

APPENDIX K

CIP Cost Estimates

Preliminary Project Cost Estimate
ST-1 Reservoir Life Extension

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization & Cleanup	1	LUMP SUM	8,000	8,000
3	Structure Excavation	1	LUMP SUM	1,000	1,000
4	Reservoir Foundation	1	LUMP SUM	15,000	15,000
6	Site Piping	1	LUMP SUM	10,000	10,000
7	Electrical, Telemetry & Instrumentation	1	LUMP SUM	10,000	10,000
8	Recoating, Interior & Exterior	11,965	SF	9	107,685
9	Crushed Surfacing Base Course	140	CY	60	8,400
10	Crushed Surfacing Top Course	70	CY	60	4,200
11	Shoring or Extra Excavation Class B	1	LUMP SUM	400	400
Subtotal					\$164,685
Sales Tax at 8%					\$13,175
Subtotal					\$177,860
Contingency at 20%					\$35,572
Total Estimated Construction Cost					\$213,432
Engineering & Administration Costs at 25%					\$53,358
Total Estimated Project Cost					\$266,790

**Preliminary Project Cost Estimate
ST-2 Additional Reservoir**

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	25,000	25,000
2	Removal of Structure & Obstruction	1	LUMP SUM	4,000	4,000
3	Structure Excavation	1	LUMP SUM	5,000	5,000
4	Reservoir Foundation	1	LUMP SUM	30,000	30,000
5	Steel Reservoir	1	LUMP SUM	270,000	270,000
6	Site Piping	1	LUMP SUM	40,000	40,000
7	Electrical, Telemetry & Instrumentation	1	LUMP SUM	50,000	50,000
8	Landscaping	1	LUMP SUM	7,000	7,000
9	Crushed Surfacing Base Course	140	CY	60	8,400
10	Crushed Surfacing Top Course	70	CY	60	4,200
11	Shoring or Extra Excavation Class B	1	LUMP SUM	5,000	5,000
12	Surveying	1	LUMP SUM	2,000	2,000
Subtotal					\$450,600
Sales Tax at 8%					\$36,048
Subtotal					\$486,648
Contingency at 20%					\$97,330
Total Estimated Construction Cost					\$583,978
Engineering & Administration Costs at 25%					\$145,994
Total Estimated Project Cost					\$729,972

Preliminary Project Cost Estimate
D-1 SR 506 West of Olequa Creek Water Main Replacement

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization Connection to Existing Water Main and	1	LUMP SUM	7,000	7,000
2	Abandon Existing Water System in Place	1	EACH	3,000	3,000
3	Hydrant Assembly	1	EACH	6,000	6,000
4	Service Connection 1 In. Diam.	5	EACH	1,200	6,000
5	Boring Under SR 506	2	EACH	15,000	30,000
6	PVC Pipe for Water Main 4 In. Diam.	60	LF	25	1,500
7	PVC Pipe for Water Main 6 In. Diam.	20	LF	30	600
8	Crushed Surfacing Base Course	10	CY	60	600
9	Crushed Surfacing Top Course	10	CY	60	600
10	Commercial HMA	5	TON	200	1,000
11	Gate Valve 4 In.	1	EACH	1,000	1,000
12	Gate Valve 6 In.	2	EACH	1,100	2,200
13	Erosion Control	1	LUMP SUM	1,000	1,000
14	Traffic Control	1	LUMP SUM	6,000	6,000
15	Roadway Surveying	1	LUMP SUM	120	120
Subtotal					\$66,620
Sales Tax at 8%					\$5,330
Subtotal					\$71,950
Contingency at 20%					\$14,390
Total Estimated Construction Cost					\$86,340
Engineering & Administration Costs at 25%					\$21,585
Total Estimated Project Cost					\$107,924

Preliminary Project Cost Estimate
D-2 Firgrove Road, Enchanted Valley Drive South & Horseshoe Bend
Water Main Improvements

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	5,000	5,000
	Connection to Existing Water Main and				
2	Abandon Existing Water System in Place	4	EACH	3,000	12,000
3	Blowoff Assembly	2	EACH	3,000	6,000
3	Service Connection 1 In. Diam.	16	EACH	1,200	19,200
4	PVC Pipe for Water Main 4 In. Diam.	700	LF	25	17,500
5	PVC Pipe for Water Main 6 In. Diam.	1,400	LF	30	42,000
6	Crushed Surfacing Base Course	26	CY	60	1,556
7	Crushed Surfacing Top Course	17	CY	60	1,027
8	Commercial HMA	5	TON	200	1,000
9	Gate Valve 4 In.	1	EACH	1,000	1,000
10	Gate Valve 6 In.	2	EACH	1,100	2,200
11	Erosion Control	1	LUMP SUM	1,400	1,400
12	Traffic Control	1	LUMP SUM	4,200	4,200
13	Controlled Density Fill	10	CY	100	1,000
14	Roadway Surveying	1	LUMP SUM	1,400	1,400
	Subtotal				\$116,482
	Sales Tax at 8%				\$9,319
	Subtotal				\$125,801
	Contingency at 20%				\$25,160
	Total Estimated Construction Cost				\$150,961
	Engineering & Administration Costs at 25%				\$37,740
	Total Estimated Project Cost				\$188,701

Preliminary Project Cost Estimate
D-3 Enchanted Valley Water Main Improvements

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization Connection to Existing Water Main and	1	LUMP SUM	10,000	10,000
2	Abandon Existing Water System in Place	7	EACH	3,000	21,000
3	Service Connection 1 In. Diam.	61	EACH	1,200	73,200
4	Boring Under SR 506 and SR 411	2	EACH	15,000	30,000
5	PVC Pipe for Water Main 6 In. Diam.	1,300	LF	30	39,000
6	PVC Pipe for Water Main 8 In. Diam.	6,150	LF	35	215,250
7	Crushed Surfacing Base Course	138	CY	60	8,278
8	Crushed Surfacing Top Course	91	CY	60	5,463
9	Commercial HMA	15	TON	200	3,000
10	Gate Valve 6 In.	4	EACH	1,100	4,400
11	Gate Valve 8 In.	13	EACH	1,200	15,600
12	Erosion Control	1	LUMP SUM	7,450	7,450
13	Traffic Control	1	LUMP SUM	14,900	14,900
14	Controlled Density Fill	5	CY	100	500
15	Roadway Surveying	1	LUMP SUM	7,450	7,450
Subtotal					\$455,491
Sales Tax at 8%					\$36,439
Subtotal					\$491,930
Contingency at 20%					\$98,386
Total Estimated Construction Cost					\$590,316
Engineering & Administration Costs at 25%					\$147,579
Total Estimated Project Cost					\$737,896

Preliminary Project Cost Estimate
D-4 8th Street Water Main Replacement

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	5,000	5,000
	Connection to Existing Water Main and				
2	Abandon Existing Water System in Place	5	EACH	3,000	15,000
3	Service Connection 1 In. Diam.	11	EACH	1,200	13,200
4	PVC Pipe for Water Main 8 In. Diam.	2,300	LF	35	80,500
5	Crushed Surfacing Base Course	43	CY	60	2,556
6	Crushed Surfacing Top Course	28	CY	60	1,687
7	Commercial HMA	15	TON	200	3,000
8	Gate Valve 8 In.	10	EACH	1,200	12,000
9	Erosion Control	1	LUMP SUM	2,300	2,300
10	Traffic Control	1	LUMP SUM	4,600	4,600
11	Controlled Density Fill	10	CY	100	1,000
12	Roadway Surveying	1	LUMP SUM	2,300	2,300
	Subtotal				\$143,142
	Sales Tax at 8%				\$11,451
	Subtotal				\$154,594
	Contingency at 20%				\$30,919
	Total Estimated Construction Cost				\$185,512
	Engineering & Administration Costs at 25%				\$46,378
	Total Estimated Project Cost				\$231,890

Preliminary Project Cost Estimate
D-5 7th Street Water Main Replacement

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	7,000	7,000
2	Connection to Existing Water Main and Abandon Existing Water System in Place	10	EACH	3,000	30,000
3	Blowoff Assembly	2	EACH	3,000	6,000
3	Service Connection 1 In. Diam.	22	EACH	1,200	26,400
4	Boring Under SR 506	1	EACH	15,000	15,000
5	PVC Pipe for Water Main 8 In. Diam.	5,400	LF	35	189,000
6	Crushed Surfacing Base Course	100	CY	60	6,000
7	Crushed Surfacing Top Course	66	CY	60	3,960
8	Commercial HMA	-	TON	200	-
9	Gate Valve 8 In.	18	EACH	1,200	21,600
10	Erosion Control	1	LUMP SUM	2,700	2,700
11	Traffic Control	1	LUMP SUM	8,100	8,100
12	Controlled Density Fill	-	CY	100	-
13	Roadway Surveying	1	LUMP SUM	5,400	5,400
Subtotal					\$321,160
Sales Tax at 8%					\$25,693
Subtotal					\$346,853
Contingency at 20%					\$69,371
Total Estimated Construction Cost					\$416,223
Engineering & Administration Costs at 25%					\$104,056
Total Estimated Project Cost					\$520,279

Preliminary Project Cost Estimate
D-6 9th Street and C Street Water Main Replacements

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	5,000	5,000
2	Connection to Existing Water Main and				
2	Abandon Existing Water System in Place	5	EACH	3,000	15,000
3	Blowoff Assembly	1	EACH	3,000	3,000
3	Service Connection 1 In. Diam.	11	EACH	1,200	13,200
4	PVC Pipe for Water Main 8 In. Diam.	1,250	LF	35	43,750
5	Crushed Surfacing Base Course	23	CY	60	1,389
6	Crushed Surfacing Top Course	15	CY	60	917
7	Commercial HMA	-	TON	200	-
8	Gate Valve 8 In.	6	EACH	1,200	7,200
9	Erosion Control	1	LUMP SUM	1,250	1,250
10	Traffic Control	1	LUMP SUM	2,500	2,500
11	Controlled Density Fill	-	CY	100	-
12	Roadway Surveying	1	LUMP SUM	1,250	1,250
Subtotal					\$94,456
Sales Tax at 8%					\$7,556
Subtotal					\$102,012
Contingency at 20%					\$20,402
Total Estimated Construction Cost					\$122,414
Engineering & Administration Costs at 25%					\$30,604
Total Estimated Project Cost					\$153,018

Preliminary Project Cost Estimate
D-7 Annonen Road Water Main Improvement

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	5,000	5,000
2	Connection to Existing Water Main and Abandon Existing Water System in Place	1	EACH	3,000	3,000
3	Blowoff Assembly	1	EACH	3,000	3,000
3	Service Connection 1 In. Diam.	4	EACH	1,200	4,800
4	PVC Pipe for Water Main 4 In. Diam.	1,100	LF	25	27,500
5	Crushed Surfacing Base Course	20.37	CY	60	1,222
6	Crushed Surfacing Top Course	13.44	CY	60	807
7	Commercial HMA	5	TON	200	1,000
8	Gate Valve 4 In.	1	EACH	1,000	1,000
9	Erosion Control	1	LUMP SUM	1,100	1,100
10	Traffic Control	1	LUMP SUM	3,300	3,300
11	Controlled Density Fill	10	CY	100	1,000
12	Roadway Surveying	1	LUMP SUM	1,100	1,100
Subtotal					\$53,829
Sales Tax at 8%					\$4,306
Subtotal					\$58,135
Contingency at 20%					\$11,627
Total Estimated Construction Cost					\$69,762
Engineering & Administration Costs at 25%					\$17,441
Total Estimated Project Cost					\$87,203

**Preliminary Project Cost Estimate
D-8. D and E Streets Loop**

#	ITEM	QUANTITY	UNIT	UNIT COST (\$)	AMOUNT (\$)
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	5,000	5,000
2	Abandon Existing Water System in Place	2	EACH	3,000	6,000
3	Blowoff Assembly	-	EACH	3,000	-
3	Service Connection 1 In. Diam.	9	EACH	1,200	10,800
4	PVC Pipe for Water Main 8 In. Diam.	1,300	LF	35	45,500
5	Crushed Surfacing Base Course	24.07	CY	60	1,444
6	Crushed Surfacing Top Course	15.89	CY	60	953
7	Commercial HMA	-	TON	200	-
8	Gate Valve 8 In.	2	EACH	1,200	2,400
9	Erosion Control	1	LUMP SUM	1,300	1,300
10	Traffic Control	1	LUMP SUM	3,900	3,900
11	Controlled Density Fill	-	CY	100	-
12	Roadway Surveying	1	LUMP SUM	1,300	1,300
Subtotal					\$78,598
Sales Tax at 8%					\$6,288
Subtotal					\$84,886
Contingency at 20%					\$16,977
Total Estimated Construction Cost					\$101,863
Engineering & Administration Costs at 25%					\$25,466
Total Estimated Project Cost					\$127,328

**Preliminary Project Cost Estimate
D-9 Customer Shutoff Valves**

#	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	7,000	7,000
2	Service Connection 1 In. Diam.	280	EACH	300	84,000
3	Crushed Surfacing Base Course	10	CY	60	600
4	Crushed Surfacing Top Course	10	CY	60	600
5	Erosion Control	1	LUMP SUM	1,000	1,000
6	Traffic Control	1	LUMP SUM	2,000	2,000
Subtotal					\$95,200
Sales Tax at 8%					\$7,616
Subtotal					\$102,816
Contingency at 20%					\$20,563
Total Estimated Construction Cost					\$123,379
Engineering & Administration Costs at 25%					\$30,845
Total Estimated Project Cost					\$154,224

Preliminary Project Cost Estimate
D-11 Pressure Reducing Valve Stations

#	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
1	Mobilization, Cleanup and Demobilization	1	LUMP SUM	500	500
2	Pressure Reducing Valve Assemblies	2	EACH	2500	5,000
3	Vault	2	EACH	1000	2,000
3	Crushed Surfacing Base Course	10	CY	60	600
4	Crushed Surfacing Top Course	10	CY	60	600
5	Erosion Control	1	LUMP SUM	1,000	1,000
6	Traffic Control	1	LUMP SUM	2,000	2,000
Subtotal					\$11,700
Sales Tax at 8%					\$936
Subtotal					\$12,636
Contingency at 20%					\$2,527
Total Estimated Construction Cost					\$15,163
Engineering & Administration Costs at 25%					\$3,791
Total Estimated Project Cost					\$18,954

**Preliminary Project Cost Estimate
TR Treatment Energy Improvement Projects**

#	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TR-1	Turbidmeters	1	LUMP SUM	3000	\$3,000
TR-2	Chartless Recorders	1	LUMP SUM	6500	\$6,500
TR-3	Comprehensive Electrical Survey	1	LUMP SUM	10000	\$10,000
	On-line Analyzer (temperature,pH, chlorine				
TR-4	residual)	1	LUMP SUM	6500	\$6,500
TR-5	PLC	1	LUMP SUM	20000	\$20,000
TR-6	Leak Detection Survey	1	LUMP SUM	4000	\$4,000
TR-7	Energy Audits	1	LUMP SUM	4000	\$4,000