

Docket Optical System - Fwd: California City Recycled Water Proposal

From: Eric Solorio
To: Docket Optical System
Date: 8/13/2009 10:53 AM
Subject: Fwd: California City Recycled Water Proposal
Attachments: California City Recycled Water Proposal

DOCKET
08-AFC-2

DATE 8/13/2009

RECD. 8/13/2009

Gentlemen:

I have attached all the current spread sheets, drawings and data requested by you over the last month.

The only bit of information that we are still investigating is the source of bonding for the City's contribution to the project. I expect to have that information early next week and will confirm it with you as soon as I have it.

Among the documents is a plan, profile and engineer's estimate of the cost of a potable waterline from Beacon to Cal City. Please remember that we would like to be able to negotiate for the purchase of potable water from the Beacon site to replace chloraminated water that we cannot use from AVEK.

Our Council has twice approved the plan as is presented to you, both with and without a potable water option.

Once we have confirmed our funding source, we will send you a brief letter on City letterhead, confirming our Council's support for expanding our Recycled Water production to meet the needs of the Beacon Solar Project.

We have spent most of our energy working on the engineering and financial side of the project, recognizing that we jointly will need to produce a LOU, which will be patterned after the one produced by Rosamond.

If you have further questions or concerns, please contact me at (760) 596-2861 or by e-mail at your convenience.

Sincerely,

Michael J. Bevins
 Public Works Director
 City of California City

PROOF OF SERVICE (REVISED 4/28/09) FILED WITH
 ORIGINAL MAILED FROM SACRAMENTO ON 8/13/09
 TKG

Beacon Solar/Cal City Joint Water Exchange Project
Draft Capital Cost 2

<u>Description</u>	<u>Miles</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Beacon</u>	<u>Cal City</u>	<u>Total Cost</u>
Tertiary Line on (A) Neuralia from Beacon to Mendiburu in Cal City and (B) on Mendiburu from Neuralia to WWTP							
(A) 14" C-905 Pipe	9.35	49,368	Foot	\$150.00	7,405,200.00 +		7,405,200.00
(B) 14" C-905 Pipe	2.82	14,900	Foot	\$150.00	2,235,000.00 +		2,235,000.00
Booster		1	Each	\$800,000.00	1,000,000.00 +		1,000,000.00
Cal City Sewer Line Expansion							
Sewer Trunk Line Design/Build		1	Each	\$8,825,000.00	8,825,000.00 +		8,825,000.00
Neighborhood Sewer System Design/Build		1	Each	\$19,380,000.00	19,380,000.00 +		19,380,000.00
Connection Construction		2,354	Each	\$1,500.00		3,531,000.00	3,531,000.00
Abandonment of Septic and Seepage		2,354	Each	\$1,000.00		2,354,000.00	2,354,000.00
Main Line Pioneering Agreement		1,200	Each	-\$1,000.00	(1,200,000.00)		
2,754 Non Sewer Water Connections							
2,498 RE @ .57 AVG. Af/Yr Discharge = 1,424 Avg. Af/Yr							
2007 Effluent 846 Af/Yr with 1,461RE = 0.57 AF/Yr/RE							
Cal City WWTP Capacity Upgrades							
Head Works		1	Each	\$350,000.00	350,000.00		350,000.00
Lift Station		1	Each	\$100,000.00	100,000.00		100,000.00
Filter		1	Each	\$1,500,000.00	1,500,000.00		1,500,000.00
Contact Basin		1	Each	\$500,000.00	500,000.00		500,000.00
Sludge Handling		1	Each	\$600,000.00	600,000.00		600,000.00
Hydraulic Changes		1	Each	\$1,500,000.00	1,500,000.00		1,500,000.00
Engineering					457,500.00		457,500.00
Sewerline Collection Equipment		1	Each	\$500,000.00		500,000.00	
Golf Course Irrigation Upgrades		1	Each	\$2,000,000.00		2,000,000.00	2,000,000.00
** New Sewer Revenue [\$23.46 x 12 x 2,354 = \$662,698.08]							
+ Engineering Included							
Contingency/Legal/Financial					250,000.00		
Project Management					440,000.00		
Preliminary Engineering						200,000.00	
Total Project Cost:					43,342,700.00	8,585,000.00 **	51,927,700.00

2009/10 BUDGET PROPOSAL

				.8 MGD Capacity	1.7 MGD Capacity		
		2008/09	2009/10	2013/14	2013/14		
<u>Acct No</u>	<u>Account Description</u>	<u>Budget</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>		
Liabilities							
52-02511	Long Term Bonds	1,865,000.00					
52-02521	Bond Interest Payment	21,028.99					
Revenue							
Op Revenue						Customers	2,450
52-3731	Residential	457,000.00	457,000.00	457,000.00	698,544.00	Monthly Rate	\$23.76
52-3733	Connections	0.00	0.00	0.00	122,500.00	Connect Years:	30
52-3734	Commercial	329,000.00	329,000.00	329,000.00	0.00	Connect Rate:	\$1,500.00
	Recycled Water				256,785.00	AVEK AF Rate:	\$265.00
	Total Op Revenue	786,000.00	786,000.00	786,000.00	1,077,829.00	Purple Percent:	68%
						Purple Rate:	\$180.20
						Purple AF:	1,425
Non Op Revenue							
52-3612	Investment Earnings	5,200.00	5,200.00	5,200.00	0.00		
52-3997	Aspen Ave Sewer Assess	17,000.00	17,000.00	17,000.00	0.00		
	Total Non Op Revenue	22,200.00	22,200.00	22,200.00	0.00		
	Total Revenue:	808,200.00	808,200.00	808,200.00	1,077,829.00		
Expense							
Sewer Administration							
52-5211-110	Regular Salaries	32,455.00	32,455.00	10,385.60	22,069.40	Admin Rate:	68%
52-5213-112	Premium Overtime	1,500.00	1,500.00	480.00	1,020.00		
52-5213-132	Medicare	471.00	471.00	150.72	320.28		
52-5213-133	Cafeteria Plan	7,200.00	7,200.00	2,304.00	4,896.00		
52-5213-134	Retirement	8,944.00	8,944.00	2,862.08	6,081.92		
52-5213-135	Unemployment Ins	158.00	158.00	50.56	107.44		
52-5213-136	Worker's Comp	302.00	302.00	96.64	205.36		
52-5211-143	Educational Incentive	500.00	500.00	160.00	340.00		
52-5211-242	Admin Copy Expense	450.00	450.00	144.00	306.00		
	Total Sewer Administration	51,980.00	51,980.00	16,633.60	35,346.40		

Treatment & Disposal									
52-5213-110	Regular Salaries	183,957	186,000	186,000	62,000				
52-5213-111	Straight Overtime	6,500	17,800	17,800	0				
52-5213-112	Premium Overtime	13,488	31,700	31,700	0				
52-5213-132	Medicare	2,957	3,400	3,400	1,100	End			
52-5213-133	Cafeteria Plan	32,640	32,640	32,640	11,000	Year	Interest	Principle	Balance
52-5213-134	Retirement	47,948	49,240	49,240	16,400	1	300,475	166,303	8,418,697
52-5213-135	Unemployment Ins	714	720	720	230	2	294,654	172,123	8,246,574
52-5213-136	Worker's Comp	13,238	16,800	16,800	5,600	3	288,630	178,148	8,068,426
52-5213-140	Uniforms/Safety Equip	3,500	3,500	3,500	1,100	4	282,395	184,383	7,884,043
52-5213-210	Subscr/Books/Dues	1,000	1,000	1,000	500	5	275,941	190,836	7,693,206
52-5213-230	Travel/Lodging/Reg	500	2,000	2,000	750	6	269,262	197,516	7,495,691
52-5213-241	Office Supplies	4,000	7,800	7,800	0	7	262,349	204,429	7,291,262
52-5213-250	Equipment Maintenance	5,000	7,000	7,000	7,000	8	255,194	211,584	7,079,678
52-5213-253	Transfer Out-Garage Operations	55,000	55,000	55,000	0	9	247,789	218,989	6,860,689
52-5213-254	Veh Operation/Maint	4,000	5,200	5,200	5,200	10	240,124	226,654	6,634,036
52-5213-255	RSI Fuel	12,600	12,600	12,600	12,600	11	232,191	234,587	6,399,449
52-5213-270	Bldg Operation/Maint	3,000	3,300	3,300	0	12	223,981	242,797	6,156,652
52-5213-281	Electricity	105,000	110,000	110,000	220,000	13	215,483	251,295	5,905,357
52-5213-282	Gas	0	3,000	3,000	6,000	14	206,687	260,090	5,645,266
52-5213-284	Telephone	4,200	7,300	7,300	0	15	197,584	269,194	5,376,073
52-5213-310	Professional Services	4,000	0	0	0	16	188,163	278,615	5,097,457
52-5213-314	Lab Sampling	13,000	18,000	18,000	18,000	17	178,411	288,367	4,809,090
52-5213-315	Helt Engineering	30,000	0	0	0	18	168,318	298,460	4,510,631
52-5213-450	Special Depart Supp	5,000	7,200	7,200	0	19	157,872	308,906	4,201,725
52-5213-480	Chemicals	78,500	20,000	20,000	40,000	20	147,060	319,718	3,882,007
52-5213-510	Liability Insurance	7,040	8,700	8,700	8,700	21	135,870	330,908	3,551,100
52-5213-610	Licenses & Permits	14,000	20,000	20,000	0	22	124,288	342,489	3,208,610
52-5213-630	Other Contracts	46,500	27,000	27,000	0	23	112,301	354,477	2,854,134
52-5213-632	Software License	12,000	10,000	10,000	0	24	99,895	366,883	2,487,251
52-5213-720	Buildings	25,000	0	0	0	25	87,054	379,724	2,107,527
52-5213-730	Non-Building Improvements	25,000	0	0	0	26	73,763	393,014	1,714,512
52-5213-740	Purchase of Equipment	25,000	0	0	0	27	60,008	406,770	1,307,742
52-5213-810	Principle Payment	35,000	35,000	35,000	166,303	28	45,771	421,007	886,735
52-5213-820	Interest Expense	107,500	107,500	107,500	300,475	29	31,036	435,742	450,993
	Treatment & Disposal Totals:	926,782	809,400	809,400	882,958	30	15,785	450,993	0
						Recycle Pmt %:	43.31%		

Recycled Water Delivery					
52-5213-110	Regular Salaries			62,000	
52-5213-111	Straight Overtime			0	
52-5213-112	Premium Overtime			0	
52-5213-132	Medicare			1,100	
52-5213-133	Cafeteria Plan			11,000	
52-5213-134	Retirement			16,400	
52-5213-135	Unemployment Ins			230	
52-5213-136	Worker's Comp			5,600	
52-5213-140	Uniforms/Safety Equip			500	
52-5213-250	Equipment Maintenance			500	
52-5213-253	Transfer Out-Garage Operations			5,000	
52-5213-254	Veh Operation/Maint			3,000	
52-5213-255	RSI Fuel			12,000	
52-5213-270	Line Operation/Maint (Reserve)			5,000	
52-5213-281	Electricity			20,000	
52-5213-480	Chemicals			10,000	
52-5213-740	Equipment Purchase			6,000	
	Total Recycled Water Delivery:	0	0	0	158,330
	Total Sewer Expense:	978,762	861,380	826,034	918,304
	Net Profit (Loss)	(170,562)	(53,180)	(17,834)	1,195

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

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Data Selection

Work List

Work Order

< 01 >

Results for 0903088-01

California City
21000 Hacienda Blvd.
California City, CA 93505

Project:
Project Number:
COC Num:
Project Manager:

CL2 Contact/Sludge Storage Pile
[none]

Greg Fielding

Reported:
07/20/09 09:02

Sampling Location:

Sample Name: **CL2 Contact**
Sample Date: 3/6/2009

Sampled By:

Greg Fielding

Sample Depth:

Sample Matrix:

Water

Organochlorine Pesticides and PCB's (EPA Method 8080)

Analyte	Result	MDL	PQL	Units	Dilution	Analysis	Analyzed	Analyst	Instrum	Batch	Prep Method	Prepared Notes
Aldrin	ND	0.0013	0.0050	ug/L	1.020	EPA-8080	3/16/09	JYT	GC-1	BSC1123	EPA 3510C	3/10/09
alpha-BHC	ND	0.0011	0.0050	"	"	"	"	"	"	"	"	"
beta-BHC	ND	0.0021	0.0050	"	"	"	"	"	"	"	"	"
delta-BHC	ND	0.0014	0.0050	"	"	"	"	"	"	"	"	"
gamma-BHC (Lindane)	ND	0.00094	0.0050	"	"	"	"	"	"	"	"	"
Chlordane (Technical)	ND	0.38	0.50	"	"	"	"	"	"	"	"	"
4,4'-DDD	ND	0.0017	0.0050	"	"	"	"	"	"	"	"	V11
4,4'-DDE	ND	0.0019	0.0050	"	"	"	"	"	"	"	"	"
4,4'-DDT	ND	0.00076	0.0050	"	"	"	"	"	"	"	"	V11
Dieldrin	ND	0.0012	0.0050	"	"	"	"	"	"	"	"	"
Endosulfan I	ND	0.0016	0.0050	"	"	"	"	"	"	"	"	"
Endosulfan II	ND	0.0014	0.0050	"	"	"	"	"	"	"	"	V11
Endosulfan sulfate	ND	0.0026	0.0050	"	"	"	"	"	"	"	"	V11
Endrin	ND	0.00082	0.0050	"	"	"	"	"	"	"	"	"
Endrin aldehyde	ND	0.0032	0.010	"	"	"	"	"	"	"	"	V11
Heptachlor	ND	0.0012	0.0050	"	"	"	"	"	"	"	"	"
Heptachlor epoxide	ND	0.00099	0.0050	"	"	"	"	"	"	"	"	"
Methoxychlor	ND	0.0011	0.0050	"	"	"	"	"	"	"	"	"
Toxaphene	ND	0.42	2.0	"	"	"	"	"	"	"	"	"
PCB-1016	ND	0.020	0.20	"	"	"	"	"	"	"	"	"
PCB-1221	ND	0.089	0.20	"	"	"	"	"	"	"	"	"
PCB-1232	ND	0.090	0.20	"	"	"	"	"	"	"	"	"
PCB-1242	ND	0.095	0.20	"	"	"	"	"	"	"	"	"
PCB-1248	ND	0.025	0.20	"	"	"	"	"	"	"	"	"
PCB-1254	ND	0.042	0.20	"	"	"	"	"	"	"	"	"
PCB-1260	ND	0.020	0.20	"	"	"	"	"	"	"	"	"

Total PCB's (Summation)	ND	0.10	0.20	"	"	"	"	"	"	"	"	"
TCMX (Surrogate)	96.5% (LCL-UCL: 72 - 129)			1.020	EPA-8080	3/16/09	JYT	GC-1	BSC1123	EPA 3510C	3/10/09	
Dibutyl chlorendate (Surrogate)	129% (LCL-UCL: 82 - 177)			"	"	"	"	"	"	"	"	

Volatile Organic Analysis (EPA Method 8260)

Analyte	Result	MDL	PQL	Units	Dilution	Analysis	Analyzed	Analyst	Instrum	Batch	Prep Method	Prepared Notes
Benzene	ND	0.18	0.50	ug/L	1	EPA-8260	3/13/09	SVM	MS-V9	BSC0759	EPA 5030 Water MS	3/13/09
Bromobenzene	ND	0.22	0.50	"	"	"	"	"	"	"	"	"
Bromochloromethane	ND	0.35	0.50	"	"	"	"	"	"	"	"	"
Bromodichloromethane	2.9	0.30	0.50	"	"	"	"	"	"	"	"	"
Bromoform	ND	0.24	0.50	"	"	"	"	"	"	"	"	"
Bromomethane	ND	0.21	1.0	"	"	"	"	"	"	"	"	"
n-Butylbenzene	ND	0.12	0.50	"	"	"	"	"	"	"	"	"
sec-Butylbenzene	ND	0.18	0.50	"	"	"	"	"	"	"	"	"
tert-Butylbenzene	ND	0.20	0.50	"	"	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.20	0.50	"	"	"	"	"	"	"	"	"
Chlorobenzene	ND	0.14	0.50	"	"	"	"	"	"	"	"	"
Chloroethane	ND	0.25	0.50	"	"	"	"	"	"	"	"	"
Chloroform	ND	0.23	0.50	"	"	"	"	"	"	"	"	"
Chloromethane	ND	0.20	0.50	"	"	"	"	"	"	"	"	"
2-Chlorotoluene	ND	0.20	0.50	"	"	"	"	"	"	"	"	"
4-Chlorotoluene	ND	0.37	0.50	"	"	"	"	"	"	"	"	"
Dibromochloromethane	1.3	0.23	0.50	"	"	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	0.46	1.0	"	"	"	"	"	"	"	"	"
1,2-Dibromoethane	ND	0.29	0.50	"	"	"	"	"	"	"	"	"
Dibromomethane	ND	0.37	0.50	"	"	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.15	0.50	"	"	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.15	0.50	"	"	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.16	0.50	"	"	"	"	"	"	"	"	"
Dichlorodifluoromethane	ND	0.22	0.50	"	"	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.13	0.50	"	"	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.24	0.50	"	"	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.23	0.50	"	"	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.32	0.50	"	"	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.14	0.50	"	"	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.16	0.50	"	"	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.095	0.50	"	"	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.19	0.50	"	"	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.18	0.50	"	"	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.19	0.50	"	"	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.13	0.50	"	"	"	"	"	"	"	"	"
Ethylbenzene	ND	0.16	0.50	"	"	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.26	0.50	"	"	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.16	0.50	"	"	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.21	0.50	"	"	"	"	"	"	"	"	"

Methylene chloride	ND	0.27	1.0	"	"	"	"	"	"	"	"	"	"
Methyl t-butyl ether	ND	0.22	0.50	"	"	"	"	"	"	"	"	"	"
Naphthalene	ND	0.30	0.50	"	"	"	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.27	0.50	"	"	"	"	"	"	"	"	"	"
Styrene	ND	0.18	0.50	"	"	"	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.14	0.50	"	"	"	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.28	0.50	"	"	"	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.28	0.50	"	"	"	"	"	"	"	"	"	"
Toluene	ND	0.12	0.50	"	"	"	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.37	0.50	"	"	"	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.31	0.50	"	"	"	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.18	0.50	"	"	"	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.44	0.50	"	"	"	"	"	"	"	"	"	"
Trichloroethene	ND	0.16	0.50	"	"	"	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.22	0.50	"	"	"	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.43	1.0	"	"	"	"	"	"	"	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.27	0.50	"	"	"	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.15	0.50	"	"	"	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.16	0.50	"	"	"	"	"	"	"	"	"	"
Vinyl chloride	ND	0.16	0.50	"	"	"	"	"	"	"	"	"	"
Total Xylenes	ND	0.53	1.0	"	"	"	"	"	"	"	"	"	"
p- & m-Xylenes	ND	0.42	0.50	"	"	"	"	"	"	"	"	"	"
o-Xylene	ND	0.13	0.50	"	"	"	"	"	"	"	"	"	"

<i>1,2-Dichloroethane-d4 (Surrogate)</i>	96.0% (LCL-UCL: 76 - 114)	1	EPA-8260	3/13/09	SVM	MS-V9	BSC0759	EPA 5030 Water MS	3/13/09
<i>Toluene-d8 (Surrogate)</i>	96.9% (LCL-UCL: 88 - 110)	"	"	"	"	"	"	"	"
<i>4-Bromofluorobenzene (Surrogate)</i>	95.5% (LCL-UCL: 86 - 115)	"	"	"	"	"	"	"	"

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Analyte	Result	MDL	PQL	Units	Dilution	Analysis	Analyzed	Analyst	Instrum	Batch	Prep Method	Prepared	Notes
Acenaphthene	ND	0.48	2.0	ug/L	0.950	EPA-8270C	3/18/09	SKC	MS-B2	BSC1290	EPA 3510C	3/10/09	
Acenaphthylene	ND	0.64	2.0	"	"	"	"	"	"	"	"	"	
Aldrin	ND	0.80	2.0	"	"	"	"	"	"	"	"	"	
Aniline	ND	0.46	5.0	"	"	"	"	"	"	"	"	"	
Anthracene	ND	0.79	2.0	"	"	"	"	"	"	"	"	"	
Benzidine	ND	4.7	20	"	"	"	"	"	"	"	"	"	
Benzo[a]anthracene	ND	0.52	2.0	"	"	"	"	"	"	"	"	"	
Benzo[b]fluoranthene	ND	0.66	2.0	"	"	"	"	"	"	"	"	"	
Benzo[k]fluoranthene	ND	0.80	2.0	"	"	"	"	"	"	"	"	"	
Benzo[a]pyrene	ND	0.73	2.0	"	"	"	"	"	"	"	"	"	
Benzo[g,h,i]perylene	ND	0.94	2.0	"	"	"	"	"	"	"	"	"	
Benzoic acid	ND	6.1	10	"	"	"	"	"	"	"	"	"	
Benzyl alcohol	ND	0.67	2.0	"	"	"	"	"	"	"	"	"	
Benzyl butyl phthalate	ND	0.59	2.0	"	"	"	"	"	"	"	"	"	
alpha-BHC	ND	0.50	2.0	"	"	"	"	"	"	"	"	"	
beta-BHC	ND	0.48	2.0	"	"	"	"	"	"	"	"	"	

delta-BHC	ND	0.60	2.0	"	"	"	"	"	"	"	"	"	"
gamma-BHC (Lindane)	ND	0.56	2.0	"	"	"	"	"	"	"	"	"	"
bis(2-Chloroethoxy)methane	ND	0.58	2.0	"	"	"	"	"	"	"	"	"	"
bis(2-Chloroethyl) ether	ND	0.52	2.0	"	"	"	"	"	"	"	"	"	"
bis(2-Chloroisopropyl)ether	ND	0.73	2.0	"	"	"	"	"	"	"	"	"	"
bis(2-Ethylhexyl)phthalate	2.0	1.1	5.0	"	"	"	"	"	"	"	"	"	J,M03
4-Bromophenyl phenyl ether	ND	0.69	2.0	"	"	"	"	"	"	"	"	"	"
4-Chloroaniline	ND	0.87	2.0	"	"	"	"	"	"	"	"	"	"
2-Chloronaphthalene	ND	0.50	2.0	"	"	"	"	"	"	"	"	"	"
4-Chlorophenyl phenyl ether	ND	0.68	2.0	"	"	"	"	"	"	"	"	"	"
Chrysene	ND	0.73	2.0	"	"	"	"	"	"	"	"	"	"
4,4'-DDD	ND	0.50	2.0	"	"	"	"	"	"	"	"	"	"
4,4'-DDE	ND	0.58	3.0	"	"	"	"	"	"	"	"	"	"
4,4'-DDT	ND	0.27	2.0	"	"	"	"	"	"	"	"	"	"
Dibenzo[a,h]anthracene	ND	0.92	3.0	"	"	"	"	"	"	"	"	"	"
Dibenzofuran	ND	0.81	2.0	"	"	"	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.58	2.0	"	"	"	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.66	2.0	"	"	"	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.53	2.0	"	"	"	"	"	"	"	"	"	"
3,3-Dichlorobenzidine	ND	0.88	10	"	"	"	"	"	"	"	"	"	"
Dieldrin	ND	0.52	3.0	"	"	"	"	"	"	"	"	"	"
Diethyl phthalate	ND	0.85	2.0	"	"	"	"	"	"	"	"	"	"
Dimethyl phthalate	ND	0.55	2.0	"	"	"	"	"	"	"	"	"	"
Di-n-butyl phthalate	ND	0.74	2.0	"	"	"	"	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	0.99	2.0	"	"	"	"	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	0.74	2.0	"	"	"	"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.85	2.0	"	"	"	"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.70	2.0	"	"	"	"	"	"	"	"	"	"
Endosulfan I	ND	2.7	10	"	"	"	"	"	"	"	"	"	"
Endosulfan II	ND	2.4	10	"	"	"	"	"	"	"	"	"	"
Endosulfan sulfate	ND	0.58	3.0	"	"	"	"	"	"	"	"	"	"
Endrin	ND	0.54	2.0	"	"	"	"	"	"	"	"	"	"
Endrin aldehyde	ND	0.86	10	"	"	"	"	"	"	"	"	"	"
Fluoranthene	ND	0.70	2.0	"	"	"	"	"	"	"	"	"	"
Fluorene	ND	0.73	2.0	"	"	"	"	"	"	"	"	"	"
Heptachlor	ND	0.60	2.0	"	"	"	"	"	"	"	"	"	"
Heptachlor epoxide	ND	0.63	2.0	"	"	"	"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.71	2.0	"	"	"	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.59	2.0	"	"	"	"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.26	2.0	"	"	"	"	"	"	"	"	"	"
Hexachloroethane	ND	0.52	2.0	"	"	"	"	"	"	"	"	"	"
Indeno[1,2,3-cd]pyrene	ND	0.92	2.0	"	"	"	"	"	"	"	"	"	"
Isophorone	ND	0.51	2.0	"	"	"	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.51	2.0	"	"	"	"	"	"	"	"	"	"
Naphthalene	ND	0.62	2.0	"	"	"	"	"	"	"	"	"	"
2-Naphthylamine	ND	6.5	20	"	"	"	"	"	"	"	"	"	"
2-Nitroaniline	ND	0.80	2.0	"	"	"	"	"	"	"	"	"	"
3-Nitroaniline	ND	0.82	2.0	"	"	"	"	"	"	"	"	"	"
4-Nitroaniline	ND	1.1	5.0	"	"	"	"	"	"	"	"	"	"
Nitrobenzene	ND	0.55	2.0	"	"	"	"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.45	2.0	"	"	"	"	"	"	"	"	"	"
N-Nitrosodi-N-propylamine	ND	0.59	2.0	"	"	"	"	"	"	"	"	"	"

N-Nitrosodiphenylamine	ND	0.80	2.0	"	"	"	"	"	"	"	"	"
Phenanthrene	ND	0.60	2.0	"	"	"	"	"	"	"	"	"
Pyrene	ND	0.62	2.0	"	"	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.67	2.0	"	"	"	"	"	"	"	"	"
4-Chloro-3-methylphenol	ND	0.67	5.0	"	"	"	"	"	"	"	"	"
2-Chlorophenol	ND	0.65	2.0	"	"	"	"	"	"	"	"	"
2,4-Dichlorophenol	ND	0.60	2.0	"	"	"	"	"	"	"	"	"
2,4-Dimethylphenol	ND	0.52	2.0	"	"	"	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	2.2	10	"	"	"	"	"	"	"	"	"
2,4-Dinitrophenol	ND	2.4	10	"	"	"	"	"	"	"	"	"
2-Methylphenol	ND	0.57	2.0	"	"	"	"	"	"	"	"	"
3- & 4-Methylphenol	ND	0.83	2.0	"	"	"	"	"	"	"	"	"
2-Nitrophenol	ND	0.42	2.0	"	"	"	"	"	"	"	"	"
4-Nitrophenol	ND	1.7	2.0	"	"	"	"	"	"	"	"	"
Pentachlorophenol	ND	0.45	10	"	"	"	"	"	"	"	"	"
Phenol	ND	0.37	2.0	"	"	"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.93	5.0	"	"	"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.43	5.0	"	"	"	"	"	"	"	"	"

2-Fluorophenol (Surrogate)	57.8% (LCL-UCL: 36 - 98)	0.950	EPA-8270C	3/18/09	SKC	MS-B2	BSC1290	EPA 3510C	3/10/09
Phenol-d5 (Surrogate)	40.7% (LCL-UCL: 10 - 89)	"	"	"	"	"	"	"	"
Nitrobenzene-d5 (Surrogate)	66.0% (LCL-UCL: 59 - 122)	"	"	"	"	"	"	"	"
2-Fluorobiphenyl (Surrogate)	67.9% (LCL-UCL: 44 - 138)	"	"	"	"	"	"	"	"
2,4,6-Tribromophenol (Surrogate)	93.7% (LCL-UCL: 51 - 139)	"	"	"	"	"	"	"	"
p-Terphenyl-d14 (Surrogate)	70.6% (LCL-UCL: 23 - 173)	"	"	"	"	"	"	"	"

Water Analysis (General Chemistry)

Analyte	Result	MDL	PQL	Units	Dilution	Analysis	Analyzed	Analyst	Instrum	Batch	Prep Method	Prepared Notes
Total Recoverable Calcium	29	0.021	0.10	mg/L	1	EPA-200.7	3/11/09	ARD	PE-OP1	BSC0570	EPA 200.2	3/10/09
Total Recoverable Magnesium	7.6	0.019	0.050	"	"	"	"	"	"	"	"	"
Total Recoverable Sodium	180	0.053	0.50	"	"	"	"	"	"	"	"	"
Chloride	110	0.059	0.50	"	"	EPA-300.0	3/16/09	VH1	IC1	BSC1070	No Prep	3/16/09
Fluoride	1.3	0.010	0.050	"	"	"	"	"	"	"	"	"
Sulfate	100	0.21	1.0	"	"	"	"	"	"	"	"	"
Hardness as CaCO3	100	0.10	0.50	"	"	Calc	3/17/09	TMS	Calc	BSC0624	Calc	3/10/09
Total Dissolved Solids @ 180 C	590	33	33	"	3.333	EPA-160.1	3/10/09	JLR	MANUAL	BSC0825	No Prep	"
Total Cyanide	0.011	0.0032	0.0050	"	1	EPA-335.4	"	TDC	KONE-1	BSC0547	EPA 335.4 Total	3/9/09

Water Analysis (Metals)

Analyte	Result	MDL	PQL	Units	Dilution	Analysis	Analyzed	Analyst	Instrum	Batch	Prep Method	Prepared Notes
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Hexavalent Chromium	0.35	0.023	0.20	ug/L	1	EPA-218.6	3/6/09	VH1	IC4	BSC0600	No Prep	3/6/09	
Total Recoverable Antimony	0.46	0.23	2.0	"	"	EPA-200.8	3/11/09	PRA	PE-EL1	BSC0720	EPA 200.2	3/11/09	J
Total Recoverable Arsenic	5.1	0.82	2.0	"	"	"	"	"	"	"	"	"	
Total Recoverable Beryllium	ND	0.80	10	"	"	EPA-200.7	"	ARD	PE-OP1	BSC0570	"	3/10/09	
Total Recoverable Boron	540	6.4	100	"	"	"	"	"	"	"	"	"	
Total Recoverable Cadmium	ND	0.88	10	"	"	"	"	"	"	"	"	"	
Total Recoverable Chromium	1.8	1.1	10	"	"	"	"	"	"	"	"	"	J
Total Recoverable Copper	1.0	0.78	10	"	"	"	"	"	"	"	"	"	J
Total Recoverable Lead	0.14	0.053	1.0	"	"	EPA-200.8	"	PRA	PE-EL1	BSC0720	"	3/11/09	J
Total Recoverable Mercury	ND	0.016	0.20	"	"	EPA-245.1	3/10/09	MEV	CETAC1	BSC0585	EPA 245.1	3/10/09	
Total Recoverable Nickel	ND	1.9	10	"	"	EPA-200.7	3/11/09	ARD	PE-OP1	BSC0570	EPA 200.2	"	
Total Recoverable Selenium	0.82	0.50	2.0	"	"	EPA-200.8	"	PRA	PE-EL1	BSC0720	"	3/11/09	J
Total Recoverable Silver	ND	2.5	10	"	"	EPA-200.7	"	ARD	PE-OP1	BSC0570	"	3/10/09	
Total Recoverable Thallium	ND	0.054	1.0	"	"	EPA-200.8	"	PRA	PE-EL1	BSC0720	"	3/11/09	
Total Recoverable Zinc	50	2.5	50	"	"	EPA-200.7	"	ARD	PE-OP1	BSC0570	"	3/10/09	

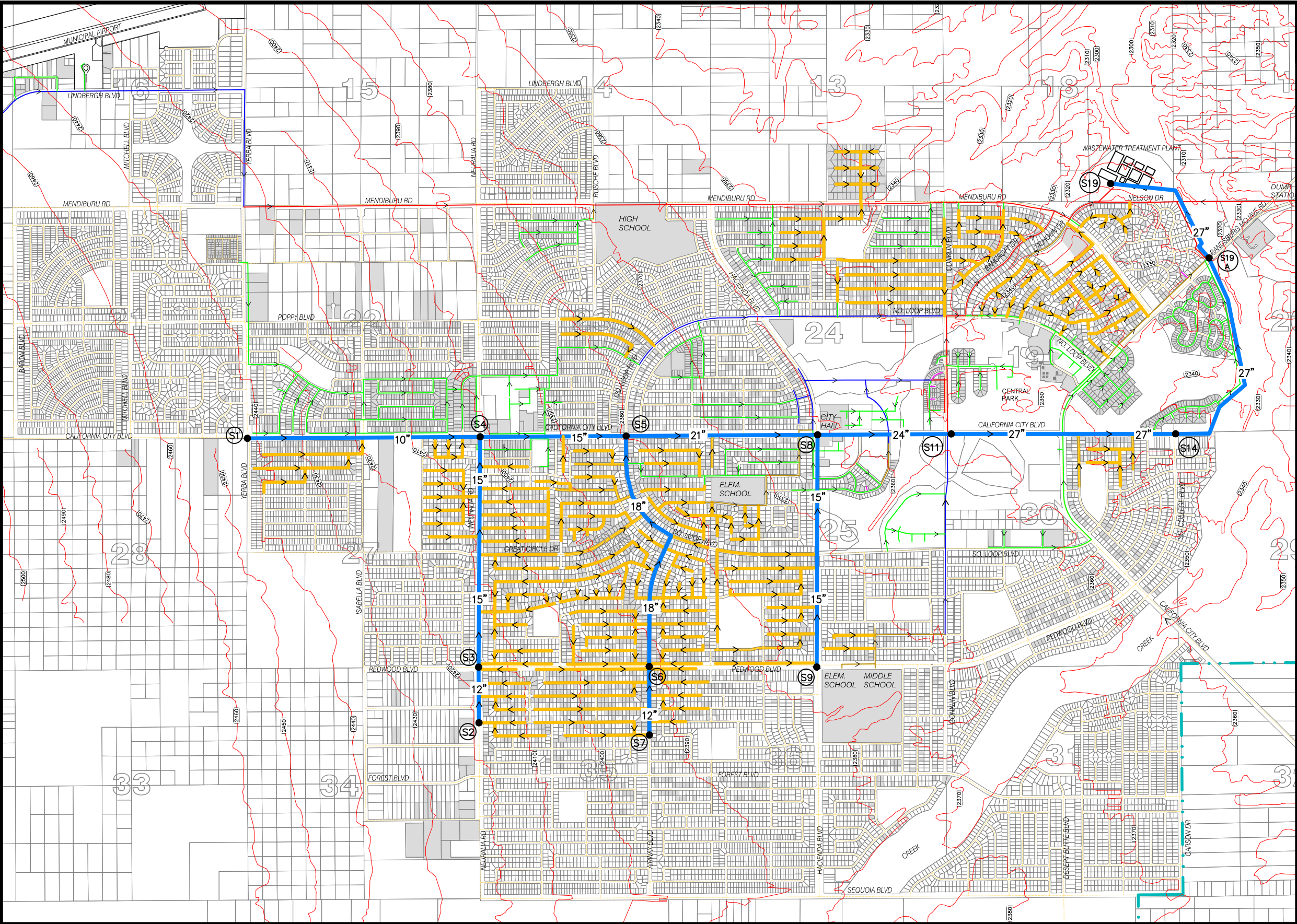
Flag Explanations

Flag	Explanation
J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
M03	Analyte detected in the Method Blank at a level between the PQL and the MDL.
V11	The Continuing Calibration Verification (CCV) recovery is not within established control limits.

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S:\DWG\09416\Sewer System - UPDATE - OPTION 2.dwg, 7/24/2009 12:50:23 PM, DWG To PDF.pc3



BEACON SOLAR / CALIFORNIA CITY
JOINT WATER EXCHANGE PROJECT

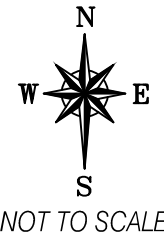


EXISTING SEWER LINES:

- EX. 15" SEWER LINE
- EX. 12" SEWER LINE
- EX. 10" SEWER LINE
- EX. 8" SEWER LINE
- EX. 6" SEWER LINE
- CITY LIMITS

MASTER PLANNED SEWER LINES:

- PROPOSED SEWER TRUNK LINES (9.30 miles)
- PROPOSED SEWER MAIN LINES (37.50 miles)
- EXISTING DEVELOPED LOTS - AS OF JULY 2008
- ANALYSIS NODE - SOUTH SERVICE AREA

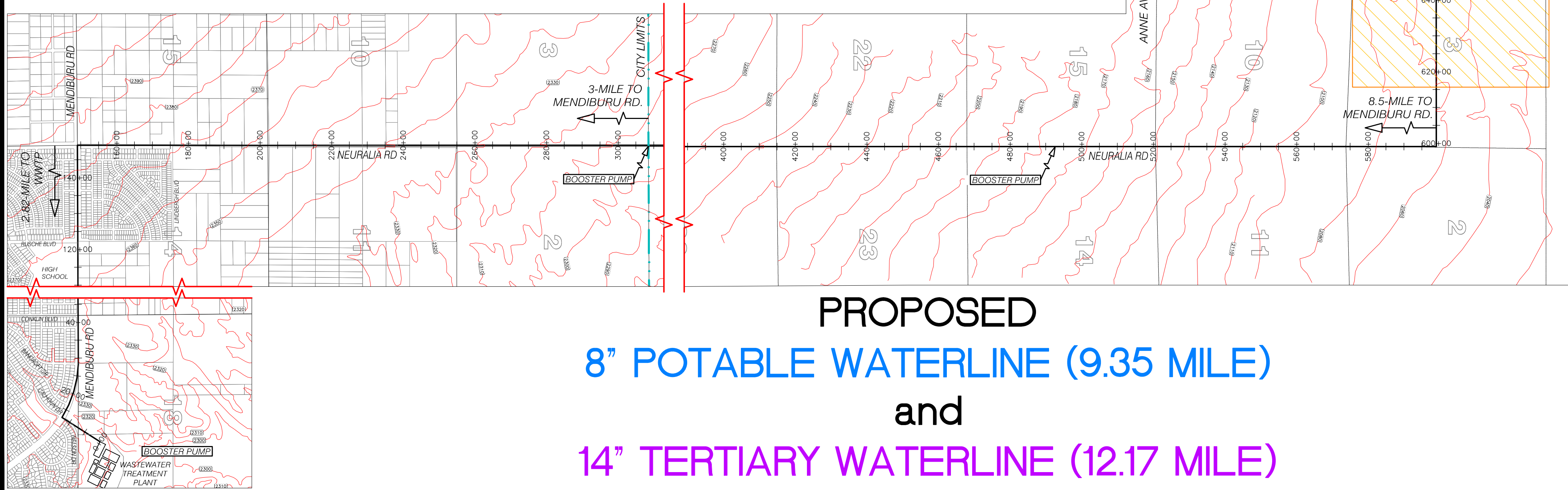
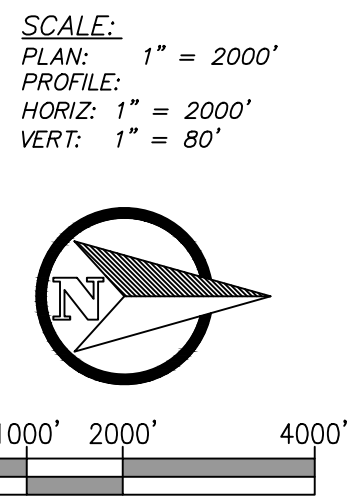
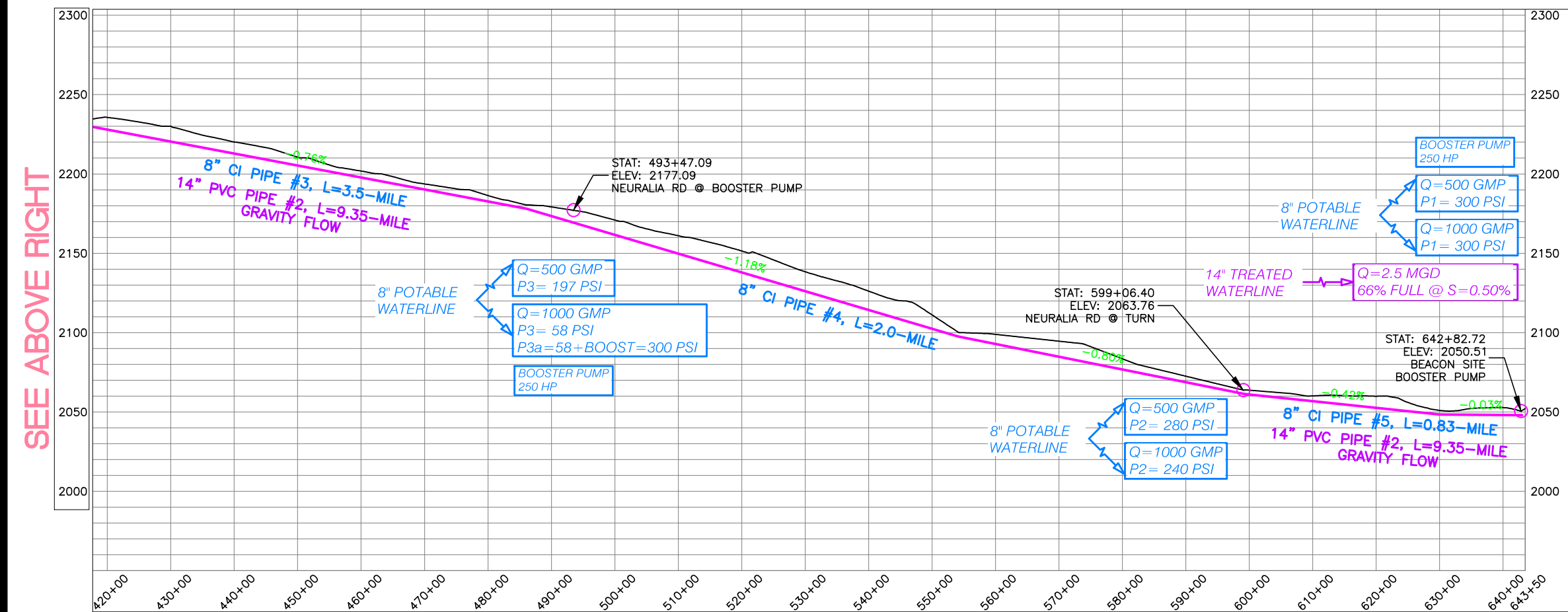
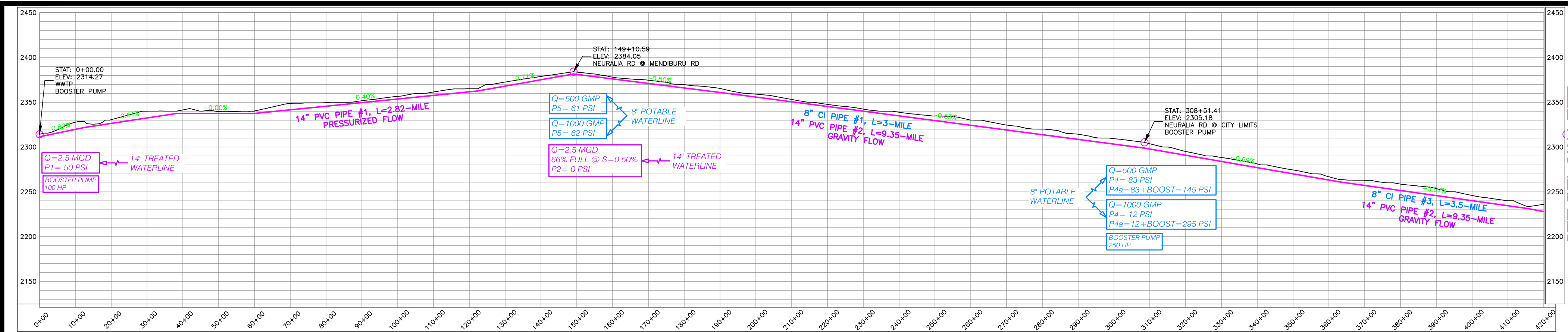


NOTE:
THE INFORMATION SHOWN ON THIS MAP WAS COLLECTED FROM SEVERAL SOURCES.
THEREFORE, THE ACCURACY OF THIS INFORMATION IS NOT WARRANTED IN ANY WAY. THE
CITY OF CALIFORNIA CITY & HELT ENGINEERING, INC. ASSUME NO LIABILITY FOR ANY CLAIMS
ARISING FROM THE USE OF THIS MAP.

JOB NO.	DATE: 07/24/09	REVISIONS	CK'D BY	DATE CK'D
09416	SCALE: AS-NOTED DRAWN BY: JMP CK'D BY: DATE CK'D:			

HELT ENGINEERING, INC.
CIVIL ENGINEERING LAND SURVEYING BUILDING DESIGN AERIAL PHOTOGRAPHY
2930 UNION AVE., BAKERSFIELD, CA 93305
PHONE: (661) 323-6045 FAX: (661) 323-0799

CITY OF CALIFORNIA CITY
KERN COUNTY, CALIFORNIA
BEACON SOLAR / CALIFORNIA CITY
JOINT WATER EXCHANGE PROJECT
SANITARY SEWER SYSTEM IMPROVEMENTS



PROPOSED
8" POTABLE WATERLINE (9.35 MILE)
and
14" TERTIARY WATERLINE (12.17 MILE)

S:\DWG\09419\NEURALIA RD - WATER LINE.DWG

DATE: 08/04/09	REVISIONS	CK'D BY	DATE	CK'D	JOB NO.
SCALE: AS-NOTED					09419
DRAWN BY: JMP					
CK'D BY:					
DATE CK'D:					

DATE: 08/04/09
SCALE: AS-NOTED
DRAWN BY: JMP
CK'D BY:
DATE CK'D:

HELT ENGINEERING, INC.
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CITY OF CALIFORNIA CITY
KERN COUNTY, CALIFORNIA
BEACON SOLAR/CAL CITY JOINT WATER EXCHANGE PROJECT
PROP. 8" POTABLE WATERLINE & 14" TERTIARY WATERLINE
PLAN & PROFILE

SHEET
1
OF 1 SHEETS

BEACON SOLAR/CAL CITY JOINT WATER EXCHANGE PROJECT
8-in POTABLE WATERLINE
AND
14-in TERTIARY WATERLINE

POTABLE WATERLINE FROM BEACON TO NEURALIA RD. @ MENDIBURU RD.					
ITEM		QUANTITY		UNIT COST	TOTAL COST
				(\$/ft)	(\$)
1	8" CAST IRON PIPE	9.35-mile	49,368 ft	\$ 160.00	\$ 7,898,900.00
2	BOOSTER STATION	---	3 ea.	\$ 800,000.00	\$ 2,400,000.00
3	CHLORINATION STATION	---	1 ea.	\$ 75,000.00	\$ 75,000.00
4	WELL STUDY/CONVERSION	--	1 ea.	\$ 30,000.00	\$ 30,000.00

8" CI Potable Waterline Total: \$ 10,403,900.00

TERTIARY LINE ON (A) NEURALIA RD - FROM BEACON TO MENDIBURU RD. & (B) ON MENDIBURU RD. FROM NEURALIA RD. TO WWTP					
ITEM		QUANTITY		UNIT COST	TOTAL COST
				(\$/ft)	(\$)
1	(A) 14" C-905 PVC PIPE	9.35-mile	49,368 ft	\$ 150.00	\$ 7,405,200.00
2	(B) 14" C-905 PVC PIPE	2.82-mile	14,900 ft	\$ 150.00	\$ 2,235,000.00
3	BOOSTER STATION	--	1 ea.	\$ 800,000.00	\$ 800,000.00

14" PVC Tertiary Waterline Total: \$ 10,440,200.00

GRAND TOTAL \$ 20,844,100.00



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
For the *BEACON SOLAR ENERGY
PROJECT***

Docket No. 08-AFC-2

**PROOF OF SERVICE
(Revised 4/28/09)**

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DECLARATION OF SERVICE

I, Teraja` Golston, declare that on August 13, 2009, I served and filed copies of the attached Beacon Solar (08-AFC-2) California City Water Supply Proposal. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[www.energy.ca.gov/sitingcases/beacon]. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

 x sent electronically to all email addresses on the Proof of Service list;

 x by personal delivery or by depositing in the United States mail at Sacramento with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

 x sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

 depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. _____

1516 Ninth Street, MS-4

Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Teraja` Golston