



July 21, 2016

Board of Directors
Clear Lake City Water Authority
900 Bay Area Boulevard
Houston, TX 77058

RE: Clear Lake City Water Authority
Capital Improvement and Infrastructure Plan 2017-2023
LAN Project No. 0765-20-029-100

Dear Directors:

Attached is the summary of the Authority's Capital Improvement Plan and Infrastructure Needs from 2017 thru 2023 not included in other bond issues. The proposed projects would require approximately \$88,000,000 in new voter authorized bond funds.

If you have any questions, please feel free to contact me at 713-821-1111

Sincerely,

William G. Rosenbaum, P.E.
Manager – Development/District Engineering



Lockwood, Andrews & Newnam, Inc
Texas Registered Engineering Firm # F-2614

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Clear Lake City Water Authority
 Capital Improvement Plan and Rehabilitation Needs, 2017 - 2023
 For Bond Authorization Election
 As of 7/14/17

Proposed Capital Improvement Projects for Bond Authorization Election in November, 2016 - \$88,000,000

Project	2017	2018	2019	2020	2021	2022	2023	Total
Water System								
1 Water Plant No.4 Modifications					\$1,500,000			\$1,500,000
2 Water Line Rehabilitation			\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000
4 Water Line Replacement: 20"-WP 3 to CLC Blvd								
Phase 1: WP 3 to El Dorado (1966-50 yrs)	\$2,250,000					\$1,500,000		\$2,250,000
Phase 2: El Dorado to Pineloch (1977-39 yrs)			\$829,131	\$0	\$510,886	\$812,592	\$458,835	\$1,500,000
5 Water Tank Recoating								\$2,611,444
6 <u>Water System SCADA Upgrades</u>				<u>\$150,000</u>				<u>\$150,000</u>
Total Water System	\$2,250,000	\$0	\$1,329,131	\$650,000	\$2,510,886	\$2,812,592	\$958,835	\$10,511,444
Sanitary Sewer System								
1 Lift Station Rehabilitation			\$625,100	\$156,400	\$97,300	\$461,500	\$85,000	\$1,425,300
2 Lift Station SCADA Upgrades			\$200,000					\$200,000
3 Sanitary Sewer TV Inspections & Rehab			\$0	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$10,000,000
4 Wastewater Treatment Plant Rehab			\$200,000					\$200,000
5 <u>Zinc & Copper Treatment</u>								<u>\$5,000,000</u>
Total Sanitary Sewer System	\$5,000,000	\$0	\$1,025,100	\$2,656,400	\$2,597,300	\$2,961,500	\$2,585,000	\$16,825,300
Storm Sewer/Drainage System								
1 Storm Sewer TV Inspection & Rehabilitation			\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$5,500,000
5 Exploration Green DP Ph 2 Construction (MP4)								\$7,033,041
6 Exploration Green Treated Effluent Discharge System								\$2,182,300
7 Exploration Green DP Ph 3 Construction (MP2)								\$5,254,065
8 Exploration Green DP Ph 4 Construction (MP5)								\$5,966,811
9 <u>Exploration Green DP Ph 5 Construction (MP3)</u>								<u>\$7,330,770</u>
Total Storm/Drainage	\$9,215,341	\$11,220,876	\$8,430,770	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$33,266,987
Facilities								
1 <u>Main Office Generator Replacement</u>								<u>\$130,000</u>
Total Facilities	\$0	\$0	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
Total Water, Sanitary, Storm & Facility Construction	\$16,465,341	\$11,220,876	\$10,915,001	\$4,406,400	\$6,208,186	\$6,874,092	\$4,643,835	\$60,733,731

Clear Lake City Water Authority
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Proposed Capital Improvement Projects for Bond Authorization Election in November, 2016 - \$88,000,000

Project	2017	2018	2019	2020	2021	2022	2023	Total
Contingency (10%)	\$1,646,534	\$1,122,088	\$1,091,500	\$440,640	\$620,819	\$687,409	\$464,384	\$6,073,373
Engineering	\$3,622,375	\$2,468,593	\$2,401,300	\$969,408	\$1,365,801	\$1,512,300	\$1,021,644	\$13,361,421
Total Engineering & Construction	\$21,734,250	\$14,811,556	\$14,407,801	\$5,816,448	\$8,194,806	\$9,073,801	\$6,129,862	\$80,168,524
Shared System Costs								
1 SH 3 Water Line Replacement - CLCWA Share		\$3,270,399						\$3,270,399
TOTAL CONSTRUCTION & ENGINEERING COSTS	\$21,734,250	\$18,081,955	\$14,407,801	\$5,816,448	\$8,194,806	\$9,073,801	\$6,129,862	\$83,438,923
NON-CONSTRUCTION COSTS								
A. Legal Fees (estimated at 0.5%)	\$114,100	\$95,000	\$75,850	\$31,000	\$43,420	\$48,000	\$32,630	\$440,000
B. Fiscal Agent Fee (1% for first \$5M, then 0.5%)	\$114,100	\$95,000	\$75,850	\$31,000	\$43,420	\$48,000	\$32,630	\$440,000
% Fee	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Additional 0.5% fee for first \$5M	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$175,000
C. Bond Discount (3%)	\$684,600	\$570,000	\$455,100	\$186,000	\$260,518	\$288,000	\$195,782	\$2,640,000
D. Bond Issuance Expenses	\$41,400	\$36,045	\$42,974	\$45,552	\$45,552	\$43,699	\$44,355	\$299,577
E. Bond Application Report Costs	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$280,000
F. TCEQ Bond Issuance Fee (0.25%)	\$57,050	\$47,500	\$37,925	\$15,500	\$21,710	\$24,000	\$16,315	\$220,000
G. Attorney General Fee (0.10% max at \$9,500)	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500	\$66,500
TOTAL NON-CONSTRUCTION COSTS	\$1,085,750	\$918,045	\$762,199	\$383,552	\$489,119	\$526,199	\$396,213	\$4,561,077
BOND ISSUE REQUIREMENT (BIR)	\$22,820,000	\$19,000,000	\$15,170,000	\$6,200,000	\$8,683,924	\$9,600,000	\$6,526,075	\$88,000,000