

(1) Sewer Master Plan By Quad Knof 9/02

(2) Cost per EDU = (\$5,640,635/15,127 EDUBO) = \$373/EDU
 EDU = Equivalent Dwelling Unit
 EDUBO = Equivalent Dwelling Unit Build Out

NOTE: Total cost per Dwelling Unit = (\$906 + \$373) = \$1279/EDU

TABLE 3

5/23/2006
P. 1 of 1

**PAVEMENT MANAGEMENT SYSTEM
ROADS COST (1)**

DESCRIPTION	PAVEMENT MANAGEMENT COST	
	COST 10/04 (1)	COST 3/06 (2)
Subtotal	\$ 15,186,227	\$ 15,971,354
Contingencies @ 15 %	\$ 2,277,934	\$ 2,395,703
Subtotal	\$ 17,464,161	\$ 18,367,057
Engineering, Surveying, Inspection, Legal @ 20 %	\$ 3,492,832	\$ 3,673,411
Total	\$ 20,956,993	\$ 22,040,469

- (1) Pavement Management System By Helt Engineering 10/04
- (2) Cost per EDU = (\$22,040,469/15,127 EDUBO) = \$1,457/EDU
 EDU = Equivalent Dwelling Unit
 EDUBO = Equivalent Dwelling Unit Build Out

Road cost include all Pavement Management System roads identified as Failed, Very Poor, Poor, Fair & Good.

PCI RATING AND COST BREAKDOWN		
PCI = Pavement Condition Index		
<u>PCI Numeric Value</u>	<u>Pavement Condition</u>	<u>Cost</u>
86 to 100	Excellent	
71 to 85	Very Good	\$2,089,444
56 to 70	Good	\$2,862,033
41 to 55	Fair	\$5,036,060
26 to 40	Poor	\$2,952,486
11 to 25	Very Poor	\$2,047,310
0 to 10	Failed	\$198,894
	TOTAL	\$15,186,227

TABLE 4

PRELIMINARY CONSTRUCTION COST ESTIMATE
CALIFORNIA CITY STORM DRAINAGE MASTER PLAN (1)

ITEM NO.	ITEM CODE	UNIT OF MEASURE	ESTIMATED QUANTITY	PRICE PER UNIT	COST 9/04 (1)	COST 3/06 (2)
1	24" RCP	L.F.	15810	\$ 40.00	\$ 632,400	\$ 738,010
2	30" RCP	L.F.	38920	\$ 50.00	\$ 1,946,000	\$ 2,154,282
3	36" RCP	L.F.	41145	\$ 60.00	\$ 2,468,700	\$ 2,880,972
4	42" RCP	L.F.	24150	\$ 70.00	\$ 1,690,500	\$ 1,972,813
5	48" RCP	L.F.	20100	\$ 85.00	\$ 1,708,500	\$ 1,993,819
6	54" RCP	L.F.	8200	\$ 100.00	\$ 820,000	\$ 956,940
7	60" RCP	L.F.	11900	\$ 120.00	\$ 1,428,000	\$ 1,666,476
8	66" RCP	L.F.	4150	\$ 130.00	\$ 539,500	\$ 629,596
9	84" RCP	L.F.	15100	\$ 200.00	\$ 3,020,000	\$ 3,524,340
10	8'X5' RCB	L.F.	610	\$ 550.00	\$ 335,500	\$ 391,528
11	10'X5' RCB	L.F.	2350	\$ 700.00	\$ 1,645,000	\$ 1,919,715
12	12'X4' RCB	L.F.	360	\$ 900.00	\$ 324,000	\$ 378,108
13	Earthwork	C.Y.	2100000	\$ 3.00	\$ 6,300,000	\$ 7,352,100
14	Rock Slope Protection	C.Y.	12000	\$ 100.00	\$ 1,200,000	\$ 1,400,400
15	Fencing	L.F.	95000	\$ 20.00	\$ 1,900,000	\$ 2,217,300
16	Water Quality Control	L.S.	1	\$ 500,000.00	\$ 500,000	\$ 583,500
	Subtotal			\$	\$ 26,358,100	\$ 30,759,899
	Contingencies @ 15 %			\$	\$ 3,953,715	\$ 4,613,985
	Subtotal			\$	\$ 30,311,815	\$ 35,373,884
	Engineering, Surveying, Inspection, Legal @ 20 %			\$	\$ 6,062,363	\$ 7,074,777
	Total			\$	\$ 36,374,178	\$ 42,448,661

(1) Drainage System Master Plan By Quad Knof 9/04

(2) Cost per EDU = (\$42,448,661 / 15,127 EDUBO) = \$2,806/EDU
 EDU = Equivalent Dwelling Unit
 EDUBO = Equivalent Dwelling Unit Build Out

TABLE 5

5/23/2006

<p style="text-align: center;">\$\$ IMPACT FEE COST PER ACRE \$\$</p>								
IMPACT	\$/EDU	R-1	R-2	R-3	RM1/2	C	M1	M2
WATER	2045	12270	8180	4090	12270	36810	6135	61350
SEWER	1279	7674	5116	2558	7674	23022	3837	38370
ROADS	1457	8742	5828	2914	8742	26226	4371	43710
TOTAL	4781	28686	19124	9562	28686	86058	14343	143430
DRAINAGE	2806	16836	11224	5612	16836	50508	8418	84180
TOTAL	7587	45522	30348	15174	45522	136566	22761	227610

TABLE 6

Land Use	Description	Practical Density (EDU's per acre)
R-1	Medium Density Residential	6
R-2	Medium Low Density Residential	4
R-3	Low Density Residential	2
RM 1/2	High Density Residential	6
C 1/2/3/4/5 and G	Commercial And Government	18
M1	Light Manufacturing	3
M2	Heavy Industrial	30
O/RA	Open Space Recreational	0

EDU = Equivalent Dwelling Unit

Buildout = 15127 Ref: (Estimation of buildout timeframe for residential development)

\$/EDU = (Cost 3/06) /Buildout

Impact Fee Cost Per Acre = (\$/EDU) (EDU/Acre)

Note 1: % cost increase (9/02) - (3/06) = 16.7%
per construction cost index (CCI).

Note 2: Drainage Impact Fees do not apply to projects retaining on-site surface drainage.

TABLE 7

5/23/2006

\$ IMPACT FEES: WATER, SEWER & ROADS

Impact Fee Per SQ Footage of lot WITHOUT Drainage

LOT AREA	ZONING						
	R-1	R-2	R-3	RM1/2	C	M1	M2
6000 SF	\$3,951	\$2,634	\$1,317	\$3,951	\$11,854	\$1,976	\$19,756
7000 SF	4610	3073	1537	4610	13829	2305	23049
8000 SF	5268	3512	1756	5268	15805	2634	26342
9000 SF	5927	3951	1976	5927	17781	2963	29634
1/4 ACRE	7172	4781	2391	7172	21515	3586	35858
1/2 ACRE	14343	9562	4781	14343	43029	7172	71715
3/4 ACRE	21515	14343	7172	21515	64544	10757	107573
1 ACRE	28686	19124	9562	28686	86058	14343	143430

TABLE 8

\$ IMPACT FEES: WATER, SEWER, ROADS & DRAINAGE

Impact Fee Per SQ Footage of lot WITH Drainage

LOT AREA	ZONING						
	R-1	R-2	R-3	RM1/2	C	M1	M2
6000 SF	\$6,270	\$4,180	\$2,090	\$6,270	\$18,811	\$3,135	\$31,351
7000 SF	7315	4877	2438	7315	21946	3658	36576
8000 SF	8360	5574	2787	8360	25081	4180	41802
9000 SF	9405	6270	3135	9405	28216	4703	47027
1/4 ACRE	11381	7587	3794	11381	34142	5690	56903
1/2 ACRE	22761	15174	7587	22761	68283	11381	113805
3/4 ACRE	34142	22761	11381	34142	102425	17071	170708
1 ACRE	45522	30348	15174	45522	136566	22761	227610