

HCMUD No. 136

Asset Replacement/Assessment Plan

March 8, 2017

Asset ID	Asset Name	Location	Installed Date	Estimated Replacement and Installation Cost	Asset Composite Risk Value
Highest Risk Items - Schedule for Repair or Replacement within One Year					
1	LS2-E-CP1	Control Panel	1976	\$50,000	4.63
2	WP1-E-MCC2	Booster Pump Motor Control Center	1974	\$101,250	4.58
3	LS1-E-CP1	Control Panel	1988	\$43,750	4.13
4	LS1-GC-MTS1	Manual Transfer Switch	1987	\$2,100	4.00
5	LS2-E-CB1	Main Circuit Breaker	1978	\$6,250	4.00
6	WP1-E-P1	120V Panel	1974	\$4,375	4.00
7	WP1-E-P1	120V Panel	1974	\$4,375	4.00
				Total:	\$212,100
High Risk Items - Evaluate Need for Repair or Replacement within Two Years					
8	WP1-DH-FM1	Turbine Meter	1970	\$11,375	3.88
9	WP1-E-UPS1	UPS	1970	\$14,000	3.88
10	WP1-G-GE1	Generator Enclosure	1996	\$78,750	3.88
11	LS1-E-LTS1	Lights	1970	\$875	3.75
12	LS1-E-MCB1	Main Circuit Breaker	1988	\$3,500	3.75
13	LS1-LSP1-MCP1	Motor Circuit Protector	1988	\$2,100	3.75
14	LS1-LSP1-MS1	Motor Starter	1988	\$3,500	3.75
15	LS1-LSP2-MCP1	Motor Circuit Protector	1988	\$2,100	3.75
16	LS1-LSP2-MS1	Motor Starter	1988	\$3,500	3.75
17	LS1-LSP3-MCP1	Motor Circuit Protector	1988	\$2,100	3.75
18	LS1-LSP3-MS1	Motor Starter	1988	\$3,500	3.75
19	WP1-E-SPD2	Surge Protection Device	1997	\$2,625	3.75
20	WP1-E-XRMR1	Transformer	1970	\$3,500	3.75
21	WP1-E-XFMR2	Transformer	1970	\$3,500	3.75
22	LS1-LSP1-LSP1	Lift Station Pump No. 1	1987	\$49,000	3.70
23	LS1-LSP2-LSP2	Lift Station Pump No. 2	1987	\$49,000	3.70
24	LS1-LSP3-LSP3	Lift Station Pump No. 3	1987	\$49,000	3.70
25	LS1-S-WW/C1	Wet Well Coating	1970	\$24,500	3.63

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26	LS1-S-DWC1 Dry Well Coating	Lift Station No. 1	1970	\$24,500	3.63
27	LS2-S-WWC1 Wet Well Coating	Lift Station No. 2	1970	\$24,500	3.63
28	LS2-S-DWC1 Dry Well Coating	Lift Station No. 2	1970	\$24,500	3.63
Total:				\$379,925	
Medium Risk Items - Evaluate Need for Repair or Replacement within Three Years					
29	LS1-E-CC1 Correcting Capacitors	Lift Station No. 1	1988	\$7,000	3.57
30	LS1-HVAC-ED1 Exhaust Duct	Lift Station No. 1	1970	\$1,750	3.57
31	WP1-G-G1 Generator	Water Plant No. 1	1997	\$218,750	3.57
32	WP1-HVAC-SF1 Supply Fan	Water Plant No. 1	1970	\$4,375	3.53
33	LS1-LSP1-LSPM1 Lift Station Pump No. 1 Motor	Lift Station No. 1	1987	\$21,875	3.50
34	LS1-LSP1-PG1 Pressure Gauge	Lift Station No. 1	1970	\$175	3.50
35	LS1-LSP1-PG2 Pressure Gauge	Lift Station No. 1	1970	\$175	3.50
36	LS1-LSP2-LSPM2 Lift Station Pump No. 2 Motor	Lift Station No. 1	1987	\$21,875	3.50
37	LS1-LSP2-PG1 Pressure Gauge	Lift Station No. 1	1970	\$175	3.50
38	LS1-LSP2-PG2 Pressure Gauge	Lift Station No. 1	1970	\$175	3.50
39	LS1-LSP3-LSPM3 Lift Station Pump No. 3 Motor	Lift Station No. 1	1987	\$21,875	3.50
40	LS1-LSP3-PG2 Pressure Gauge	Lift Station No. 1	1970	\$175	3.50
41	LS2-GC-MTS1 Manual Transfer Switch	Lift Station No. 2	1978	\$6,125	3.50
42	LS2-HVAC-EF1 Exhaust Fan	Lift Station No. 2	1978	\$1,750	3.50
43	WP1-E-CC1 Correction Capacitor	Water Plant No. 1	1997	\$4,900	3.50
44	LS2-DH-CV1 Check Valve	Lift Station No. 2	1978	\$17,500	3.48
45	LS2-LSP1-LSP1 Lift Station Pump No. 1	Lift Station No. 2	1978	\$56,000	3.45
46	LS2-LSP2-LSP2 Lift Station Pump No. 2	Lift Station No. 2	1978	\$56,000	3.45
47	LS1-S-PC1 Pump Controller	Lift Station No. 1	1970	\$8,750	3.44
48	WP1-WW1-WWP1 Water Well No. 1 Pump	Water Plant No. 1	1970	\$275,000	3.43
49	WP1-BP4-BP1 Booster Pump No. 4	Water Plant No. 1	1977	\$43,750	3.38
50	WP1-DH-FM2 Turbine Meter	Water Plant No. 1	1970	\$11,375	3.38
51	WP1-WW1-FM1 Flow Meter	Water Plant No. 1	1970	\$11,375	3.38

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52	WP1-CS-SC1	Water Plant No. 1	1970	\$3,500	3.37
53	WP1-CS-SC2	Scale No. 2	1970	\$3,500	3.37
54	WP1-FPS-FST1	Fluoride Storage Tank	1970	\$5,250	3.37
55	LS1-HVAC-VTR1	Ventilator	1970	\$4,375	3.28
56	LS1-S-AH2	Equipment Access Hatch	1970	\$5,250	3.28
57	LS1-S-AH4	Interior Access Hatch	1970	\$5,250	3.28
58	LS1-S-AH1	Stairway Access Hatch	1970	\$5,250	3.28
59	LS2-HVAC-PVT1	Ventilator	1978	\$4,375	3.28
60	LS2-S-AH3	Access Hatch	1978	\$5,250	3.28
61	LS2-S-AH2	Equipment Access Hatch	1978	\$5,250	3.28
62	LS2-S-AH1	Stairway Access Hatch	1978	\$5,250	3.28
63	WP1-GST2-BRV2	Butterfly Valve	1991	\$3,892	3.28
64	LS1-DH-ARV1	Air Release Valve	1987	\$208	3.25
65	LS1-GC-GP1	Generator Plug	1970	\$7,000	3.25
66	LS1-S-SP1	Sump Pump	1970	\$3,500	3.25
67	LS1-S-AH3	Wet Well Manhole	1970	\$5,250	3.25
68	LS2-GC-GP1	Generator Plug	1978	\$7,000	3.25
69	LS2-S-SP1	Sump Pump	1978	\$3,500	3.25
70	LS2-S-AH4	Wet Well Manhole Grate	1978	\$5,250	3.25
71	WP1-CS-EW1	Eyewash	2007	\$1,750	3.25
72	WP1-DH-ST1	Strainer	1970	\$3,500	3.25
73	WP1-DH-ST2	Strainer	1970	\$3,500	3.25
74	LS2-DH-PV1	Plug Valve	1978	\$1,076	3.22
75	LS1-LSP1-CV1	Check Valve	1970	\$43,750	3.20
76	LS1-LSP2-CV1	Check Valve	1970	\$43,750	3.20
77	LS1-LSP3-CV1	Check Valve	1970	\$43,750	3.20
78	WP1-HPT1-CC1	HPT Control Cabinet	1977	\$26,250	3.19
79	WP1-HPT2-CC1	HPT Control Cabinet	1970	\$26,250	3.19

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80	WP1-WW1-WW/PM1	Water Well No. 1 Pump Motor	1970	\$43,750	3.18
81	LS1-E-LT1	Level Transmitter	1987	\$6,475	3.13
82	LS2-E-LT1	Level Transmitter	1978	\$6,475	3.13
83	WP1-CS-CL1	Chlorinator No. 1	1977	\$8,750	3.13
84	WP1-CS-CL2	Chlorinator No. 2	1977	\$8,750	3.13
85	WP1-LAS-LT1	Level Transmitter	2007	\$6,475	3.13
86	WP1-WW1-MCC1	Water Well No. 1 Motor Control Center	1997	\$52,500	3.13
87	WP1-FPS-FDT1	Fluoride Day Tank	1970	\$5,250	3.12
88	WP1-FPS-PST1	Phosphate Storage Tank	1970	\$7,875	3.12
89	WP1-WW1-CPI	Control Panel	1997	\$17,500	3.10
90	LS2-HVAC-ED1	Exhaust Duct	1978	\$1,750	3.07
91	WP1-G-ATS1	Automatic Transfer Switch	1997	\$26,250	3.07
92	WP1-CS-CA1	Chlorine Analyzer	1970	\$6,125	3.03
93	WP1-DH-BFV1	Butterfly Valve	1970	\$3,920	3.03
94	WP1-LAS-BLDG1	LAS Building	2007	\$16,450	3.03
95	LS1-E-AD1	Autodialer	1987	\$4,200	3.00
96	LS1-HVAC-EF1	Exhaust Fan	1970	\$1,750	3.00
97	LS1-LSP2-PV1	Plug Valve	1970	\$5,250	3.00
98	LS1-LSP3-PG1	Pressure Gauge	1970	\$175	3.00
99	LS2-E-AD1	Autodialer	1978	\$4,200	3.00
100	LS2-LSP1-LSPM1	Lift Station Pump No. 1 Motor	1978	\$21,875	3.00
101	LS2-LSP2-LSPM2	Lift Station Pump No. 2 Motor	1978	\$21,875	3.00
102	WP1-BP1-BPM1	Booster Pump No. 1 Motor	1983	\$14,875	3.00
103	WP1-BP2-BPM1	Booster Pump No. 2 Motor	1983	\$14,875	3.00
104	WP1-BP3-BPM1	Booster Pump No. 3 Motor	1983	\$14,875	3.00
105	WP1-BP4-BPM1	Booster Pump No. 4 Motor	1977	\$14,875	3.00
106	WP1-CS-BVs	Ball Valve	1970	\$350	3.00
107	WP1-CS-EF1	Exhaust Fan	1970	\$1,750	3.00

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108	WP1-CS-VR1	Vacuum Regulator No. 1	1970	\$1,750	3.00
109	WP1-CS-VR2	Vacuum Regulator No. 2	1970	\$1,750	3.00
110	WP1-CS-VR3	Vacuum Regulator No. 3	1970	\$1,750	3.00
111	WP1-CS-VR4	Vacuum Regulator No. 4	1970	\$1,750	3.00
112	WP1-DH-GV1	Gate Valve	1970	\$5,250	3.00
113	WP1-E-AD1	Autodialer	1970	\$4,200	3.00
114	WP1-FPS-FHP1	Fluoride Hand Pump	1970	\$350	3.00
115	WP1-FPS-FMP1	Fluoride Metering Pump	1970	\$2,363	3.00
116	WP1-FPS-PMMP1	Phosphate Metering Pump	1970	\$2,363	3.00
117	WP1-FPS-SK1	Sink	1970	\$350	3.00
118	WP1-GST2-MH2	GST No. 2 Manhole	1991	\$11,375	3.00
119	WP1-HVAC-PH1	Portable Heater	1970	\$350	3.00
120	WP1-LAS-LMP1	Metering Pump No. 1	2007	\$2,363	3.00
121	WP1-LAS-LMP2	Metering Pump No. 2	2007	\$2,363	3.00
122	WP1-LAS-LMP3	Metering Pump No. 3	2007	\$2,363	3.00
Total:				\$1,452,484	
Low Risk Items - Evaluate Need for Repair or Replacement within Five Years					
123	WP1-WW1-CV1	Check Valve	1970	\$43,750	2.95
124	WP1-WW1-SCV1	Silent Check Valve	1970	\$43,750	2.95
125	WP1-BP1-BP1	Booster Pump No. 1	1983	\$43,750	2.88
126	WP1-BP2-BP1	Booster Pump No. 2	1983	\$43,750	2.88
127	WP1-BP3-BP1	Booster Pump No. 3	1983	\$43,750	2.88
128	WP1-E-CB1	Main Circuit Breaker	1997	\$13,125	2.88
129	WP1-GST1-FV1	Flap Valve	1977	\$5,250	2.88
130	WP1-GST1-MH1	GST No. 1 Manhole	1977	\$6,125	2.88
131	WP1-GST1-MH2	GST No. 1 Manhole	1977	\$6,125	2.88
132	WP1-GST2-FV1	Flap Valve	1991	\$5,250	2.88
133	WP1-GST2-MH1	GST No. 2 Manhole	1991	\$6,125	2.88

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134	WP1-GST2-LI1	Water Plant No. 1	1991	\$4,375	2.85
135	WP1-CS-DP1	Water Plant No. 1	2008	\$21,000	2.82
136	WP1-GST1-EL1	Water Plant No. 1	1992	\$4,375	2.82
137	WP1-GST2-EL1	Water Plant No. 1	1991	\$4,375	2.82
138	WP1-GST2-GV1	Water Plant No. 1	1991	\$7,000	2.82
139	WP1-GST2-GV2	Water Plant No. 1	1991	\$7,000	2.82
140	WP1-WW1-WWCP1	Water Plant No. 1	1970	\$26,250	2.80
141	WP1-GST1-BFV3	Water Plant No. 1	1977	\$3,892	2.78
142	WP1-LAS-AA1	Water Plant No. 1	2008	\$22,750	2.78
143	WP1-WW1-BFV1	Water Plant No. 1	1970	\$2,452	2.78
144	WP1-WW1-BFV1	Water Plant No. 1	1970	\$2,452	2.78
145	WP1-HPT1-GV1	Water Plant No. 1	1977	\$875	2.77
146	WP1-HPT1-GV2	Water Plant No. 1	1977	\$875	2.77
147	WP1-HPT2-GV1	Water Plant No. 1	1970	\$875	2.77
148	WP1-HPT2-GV2	Water Plant No. 1	1970	\$875	2.77
149	LS1-LSP1-PV1	Lift Station No. 1	1970	\$5,250	2.75
150	LS1-LSP1-PV2	Lift Station No. 1	1970	\$5,250	2.75
151	LS1-LSP2-PV2	Lift Station No. 1	1970	\$5,250	2.75
152	LS1-LSP3-PV1	Lift Station No. 1	1970	\$5,250	2.75
153	LS1-LSP3-PV2	Lift Station No. 1	1970	\$5,250	2.75
154	LS2-LSP1-PV1	Lift Station No. 2	1978	\$5,250	2.75
155	LS2-LSP2-PV1	Lift Station No. 2	1978	\$5,250	2.75
156	LS2-LSP2-PV2	Lift Station No. 2	1978	\$3,500	2.75
157	WP1-HPT2-PG1	Water Plant No. 1	1970	\$350	2.75
158	WP1-WW1-ARV1	Water Plant No. 1	1970	\$208	2.75
159	WP1-BP1-CV1	Water Plant No. 1	1970	\$43,750	2.70
160	WP1-BP2-CV1	Water Plant No. 1	1970	\$43,750	2.70
161	WP1-BP3-CV1	Water Plant No. 1	1970	\$43,750	2.70

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162	WP1-BP4-CV1 Check Valve	Water Plant No. 1	1977	\$43,750	2.70
163	WP1-LAS-AS1 Interstitial Alarm System	Water Plant No. 1	2007	\$8,750	2.69
164	WP1-CS-CL3 Chlorinator No. 3	Water Plant No. 1	2008	\$8,750	2.63
165	WP1-CS-CL4 Chlorinator No. 4	Water Plant No. 1	2008	\$8,750	2.63
166	WP1-GST1-LT1 GST No. 1 Level Transmitter	Water Plant No. 1	1977	\$6,475	2.63
167	WP1-GST2-LT1 GST No. 2 Level Transmitter	Water Plant No. 1	1991	\$6,475	2.63
168	WP1-CS-SC3 Scale No. 3	Water Plant No. 1	2008	\$3,500	2.62
169	WP1-CS-SC4 Scale No. 4	Water Plant No. 1	2008	\$3,500	2.62
170	WP1-GST1-LI1 GST No. 1 Level Indicator	Water Plant No. 1	1977	\$4,375	2.60
171	WP1-LAS-ST1 Storage Tank	Water Plant No. 1	2007	\$3,500	2.60
172	WP1-CS-CA2 Chlorine Analyzer	Water Plant No. 1	2008	\$6,125	2.53
173	WP1-GST1-BFV4 Butterfly Valve	Water Plant No. 1	1977	\$3,190	2.53
174	WP1-WW1-GV1 Gate Valve	Water Plant No. 1	1970	\$875	2.53
175	LS2-LSP1-PV2 Plug Valve	Lift Station No. 2	1978	\$3,500	2.50
176	WP1-CS-CBP1 Chlorine Booster Pump	Water Plant No. 1	2008	\$6,125	2.50
177	WP1-CS-ES1 Emergency Shower	Water Plant No. 1	2007	\$4,375	2.50
178	WP1-E-PG1 Portable Generator	Water Plant No. 1	2006	\$131,250	2.50
179	WP1-HP1T1-PG1 Pressure Gauge	Water Plant No. 1	1977	\$350	2.50
180	WP1-HVAC-EF1 Exhaust Fan	Water Plant No. 1	2007	\$1,750	2.50
181	WP1-LAS-BVs Ball Valves	Water Plant No. 1	2007	\$350	2.50
182	WP1-WW1-CAV1 Combination Air Valve	Water Plant No. 1	1970	\$3,500	2.50
183	WP1-E-DCA1 Direct Current Alarms	Water Plant No. 1	2008	\$1,313	2.32
184	WP1-E-UPC1 Universal Process Controllers	Water Plant No. 1	2008	\$2,625	2.32
185	WP1-GST2-BFV3 Butterfly Valve	Water Plant No. 1	2006	\$3,190	2.28
186	WP1-BP1-PG1 Pressure Gauge	Water Plant No. 1	1970	\$175	2.25
187	WP1-BP2-PG1 Pressure Gauge	Water Plant No. 1	1970	\$175	2.25
188	WP1-BP3-PG1 Pressure Gauge	Water Plant No. 1	1970	\$175	2.25
189	WP1-BP4-PG1 Pressure Gauge	Water Plant No. 1	1977	\$175	2.25

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190	WP1-E-XFMR3 Transformer	Water Plant No. 1	2008	\$5,250	2.25
191	WP1-E-LC1 Load Center	Water Plant No. 1	2008	\$1,400	2.25
192	WP1-GST1-CPR1 Cathodic Protection Rectifier	Water Plant No. 1	2017	\$8,750	2.19
193	WP1-GST1-BFV2 Butterfly Valve	Water Plant No. 1	2008	\$3,892	2.03
194	WP1-BP1-GV1 Gate Valve	Water Plant No. 1	1970	\$5,250	2.00
195	WP1-BP1-GV2 Gate Valve	Water Plant No. 1	1970	\$5,250	2.00
196	WP1-BP2-GV1 Gate Valve	Water Plant No. 1	1970	\$3,500	2.00
197	WP1-BP2-GV2 Gate Valve	Water Plant No. 1	1970	\$3,500	2.00
198	WP1-BP3-GV1 Gate Valve	Water Plant No. 1	1970	\$3,500	2.00
199	WP1-BP3-GV2 Gate Valve	Water Plant No. 1	1970	\$3,500	2.00
200	WP1-BP4-GV1 Gate Valve	Water Plant No. 1	1970	\$5,250	2.00
201	WP1-BP4-GV2 Gate Valve	Water Plant No. 1	1970	\$5,250	2.00
202	WP1-E-SPD1 Surge Protection Device	Water Plant No. 1	2014	\$2,625	2.00
Total:				\$866,189	
Lowest Risk Items - Evaluate Need for Repair or Replacement within Ten Years					
203	WP1-GST1-RV1 GST No. 1 Roof Vent	Water Plant No. 1	2017	\$17,500	1.88
204	WP1-GST2-RV1 GST No. 2 Roof Vent	Water Plant No. 1	2017	\$17,500	1.88
205	WP1-GST1-BFV1 Butterfly Valve	Water Plant No. 1	2017	\$3,190	1.78
206	WP1-GST2-BFV1 Butterfly Valve	Water Plant No. 1	2016	\$3,190	1.78
207	WP1-GST1-RH1 GST No. 1 Roof Hatch	Water Plant No. 1	2017	\$14,000	1.75
208	WP1-GST2-CPR1 Cathodic Protection Rectifier	Water Plant No. 1	2017	\$8,750	1.69
209	WP1-GST1-MH3 GST No. 1 Flush Type Cleanout	Water Plant No. 1	2017	\$6,125	1.63
Total:				\$70,256	
Lowest Risk Items - Evaluate Need for Repair or Replacement later than Ten Years (Replacement Only)					
209	WP1-GST1-GST1 GST No. 1	Water Plant No. 1	1977	\$650,000	
210	WP1-GST2-GST2 GST No. 2	Water Plant No. 1	1991	\$625,000	
211	WP1-HP1-HP1 Hydro Tank No. 1	Water Plant No. 1	1997	\$131,250	

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212	WP1-HP72-HP72	Hydro Tank No. 2	1997	\$70,000	
Total:				\$1,476,250	
Lowest Risk Items - Evaluate Need for Repair or Replacement later than Ten Years (Coating Only)					
213	WP1-GST1-ETC1	Ground Storage Tank No. 1 Exterior Coating	2017	\$185,000	
214	WP1-GST1-ITC1	GST No. 1 Interior Coating	2017	\$185,000	
215	WP1-GST2-ETC1	Ground Storage Tank No. 2 Exterior Coating	2017	\$185,000	
216	WP1-GST2-ITC1	GST No. 2 Interior Coating	2017	\$175,000	
Total:				\$730,000	
Grand Total:				\$5,187,203	