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ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG--ETC F/G 13/2  
APPLICATION OF MAPS TO THE SALINAS-MONTEREY URBAN STUDY. APPEND--ETC(U)  
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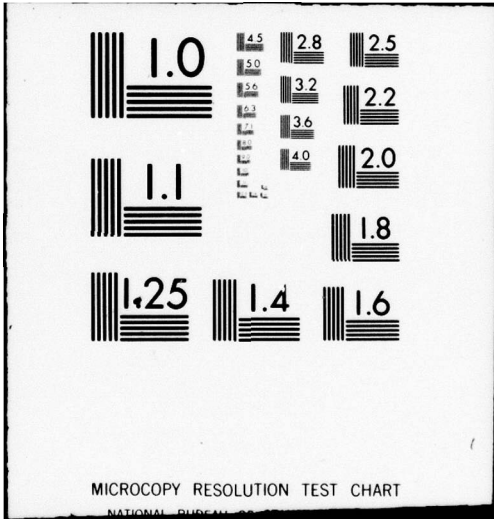
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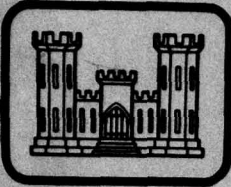
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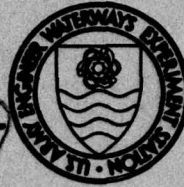


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6 APPLICATION OF MAPS TO THE SALINAS-MONTEREY URBAN STUDY. Appendices B, F and G.

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U. S. Army Engineer Waterways Experiment Station  
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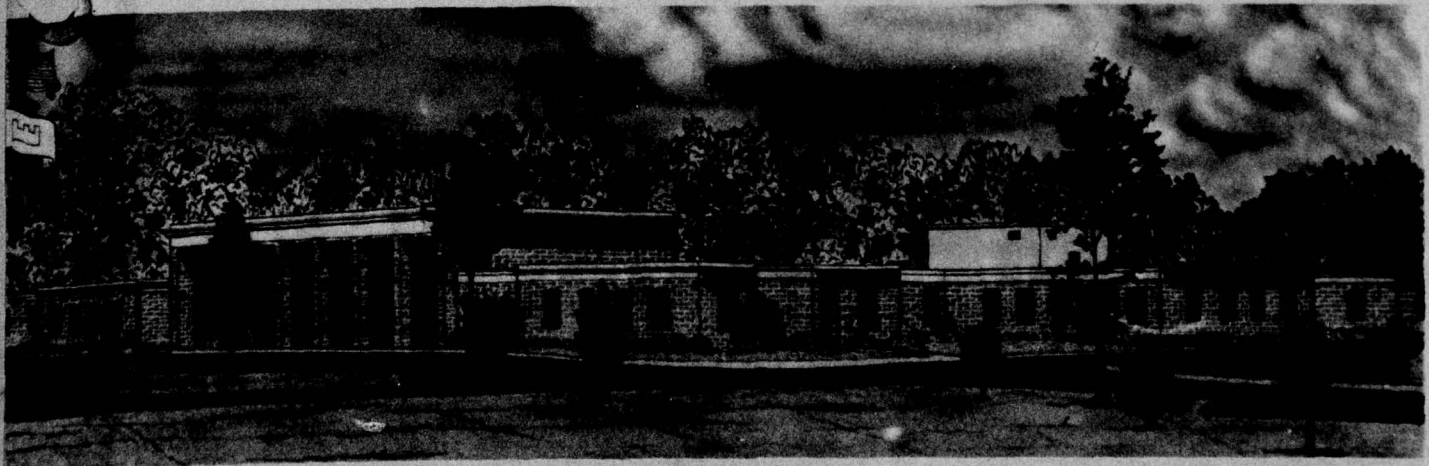
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11 Aug 1979  
9 Final Report

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Appendices B, F and G

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APPENDIX B: HEADWATER DATA

1. This appendix presents the data contained in the MAPS headwater data base. It consists of the title for the headwater, the size of the drainage area above the reservoir site or diversion, and the flow at the reservoir site or diversion for each month of the design dry cycle.

2. The flows are given in units of cubic feet per second (cfs) and million gallons per day (mgd). A value for the runoff rate in inches per year (in./yr) for the drainage area is also given.

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UNANNOUNCED		<input type="checkbox"/>
JUSTIFICATION _____		
BY _____		
DISTRIBUTION/AVAILABILITY CODES		
Dist.	AVAIL	and/or SPECIAL
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HEADWATER NO. 2  
WADDELL CREEK

DRAINAGE AREA	.610E+01 SQ. MILES		
TIME	FLOW	FLOW	
STEP	(CFS)	(MGD)	
		RUNOFF	
		(IN/YR)	
1	.166E+02	.108E+02	.572E+02
2	.104E+02	.674E+01	.252E+02
3	.657E+01	.427E+01	.147E+02
4	.380E+01	.253E+01	.870E+01
5	.512E+01	.203E+01	.698E+01
6	.264E+01	.172E+01	.591E+01
7	.274E+01	.173E+01	.613E+01
8	.195E+01	.127E+01	.436E+01
9	.159E+01	.103E+01	.356E+01
10	.161E+01	.105E+01	.361E+01
11	.153E+01	.993E+00	.342E+01
12	.224E+01	.146E+01	.502E+01
13	.185E+01	.120E+01	.413E+01
14	.103E+01	.671E+00	.231E+01
15	.774E+00	.502E+00	.173E+01
16	.715E+00	.465E+00	.160E+01
17	.635E+00	.412E+00	.142E+01
18	.595E+00	.386E+00	.133E+01
19	.581E+00	.377E+00	.130E+01
20	.105E+01	.682E+00	.235E+01
21	.171E+01	.111E+01	.382E+01
22	.248E+01	.160E+01	.550E+01
23	.133E+01	.862E+00	.297E+01
24	.217E+01	.141E+01	.485E+01
25	.662E+00	.430E+00	.148E+01
26	.841E+00	.546E+00	.188E+01
27	.291E+00	.189E+00	.650E+00
28	.872E+01	.566E+01	.195E+00
29	.192E+01	.125E+01	.430E+01
30	.368E+01	.259E+01	.823E+01

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HEADWATER NO. 3  
SCOTTIS CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.120E+02 SQ. MILES RUNOFF (IN/YR)
1	.327E+02	.212E+02	.372E+02
2	.204E+02	.133E+02	.232E+02
3	.129E+02	.840E+01	.147E+02
4	.765E+01	.497E+01	.870E+01
5	.614E+01	.399E+01	.698E+01
6	.520E+01	.338E+01	.591E+01
7	.539E+01	.350E+01	.613E+01
8	.384E+01	.249E+01	.436E+01
9	.313E+01	.203E+01	.356E+01
10	.318E+01	.206E+01	.361E+01
11	.301E+01	.195E+01	.342E+01
12	.442E+01	.287E+01	.502E+01
13	.363E+01	.236E+01	.413E+01
14	.203E+01	.132E+01	.231E+01
15	.152E+01	.988E+00	.173E+01
16	.141E+01	.914E+00	.160E+01
17	.125E+01	.811E+00	.142E+01
18	.117E+01	.760E+00	.133E+01
19	.114E+01	.743E+00	.130E+01
20	.207E+01	.134E+01	.235E+01
21	.336E+01	.218E+01	.362E+01
22	.484E+01	.314E+01	.550E+01
23	.261E+01	.170E+01	.297E+01
24	.427E+01	.277E+01	.485E+01
25	.130E+01	.845E+00	.148E+01
26	.165E+01	.107E+01	.188E+01
27	.572E+00	.371E+00	.650E+00
28	.172E+00	.111E+00	.195E+00
29	.378E-01	.246E-01	.450E-01
30	.724E+01	.470E+01	.823E+01

HEADWATER NO. 4  
SAN VINCENTE CREEK

DRAINAGE AREA	.950E+01 SQ. MILES		
TIME	FLOW	FLOW	RUNOFF
STEP	(CFS)	(MGD)	(IN/YR)
1	.259E+02	.168E+02	.572E+02
2	.162E+02	.105E+02	.232E+02
3	.102E+02	.665E+01	.147E+02
4	.606E+01	.395E+01	.870E+01
5	.486E+01	.316E+01	.698E+01
6	.412E+01	.267E+01	.591E+01
7	.427E+01	.277E+01	.613E+01
8	.304E+01	.197E+01	.436E+01
9	.248E+01	.161E+01	.356E+01
10	.251E+01	.163E+01	.361E+01
11	.238E+01	.155E+01	.342E+01
12	.350E+01	.227E+01	.502E+01
13	.288E+01	.187E+01	.413E+01
14	.161E+01	.104E+01	.231E+01
15	.120E+01	.782E+00	.173E+01
16	.111E+01	.724E+00	.160E+01
17	.989E+00	.642E+00	.142E+01
18	.926E+00	.601E+00	.133E+01
19	.905E+00	.588E+00	.130E+01
20	.164E+01	.106E+01	.235E+01
21	.266E+01	.173E+01	.382E+01
22	.363E+01	.249E+01	.550E+01
23	.207E+01	.134E+01	.297E+01
24	.338E+01	.219E+01	.485E+01
25	.103E+01	.669E+00	.198E+01
26	.131E+01	.850E+00	.188E+01
27	.453E+00	.294E+00	.650E+00
28	.136E+00	.882E-01	.195E+00
29	.299E-01	.194E-01	.430E-01
30	.573E+01	.372E+01	.823E+01

HEADWATER NO. 5  
LAUNA CREEK

DRAINAGE AREA .470E+01 SQ. MILES -

TIME STEP	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
1	.128E+02	.852E+01	.372E+02
2	.799E+01	.519E+01	.252E+02
3	.506E+01	.329E+01	.147E+02
4	.300E+01	.195E+01	.870E+01
5	.240E+01	.156E+01	.698E+01
6	.204E+01	.132E+01	.591E+01
7	.211E+01	.137E+01	.613E+01
8	.150E+01	.975E+00	.436E+01
9	.123E+01	.796E+00	.356E+01
10	.124E+01	.808E+00	.361E+01
11	.118E+01	.765E+00	.342E+01
12	.173E+01	.112E+01	.502E+01
13	.142E+01	.924E+00	.413E+01
14	.796E+00	.517E+00	.231E+01
15	.596E+00	.387E+00	.173E+01
16	.551E+00	.358E+00	.160E+01
17	.489E+00	.318E+00	.142E+01
18	.458E+00	.298E+00	.133E+01
19	.448E+00	.291E+00	.130E+01
20	.810E+00	.528E+00	.235E+01
21	.132E+01	.855E+00	.382E+01
22	.189E+01	.123E+01	.550E+01
23	.102E+01	.664E+00	.297E+01
24	.167E+01	.109E+01	.485E+01
25	.510E+00	.331E+00	.148E+01
26	.648E+00	.421E+00	.188E+01
27	.224E+00	.145E+00	.650E+00
28	.672E-01	.436E-01	.195E+00
29	.148E-01	.962E-02	.430E-01
30	.284E+01	.184E+01	.823E+01

HEADWATER NO. 6  
 MAJORS CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
			.430E+01 SQ. MILES
1	.946E+01	.614E+01	.306E+02
2	.589E+01	.383E+01	.187E+02
3	.375E+01	.244E+01	.119E+02
4	.189E+01	.123E+01	.600E+01
5	.180E+01	.117E+01	.570E+01
6	.174E+01	.113E+01	.552E+01
7	.171E+01	.111E+01	.542E+01
8	.163E+01	.106E+01	.518E+01
9	.153E+01	.995E+00	.486E+01
10	.141E+01	.913E+00	.446E+01
11	.149E+01	.968E+00	.473E+01
12	.161E+01	.104E+01	.510E+01
13	.155E+01	.101E+01	.493E+01
14	.132E+01	.856E+00	.418E+01
15	.110E+01	.714E+00	.349E+01
16	.110E+01	.716E+00	.350E+01
17	.103E+01	.669E+00	.327E+01
18	.965E+00	.626E+00	.306E+01
19	.983E+00	.639E+00	.312E+01
20	.125E+01	.811E+00	.396E+01
21	.151E+01	.982E+00	.480E+01
22	.170E+01	.111E+01	.520E+01
23	.140E+01	.909E+00	.444E+01
24	.163E+01	.106E+01	.516E+01
25	.117E+01	.761E+00	.372E+01
26	.116E+01	.763E+00	.373E+01
27	.681E+00	.442E+00	.216E+01
28	.303E+00	.196E+00	.960E+00
29	.756E+01	.491E+01	.240E+02
30	.186E+01	.121E+01	.590E+01

HEADWATER NO. 7

SAN LORENZO RIVER

DRAINAGE AREA .650E+01 SQ. MILES

TIME STEP	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
1	.136E+02	.882E+01	.285E+02
2	.572E+01	.371E+01	.120E+02
3	.279E+01	.181E+01	.585E+01
4	.122E+01	.792E+00	.256E+01
5	.777E+00	.504E+00	.163E+01
6	.629E+00	.408E+00	.152E+01
7	.175E+01	.114E+01	.368E+01
8	.110E+01	.712E+00	.250E+01
9	.943E+00	.613E+00	.198E+01
10	.929E+00	.603E+00	.195E+01
11	.110E+01	.712E+00	.250E+01
12	.159E+01	.103E+01	.334E+01
13	.132E+01	.857E+00	.277E+01
14	.619E+00	.402E+00	.150E+01
15	.448E+00	.291E+00	.940E+00
16	.138E+00	.897E-01	.290E+00
17	.281E+00	.183E+00	.590E+00
18	.310E+00	.201E+00	.650E+00
19	.338E+00	.220E+00	.710E+00
20	.610E+00	.396E+00	.128E+01
21	.991E+00	.644E+00	.208E+01
22	.142E+01	.925E+00	.299E+01
23	.772E+00	.501E+00	.182E+01
24	.125E+01	.811E+00	.262E+01
25	.476E+00	.309E+00	.100E+01
26	.486E+00	.316E+00	.102E+01
27	.167E+00	.108E+00	.356E+00
28	.476E-01	.309E-01	.100E+00
29	.953E-02	.619E-02	.280E-01
30	.213E+01	.139E+01	.408E+01

HEADWATER NO. 8  
 ZAYANTE CREEK

TIME STEP	DRAINAGE AREA FLOW (CFS)	FLOW (MGD)	.950E+01 SQ. MILES RUNOFF (IN/YR)
1	.124E+02	.805E+01	.178E+02
2	.524E+01	.341E+01	.755E+01
3	.256E+01	.166E+01	.367E+01
4	.111E+01	.724E+00	.160E+01
5	.710E+00	.451E+00	.102E+01
6	.574E+00	.373E+00	.824E+00
7	.160E+01	.104E+01	.230E+01
8	.100E+01	.651E+00	.144E+01
9	.864E+00	.561E+00	.124E+01
10	.850E+00	.552E+00	.122E+01
11	.100E+01	.651E+00	.144E+01
12	.146E+01	.945E+00	.209E+01
13	.120E+01	.782E+00	.175E+01
14	.565E+00	.367E+00	.812E+00
15	.411E+00	.267E+00	.590E+00
16	.129E+00	.837E-01	.185E+00
17	.249E+00	.161E+00	.357E+00
18	.283E+00	.184E+00	.406E+00
19	.508E+00	.200E+00	.403E+00
20	.557E+00	.362E+00	.800E+00
21	.905E+00	.588E+00	.130E+01
22	.130E+01	.846E+00	.187E+01
23	.703E+00	.457E+00	.101E+01
24	.115E+01	.746E+00	.165E+01
25	.437E+00	.284E+00	.627E+00
26	.446E+00	.289E+00	.640E+00
27	.154E+00	.949E-01	.221E+00
28	.460E-01	.298E-01	.650E-01
29	.104E-01	.678E-02	.150E-01
30	.195E+01	.127E+01	.280E+01

HEADWATER NO. 9  
WEST BRANCH OF SORUEL CREEK

TIME STEP	DRAINAGE AREA FLOW (CFS)	FLOW (MGD)	.780E+01 SQ. MILES RUNOFF (IN/YR)
1	.112E+02	.728E+01	.196E+02
2	.376E+01	.244E+01	.658E+01
3	.205E+01	.133E+01	.359E+01
4	.168E+01	.109E+01	.294E+01
5	.949E+00	.616E+00	.166E+01
6	.600E+00	.390E+00	.105E+01
7	.137E+01	.891E+00	.240E+01
8	.105E+01	.679E+00	.163E+01
9	.102E+01	.661E+00	.178E+01
10	.949E+00	.616E+00	.166E+01
11	.132E+01	.854E+00	.230E+01
12	.208E+01	.135E+01	.363E+01
13	.132E+01	.858E+00	.231E+01
14	.517E+00	.336E+00	.905E+00
15	.265E+00	.172E+00	.464E+00
16	.144E+00	.932E-01	.251E+00
17	.328E+00	.213E+00	.573E+00
18	.233E+00	.151E+00	.407E+00
19	.393E+00	.255E+00	.688E+00
20	.629E+00	.408E+00	.110E+01
21	.114E+01	.743E+00	.200E+01
22	.783E+00	.509E+00	.137E+01
23	.240E+00	.156E+00	.420E+00
24	.110E+01	.713E+00	.182E+01
25	.545E+00	.354E+00	.953E+00
26	.376E+00	.244E+00	.658E+00
27	.158E+00	.103E+00	.277E+00
28	.515E-01	.334E-01	.900E-01
29	.521E+00	.209E+00	.562E+00
30	.187E+00	.121E+00	.327E+00

HEADWATER NO. 10  
 MAIN BRANCH OF SQUEL CREEK

DRAINAGE AREA	.137E+02 SQ. MILES		
TIME	FLOW	FLOW	RUNOFF
STEP	(CFS)	(MGD)	(IN/YR)
1	.197E+02	.128E+02	.196E+02
2	.661E+01	.429E+01	.658E+01
3	.361E+01	.234E+01	.359E+01
4	.295E+01	.192E+01	.294E+01
5	.167E+01	.108E+01	.166E+01
6	.105E+01	.685E+00	.105E+01
7	.241E+01	.157E+01	.240E+01
8	.184E+01	.119E+01	.183E+01
9	.179E+01	.116E+01	.178E+01
10	.167E+01	.108E+01	.166E+01
11	.231E+01	.150E+01	.230E+01
12	.365E+01	.237E+01	.363E+01
13	.232E+01	.151E+01	.231E+01
14	.909E+00	.590E+00	.905E+00
15	.466E+00	.303E+00	.464E+00
16	.252E+00	.164E+00	.251E+00
17	.575E+00	.374E+00	.573E+00
18	.409E+00	.265E+00	.407E+00
19	.691E+00	.449E+00	.688E+00
20	.110E+01	.717E+00	.110E+01
21	.201E+01	.130E+01	.200E+01
22	.138E+01	.893E+00	.137E+01
23	.422E+00	.274E+00	.420E+00
24	.193E+01	.125E+01	.192E+01
25	.957E+00	.621E+00	.953E+00
26	.661E+00	.429E+00	.658E+00
27	.278E+00	.181E+00	.277E+00
28	.904E+01	.587E+01	.900E+01
29	.364E+00	.366E+00	.362E+00
30	.328E+00	.213E+00	.327E+00

HEADWATER NO. 11  
 APTOS CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.992E+01 SQ. MILES RUNOFF (IN/YR)
1	.257E+02	.167E+02	.353E+02
2	.916E+01	.595E+01	.126E+02
3	.418E+01	.272E+01	.575E+01
4	.571E+01	.241E+01	.510E+01
5	.245E+01	.159E+01	.337E+01
6	.183E+01	.119E+01	.252E+01
7	.396E+01	.257E+01	.544E+01
8	.276E+01	.179E+01	.379E+01
9	.247E+01	.161E+01	.340E+01
10	.229E+01	.149E+01	.315E+01
11	.281E+01	.183E+01	.387E+01
12	.349E+01	.227E+01	.480E+01
13	.283E+01	.184E+01	.389E+01
14	.164E+01	.107E+01	.226E+01
15	.149E+01	.968E+00	.205E+01
16	.122E+01	.793E+00	.168E+01
17	.156E+01	.101E+01	.214E+01
18	.144E+01	.945E+00	.198E+01
19	.145E+01	.944E+00	.200E+01
20	.109E+02	.708E+01	.150E+02
21	.276E+01	.179E+01	.380E+01
22	.218E+01	.142E+01	.300E+01
23	.131E+01	.850E+00	.180E+01
24	.267E+01	.173E+01	.367E+01
25	.182E+01	.118E+01	.250E+01
26	.159E+01	.103E+01	.218E+01
27	.118E+01	.765E+00	.162E+01
28	.960E+00	.623E+00	.132E+01
29	.143E+01	.925E+00	.196E+01
30	.118E+01	.765E+00	.162E+01

HEADWATER NO. 12  
CORRALITOS CREEK

DRAINAGE AREA TIME STEP	.278E+02 SQ. MILES		
	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
1	.306E+02	.198E+02	.150E+02
2	.670E+01	.435E+01	.329E+01
3	.365E+01	.237E+01	.179E+01
4	.351E+01	.228E+01	.172E+01
5	.273E+01	.177E+01	.134E+01
6	.238E+01	.155E+01	.117E+01
7	.644E+01	.418E+01	.316E+01
8	.245E+01	.159E+01	.120E+01
9	.273E+01	.177E+01	.134E+01
10	.302E+01	.196E+01	.148E+01
11	.355E+01	.230E+01	.174E+01
12	.416E+01	.270E+01	.204E+01
13	.410E+01	.266E+01	.201E+01
14	.236E+01	.154E+01	.116E+01
15	.208E+01	.135E+01	.102E+01
16	.181E+01	.118E+01	.890E+00
17	.151E+01	.983E+00	.743E+00
18	.115E+01	.744E+00	.562E+00
19	.168E+01	.109E+01	.825E+00
20	.151E+01	.983E+00	.743E+00
21	.226E+01	.147E+01	.111E+01
22	.279E+01	.181E+01	.137E+01
23	.178E+01	.116E+01	.873E+00
24	.236E+01	.154E+01	.116E+01
25	.208E+01	.135E+01	.102E+01
26	.149E+01	.970E+00	.733E+00
27	.146E+01	.949E+00	.717E+00
28	.163E+01	.106E+01	.802E+00
29	.159E+01	.103E+01	.780E+00
30	.146E+01	.949E+00	.717E+00

HEADWATER NO. 13  
PESCADERO CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.950E+01 SQ. MILES RUNOFF (IN/YR)
1	.696E+01	.452E+01	.100E+02
2	.114E+01	.737E+00	.163E+01
3	.397E+00	.258E+00	.570E+00
4	.355E+00	.231E+00	.510E+00
5	.174E+00	.113E+00	.250E+00
6	.836E+01	.543E+01	.120E+00
7	.265E+00	.172E+00	.380E+00
8	.230E+00	.149E+00	.330E+00
9	.341E+00	.222E+00	.490E+00
10	.306E+00	.199E+00	.440E+00
11	.411E+00	.267E+00	.590E+00
12	.390E+00	.253E+00	.560E+00
13	.202E+00	.131E+00	.290E+00
14	.118E+00	.769E-01	.170E+00
15	.696E-02	.452E-02	.100E-01
16	0.	0.	0.
17	0.	0.	0.
18	0.	0.	0.
19	0.	0.	0.
20	.487E-01	.317E-01	.760E-01
21	.501E+00	.326E+00	.720E+00
22	.181E+00	.118E+00	.260E+00
23	0.	0.	0.
24	.453E+00	.294E+00	.650E+00
25	0.	0.	0.
26	0.	0.	0.
27	0.	0.	0.
28	0.	0.	0.
29	0.	0.	0.
30	0.	0.	0.

HEADWATER NO. 14  
PAJARO RIVER

DRAINAGE AREA

.118E+04 SQ. MILES

TIME STEP	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
1	.256E+03	.153E+03	.273E+01
2	.624E+02	.405E+02	.721E+00
3	.203E+02	.132E+02	.235E+00
4	.901E+01	.585E+01	.104E+00
5	.629E+01	.408E+01	.727E-01
6	.519E+01	.337E+01	.600E-01
7	.525E+01	.341E+01	.607E-01
8	.925E+01	.601E+01	.107E+00
9	.998E+01	.648E+01	.115E+00
10	.758E+01	.492E+01	.876E-01
11	.752E+01	.488E+01	.870E-01
12	.859E+01	.558E+01	.993E-01
13	.596E+01	.387E+01	.690E-01
14	.247E+01	.160E+01	.286E-01
15	.432E+01	.280E+01	.499E-01
16	.397E+01	.258E+01	.459E-01
17	.382E+01	.248E+01	.441E-01
18	.854E+00	.554E+00	.987E-02
19	.192E+01	.125E+01	.222E-01
20	.115E+01	.750E+00	.134E-01
21	.894E+00	.580E+00	.103E-01
22	.176E+01	.114E+01	.203E-01
23	.148E+01	.959E+00	.171E-01
24	.150E+01	.972E+00	.173E-01
25	.100E+01	.652E+00	.116E-01
26	.753E+00	.489E+00	.871E-02
27	.663E+00	.430E+00	.766E-02
28	.482E+00	.313E+00	.557E-02
29	.663E+00	.430E+00	.766E-02
30	.261E+00	.170E+00	.302E-02

HEADWATER NO. 15  
CORNCOB CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.100E+01 SQ. MILES RUNOFF (IN/YR)
1	.110E+01	.714E+00	.150E+02
2	.241E+00	.157E+00	.329E+01
3	.131E+00	.852E-01	.179E+01
4	.126E+00	.819E-01	.172E+01
5	.982E-01	.638E-01	.134E+01
6	.858E-01	.557E-01	.117E+01
7	.232E+00	.150E+00	.316E+01
8	.880E-01	.571E-01	.120E+01
9	.982E-01	.638E-01	.134E+01
10	.108E+00	.704E-01	.148E+01
11	.128E+00	.828E-01	.174E+01
12	.150E+00	.971E-01	.204E+01
13	.147E+00	.957E-01	.201E+01
14	.850E-01	.552E-01	.116E+01
15	.748E-01	.486E-01	.102E+01
16	.652E-01	.424E-01	.890E+00
17	.545E-01	.354E-01	.743E+00
18	.412E-01	.268E-01	.562E+00
19	.605E-01	.393E-01	.825E+00
20	.545E-01	.354E-01	.743E+00
21	.814E-01	.528E-01	.111E+01
22	.100E+00	.652E-01	.137E+01
23	.640E-01	.416E-01	.873E+00
24	.850E-01	.552E-01	.116E+01
25	.748E-01	.486E-01	.102E+01
26	.537E-01	.349E-01	.733E+00
27	.526E-01	.341E-01	.717E+00
28	.588E-01	.382E-01	.802E+00
29	.572E-01	.371E-01	.780E+00
30	.526E-01	.341E-01	.717E+00

HEADWATER NO. 17  
NEWELL CREEK

DRAINAGE AREA	.820E+01 SQ. MILES		
TIME STEP	FLOW (CFS)	FLOW (MGD)	RUNOFF (IN/YR)
1	.902E+01	.585E+01	.150E+02
2	.198E+01	.128E+01	.529E+01
3	.108E+01	.699E+00	.179E+01
4	.103E+01	.671E+00	.172E+01
5	.805E+00	.523E+00	.134E+01
6	.703E+00	.457E+00	.117E+01
7	.190E+01	.123E+01	.316E+01
8	.721E+00	.468E+00	.120E+01
9	.805E+00	.523E+00	.134E+01
10	.890E+00	.578E+00	.148E+01
11	.105E+01	.679E+00	.174E+01
12	.123E+01	.796E+00	.204E+01
13	.121E+01	.785E+00	.201E+01
14	.697E+00	.453E+00	.116E+01
15	.613E+00	.398E+00	.102E+01
16	.535E+00	.347E+00	.890E+00
17	.447E+00	.290E+00	.743E+00
18	.338E+00	.219E+00	.562E+00
19	.496E+00	.322E+00	.825E+00
20	.447E+00	.290E+00	.743E+00
21	.667E+00	.433E+00	.111E+01
22	.823E+00	.535E+00	.137E+01
23	.525E+00	.341E+00	.873E+00
24	.697E+00	.453E+00	.116E+01
25	.613E+00	.398E+00	.102E+01
26	.441E+00	.286E+00	.733E+00
27	.431E+00	.280E+00	.717E+00
28	.482E+00	.313E+00	.802E+00
29	.469E+00	.304E+00	.780E+00
30	.431E+00	.280E+00	.717E+00

HEADWATER NO. 18  
 KINGS CREEK

DRAINAGE AREA	.700E+01 SQ. MILES		
TIME	FLOW	FLOW	
STEP	(CFS)	(MGD)	RUNOFF
			(IN/YR)
1	.146E+02	.950E+01	.285E+02
2	.616E+01	.400E+01	.120E+02
3	.300E+01	.195E+01	.585E+01
4	.131E+01	.853E+00	.256E+01
5	.836E+00	.543E+00	.163E+01
6	.677E+00	.440E+00	.132E+01
7	.189E+01	.123E+01	.368E+01
8	.118E+01	.766E+00	.230E+01
9	.102E+01	.660E+00	.198E+01
10	.100E+01	.650E+00	.195E+01
11	.118E+01	.766E+00	.230E+01
12	.171E+01	.111E+01	.334E+01
13	.142E+01	.923E+00	.277E+01
14	.667E+00	.433E+00	.130E+01
15	.482E+00	.313E+00	.940E+00
16	.149E+00	.966E-01	.290E+00
17	.303E+00	.197E+00	.590E+00
18	.334E+00	.217E+00	.650E+00
19	.564E+00	.237E+00	.710E+00
20	.657E+00	.426E+00	.128E+01
21	.107E+01	.693E+00	.208E+01
22	.153E+01	.996E+00	.299E+01
23	.831E+00	.540E+00	.162E+01
24	.134E+01	.873E+00	.262E+01
25	.513E+00	.333E+00	.100E+01
26	.523E+00	.340E+00	.102E+01
27	.180E+00	.117E+00	.350E+00
28	.513E-01	.333E-01	.100E+00
29	.103E-01	.666E-02	.200E-01
30	.230E+01	.149E+01	.448E+01

HEADWATER NO. 19  
BALDWIN CREEK

DRAINAGE AREA TIME STEP	FLUX (CFS)	FLOW (MGD)	.200E+01 SQ. MILES RUNOFF (IN/YR)
1	.545E+01	.354E+01	.572E+02
2	.340E+01	.221E+01	.232E+02
3	.216E+01	.140E+01	.147E+02
4	.128E+01	.828E+00	.870E+01
5	.102E+01	.664E+00	.698E+01
6	.866E+00	.563E+00	.591E+01
7	.899E+00	.584E+00	.613E+01
8	.639E+00	.415E+00	.436E+01
9	.522E+00	.339E+00	.356E+01
10	.529E+00	.344E+00	.361E+01
11	.501E+00	.326E+00	.342E+01
12	.736E+00	.478E+00	.502E+01
13	.605E+00	.393E+00	.413E+01
14	.339E+00	.220E+00	.231E+01
15	.254E+00	.165E+00	.173E+01
16	.235E+00	.152E+00	.160E+01
17	.208E+00	.135E+00	.142E+01
18	.195E+00	.127E+00	.133E+01
19	.191E+00	.124E+00	.130E+01
20	.345E+00	.224E+00	.235E+01
21	.560E+00	.364E+00	.382E+01
22	.806E+00	.524E+00	.550E+01
23	.435E+00	.283E+00	.297E+01
24	.711E+00	.462E+00	.485E+01
25	.217E+00	.141E+00	.148E+01
26	.276E+00	.179E+00	.188E+01
27	.953E-01	.619E-01	.650E+00
28	.286E-01	.186E-01	.195E+00
29	.630E-02	.409E-02	.430E-01
30	.121E+01	.783E+00	.823E+01

HEADWATER NO. 26  
BOULDER CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.750E+01 SQ. MILES RUNOFF (IN/YR)
1	.157E+02	.102E+02	.285E+02
2	.660E+01	.428E+01	.120E+02
3	.322E+01	.209E+01	.585E+01
4	.141E+01	.914E+00	.256E+01
5	.896E+00	.582E+00	.163E+01
6	.726E+00	.471E+00	.132E+01
7	.202E+01	.131E+01	.368E+01
8	.126E+01	.821E+00	.230E+01
9	.109E+01	.707E+00	.198E+01
10	.107E+01	.696E+00	.195E+01
11	.126E+01	.821E+00	.230E+01
12	.184E+01	.119E+01	.334E+01
13	.152E+01	.989E+00	.277E+01
14	.715E+00	.464E+00	.130E+01
15	.517E+00	.336E+00	.940E+00
16	.159E+00	.104E+00	.290E+00
17	.324E+00	.211E+00	.590E+00
18	.357E+00	.232E+00	.650E+00
19	.390E+00	.253E+00	.710E+00
20	.704E+00	.457E+00	.128E+01
21	.114E+01	.743E+00	.208E+01
22	.164E+01	.107E+01	.299E+01
23	.891E+00	.578E+00	.162E+01
24	.144E+01	.935E+00	.262E+01
25	.550E+00	.357E+00	.100E+01
26	.561E+00	.364E+00	.102E+01
27	.192E+00	.125E+00	.350E+00
28	.550E-01	.357E-01	.100E+00
29	.110E-01	.714E-02	.200E-01
30	.246E+01	.160E+01	.448E+01

HEADWATER NO. 27  
 BEAR CREEK

DRAINAGE AREA TIME STEP	FLOW (CFS)	FLOW (MGD)	.117E+02 SQ. MILES RUNOFF (IN/YR)
1	.244E+02	.159E+02	.285E+02
2	.103E+02	.668E+01	.120E+02
3	.502E+01	.326E+01	.585E+01
4	.220E+01	.143E+01	.256E+01
5	.140E+01	.908E+00	.163E+01
6	.113E+01	.735E+00	.132E+01
7	.316E+01	.205E+01	.368E+01
8	.197E+01	.128E+01	.230E+01
9	.170E+01	.110E+01	.198E+01
10	.167E+01	.109E+01	.195E+01
11	.197E+01	.128E+01	.230E+01
12	.286E+01	.186E+01	.334E+01
13	.238E+01	.154E+01	.277E+01
14	.111E+01	.724E+00	.130E+01
15	.806E+00	.524E+00	.940E+00
16	.249E+00	.162E+00	.290E+00
17	.506E+00	.329E+00	.590E+00
18	.557E+00	.362E+00	.650E+00
19	.609E+00	.395E+00	.710E+00
20	.110E+01	.713E+00	.128E+01
21	.178E+01	.116E+01	.208E+01
22	.256E+01	.167E+01	.299E+01
23	.139E+01	.902E+00	.162E+01
24	.225E+01	.145E+01	.262E+01
25	.858E+00	.557E+00	.100E+01
26	.875E+00	.568E+00	.102E+01
27	.300E+00	.195E+00	.350E+00
28	.858E-01	.557E-01	.100E+00
29	.172E-01	.111E-01	.200E-01
30	.384E+01	.250E+01	.448E+01

APPENDIX F: DESIGN AND COST PARAMETERS  
FOR SANTA CRUZ COUNTY

1. This appendix contains the design and cost estimates for facilities required for Santa Cruz County. Each facility has two pages of information. The first consists of the design parameters and cost summary; the second consists of a breakdown of the costs according to individual components of the facility for various construction years. These values were used in preparing Appendix E.

2. Design values for reservoirs are given first, followed by water treatment plants, wellfields, pump stations, and transmission lines.

RESERVOIR NO. 1  
 TITLE WADDELL A-LOWER  
 AREA .128E+03 ACRES  
 INITIAL POOL ELEVATION .225E+03 FEET  
 MAXIMUM POOL HEIGHT .225E+03 FEET  
 MINIMUM POOL HEIGHT 0 FEET  
 RELEASE .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O. % INFLATION
CONSTRUCTION(\$)	.210E+08	.184E+08	.210E+08
OVERHEAD(\$)	.210E+07	.184E+07	.210E+07
CAPITAL COST(\$)	.231E+08	.203E+08	.231E+08
AMORTIZED(\$/YR)	.159E+07	.140E+07	.159E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.161E+07	.141E+07	.183E+07
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Waddell Creek Reservoir - Site A  
 (continued)

1978 WORTH OF 1980 PLANT COST 20318605.  
 1978 WORTH OF 2020 PLANT SALVAGE 312293.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 20190161.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1434569.

1978 WORTH OF 1990 PLANT COST 10698022.  
 1978 WORTH OF 2020 PLANT SALVAGE 624586.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 10162988.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 722110.

1978 WORTH OF 2000 PLANT COST 5632654.  
 1978 WORTH OF 2020 PLANT SALVAGE 936879.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 4735679.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 336484.

1978 WORTH OF 2010 PLANT COST 2965669.  
 1978 WORTH OF 2020 PLANT SALVAGE 1249172.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1730261.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 122940.

Waddell Creek Reservoir - Site A  
(concluded)

RESERVOIR NO. 3  
 TITLE SCOTT A&B LOWER  
 AREA .205E+03 ACRES  
 INITIAL POOL ELEVATION .160E+03 FEET  
 MAXIMUM POOL HEIGHT .160E+03 FEET  
 MINIMUM POOL HEIGHT 0 FEET  
 RELEASE .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O. % INFLATION
CONSTRUCTION(\$)	.234E+08	.206E+08	.234E+08
OVERHEAD(\$)	.234E+07	.206E+07	.234E+07
CAPITAL COST(\$)	.257E+08	.226E+08	.257E+08
AMORTIZED(\$/YR)	.178E+07	.156E+07	.178E+07
LABOR(MAN-HR/YR)	0	0	0
LABOR COST(\$/YR)	0	0	0
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.179E+07	.158E+07	.204E+07
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Scott Creek Reservoir - Site A  
 (continued)

1978 WORTH OF 1980 PLANT COST 22640732.  
 1978 WORTH OF 2020 PLANT SALVAGE 347984.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 22476596.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1597027.

1978 WORTH OF 1990 PLANT COST 11920653.  
 1978 WORTH OF 2020 PLANT SALVAGE 695967.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 11314238.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 803909.

1978 WORTH OF 2000 PLANT COST 6276386.  
 1978 WORTH OF 2020 PLANT SALVAGE 1043951.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 5272339.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 374615.

1978 WORTH OF 2010 PLANT COST 3304603.  
 1978 WORTH OF 2020 PLANT SALVAGE 1391935.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1926432.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 136879.

Scott Creek Reservoir - Site A  
 (concluded)

RESERVOIR NO. 6

TITLE ZAYANTE

AREA

INITIAL POOL ELEVATION

MAXIMUM POOL HEIGHT

MINIMUM POOL HEIGHT

RELEASE

.129E+03 ACRES  
.200E+03 FEET  
.200E+03 FEET  
0. FEET  
.210E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED

DESIGN LIFE

INTEREST RATE

ENR CONSTRUCTION INDEX

CITY MULTIPLIER

1980 YEAR  
50 YEARS  
.663E+01 PERCENT  
.268E+04  
.114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.191E+08	.168E+08	.191E+08
OVERHEAD(\$)	.191E+07	.168E+07	.191E+07
CAPITAL COST(\$)	.210E+08	.185E+08	.210E+08
AMORTIZED(\$/YR)	.145E+07	.128E+07	.145E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.147E+07	.129E+07	.167E+07

SUPPLY COST OVERRIDE

PERCENT DEPRECIATED

0.

.150E+05

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Zayante Creek Reservoir  
(continued)

1978 WORTH OF 1980 PLANT COST 18480255.  
 1978 WORTH OF 2020 PLANT SALVAGE 284038.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 18380066.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1305957.

1978 WORTH OF 1990 PLANT COST 9730106.  
 1978 WORTH OF 2020 PLANT SALVAGE 568076.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 9251582.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 657352.

1978 WORTH OF 2000 PLANT COST 5123033.  
 1978 WORTH OF 2020 PLANT SALVAGE 852114.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 4310823.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 306296.

1978 WORTH OF 2010 PLANT COST 2697347.  
 1978 WORTH OF 2020 PLANT SALVAGE 1136152.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1574959.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 111905.

Zayante Creek Reservoir  
(concluded)

RESERVOIR NO. 7  
 TITLE WATERMAN SWITCH  
 AREA .510E+02 ACRES  
 INITIAL POOL ELEVATION .150E+03 FEET  
 MAXIMUM POOL HEIGHT .150E+03 FEET  
 MINIMUM POOL HEIGHT 0 FEET  
 RELEASE .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .063E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.688E+07	.606E+07	.688E+07
OVERHEAD(\$)	.688E+06	.606E+06	.688E+06
CAPITAL COST(\$)	.757E+07	.666E+07	.757E+07
AMORTIZED(\$/YR)	.523E+06	.460E+06	.523E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.538E+06	.473E+06	.612E+06

SUPPLY COST OVERRIDE .150E+05  
 PERCENT DEPRECIATED 0.

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Waterman Switch Reservoir  
 (continued)

1978 WORTH OF 1980 PLANT COST 6656762.  
 1978 WORTH OF 2020 PLANT SALVAGE 102313.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 6738297.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 478775.

1978 WORTH OF 1990 PLANT COST 3504876.  
 1978 WORTH OF 2020 PLANT SALVAGE 204626.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 3389802.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 240855.

1978 WORTH OF 2000 PLANT COST 1845365.  
 1978 WORTH OF 2020 PLANT SALVAGE 306939.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 1578329.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 112145.

1978 WORTH OF 2010 PLANT COST 971610.  
 1978 WORTH OF 2020 PLANT SALVAGE 409253.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 576121.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 40935.

Waterman Switch Reservoir  
 (concluded)

RESERVOIR NO. 8  
 TITLE GLENWOOD SITE A  
 AREA  
 INITIAL POOL ELEVATION  
 MAXIMUM POOL HEIGHT  
 MINIMUM POOL HEIGHT  
 RELEASE

.740E+02 ACRES  
 .160E+03 FEET  
 .160E+03 FEET  
 0. FEET  
 .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED  
 DESIGN LIFE  
 INTEREST RATE  
 ENR CONSTRUCTION INDEX  
 CITY MULTIPLIER

1980 YEAR  
 50 YEARS  
 .663E+01 PERCENT  
 .268E+04  
 .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.994E+07	.874E+07	.994E+07
OVERHEAD(\$)	.994E+06	.874E+06	.994E+06
CAPITAL COST(\$)	.109E+08	.961E+07	.109E+08
AMORTIZED(\$/YR)	.755E+06	.664E+06	.755E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.770E+06	.677E+06	.875E+06

SUPPLY COST OVERRIDE .150E+05  
 PERCENT DEPRECIATED 0.

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Glenwood Reservoir  
 (continued)

1978 WORTH OF 1980 PLANT COST 9617473.  
 1978 WORTH OF 2020 PLANT SALVAGE 147819.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9633503.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 685909.

1978 WORTH OF 1990 PLANT COST 5063731.  
 1978 WORTH OF 2020 PLANT SALVAGE 295637.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4857645.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 345150.

1978 WORTH OF 2000 PLANT COST 2666123.  
 1978 WORTH OF 2020 PLANT SALVAGE 443456.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2262571.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 160762.

1978 WORTH OF 2010 PLANT COST 1403750.  
 1978 WORTH OF 2020 PLANT SALVAGE 591275.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 826239.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 58707.

Glenwood Reservoir  
(concluded)

RESERVOIR NO. 9  
 TITLE UPPER SOQUEL SITE B  
 AREA  
 INITIAL POOL ELEVATION  
 MAXIMUM POOL HEIGHT  
 MINIMUM POOL HEIGHT  
 RELEASE

.850E+02 ACRES  
 .240E+03 FEET  
 .240E+03 FEET  
 0. FEET  
 .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED  
 DESIGN LIFE  
 INTEREST RATE  
 ENR CONSTRUCTION INDEX  
 CITY MULTIPLIER

1980 YEAR  
 50 YEARS  
 .663E+01 PERCENT  
 .268E+04  
 .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.157E+08	.138E+08	.157E+08
OVERHEAD(\$)	.157E+07	.138E+07	.157E+07
CAPITAL COST(\$)	.173E+08	.152E+08	.173E+08
AMORTIZED(\$/YR)	.119E+07	.105E+07	.119E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.121E+07	.106E+07	.137E+07
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Upper Soquel Reservoir - Site B  
 (continued)

1978 WORTH OF	1980 PLANT COST	15190576.	
1978 WORTH OF	2020 PLANT SALVAGE	233476.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		183848.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	15140949.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1075808.

1978 WORTH OF	1990 PLANT COST	7998045.	
1978 WORTH OF	2020 PLANT SALVAGE	466952.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		89552.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	7620645.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 541469.

1978 WORTH OF	2000 PLANT COST	4211080.	
1978 WORTH OF	2020 PLANT SALVAGE	700429.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		39904.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	3550555.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 252277.

1978 WORTH OF	2010 PLANT COST	2217191.	
1978 WORTH OF	2020 PLANT SALVAGE	933905.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		13763.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	1297049.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 92159.

Upper Soquel Reservoir - Site B  
(concluded)

RESERVOIR NO. 10

TITLE APTOS

AREA	.610E+02	ACRES
INITIAL POOL ELEVATION	.147E+03	FEET
MAXIMUM POOL HEIGHT	.147E+03	FEET
MINIMUM POOL HEIGHT	0.	FEET
RELEASE	.210E+01	MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEAR
DESIGN LIFE	50	YEARS
INTEREST RATE	.663E+01	PERCENT
ENR CONSTRUCTION INDEX	.268E+04	
CITY MULTIPLIER	.114E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O. % INFLATION
CONSTRUCTION(\$)	.787E+07	.692E+07	.787E+07
OVERHEAD(\$)	.787E+06	.692E+06	.787E+06
CAPITAL COST(\$)	.865E+07	.761E+07	.865E+07
AMORTIZED(\$/YR)	.598E+06	.526E+06	.598E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.613E+06	.539E+06	.696E+06

SUPPLY COST OVERRIDE		.150E+05
PERCENT DEPRECIATED	0.	

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Aptos Creek Reservoir  
(continued)

1978 WORTH OF 1980 PLANT COST	7614639.	
1978 WORTH OF 2020 PLANT SALVAGE	117036.	
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS	0.	183848.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	7681452.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 545789.

1978 WORTH OF 1990 PLANT COST	4009211.	
1978 WORTH OF 2020 PLANT SALVAGE	234071.	
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS	0.	89552.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	3864692.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 274598.

1978 WORTH OF 2000 PLANT COST	2110904.	
1978 WORTH OF 2020 PLANT SALVAGE	351107.	
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS	0.	39904.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	1799702.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 127874.

1978 WORTH OF 2010 PLANT COST	1111420.	
1978 WORTH OF 2020 PLANT SALVAGE	468142.	
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS	0.	13763.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	657041.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 46685.

Aptos Creek Reservoir  
(concluded)

RESERVOIR NO. 11  
TITLE PESCADERO

AREA .110E+03 ACRES  
INITIAL POOL ELEVATION .110E+03 FEET  
MAXIMUM POOL HEIGHT .110E+03 FEET  
MINIMUM POOL HEIGHT 0. FEET  
RELEASE .210E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR  
DESIGN LIFE 50 YEARS  
INTEREST RATE .663E+01 PERCENT  
ENR CONSTRUCTION INDEX .268E+04  
CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.101E+08	.890E+07	.101E+08
OVERHEAD(\$)	.101E+07	.890E+06	.101E+07
CAPITAL COST(\$)	.111E+08	.979E+07	.111E+08
AMORTIZED(\$/YR)	.769E+06	.676E+06	.769E+06
LABOR(MAN-HR/YR) 0:	0:	0:	0:
LABOR COST(\$/YR) 0:	0:	0:	0:
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR) 0:	0:	0:	0:
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.784E+06	.689E+06	.891E+06
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Pescadero Creek Reservoir without pumping from Pajaro River  
(continued)

1978 WORTH OF 1980 PLANT COST	9772282.	
1978 WORTH OF 2020 PLANT SALVAGE	150198.	
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS	9805932.	183848.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 696740.

1978 WORTH OF 1990 PLANT COST	5145239.	
1978 WORTH OF 2020 PLANT SALVAGE	300396.	
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS	4934395.	89552.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 350603.

1978 WORTH OF 2000 PLANT COST	2709039.	
1978 WORTH OF 2020 PLANT SALVAGE	450594.	
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS	2298348.	39904.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 165304.

1978 WORTH OF 2010 PLANT COST	1426346.	
1978 WORTH OF 2020 PLANT SALVAGE	600792.	
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS	839317.	13763.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 59636.

Pescadero Creek Reservoir without pumping from Pajaro River  
(concluded)

1978 WORTH OF 1980 PLANT COST 9772282.  
 1978 WORTH OF 2020 PLANT SALVAGE 150196.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9805932.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 696740.

1978 WORTH OF 1990 PLANT COST 5145239.  
 1978 WORTH OF 2020 PLANT SALVAGE 300396.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4934395.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 350603.

1978 WORTH OF 2000 PLANT COST 2709039.  
 1978 WORTH OF 2020 PLANT SALVAGE 450594.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2298348.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 163304.

1978 WORTH OF 2010 PLANT COST 1426346.  
 1978 WORTH OF 2020 PLANT SALVAGE 600792.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 839317.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 59636.

Pescadero Creek Reservoir without pumping from Pajaro River  
(concluded)

RESERVOIR NO. 11

TITLE PESCADERO

AREA	.230E+03	ACRES
INITIAL POOL ELEVATION	.110E+03	FEET
MAXIMUM POOL HEIGHT	.110E+03	FEET
MINIMUM POOL HEIGHT	0.	FEET
RELEASE	.210E+01	MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEAR
DESIGN LIFE	50	YEARS
INTEREST RATE	.663E+01	PERCENT
ENR CONSTRUCTION INDEX	.268E+04	
CITY MULTIPLIER	.114E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.188E+08	.165E+08	.188E+08
OVERHEAD(\$)	.188E+07	.165E+07	.188E+07
CAPITAL COST(\$)	.207E+08	.182E+08	.207E+08
AMORTIZED(\$/YR)	.143E+07	.126E+07	.143E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.144E+07	.127E+07	.164E+07

SUPPLY COST OVERRIDE

PERCENT DEPRECIATED	0.	.150E+05
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Pescadero Creek Reservoir with pumping from Pajaro River  
(continued)

1978 WORTH OF 1980 PLANT COST 18189989.  
 1978 WORTH OF 2020 PLANT SALVAGE 279577.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 18094261.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1285649.

1978 WORTH OF 1990 PLANT COST 9577277.  
 1978 WORTH OF 2020 PLANT SALVAGE 559153.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 9107676.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 647127.

1978 WORTH OF 2000 PLANT COST 5042567.  
 1978 WORTH OF 2020 PLANT SALVAGE 838730.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 4243741.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 301530.

1978 WORTH OF 2010 PLANT COST 2654980.  
 1978 WORTH OF 2020 PLANT SALVAGE 1118307.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1550437.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 110163.

Pescadero Creek with pumping from Pajaro River  
(concluded)

RESERVOIR NO. 12  
 TITLE CORNCOB CANYON  
 AREA  
 INITIAL POOL ELEVATION  
 MAXIMUM POOL HEIGHT  
 MINIMUM POOL HEIGHT  
 RELEASE

.940E+02 ACRES  
 .150E+03 FEET  
 .150E+03 FEET  
 0 FEET  
 .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED  
 DESIGN LIFE  
 INTEREST RATE  
 ENR CONSTRUCTION INDEX  
 CITY MULTIPLIER

1980 YEAR  
 50 YEARS  
 .063E+01 PERCENT  
 .268E+04  
 .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.115E+08	.101E+08	.115E+08
OVERHEAD(\$)	.115E+07	.101E+07	.115E+07
CAPITAL COST(\$)	.127E+08	.111E+08	.127E+08
AMORTIZED(\$/YR)	.874E+06	.769E+06	.874E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.889E+06	.782E+06	.101E+07
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Corncob Canyon Reservoir  
 (continued)

1978 WORTH OF 1980 PLANT COST 11126855.  
 1978 WORTH OF 2020 PLANT SALVAGE 171018.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 11139686.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 791507.

1978 WORTH OF 1990 PLANT COST 5858441.  
 1978 WORTH OF 2020 PLANT SALVAGE 342035.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 5605958.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 398319.

1978 WORTH OF 2000 PLANT COST 3084549.  
 1978 WORTH OF 2020 PLANT SALVAGE 513053.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2611400.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 185547.

1978 WORTH OF 2010 PLANT COST 1624057.  
 1978 WORTH OF 2020 PLANT SALVAGE 684070.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 953750.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 67767.

Corncob Canyon Reservoir  
 (concluded)

RESERVOIR NO. 13  
 TITLE KING SITE B  
 AREA  
 INITIAL POOL ELEVATION  
 MAXIMUM POOL HEIGHT  
 MINIMUM POOL HEIGHT  
 RELEASE

.500E+02 ACRES  
 .160E+03 FEET  
 .160E+03 FEET  
 0. FEET  
 .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED  
 DESIGN LIFE  
 INTEREST RATE  
 ENR CONSTRUCTION INDEX  
 CITY MULTIPLIER

1980 YEAR  
 50 YEARS  
 .663E+01 PERCENT  
 .268E+04  
 .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.715E+07	.629E+07	.715E+07
OVERHEAD(\$)	.715E+06	.629E+06	.715E+06
CAPITAL COST(\$)	.786E+07	.692E+07	.786E+07
AMORTIZED(\$/YR)	.543E+06	.478E+06	.543E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE. ANNUAL(\$/YR)	.558E+06	.491E+06	.634E+06
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Kings Creek Reservoir - Site B  
 (continued)

1978 WORTH OF	1980 PLANT COST	6918001.	
1978 WORTH OF	2020 PLANT SALVAGE	106328.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	0.	183848.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	6995521.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		497052.	

1978 WORTH OF	1990 PLANT COST	3642422.	
1978 WORTH OF	2020 PLANT SALVAGE	212657.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	0.	89552.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	3519317.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		250058.	

1978 WORTH OF	2000 PLANT COST	1917785.	
1978 WORTH OF	2020 PLANT SALVAGE	318985.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	0.	39904.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	1638704.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		116435.	

1978 WORTH OF	2010 PLANT COST	1009740.	
1978 WORTH OF	2020 PLANT SALVAGE	425313.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	0.	13763.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	598190.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		42503.	

Kings Creek Reservoir - Site B  
(concluded)

RESERVOIR NO. 14  
 TITLE JAMISON DAM (ON BOULDER CR)  
 AREA  
 INITIAL POOL ELEVATION  
 MAXIMUM POOL HEIGHT  
 MINIMUM POOL HEIGHT  
 RELEASE

.150E+03 ACRES  
 .680E+02 FEET  
 .120E+03 FEET  
 0. FEET  
 .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED  
 DESIGN LIFE  
 INTEREST RATE  
 ENR CONSTRUCTION INDEX  
 CITY MULTIPLIER

1980 YEAR  
 50 YEARS  
 .663E+01 PERCENT  
 .268E+04  
 .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION (\$)	.141E+08	.124E+08	.141E+08
OVERHEAD (\$)	.141E+07	.124E+07	.141E+07
CAPITAL COST (\$)	.155E+08	.137E+08	.155E+08
AMORTIZED (\$/YR)	.107E+07	.944E+06	.107E+07
LABOR (MAN-HR/YR)	0.	0.	0.
LABOR COST (\$/YR)	0.	0.	0.
SUPPLY COST (\$/YR)	.150E+05	.132E+05	.150E+05
POWER (\$/YR)	0.	0.	0.
TOTAL O&M (\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL (\$/YR)	.109E+07	.957E+06	.124E+07

SUPPLY COST OVERRIDE .150E+05  
 PERCENT DEPRECIATED 0.

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Boulder Creek Reservoir (Jamison Dam)  
 (continued)

1978 WORTH OF 1980 PLANT COST	13642492.	
1978 WORTH OF 2020 PLANT SALVAGE	209682.	
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		0.
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS		183848.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	13616658.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 967503.

1978 WORTH OF 1990 PLANT COST	7182958.	
1978 WORTH OF 2020 PLANT SALVAGE	419365.	
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		0.
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS		89552.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	6853145.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 486936.

1978 WORTH OF 2000 PLANT COST	3781925.	
1978 WORTH OF 2020 PLANT SALVAGE	629047.	
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		0.
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS		39904.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	3192782.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 226856.

1978 WORTH OF 2010 PLANT COST	1991235.	
1978 WORTH OF 2020 PLANT SALVAGE	838730.	
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		0.
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS		14763.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	1166269.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 82867.

Boulder Creek Reservoir (Jamison Dam)  
(concluded)

RESERVOIR NO. 15  
 TITLE BEAR CR.

AREA .925E+02 ACRES  
 INITIAL POOL ELEVATION .138E+03 FEET  
 MAXIMUM POOL HEIGHT .138E+03 FEET  
 MINIMUM POOL HEIGHT 0. FEET  
 RELEASE .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.106E+08	.931E+07	.106E+08
OVERHEAD(\$)	.106E+07	.931E+06	.106E+07
CAPITAL COST(\$)	.116E+08	.102E+08	.116E+08
AMORTIZED(\$/YR)	.804E+06	.707E+06	.804E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.819E+06	.720E+06	.931E+06
SUPPLY COST OVERRIDE			.150E+05
PERCENT DEPRECIATED		0.	

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Bear Creek Reservoir  
 (continued)

1978 WORTH OF 1980 PLANT COST 10256058.  
 1978 WORTH OF 2020 PLANT SALVAGE 157634.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 10282273.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 730585.

1978 WORTH OF 1990 PLANT COST 5399954.  
 1978 WORTH OF 2020 PLANT SALVAGE 315267.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 5174239.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 367645.

1978 WORTH OF 2000 PLANT COST 2843149.  
 1978 WORTH OF 2020 PLANT SALVAGE 472901.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2410152.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 171248.

1978 WORTH OF 2010 PLANT COST 1496957.  
 1978 WORTH OF 2020 PLANT SALVAGE 630535.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 880186.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 62540.

Bear Creek Reservoir  
(concluded)

RESERVOIR NO. 16  
 TITLE BALWIN  
 AREA .650E+02 ACRES  
 INITIAL POOL ELEVATION .100E+03 FEET  
 MAXIMUM POOL HEIGHT .100E+03 FEET  
 MINIMUM POOL HEIGHT 0. FEET  
 RELEASE .210E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.600E+07	.528E+07	.600E+07
OVERHEAD(\$)	.600E+06	.528E+06	.600E+06
CAPITAL COST(\$)	.660E+07	.581E+07	.660E+07
AMORTIZED(\$/YR)	.456E+06	.401E+06	.456E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.150E+05	.132E+05	.150E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.150E+05	.132E+05	.150E+05
AVE ANNUAL(\$/YR)	.471E+06	.414E+06	.535E+06

SUPPLY COST OVERRIDE .150E+05  
 PERCENT DEPRECIATED 0.  
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Baldwin Creek Reservoir  
 (continued)

1978 WORTH OF 1980 PLANT COST 5805316.  
 1978 WORTH OF 2020 PLANT SALVAGE 89227.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 183848.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 5899938.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 419208.

1978 WORTH OF 1990 PLANT COST 3056578.  
 1978 WORTH OF 2020 PLANT SALVAGE 178453.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 89552.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 2967677.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 210862.

1978 WORTH OF 2000 PLANT COST 1609330.  
 1978 WORTH OF 2020 PLANT SALVAGE 267680.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 39904.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 1381554.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 98163.

1978 WORTH OF 2010 PLANT COST 847334.  
 1978 WORTH OF 2020 PLANT SALVAGE 356906.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 13763.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 504191.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 35824.

Baldwin Creek Reservoir  
(concluded)

TREATMENT PLANT 2

UPPER SAN LORENZO WATER TREATMENT PLANT.

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .500E+01 MGD  
 HIGH DAY DESIGN FLOW .500E+01 MGD  
 AVERAGE DESIGN FLOW .500E+01 MGD  
 MINIMUM DESIGN FLOW .500E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.234E+07	.206E+07	.234E+07
OVERHEAD(\$)	.234E+06	.206E+06	.234E+06
CAPITAL COST(\$)	.257E+07	.226E+07	.257E+07
AMORTIZED(\$/YR)	.236E+06	.208E+06	.236E+06
LABOR(MAN-HR/YR) 0:	0:	0:	0:
LABOR COST(\$/YR) 0:	0:	0:	0:
SUPPLY COST(\$/YR)	.214E+06	.188E+06	.214E+06
POWER(\$/YR) 0:	0:	0:	0:
TOTAL O&M(\$/YR)	.214E+06	.188E+06	.214E+06
AVE ANNUAL(\$/YR)	.450E+06	.396E+06	.512E+06

PERCENT DEPRECIATED 0.

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Upper San Lorenzo Water Treatment Plant  
 (continued)

1978 WORTH OF 1980 PLANT COST 2264073.  
 1978 WORTH OF 2000 PLANT COST 627639.  
 1978 WORTH OF 2020 PLANT COST 173992.  
 1978 WORTH OF 2020 PLANT SALVAGE 173992.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 2622905.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 5514617.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 391829.

1978 WORTH OF 1990 PLANT COST 1192065.  
 1978 WORTH OF 2010 PLANT COST 330460.  
 1978 WORTH OF 2020 PLANT SALVAGE 86996.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 1277611.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 2713140.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 192776.

1978 WORTH OF 2000 PLANT COST 627639.  
 1978 WORTH OF 2020 PLANT COST 173992.  
 1978 WORTH OF 2020 PLANT SALVAGE 173992.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 569295.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 1196933.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 85046.

1978 WORTH OF 2010 PLANT COST 330460.  
 1978 WORTH OF 2020 PLANT SALVAGE 86996.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 196357.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 439821.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 31251.

Upper San Lorenzo Water Treatment Plant  
(concluded)

TREATMENT PLANT 3  
 FELTON WATER TREATMENT PLANT.

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .500E+01 MGD  
 HIGH DAY DESIGN FLOW .500E+01 MGD  
 AVERAGE DESIGN FLOW .500E+01 MGD  
 MINIMUM DESIGN FLOW .500E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.234E+07	.206E+07	.234E+07
OVERHEAD(\$)	.234E+06	.206E+06	.234E+06
CAPITAL COST(\$)	.257E+07	.226E+07	.257E+07
AMORTIZED(\$/YR)	.236E+06	.208E+06	.236E+06
LABOR(MAN-HR/YR)	0	0	0
LABOR COST(\$/YR)	0	0	0
SUPPLY COST(\$/YR)	.214E+06	.188E+06	.214E+06
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.214E+06	.188E+06	.214E+06
AVE ANNUAL(\$/YR)	.450E+06	.396E+06	.512E+06

PERCENT DEPRECIATED 0.  
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Felton Water Treatment Plant  
 (continued)

1978 WORTH OF	1980 PLANT COST	2264073.	
1978 WORTH OF	2000 PLANT COST	627639.	
1978 WORTH OF	2020 PLANT COST	173992.	
1978 WORTH OF	2020 PLANT SALVAGE	173992.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		0.
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		2622905.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		5514617.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 391829.

1978 WORTH OF	1990 PLANT COST	1192065.	
1978 WORTH OF	2010 PLANT COST	330460.	
1978 WORTH OF	2020 PLANT SALVAGE	86996.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		0.
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		1277611.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		2713140.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 192776.

1978 WORTH OF	2000 PLANT COST	627639.	
1978 WORTH OF	2020 PLANT COST	173992.	
1978 WORTH OF	2020 PLANT SALVAGE	173992.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		0.
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		569295.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		1196933.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 85046.

1978 WORTH OF	2010 PLANT COST	330460.	
1978 WORTH OF	2020 PLANT SALVAGE	86996.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		0.
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		196357.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		439821.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 31251.

Felton Water Treatment Plant  
(concluded)

TREATMENT PLANT 4  
 GORDOLA WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .200E+02 MGD  
 HIGH DAY DESIGN FLOW .200E+02 MGD  
 AVERAGE DESIGN FLOW .200E+02 MGD  
 MINIMUM DESIGN FLOW .200E+02 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.656E+07	.577E+07	.656E+07
OVERHEAD(\$)	.656E+06	.577E+06	.656E+06
CAPITAL COST(\$)	.722E+07	.635E+07	.722E+07
AMORTIZED(\$/YR)	.661E+06	.582E+06	.661E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.518E+06	.455E+06	.518E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.518E+06	.455E+06	.518E+06
AVE ANNUAL(\$/YR)	.118E+07	.104E+07	.134E+07

PERCENT DEPRECIATED 0.  
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Gordola Water Treatment Plant  
 (continued)

1978 WORTH OF 1980 PLANT COST 6347145.  
 1978 WORTH OF 2000 PLANT COST 1759534.  
 1978 WORTH OF 2020 PLANT COST 487772.  
 1978 WORTH OF 2020 PLANT SALVAGE 487772.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 6348901.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 14455580.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1027111.

1978 WORTH OF 1990 PLANT COST 3341858.  
 1978 WORTH OF 2010 PLANT COST 926419.  
 1978 WORTH OF 2020 PLANT SALVAGE 243886.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 3092534.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 7116925.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 505678.

1978 WORTH OF 2000 PLANT COST 1759534.  
 1978 WORTH OF 2020 PLANT COST 487772.  
 1978 WORTH OF 2020 PLANT SALVAGE 487772.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 1578013.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 3137547.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 222932.

1978 WORTH OF 2010 PLANT COST 926419.  
 1978 WORTH OF 2020 PLANT SALVAGE 243886.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 475294.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1157826.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 82267.

Gordola Water Treatment Plant  
(concluded)

001 WATER TREATMENT PLANT 4  
TREATMENT PLANT 4

GORDOLA WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .100E+02 MGD  
HIGH DAY DESIGN FLOW .100E+02 MGD  
AVERAGE DESIGN FLOW .100E+02 MGD  
MINIMUM DESIGN FLOW .100E+02 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR 20 YEARS  
DESIGN LIFE 20 YEARS  
INTEREST RATE .663E+01 PERCENT  
WAGE O&M .750E+01 \$/HR  
ENR CONSTRUCTION INDEX .268E+04  
CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.385E+07	.339E+07	.385E+07
OVERHEAD(\$)	.385E+06	.339E+06	.385E+06
CAPITAL COST(\$)	.424E+07	.373E+07	.424E+07
AMORTIZED(\$/YR)	.389E+06	.342E+06	.389E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.384E+06	.338E+06	.384E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.384E+06	.338E+06	.384E+06
AVE ANNUAL(\$/YR)	.773E+06	.680E+06	.879E+06

PERCENT DEPRECIATED 0.

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DATA FOR WATER TREATMENT PLANT 4

Gordola Water Treatment Plant  
(continued)

1978 WORTH OF	1980 PLANT COST	3725078.	
1978 WORTH OF	2000 PLANT COST	1032653.	
1978 WORTH OF	2020 PLANT COST	286269.	
1978 WORTH OF	2020 PLANT SALVAGE	286269.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	4706521.	
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	9464252.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		672462.	

1978 WORTH OF	1990 PLANT COST	1961304.	
1978 WORTH OF	2010 PLANT COST	543706.	
1978 WORTH OF	2020 PLANT SALVAGE	143134.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	2292535.	
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	4654411.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		330709.	

1978 WORTH OF	2000 PLANT COST	1032653.	
1978 WORTH OF	2020 PLANT COST	286269.	
1978 WORTH OF	2020 PLANT SALVAGE	286269.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	1021538.	
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	2054192.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		145956.	

1978 WORTH OF	2010 PLANT COST	543706.	
1978 WORTH OF	2020 PLANT SALVAGE	143134.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	552341.	
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	752913.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		53497.	

Gordola Water Treatment Plant  
(concluded)

TREATMENT PLANT 5

APTOS - SOQUEL WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .400E+01 MGD  
 HIGH DAY DESIGN FLOW .400E+01 MGD  
 AVERAGE DESIGN FLOW .400E+01 MGD  
 MINIMUM DESIGN FLOW .400E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O. % INFLATION
CONSTRUCTION(\$)	.199E+07	.175E+07	.199E+07
OVERHEAD(\$)	.199E+06	.175E+06	.199E+06
CAPITAL COST(\$)	.219E+07	.193E+07	.219E+07
AMORTIZED(\$/YR)	.201E+06	.177E+06	.201E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.180E+06	.158E+06	.180E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.180E+06	.158E+06	.180E+06
AVE ANNUAL(\$/YR)	.381E+06	.335E+06	.433E+06

PERCENT DEPRECIATED 0.

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Aptos-Soquel Water Treatment Plant  
 (continued)

1978 WORTH OF	1980 PLANT COST	1925430.	
1978 WORTH OF	2000 PLANT COST	533761.	
1978 WORTH OF	2020 PLANT COST	147967.	
1978 WORTH OF	2020 PLANT SALVAGE	147967.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	2206182.	
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	4665372.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 331488.

1978 WORTH OF	1990 PLANT COST	1013765.	
1978 WORTH OF	2010 PLANT COST	281032.	
1978 WORTH OF	2020 PLANT SALVAGE	73984.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	1074626.	
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	2295439.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 163098.

1978 WORTH OF	2000 PLANT COST	533761.	
1978 WORTH OF	2020 PLANT COST	147967.	
1978 WORTH OF	2020 PLANT SALVAGE	147967.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	478846.	
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	1012607.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 71949.

1978 WORTH OF	2010 PLANT COST	281032.	
1978 WORTH OF	2020 PLANT SALVAGE	73984.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	165160.	
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	372209.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 26447.

Aptos-Soquel Water Treatment Plant  
(concluded)

TREATMENT PLANT 5

APTOS - SOQUEL WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .700E+01 MGD  
 HIGH DAY DESIGN FLOW .700E+01 MGD  
 AVERAGE DESIGN FLOW .700E+01 MGD  
 MINIMUM DESIGN FLOW .700E+01 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR 20  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.298E+07	.262E+07	.298E+07
OVERHEAD(\$)	.298E+06	.262E+06	.298E+06
CAPITAL COST(\$)	.328E+07	.288E+07	.328E+07
AMORTIZED(\$/YR)	.301E+06	.264E+06	.301E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.282E+06	.248E+06	.282E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.282E+06	.248E+06	.282E+06
AVE ANNUAL(\$/YR)	.583E+06	.513E+06	.663E+06

PERCENT DEPRECIATED

0.

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Aptos-Soquel Water Treatment Plant  
 (continued)

1978 WORTH OF	1980 PLANT COST	2883307.	
1978 WORTH OF	2000 PLANT COST	799300.	
1978 WORTH OF	2020 PLANT COST	221579.	
1978 WORTH OF	2020 PLANT SALVAGE	221579.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		3456351.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	7138959.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 507244.

1978 WORTH OF	1990 PLANT COST	1518100.	
1978 WORTH OF	2010 PLANT COST	420843.	
1978 WORTH OF	2020 PLANT SALVAGE	110790.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		1663580.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	3511733.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 249519.

1978 WORTH OF	2000 PLANT COST	799300.	
1978 WORTH OF	2020 PLANT COST	221579.	
1978 WORTH OF	2020 PLANT SALVAGE	221579.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		750192.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	1549493.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 110096.

1978 WORTH OF	2010 PLANT COST	420843.	
1978 WORTH OF	2020 PLANT SALVAGE	110790.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		258751.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	568804.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 40415.

Aptos-Soquel Water Treatment Plant  
(concluded)

TREATMENT PLANT 6  
 WATSONVILLE WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .100E+02 MGD  
 HIGH DAY DESIGN FLOW .100E+02 MGD  
 AVERAGE DESIGN FLOW .100E+02 MGD  
 MINIMUM DESIGN FLOW .100E+02 MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.385E+07	.339E+07	.385E+07
OVERHEAD(\$)	.385E+06	.339E+06	.385E+06
CAPITAL COST(\$)	.424E+07	.373E+07	.424E+07
AMORTIZED(\$/YR)	.389E+06	.342E+06	.389E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.384E+06	.338E+06	.384E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.384E+06	.338E+06	.384E+06
AVE ANNUAL(\$/YR)	.773E+06	.680E+06	.879E+06

PERCENT DEPRECIATED 0.

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Watsonville Water Treatment Plant  
 (continued)

1978 WORTH OF	1980 PLANT COST	5725078.	
1978 WORTH OF	2000 PLANT COST	1032653.	
1978 WORTH OF	2020 PLANT COST	286269.	
1978 WORTH OF	2020 PLANT SALVAGE	286269.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	0.	4706521.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	9464252.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 672462.

1978 WORTH OF	1990 PLANT COST	1961304.	
1978 WORTH OF	2010 PLANT COST	543706.	
1978 WORTH OF	2020 PLANT SALVAGE	143134.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	0.	2292535.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	4654411.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 330709.

1978 WORTH OF	2000 PLANT COST	1032653.	
1978 WORTH OF	2020 PLANT COST	286269.	
1978 WORTH OF	2020 PLANT SALVAGE	286269.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	0.	1021538.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	2054192.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 145956.

1978 WORTH OF	2010 PLANT COST	543706.	
1978 WORTH OF	2020 PLANT SALVAGE	143134.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	0.	352341.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	752913.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 53497.

Watsonville Water Treatment Plant  
(concluded)

TREATMENT PLANT 9  
 APTOS WATER TREATMENT PLANT

COSTS BASED ON SOLID REMOVAL & CHORINATION

MAXIMUM DESIGN FLOW .400E+01 MGD  
 HIGH DAY DESIGN FLOW .400E+01 MGD  
 AVERAGE DESIGN FLOW .400E+01 MGD  
 MINIMUM DESIGN FLOW .400E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 WAGE O&M .750E+01 \$/HR  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.199E+07	.175E+07	.199E+07
OVERHEAD(\$)	.199E+06	.175E+06	.199E+06
CAPITAL COST(\$)	.219E+07	.193E+07	.219E+07
AMORTIZED(\$/YR)	.201E+06	.177E+06	.201E+06
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.180E+06	.158E+06	.180E+06
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.180E+06	.158E+06	.180E+06
AVE ANNUAL(\$/YR)	.381E+06	.335E+06	.433E+06

PERCENT DEPRECIATED 0.  
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Aptos Water Treatment Plant  
 (continued)

1978 WORTH OF	1980 PLANT COST	1925430.	
1978 WORTH OF	2000 PLANT COST	533761.	
1978 WORTH OF	2020 PLANT COST	147967.	
1978 WORTH OF	2020 PLANT SALVAGE	147967.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		2206182.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	4665372.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 331488.

1978 WORTH OF	1990 PLANT COST	1013765.	
1978 WORTH OF	2010 PLANT COST	281032.	
1978 WORTH OF	2020 PLANT SALVAGE	73984.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		1074626.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	2295439.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 163098.

1978 WORTH OF	2000 PLANT COST	533761.	
1978 WORTH OF	2020 PLANT COST	147967.	
1978 WORTH OF	2020 PLANT SALVAGE	147967.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		478846.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	1012607.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 71949.

1978 WORTH OF	2010 PLANT COST	281032.	
1978 WORTH OF	2020 PLANT SALVAGE	73984.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		165160.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	372209.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 26447.

Aptos Water Treatment Plant  
(concluded)

TREATMENT PLANT 11  
GROUNDWATER TREATMENT

COST BASED ON CHLORINATION ONLY

MAXIMUM DESIGN FLOW .500E+01 MGD  
HIGH DAY DESIGN FLOW .500E+01 MGD  
AVERAGE DESIGN FLOW .500E+01 MGD  
MINIMUM DESIGN FLOW .500E+01 MGD

ECONOMIC FACTORS  
YEAR CONSTRUCTED 1980 YEAR  
DESIGN LIFE 20 YEARS  
INTEREST RATE .663E+01 PERCENT  
WAGE O&M .750E+01 \$/HR  
ENR CONSTRUCTION INDEX .268E+04  
CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O % INFLATION
CONSTRUCTION(\$)	.210E+06	.185E+06	.210E+06
OVERHEAD(\$)	.210E+05	.185E+05	.210E+05
CAPITAL COST(\$)	.231E+06	.203E+06	.231E+06
AMORTIZED(\$/YR)	.212E+05	.186E+05	.212E+05
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.298E+05	.262E+05	.298E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.298E+05	.262E+05	.298E+05
AVE ANNUAL(\$/YR)	.510E+05	.448E+05	.579E+05

PERCENT DEPRECIATED 0.

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Treatment for Groundwater Supply  
(continued)

1978 WORTH OF	1980 PLANT COST	203186.	
1978 WORTH OF	2000 PLANT COST	56327.	
1978 WORTH OF	2020 PLANT COST	15615.	
1978 WORTH OF	2020 PLANT SALVAGE	15615.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		365246.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	624758.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		44391.	

1978 WORTH OF	1990 PLANT COST	106980.	
1978 WORTH OF	2010 PLANT COST	29657.	
1978 WORTH OF	2020 PLANT SALVAGE	7807.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		177910.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	306740.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		21795.	

1978 WORTH OF	2000 PLANT COST	56327.	
1978 WORTH OF	2020 PLANT COST	15615.	
1978 WORTH OF	2020 PLANT SALVAGE	15615.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		79276.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	135602.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		9635.	

1978 WORTH OF	2010 PLANT COST	29657.	
1978 WORTH OF	2020 PLANT SALVAGE	7807.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		27343.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	49193.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		3495.	

Treatment for Groundwater Supply  
(concluded)

WELLFIELD 1  
 TITLE SANTA CRUZ  
 DESIGN FACTORS  
 NUMBER OF WELLS IN FIELD .100E+02  
 DEPTH OF DRILLING .300E+03 FEET  
 DEPTH TO GROUNDWATER .200E+03 FEET  
 DRAWDOWN DURING PUMPING .320E+03 FEET  
 HEAD REQUIRED FOR PUMPING .520E+03 FEET  
 ANNUAL POWER REQUIREMENT .113E+06 KWHR  
 CAPACITY OF PUMPING EQUIPMENT .182E+03 HORSEPOWER  
 MAXIMUM FLOW .200E+01 MGD  
 AVERAGE FLOW .100E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980  
 DESIGN LIFE 20 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 POWER COST .500E-01 \$/KWHR  
 ENR-CC INDEX .268E+04  
 AVERAGE WAGE .750E+01 \$/HR  
 CITY MULTIPLIER .114E+01  
 COST TO DRILL ONE WELL .297E+05 \$  
 COST FOR PUMPING EQUIPMENT .486E+05 \$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.956E+06	.841E+06	.956E+06
OVERHEAD(\$)	.956E+05	.841E+05	.956E+05
CAPITAL COST(\$)	.105E+07	.925E+06	.105E+07
AMORTIZED(\$/YR)	.964E+05	.848E+05	.964E+05
LABOR(MAN-HR/YR)	.200E+04	.200E+04	.200E+04
LABOR COST(\$/YR)	.150E+05	.132E+05	.150E+05
SUPPLY COST(\$/YR)	.191E+05	.168E+05	.191E+05
POWER(\$/YR)	.565E+05	.497E+05	.565E+05
TOTAL O&M(\$/YR)	.906E+05	.797E+05	.906E+05
AVE ANNUAL(\$/YR)	.187E+06	.165E+06	.213E+06

PERCENT DEPRECIATED 0.

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Wellfield in San Lorenzo Valley  
 (continued)

1978 WORTH OF	1980 PLANT COST	470231.	
1978 WORTH OF	2000 PLANT COST	130356.	
1978 WORTH OF	2020 PLANT COST	36137.	
1978 WORTH OF	2020 PLANT SALVAGE	36137.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	241163.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		1110445.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	1952194.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 158709.

1978 WORTH OF	1990 PLANT COST	247583.	
1978 WORTH OF	2010 PLANT COST	68634.	
1978 WORTH OF	2020 PLANT SALVAGE	18068.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	117470.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		540895.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	956513.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 67963.

1978 WORTH OF	2000 PLANT COST	130356.	
1978 WORTH OF	2020 PLANT COST	36137.	
1978 WORTH OF	2020 PLANT SALVAGE	36137.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	52344.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		241019.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	423719.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 30106.

1978 WORTH OF	2010 PLANT COST	68634.	
1978 WORTH OF	2020 PLANT SALVAGE	18068.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	18054.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		83131.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	151750.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 10782.

Wellfield in San Lorenzo Valley  
(concluded)

PUMPING STATION 3

FELTON PUMPING STATION

PUMP HEAD	.437E+03	FEET
PUMP POWER	.256E+04	HORSEPOWER
ELECTRICAL USAGE	.836E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.150E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.800E+01	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	0.	FEET
FINAL ELEVATION	0.	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.437E+03	FEET
INITIAL TOTAL HEAD	0.	FEET
FINAL TOTAL HEAD	.437E+03	FEET

ECONOMIC FACTORS

CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGEOM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.130E+07	.114E+07	.130E+07
OVERHEAD(\$)	.130E+06	.114E+06	.130E+06
CAPITAL COST(\$)	.143E+07	.125E+07	.143E+07
AMORTIZED(\$/YR)	.131E+06	.115E+06	.131E+06
LABOR(MAN-HR/YR)	.143E+04	.143E+04	.143E+04
LABOR COST(\$/YR)	.107E+05	.942E+04	.107E+05
SUPPLY COST(\$/YR)	.210E+04	.185E+04	.210E+04
POWER(\$/YR)	.418E+06	.368E+06	.418E+06
TOTAL O&M(\$/YR)	.431E+06	.379E+06	.431E+06
AVE ANNUAL(\$/YR)	.561E+06	.494E+06	.638E+06

PERCENT DEPRECIATED

0.

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Felton Pumping Station  
(continued)

1978 WORTH OF	1980 PLANT COST	1257818.	
1978 WORTH OF	2000 PLANT COST	348688.	
1978 WORTH OF	2020 PLANT COST	96662.	
1978 WORTH OF	2020 PLANT SALVAGE	96662.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		1760852.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	3367358.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 239261.

1978 WORTH OF	1990 PLANT COST	662259.	
1978 WORTH OF	2010 PLANT COST	183589.	
1978 WORTH OF	2020 PLANT SALVAGE	48331.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		857707.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1655223.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 117608.

1978 WORTH OF	2000 PLANT COST	348688.	
1978 WORTH OF	2020 PLANT COST	96662.	
1978 WORTH OF	2020 PLANT SALVAGE	96662.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		382188.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	730876.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 51931.

1978 WORTH OF	2010 PLANT COST	183589.	
1978 WORTH OF	2020 PLANT SALVAGE	48331.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		131822.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	267080.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 18977.

Felton Pumping Station  
(concluded)

PUMPING STATION 4

PAJARO - PESCADERO PUMP STATION

PUMP HEAD	.204E+03	FEET
PUMP POWER	.119E+04	HORSEPOWER
ELECTRICAL USAGE	.390E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.150E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.800E+01	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	0.	FEET
FINAL ELEVATION	0.	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.204E+03	FEET
INITIAL TOTAL HEAD	0.	FEET
FINAL TOTAL HEAD	.204E+03	FEET

ECONOMIC FACTORS

CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGE/OM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHK

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS	% INFLATION
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980	w/o % INFLATION
CONSTRUCTION(\$)	.114E+07	.999E+06	.114E+07	
OVERHEAD(\$)	.114E+06	.999E+05	.114E+06	
CAPITAL COST(\$)	.125E+07	.110E+07	.125E+07	
AMORTIZED(\$/YR)	.114E+06	.101E+06	.114E+06	
LABOR(MAN-HR/YR)	.143E+04	.143E+04	.143E+04	
LABOR COST(\$/YR)	.107E+05	.942E+04	.107E+05	
SUPPLY COST(\$/YR)	.210E+04	.185E+04	.210E+04	
POWER(\$/YR)	.195E+06	.172E+06	.195E+06	
TOTAL O&M(\$/YR)	.208E+06	.183E+06	.208E+06	
AVE ANNUAL(\$/YR)	.322E+06	.284E+06	.366E+06	

PERCENT DEPRECIATED 0.

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Pumping Station for Pipeline from Pajaro River to Pescadero Reservoir  
(continued)

1978 WORTH OF	1980 PLANT COST	1103010.	
1978 WORTH OF	2000 PLANT COST	305773.	
1978 WORTH OF	2020 PLANT COST	84765.	
1978 WORTH OF	2020 PLANT SALVAGE	84765.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		849784.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	2258567.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 160478.

1978 WORTH OF	1990 PLANT COST	580750.	
1978 WORTH OF	2010 PLANT COST	160993.	
1978 WORTH OF	2020 PLANT SALVAGE	42383.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		413928.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1113289.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 79102.

1978 WORTH OF	2000 PLANT COST	305773.	
1978 WORTH OF	2020 PLANT COST	84765.	
1978 WORTH OF	2020 PLANT SALVAGE	84765.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		184444.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	490216.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 54831.

1978 WORTH OF	2010 PLANT COST	160993.	
1978 WORTH OF	2020 PLANT SALVAGE	42383.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		63617.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	182228.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 12948.

Pumping Station for Pipeline from Pajaro River to Pescadero Reservoir  
(concluded)

PUMPING STATION 5

CORNCOB PUMP STATION

PUMP HEAD	.126E+03	FEET
PUMP POWER	.737E+03	HORSEPOWER
ELECTRICAL USAGE	.241E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.150E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.800E+01	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	0.	FEET
FINAL ELEVATION	0.	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.126E+03	FEET
INITIAL TOTAL HEAD	0.	FEET
FINAL TOTAL HEAD	.126E+03	FEET

ECONOMIC FACTORS

CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGEOM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.104E+07	.919E+06	.104E+07
OVERHEAD(\$)	.104E+06	.919E+05	.104E+06
CAPITAL COST(\$)	.115E+07	.101E+07	.115E+07
AMORTIZED(\$/YR)	.105E+06	.926E+05	.105E+06
LABOR(MAN-HR/YR)	.143E+04	.143E+04	.143E+04
LABOR COST(\$/YR)	.107E+05	.942E+04	.107E+05
SUPPLY COST(\$/YR)	.210E+04	.185E+04	.210E+04
POWER(\$/YR)	.120E+06	.106E+06	.120E+06
TOTAL O&M(\$/YR)	.133E+06	.117E+06	.133E+06
AVE ANNUAL(\$/YR)	.239E+06	.210E+06	.271E+06

PERCENT DEPRECIATED 0.

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Pumping Station from Pajaro River to Corncob Canyon Reservoir  
(continued)

1978 WORTH OF	1980 PLANT COST	1006255.	
1978 WORTH OF	2000 PLANT COST	278951.	
1978 WORTH OF	2020 PLANT COST	77330.	
1978 WORTH OF	2020 PLANT SALVAGE	77330.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		543370.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	1828576.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 129926.

1978 WORTH OF	1990 PLANT COST	529807.	
1978 WORTH OF	2010 PLANT COST	146871.	
1978 WORTH OF	2020 PLANT SALVAGE	38665.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		264674.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	902688.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 64139.

1978 WORTH OF	2000 PLANT COST	278951.	
1978 WORTH OF	2020 PLANT COST	77330.	
1978 WORTH OF	2020 PLANT SALVAGE	77330.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		117937.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	396886.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 28200.

1978 WORTH OF	2010 PLANT COST	146871.	
1978 WORTH OF	2020 PLANT SALVAGE	38665.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		40678.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	148884.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 10579.

Pumping Station from Pajaro River to Corncob Canyon Reservoir  
(concluded)

PUMPING STATION 6

GORDOLA PUMP STATION

PUMP HEAD	.215E+03	FEET
PUMP POWER	.811E+03	HORSEPOWER
ELECTRICAL USAGE	.354E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.129E+02	MGD
HIGH DAY DESIGN FLOW	.100E+02	MGD
AVERAGE DESIGN FLOW	.860E+01	MGD
MINIMUM DESIGN FLOW	0.	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	0.	FEET
FINAL ELEVATION	0.	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.215E+03	FEET
INITIAL TOTAL HEAD	0.	FEET
FINAL TOTAL HEAD	.215E+03	FEET

ECONOMIC FACTORS

CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGFOM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			w/o. % INFLATION
CONSTRUCTION(\$)	.941E+06	.827E+06	.941E+06
OVERHEAD(\$)	.941E+05	.827E+05	.941E+05
CAPITAL COST(\$)	.103E+07	.910E+06	.103E+07
AMORTIZED(\$/YR)	.948E+05	.834E+05	.948E+05
LABOR(MAN-HR/YR)	.131E+04	.131E+04	.131E+04
LABOR COST(\$/YR)	.980E+04	.862E+04	.980E+04
SUPPLY COST(\$/YR)	.183E+04	.161E+04	.183E+04
POWER(\$/YR)	.177E+06	.156E+06	.177E+06
TOTAL O&M(\$/YR)	.188E+06	.166E+06	.188E+06
AVE ANNUAL(\$/YR)	.283E+06	.249E+06	.322E+06

PERCENT DEPRECIATED

0.

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North Coast Pipeline Pumping Station to Gordola  
(continued)

1978 WORTH OF	1980 PLANT COST	910467.	
1978 WORTH OF	2000 PLANT COST	252397.	
1978 WORTH OF	2020 PLANT COST	69969.	
1978 WORTH OF	2020 PLANT SALVAGE	69969.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		2304234.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	5467098.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		246347.	

1978 WORTH OF	1990 PLANT COST	479373.	
1978 WORTH OF	2010 PLANT COST	132890.	
1978 WORTH OF	2020 PLANT SALVAGE	34984.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		1122387.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1699666.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		120766.	

1978 WORTH OF	2000 PLANT COST	252397.	
1978 WORTH OF	2020 PLANT COST	69969.	
1978 WORTH OF	2020 PLANT SALVAGE	69969.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		500128.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	752525.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		53469.	

1978 WORTH OF	2010 PLANT COST	132890.	
1978 WORTH OF	2020 PLANT SALVAGE	34984.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		172500.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	270406.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		19213.	

North Coast Pipeline Pumping Station to Gordola  
(concluded)

PUMPING STATION 7

APTOS PUMP STATION

PUMP HEAD	.506E+03	FEET
PUMP POWER	.118E+04	HORSEPOWER
ELECTRICAL USAGE	.387E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.800E+01	MGD
HIGH DAY DESIGN FLOW	.600E+01	MGD
AVERAGE DESIGN FLOW	.400E+01	MGD
MINIMUM DESIGN FLOW	0.	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	0.	FEET
FINAL ELEVATION	0.	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.506E+03	FEET
INITIAL TOTAL HEAD	0.	FEET
FINAL TOTAL HEAD	.506E+03	FEET
ECONOMIC FACTORS		
CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGEOM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.880E+06	.774E+06	.880E+06
OVERHEAD(\$)	.880E+05	.774E+05	.880E+05
CAPITAL COST(\$)	.968E+06	.851E+06	.968E+06
AMORTIZED(\$/YR)	.887E+05	.780E+05	.887E+05
LABOR(MAN-HR/YR)	.836E+03	.836E+03	.836E+03
LABOR COST(\$/YR)	.627E+04	.551E+04	.627E+04
SUPPLY COST(\$/YR)	.906E+03	.797E+03	.906E+03
POWER(\$/YR)	.194E+06	.170E+06	.194E+06
TOTAL O&M(\$/YR)	.201E+06	.177E+06	.201E+06
AVE ANNUAL(\$/YR)	.289E+06	.255E+06	.329E+06

PERCENT DEPRECIATED

0.

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Pump Station from Aptos Creek to Aptos-Soquel WTP  
(continued)

1978 WORTH OF	1980 PLANT COST	851446.	
1978 WORTH OF	2000 PLANT COST	236035.	
1978 WORTH OF	2020 PLANT COST	65433.	
1978 WORTH OF	2020 PLANT SALVAGE	65433.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	2463570.	
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	3551051.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 252312.

1978 WORTH OF	1990 PLANT COST	448298.	
1978 WORTH OF	2010 PLANT COST	124276.	
1978 WORTH OF	2020 PLANT SALVAGE	32716.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	1199999.	
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1739856.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 123622.

1978 WORTH OF	2000 PLANT COST	236035.	
1978 WORTH OF	2020 PLANT COST	65433.	
1978 WORTH OF	2020 PLANT SALVAGE	65433.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	534711.	
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	770747.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 54764.

1978 WORTH OF	2010 PLANT COST	124276.	
1978 WORTH OF	2020 PLANT SALVAGE	32716.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	184429.	
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	275988.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 19610.

Pump Station from Aptos Creek to Aptos-Soquel WTP  
(concluded)

FORCE MAIN 2  
FELTON TO GRAHAM HILL

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.240E+02	INCHES
PIPE LENGTH	.280E+05	FEET
MAXIMUM DESIGN FLOW	.100E+02	MGD
HIGH DAY DESIGN FLOW	.100E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.100E+02	MGD
VELOCITY AT MAXIMUM FLOW	.492E+01	FPS
VELOCITY AT AVERAGE FLOW	.492E+01	FPS
VELOCITY AT MINIMUM FLOW	.492E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.247E+03	FEET
FINAL ELEVATION	.155E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.948E+00	FEET
VELOCITY HEAD	.377E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.173E-01	FEET
REYNOLDS NUMBER	.909E+06	
FRICTION HEAD LOSS	.911E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.911E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.768E+02	PERCENT
NEW RESIDENTIAL AREA	.710E+01	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.540E+01	PERCENT
DENSE ESTABLISHED RESIDENTIAL AREA	.107E+02	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.120E+07	.105E+07	.120E+07
OVERHEAD(\$)	.120E+06	.105E+06	.120E+06
LAND COST(\$)	.319E+05	.281E+05	.319E+05
CAPITAL COST(\$)	.135E+07	.119E+07	.135E+07
AMORTIZED(\$/YR)	.827E+05	.727E+05	.827E+05
LABOR(MAN-HR/YR)	.234E+00	.234E+00	.234E+00
LABOR COST(\$/YR)	.176E+01	.155E+01	.176E+01
SUPPLY COST(\$/YR)	.328E+04	.288E+04	.328E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.328E+04	.288E+04	.328E+04
AVE ANNUAL(\$/YR)	.859E+05	.756E+05	.977E+05

LAND COST OVERRIDE USED .319E+05  
PERCENT DEPRECIATED 0.

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New Felton to Graham Hill Line  
(continued)

1978 WORTH OF 1980 PLANT COST	1158235.		
1978 WORTH OF 2020 PLANT SALVAGE	17802.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		25919.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			40176.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	1206528.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 85727.

1978 WORTH OF 1990 PLANT COST	609826.		
1978 WORTH OF 2020 PLANT SALVAGE	35604.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		12625.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			19570.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	606417.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 43088.

1978 WORTH OF 2000 PLANT COST	321082.		
1978 WORTH OF 2020 PLANT SALVAGE	53406.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		5626.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			8720.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	282022.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 20038.

1978 WORTH OF 2010 PLANT COST	169054.		
1978 WORTH OF 2020 PLANT SALVAGE	71207.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		1940.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			3008.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	102795.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 7304.

New Felton to Graham Hill Line  
(concluded)

**FORCE MAIN 4  
WATERMAN SWITCH TO UPPER SAN LORENZO**

**DESIGN FACTORS**  
 NOMINAL PIPE DIAMETER .180E+02 INCHES  
 PIPE LENGTH .325E+05 FEET  
 MAXIMUM DESIGN FLOW .500E+01 MGD  
 HIGH DAY DESIGN FLOW .500E+01 MGD  
 AVERAGE DESIGN FLOW .500E+01 MGD  
 MINIMUM DESIGN FLOW .500E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .438E+01 FPS  
 VELOCITY AT AVERAGE FLOW .438E+01 FPS  
 VELOCITY AT MINIMUM FLOW .438E+01 FPS

**ENERGY CONSIDERATIONS**  
 INITIAL ELEVATION .370E+03 FEET  
 FINAL ELEVATION .247E+03 FEET  
 INITIAL PRESSURE HEAD 0 FEET  
 FINAL PRESSURE HEAD .376E+01 FEET  
 VELOCITY HEAD .298E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .185E-01 FEET  
 REYNOLDS NUMBER .606E+06  
 FRICTION HEAD LOSS .119E+03 FEET  
 MINOR HEAD LOSSES 0 FEET  
 TOTAL HEAD LOSSES .119E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .308E+02 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .569E+02 PERCENT  
 DENSE ESTABLISHED RESIDENTIAL AREA .123E+02 PERCENT

**ECONOMIC FACTORS**  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

**COST SUMMARY**

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 %/O. % INFLATION
CONSTRUCTION(\$)	.967E+06	.850E+06	.967E+06
OVERHEAD(\$)	.967E+05	.850E+05	.967E+05
LAND COST(\$)	.371E+05	.326E+05	.371E+05
CAPITAL COST(\$)	.110E+07	.968E+06	.110E+07
AMORTIZED(\$/YR)	.667E+05	.587E+05	.667E+05
LABOR(MAN-HR/YR)	.154E+00	.154E+00	.154E+00
LABOR COST(\$/YR)	.116E+01	.102E+01	.116E+01
SUPPLY COST(\$/YR)	.301E+04	.264E+04	.301E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.301E+04	.265E+04	.301E+04
AVE ANNUAL(\$/YR)	.697E+05	.613E+05	.793E+05

LAND COST OVERRIDE USED .371E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF	1980 PLANT COST	935212.		
1978 WORTH OF	2020 PLANT SALVAGE	14374.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		30085.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			36863.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	987785.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			70185.	

1978 WORTH OF	1990 PLANT COST	492402.		
1978 WORTH OF	2020 PLANT SALVAGE	28748.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		14654.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			17956.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	496263.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			35261.	

1978 WORTH OF	2000 PLANT COST	259256.		
1978 WORTH OF	2020 PLANT SALVAGE	43122.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		6530.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			6001.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	230665.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			16389.	

1978 WORTH OF	2010 PLANT COST	136502.		
1978 WORTH OF	2020 PLANT SALVAGE	57496.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		2252.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			2760.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	84018.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			5970.	

Waterman Switch Reservoir to Upper San Lorenzo WTP  
(concluded)

FORCE MAIN 5  
KINGS RES TO UPPER SAN LORENZO W/T PLAN

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .150E+02 INCHES  
 PIPE LENGTH .220E+05 FEET  
 MAXIMUM DESIGN FLOW .500E+01 MGD  
 HIGH DAY DESIGN FLOW .500E+01 MGD  
 AVERAGE DESIGN FLOW .500E+01 MGD  
 MINIMUM DESIGN FLOW .500E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .630E+01 FPS  
 VELOCITY AT AVERAGE FLOW .630E+01 FPS  
 VELOCITY AT MINIMUM FLOW .630E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .460E+03 FEET  
 FINAL ELEVATION .247E+03 FEET  
 INITIAL PRESSURE HEAD 0. FEET  
 FINAL PRESSURE HEAD .316E+01 FEET  
 VELOCITY HEAD .617E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .193E-01 FEET  
 REYNOLDS NUMBER .727E+06  
 FRICTION HEAD LOSS .210E+03 FEET  
 MINOR HEAD LOSSES 0. FEET  
 TOTAL HEAD LOSSES .210E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .227E+02 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .591E+02 PERCENT  
 DENSE ESTABLISHED RESIDENTIAL AREA .182E+02 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/d. % INFLATION
CONSTRUCTION(\$)	.543E+06	.478E+06	.543E+06
OVERHEAD(\$)	.543E+05	.478E+05	.543E+05
LAND COST(\$)	.251E+05	.221E+05	.251E+05
CAPITAL COST(\$)	.622E+06	.548E+06	.622E+06
AMORTIZED(\$/YR)	.375E+05	.330E+05	.375E+05
LABOR(MAN-HR/YR)	.744E+01	.744E+01	.744E+01
LABOR COST(\$/YR)	.558E+00	.491E+00	.558E+00
SUPPLY COST(\$/YR)	.177E+04	.155E+04	.177E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.177E+04	.155E+04	.177E+04
AVE ANNUAL(\$/YR)	.393E+05	.345E+05	.446E+05

LAND COST OVERRIDE USED .251E+05  
 PERCENT DEPRECIATED 0.  
 \*\*\*\*\*

1978 WORTH OF	1980 PLANT COST	525472.		
1978 WORTH OF	2020 PLANT SALVAGE	8076.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		20365.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			21647.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		559408.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			39748.	

1978 WORTH OF	1990 PLANT COST	276668.		
1978 WORTH OF	2020 PLANT SALVAGE	16153.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		9920.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			10544.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		280980.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			19964.	

1978 WORTH OF	2000 PLANT COST	145670.		
1978 WORTH OF	2020 PLANT SALVAGE	24229.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		4420.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			4698.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		130559.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			9277.	

1978 WORTH OF	2010 PLANT COST	76697.		
1978 WORTH OF	2020 PLANT SALVAGE	32306.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		1525.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			1621.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		47537.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			3378.	

Kings Creek Reservoir to Upper San Lorenzo WTP  
(concluded)

FORCE MAIN 6  
ZAYANTE RESERVOIR TO FELTON PUMPING STA

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .300E+02 INCHES  
 PIPE LENGTH .265E+05 FEET  
 MAXIMUM DESIGN FLOW .200E+02 MGD  
 HIGH DAY DESIGN FLOW .200E+02 MGD  
 AVERAGE DESIGN FLOW .200E+02 MGD  
 MINIMUM DESIGN FLOW .200E+02 MGD  
 VELOCITY AT MAXIMUM FLOW .630E+01 FPS  
 VELOCITY AT AVERAGE FLOW .630E+01 FPS  
 VELOCITY AT MINIMUM FLOW .630E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .604E+03 FEET  
 FINAL ELEVATION .350E+03 FEET  
 INITIAL PRESSURE HEAD 0 FEET  
 FINAL PRESSURE HEAD .147E+03 FEET  
 VELOCITY HEAD .617E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .164E-01 FEET  
 REYNOLDS NUMBER .145E+07  
 FRICTION HEAD LOSS .107E+03 FEET  
 MINOR HEAD LOSSES 0 FEET  
 TOTAL HEAD LOSSES .107E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .415E+02 PERCENT  
 NEW RESIDENTIAL AREA .380E+01 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .415E+02 PERCENT  
 DENSE ESTABLISHED RESIDENTIAL AREA .132E+02 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O. % INFLATION
CONSTRUCTION(\$)	.140E+07	.123E+07	.140E+07
OVERHEAD(\$)	.140E+06	.123E+06	.140E+06
LAND COST(\$)	.302E+05	.266E+05	.302E+05
CAPITAL COST(\$)	.157E+07	.138E+07	.157E+07
AMORTIZED(\$/YR)	.964E+05	.848E+05	.964E+05
LABOR(MAN-HR/YR)	.345E+00	.345E+00	.345E+00
LABOR COST(\$/YR)	.259E+01	.228E+01	.259E+01
SUPPLY COST(\$/YR)	.375E+04	.330E+04	.375E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.375E+04	.330E+04	.375E+04
AVE ANNUAL(\$/YR)	.100E+06	.881E+05	.114E+06

LAND COST OVERRIDE USED .302E+05  
 PERCENT DEPRECIATED 0.

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FORCE MAIN 6  
FELTON PUMP STATION TO ZAYANTE RESERVOIR

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .300E+02 INCHES  
 PIPE LENGTH .265E+05 FEET  
 MAXIMUM DESIGN FLOW .200E+02 MGD  
 HIGH DAY DESIGN FLOW .200E+02 MGD  
 AVERAGE DESIGN FLOW .200E+02 MGD  
 MINIMUM DESIGN FLOW .200E+02 MGD  
 VELOCITY AT MAXIMUM FLOW .630E+01 FPS  
 VELOCITY AT AVERAGE FLOW .630E+01 FPS  
 VELOCITY AT MINIMUM FLOW .630E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .350E+03 FEET  
 FINAL ELEVATION .680E+03 FEET  
 INITIAL PRESSURE HEAD 0 FEET  
 FINAL PRESSURE HEAD -.437E+03 FEET  
 VELOCITY HEAD .617E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .164E-01 FEET  
 REYNOLDS NUMBER .145E+07  
 FRICTION HEAD LOSS .107E+03 FEET  
 MINOR HEAD LOSSES 0 FEET  
 TOTAL HEAD LOSSES .107E+03 FEET  
 ADDITIONAL HEAD REQUIRED .437E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .415E+02 PERCENT  
 NEW RESIDENTIAL AREA .380E+01 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .415E+02 PERCENT  
 DENSE ESTABLISHED RESIDENTIAL AREA .132E+02 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980	% INFLATION w/o
CONSTRUCTION(\$)	.140E+07	.123E+07	.140E+07	
OVERHEAD(\$)	.140E+06	.123E+06	.140E+06	
LAND COST(\$)	.302E+05	.266E+05	.302E+05	
CAPITAL COST(\$)	.157E+07	.138E+07	.157E+07	
AMORTIZED(\$/YR)	.964E+05	.848E+05	.964E+05	
LABOR(MAN-HR/YR)	.345E+00	.345E+00	.345E+00	
LABOR COST(\$/YR)	.259E+01	.228E+01	.259E+01	
SUPPLY COST(\$/YR)	.375E+04	.330E+04	.375E+04	
POWER(\$/YR)	0	0	0	
TOTAL O&M(\$/YR)	.375E+04	.330E+04	.375E+04	
AVE ANNUAL(\$/YR)	.100E+06	.881E+05	.114E+06	

LAND COST OVERRIDE USED .302E+05  
 PERCENT DEPRECIATED 0  
 \*\*\*\*\*  
 STOP --NORMAL TERMINATION

1978 WORTH OF 1980 PLANT COST	1350596.		
1978 WORTH OF 2020 PLANT SALVAGE	20758.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		24530.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			45993.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	1400361.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 99500.

1978 WORTH OF 1990 PLANT COST	711107.		
1978 WORTH OF 2020 PLANT SALVAGE	41517.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		11949.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			22403.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	703942.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 50017.

1978 WORTH OF 2000 PLANT COST	374408.		
1978 WORTH OF 2020 PLANT SALVAGE	62275.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		5324.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			9983.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	327439.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 23266.

1978 WORTH OF 2010 PLANT COST	197131.		
1978 WORTH OF 2020 PLANT SALVAGE	83034.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		1836.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			3443.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	119377.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 8482.

Zayante Reservoir to Felton Pumping Station  
(concluded)

FORCE MAIN 7  
UPPER SOQUEL RES TO APTOS-SOQUEL W/T PL

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.180E+02	INCHES
PIPE LENGTH	.270E+05	FEET
MAXIMUM DESIGN FLOW	.700E+01	MGD
HIGH DAY DESIGN FLOW	.700E+01	MGD
AVERAGE DESIGN FLOW	.700E+01	MGD
MINIMUM DESIGN FLOW	.700E+01	MGD
VELOCITY AT MAXIMUM FLOW	.613E+01	FPS
VELOCITY AT AVERAGE FLOW	.613E+01	FPS
VELOCITY AT MINIMUM FLOW	.613E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.400E+03	FEET
FINAL ELEVATION	.205E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.862E+00	FEET
VELOCITY HEAD	.583E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.185E-01	FEET
REYNOLDS NUMBER	.849E+06	
FRICTION HEAD LOSS	.194E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.194E+03	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.370E+02	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.389E+02	PERCENT
COMMERCIAL AREA	.241E+02	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.833E+06	.732E+06	.833E+06
OVERHEAD(\$)	.833E+05	.732E+05	.833E+05
LAND COST(\$)	.308E+05	.271E+05	.308E+05
CAPITAL COST(\$)	.947E+06	.833E+06	.947E+06
AMORTIZED(\$/YR)	.575E+05	.506E+05	.575E+05
LABOR(MAN-HR/YR)	.129E+00	.129E+00	.129E+00
LABOR COST(\$/YR)	.966E+00	.850E+00	.966E+00
SUPPLY COST(\$/YR)	.250E+04	.220E+04	.250E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.250E+04	.220E+04	.250E+04
AVE ANNUAL(\$/YR)	.600E+05	.528E+05	.682E+05

LAND COST OVERRIDE USED .308E+05

PERCENT DEPRECIATED 0.

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Upper Soquel Reservoir to Aptos-Soquel WTP  
(continued)

1978 WORTH OF	1980 PLANT COST	805612.		
1978 WORTH OF	2020 PLANT SALVAGE	12382.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		24993.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		848848.	30624.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS			
AVERAGE ANNUAL COST FROM	1978 TO 2020 IS	60313.		

1978 WORTH OF	1990 PLANT COST	424166.		
1978 WORTH OF	2020 PLANT SALVAGE	24764.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		12174.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		426493.	14917.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS			
AVERAGE ANNUAL COST FROM	1978 TO 2020 IS	30304.		

1978 WORTH OF	2000 PLANT COST	223329.		
1978 WORTH OF	2020 PLANT SALVAGE	37146.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		5425.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		198254.	6647.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS			
AVERAGE ANNUAL COST FROM	1978 TO 2020 IS	14087.		

1978 WORTH OF	2010 PLANT COST	117586.		
1978 WORTH OF	2020 PLANT SALVAGE	49528.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		1871.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		72221.	2293.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS			
AVERAGE ANNUAL COST FROM	1978 TO 2020 IS	5132.		

Upper Soquel Reservoir to Aptos-Soquel WTP  
(concluded)

FORCE MAIN 8  
 GLENWOOD RES TO APTOS-SOQUEL W/T PLANT

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .150E+02 INCHES  
 PIPE LENGTH .305E+05 FEET  
 MAXIMUM DESIGN FLOW .400E+01 MGD  
 HIGH DAY DESIGN FLOW .400E+01 MGD  
 AVERAGE DESIGN FLOW .400E+01 MGD  
 MINIMUM DESIGN FLOW .400E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .504E+01 FPS  
 VELOCITY AT AVERAGE FLOW .504E+01 FPS  
 VELOCITY AT MINIMUM FLOW .504E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .400E+03 FEET  
 FINAL ELEVATION .205E+03 FEET  
 INITIAL PRESSURE HEAD 0 FEET  
 FINAL PRESSURE HEAD .881E+01 FEET  
 VELOCITY HEAD .395E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .193E-01 FEET  
 REYNOLDS NUMBER .582E+06  
 FRICTION HEAD LOSS .186E+03 FEET  
 MINOR HEAD LOSSES 0 FEET  
 TOTAL HEAD LOSSES .186E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .377E+02 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .459E+02 PERCENT  
 COMMERCIAL AREA .164E+02 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.783E+06	.689E+06	.783E+06
OVERHEAD(\$)	.783E+05	.689E+05	.783E+05
LAND COST(\$)	.348E+05	.306E+05	.348E+05
CAPITAL COST(\$)	.896E+06	.788E+06	.896E+06
AMORTIZED(\$/YR)	.541E+05	.475E+05	.541E+05
LABOR(MAN-HR/YR)	.102E+00	.102E+00	.102E+00
LABOR COST(\$/YR)	.763E+00	.671E+00	.763E+00
SUPPLY COST(\$/YR)	.245E+04	.215E+04	.245E+04
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.245E+04	.215E+04	.245E+04
AVE ANNUAL(\$/YR)	.565E+05	.497E+05	.642E+05

LAND COST OVERRIDE USED .348E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF 1980 PLANT COST	757549.		
1978 WORTH OF 2020 PLANT SALVAGE	11643.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		28233.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			30011.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		804149.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	57137.		

1978 WORTH OF 1990 PLANT COST	398860.		
1978 WORTH OF 2020 PLANT SALVAGE	23287.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		13752.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			14618.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		403943.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	26701.		

1978 WORTH OF 2000 PLANT COST	210005.		
1978 WORTH OF 2020 PLANT SALVAGE	34930.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		6128.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			6514.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		187717.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	13338.		

1978 WORTH OF 2010 PLANT COST	110571.		
1978 WORTH OF 2020 PLANT SALVAGE	46574.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		2114.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			2247.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		68357.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	4857.		

Glenwood Reservoir to Aptos-Soquel WTP  
(concluded)

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ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG--ETC F/G 13/2  
APPLICATION OF MAPS TO THE SALINAS-MONTEREY URBAN STUDY. APPEND--ETC(U)  
AUG 79 T M WALSKI, A C GIBSON

UNCLASSIFIED

WES-EL-79-4-APP-B-F-6

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2 OF 2

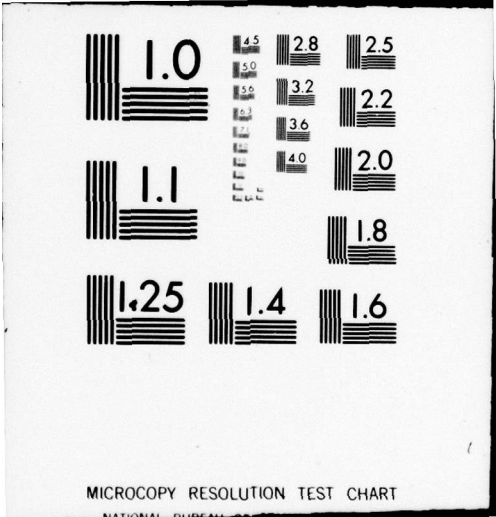
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

**FORCE MAIN 9**  
**APTOS-SOQUEL W/T PLANT TO SERVICE AREA**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.240E+02	INCHES
PIPE LENGTH	.405E+05	FEET
MAXIMUM DESIGN FLOW	.800E+01	MGD
HIGH DAY DESIGN FLOW	.800E+01	MGD
AVERAGE DESIGN FLOW	.800E+01	MGD
MINIMUM DESIGN FLOW	.800E+01	MGD
VELOCITY AT MAXIMUM FLOW	.394E+01	FPS
VELOCITY AT AVERAGE FLOW	.394E+01	FPS
VELOCITY AT MINIMUM FLOW	.394E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.205E+03	FEET
FINAL ELEVATION	.115E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.570E+01	FEET
VELOCITY HEAD	.241E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.173E-01	FEET
REYNOLDS NUMBER	.727E+06	
FRICTION HEAD LOSS	.843E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.843E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.370E+02	PERCENT
NEW RESIDENTIAL AREA	.333E+02	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.123E+02	PERCENT
DENSE ESTABLISHED RESIDENTIAL AREA	.148E+02	PERCENT
COMMERCIAL AREA	.250E+01	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			W/O. % INFLATION
CONSTRUCTION(\$)	.158E+07	.139E+07	.158E+07
OVERHEAD(\$)	.158E+06	.139E+06	.158E+06
LAND COST(\$)	.462E+05	.406E+05	.462E+05
CAPITAL COST(\$)	.178E+07	.157E+07	.178E+07
AMORTIZED(\$/YR)	.109E+06	.960E+05	.109E+06
LABOR(MAN-HR/YR)	.337E+00	.337E+00	.337E+00
LABOR COST(\$/YR)	.253E+01	.223E+01	.253E+01
SUPPLY COST(\$/YR)	.474E+04	.417E+04	.474E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.474E+04	.417E+04	.474E+04
AVE ANNUAL(\$/YR)	.114E+06	.100E+06	.129E+06

LAND COST OVERRIDE USED .462E+05  
 PERCENT DEPRECIATED 0.

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1978 WORTH OF	1980 PLANT COST	1529183.	
1978 WORTH OF	2020 PLANT SALVAGE	23503.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	37490.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		58112.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	1601281.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		113776.	

1978 WORTH OF	1990 PLANT COST	805135.	
1978 WORTH OF	2020 PLANT SALVAGE	47006.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	18261.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		28306.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	804696.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		57176.	

1978 WORTH OF	2000 PLANT COST	423915.	
1978 WORTH OF	2020 PLANT SALVAGE	70510.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	8137.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		12613.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	374155.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		26585.	

1978 WORTH OF	2010 PLANT COST	223197.	
1978 WORTH OF	2020 PLANT SALVAGE	94013.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	2807.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		4350.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	136341.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		9687.	

Aptos-Soquel WTP to Service Area  
(concluded)

FORCE MAIN 11  
PESCADERO RES TO WASTONVILLE

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.150E+02	INCHES
PIPE LENGTH	.515E+05	FEET
MAXIMUM DESIGN FLOW	.500E+01	MGD
HIGH DAY DESIGN FLOW	.500E+01	MGD
AVERAGE DESIGN FLOW	.500E+01	MGD
MINIMUM DESIGN FLOW	.500E+01	MGD
VELOCITY AT MAXIMUM FLOW	.630E+01	FPS
VELOCITY AT AVERAGE FLOW	.630E+01	FPS
VELOCITY AT MINIMUM FLOW	.630E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.170E+03	FEET
FINAL ELEVATION	.120E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.441E+03	FEET
VELOCITY HEAD	.617E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.193E-01	FEET
REYNOLDS NUMBER	.727E+06	
FRICTION HEAD LOSS	.491E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.491E+03	FEET
ADDITIONAL HEAD REQUIRED	.441E+03	FEET
THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW		

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.942E+02	PERCENT
COMMERCIAL AREA	.580E+01	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.142E+07	.125E+07	.142E+07
OVERHEAD(\$)	.142E+06	.125E+06	.142E+06
LAND COST(\$)	.587E+05	.516E+05	.587E+05
CAPITAL COST(\$)	.162E+07	.142E+07	.162E+07
AMORTIZED(\$/YR)	.979E+05	.861E+05	.979E+05
LABOR(MAN-HR/YR)	.169E+00	.169E+00	.169E+00
LABOR COST(\$/YR)	.127E+01	.112E+01	.127E+01
SUPPLY COST(\$/YK)	.413E+04	.364E+04	.413E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.413E+04	.364E+04	.413E+04
AVE ANNUAL(\$/YR)	.102E+06	.898E+05	.116E+06

LAND COST OVERRIDE USED .587E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF	1980 PLANT COST	1371977.		
1978 WORTH OF	2020 PLANT SALVAGE	21087.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	47672.		
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		50674.	
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	1449236.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		102972.		

1978 WORTH OF	1990 PLANT COST	722364.		
1978 WORTH OF	2020 PLANT SALVAGE	42174.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	23221.		
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		24683.	
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	728094.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		51733.		

1978 WORTH OF	2000 PLANT COST	380335.		
1978 WORTH OF	2020 PLANT SALVAGE	63261.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	10347.		
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		10999.	
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	338419.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		24046.		

1978 WORTH OF	2010 PLANT COST	200251.		
1978 WORTH OF	2020 PLANT SALVAGE	64348.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	3569.		
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		3794.	
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	123266.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		8758.		

Pescadero Reservoir to Watsonville WTP  
(concluded)

**FORCE MAIN 12  
CORNCOB-PAJARO TO WASTONVILLE W/T PLANT**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.180E+02	INCHES
PIPE LENGTH	.100E+05	FEET
MAXIMUM DESIGN FLOW	.500E+01	MGD
HIGH DAY DESIGN FLOW	.500E+01	MGD
AVERAGE DESIGN FLOW	.500E+01	MGD
MINIMUM DESIGN FLOW	.500E+01	MGD
VELOCITY AT MAXIMUM FLOW	.438E+01	FPS
VELOCITY AT AVERAGE FLOW	.438E+01	FPS
VELOCITY AT MINIMUM FLOW	.438E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.290E+02	FEET
FINAL ELEVATION	.100E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.108E+03	FEET
VELOCITY HEAD	.298E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.185E-01	FEET
REYNOLDS NUMBER	.606E+06	
FRICTION HEAD LOSS	.367E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.367E+02	FEET
ADDITIONAL HEAD REQUIRED	.108E+03	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.881E+02	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.710E+01	PERCENT
COMMERCIAL AREA	.480E+01	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			% INFLATION w/0.
CONSTRUCTION(\$)	.325E+06	.286E+06	.325E+06
OVERHEAD(\$)	.325E+05	.286E+05	.325E+05
LAND COST(\$)	.718E+05	.632E+05	.718E+05
CAPITAL COST(\$)	.429E+06	.377E+06	.429E+06
AMORTIZED(\$/YR)	.224E+05	.197E+05	.224E+05
LABOR(MAN-HR/YR)	.500E-01	.500E-01	.500E-01
LABOR COST(\$/YR)	.375E+00	.350E+00	.375E+00
SUPPLY COST(\$/YR)	.925E+03	.814E+03	.925E+03
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.925E+03	.814E+03	.925E+03
AVE ANNUAL(\$/YR)	.234E+05	.205E+05	.265E+05

LAND COST OVERRIDE USED .718E+05  
PERCENT DEPRECIATED 0.

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1978 WORTH OF	1980 PLANT COST	314282.		
1978 WORTH OF	2020 PLANT SALVAGE	4830.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		58318.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			11343.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		379112.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			26937.	

1978 WORTH OF	1990 PLANT COST	165474.		
1978 WORTH OF	2020 PLANT SALVAGE	9661.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		28406.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			5525.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		189744.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			13482.	

1978 WORTH OF	2000 PLANT COST	87124.		
1978 WORTH OF	2020 PLANT SALVAGE	14491.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		12658.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			2462.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		87752.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			6235.	

1978 WORTH OF	2010 PLANT COST	45872.		
1978 WORTH OF	2020 PLANT SALVAGE	19322.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		4566.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			849.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		31765.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			2257.	

Corncob-Pajaro to Watsonville WTP  
(concluded)

FORCE MAIN 13  
 WADDELL RES TO SCOTT CREEK

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.210E+02	INCHES
PIPE LENGTH	.505E+05	FEET
MAXIMUM DESIGN FLOW	.100E+02	MGD
HIGH DAY DESIGN FLOW	.100E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.100E+02	MGD
VELOCITY AT MAXIMUM FLOW	.643E+01	FPS
VELOCITY AT AVERAGE FLOW	.643E+01	FPS
VELOCITY AT MINIMUM FLOW	.643E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.360E+03	FEET
FINAL ELEVATION	.120E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.404E+02	FEET
VELOCITY HEAD	.642E+01	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.178E-01	FEET
REYNOLDS NUMBER	.104E+07	
FRICTION HEAD LOSS	.200E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.200E+03	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.950E+02	PERCENT
COMMERCIAL AREA	.500E+01	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.117E+07	.103E+07	.117E+07
OVERHEAD(\$)	.117E+06	.103E+06	.117E+06
LAND COST(\$)	.348E+05	.306E+05	.348E+05
CAPITAL COST(\$)	.132E+07	.116E+07	.132E+07
AMORTIZED(\$/YR)	.809E+05	.712E+05	.809E+05
LABOR(MAN-HR/YR)	.196E+00	.196E+00	.196E+00
LABOR COST(\$/YR)	.147E+01	.129E+01	.147E+01
SUPPLY COST(\$/YR)	.320E+04	.281E+04	.320E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.320E+04	.281E+04	.320E+04
AVE ANNUAL(\$/YR)	.841E+05	.740E+05	.956E+05

LAND COST OVERRIDE USED .348E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF	1980 PLANT COST	1134145.	
1978 WORTH OF	2020 PLANT SALVAGE	17432.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	28233.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		39178.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	1184125.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		84135.	

1978 WORTH OF	1990 PLANT COST	597143.	
1978 WORTH OF	2020 PLANT SALVAGE	34863.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	13752.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		19084.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	595116.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		42285.	

1978 WORTH OF	2000 PLANT COST	314404.	
1978 WORTH OF	2020 PLANT SALVAGE	52295.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	6128.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		8504.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	276741.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		19663.	

1978 WORTH OF	2010 PLANT COST	165538.	
1978 WORTH OF	2020 PLANT SALVAGE	69726.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	2114.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		2933.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	100858.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		7166.	

Waddell Creek Reservoir to Scott Creek  
(concluded)

**FORCE MAIN 14  
SCOTT CREEK RES TO PIPELINE**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.150E+02	INCHES
PIPE LENGTH	.185E+05	FEET
MAXIMUM DESIGN FLOW	.400E+01	MGD
HIGH DAY DESIGN FLOW	.400E+01	MGD
AVERAGE DESIGN FLOW	.400E+01	MGD
MINIMUM DESIGN FLOW	.400E+01	MGD
VELOCITY AT MAXIMUM FLOW	.504E+01	FPS
VELOCITY AT AVERAGE FLOW	.504E+01	FPS
VELOCITY AT MINIMUM FLOW	.504E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.240E+03	FEET
FINAL ELEVATION	.120E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.706E+01	FEET
VELOCITY HEAD	.395E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.193E-01	FEET
REYNOLDS NUMBER	.582E+06	
FRICTION HEAD LOSS	.113E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.113E+03	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.274E+02	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.162E+02	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			W/O % INFLATION
CONSTRUCTION(\$)	.499E+06	.439E+06	.499E+06
OVERHEAD(\$)	.499E+05	.439E+05	.499E+05
LAND COST(\$)	.211E+05	.186E+05	.211E+05
CAPITAL COST(\$)	.569E+06	.501E+06	.569E+06
AMORTIZED(\$/YR)	.344E+05	.303E+05	.344E+05
LABOR(MAN-HR/YR)	.632E-01	.632E-01	.632E-01
LABOR COST(\$/YR)	.474E+00	.417E+00	.474E+00
SUPPLY COST(\$/YR)	.148E+04	.131E+04	.148E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.149E+04	.131E+04	.149E+04
AVE ANNUAL(\$/YR)	.359E+05	.316E+05	.408E+05

LAND COST OVERRIDE USED .211E+05  
PERCENT DEPRECIATED 0.

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Scott Creek Reservoir to North Coast Pipeline  
(continued)

1978 WORTH OF 1980 PLANT COST	482350.		
1978 WORTH OF 2020 PLANT SALVAGE	7414.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		17125.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			18203.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		510265.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		36256.	

1978 WORTH OF 1990 PLANT COST	253964.		
1978 WORTH OF 2020 PLANT SALVAGE	14827.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		8342.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			8867.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		256345.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		18214.	

1978 WORTH OF 2000 PLANT COST	133715.		
1978 WORTH OF 2020 PLANT SALVAGE	22241.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		3717.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			3951.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		119142.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		8465.	

1978 WORTH OF 2010 PLANT COST	70403.		
1978 WORTH OF 2020 PLANT SALVAGE	29655.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		1282.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			1363.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		43393.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		3083.	

Scott Creek Reservoir to North Coast Pipeline  
(concluded)

**FORCE MAIN 17  
SAN VINCENTE TO PIPELINE**

**DESIGN FACTORS**  
 NOMINAL PIPE DIAMETER .150E+02 INCHES  
 PIPE LENGTH .500E+05 FEET  
 MAXIMUM DESIGN FLOW .400E+01 MGD  
 HIGH DAY DESIGN FLOW .400E+01 MGD  
 AVERAGE DESIGN FLOW .400E+01 MGD  
 MINIMUM DESIGN FLOW .400E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .504E+01 FPS  
 VELOCITY AT AVERAGE FLOW .504E+01 FPS  
 VELOCITY AT MINIMUM FLOW .504E+01 FPS

**ENERGY CONSIDERATIONS**  
 INITIAL ELEVATION .130E+03 FEET  
 FINAL ELEVATION .700E+02 FEET  
 INITIAL PRESSURE HEAD 0. FEET  
 FINAL PRESSURE HEAD -.245E+03 FEET  
 VELOCITY HEAD .395E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .193E-01 FEET  
 REYNOLDS NUMBER .582E+06  
 FRICTION HEAD LOSS .305E+03 FEET  
 MINOR HEAD LOSSES 0. FEET  
 TOTAL HEAD LOSSES .305E+03 FEET  
 ADDITIONAL HEAD REQUIRED .245E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .100E+03 PERCENT

**ECONOMIC FACTORS**  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

**COST SUMMARY**

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.138E+07	.121E+07	.138E+07
OVERHEAD(\$)	.138E+06	.121E+06	.138E+06
LAND COST(\$)	.570E+05	.501E+05	.570E+05
CAPITAL COST(\$)	.157E+07	.138E+07	.157E+07
AMORTIZED(\$/YR)	.952E+05	.837E+05	.952E+05
LABOR(MAN-HR/YR)	.165E+00	.165E+00	.165E+00
LABOR COST(\$/YR)	.123E+01	.109E+01	.123E+01
SUPPLY COST(\$/YR)	.401E+04	.353E+04	.401E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.401E+04	.353E+04	.401E+04
AVE ANNUAL(\$/YR)	.992E+05	.873E+05	.113E+06

LAND COST OVERRIDE USED .570E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF 1980 PLANT COST	1334110.		
1978 WORTH OF 2020 PLANT SALVAGE	20505.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		46284.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			49198.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		1409086.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	100120.		

1978 WORTH OF 1990 PLANT COST	702427.		
1978 WORTH OF 2020 PLANT SALVAGE	41010.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		22545.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			23964.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		707926.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	50300.		

1978 WORTH OF 2000 PLANT COST	369837.		
1978 WORTH OF 2020 PLANT SALVAGE	61515.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		10046.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			10678.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		329046.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	23380.		

1978 WORTH OF 2010 PLANT COST	194724.		
1978 WORTH OF 2020 PLANT SALVAGE	82020.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		3465.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			3683.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		119852.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	8516.		

San Vicente Creek Diversion to North Coast Pipeline  
(concluded)

**FORCE MAIN 21  
BALDWIN CREEK TO GORDOLA W/T PLANT**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.150E+02	INCHES
PIPE LENGTH	.400E+04	FEET
MAXIMUM DESIGN FLOW	.400E+01	MGD
HIGH DAY DESIGN FLOW	.400E+01	MGD
AVERAGE DESIGN FLOW	.400E+01	MGD
MINIMUM DESIGN FLOW	.400E+01	MGD
VELOCITY AT MAXIMUM FLOW	.504E+01	FPS
VELOCITY AT AVERAGE FLOW	.504E+01	FPS
VELOCITY AT MINIMUM FLOW	.504E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.450E+02	FEET
FINAL ELEVATION	.190E+02	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.158E+01	FEET
VELOCITY HEAD	.395E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.193E-01	FEET
REYNOLDS NUMBER	.582E+06	
FRICTION HEAD LOSS	.244E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.244E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.063E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			w/o. % INFLATION
CONSTRUCTION(\$)	.110E+06	.970E+05	.110E+06
OVERHEAD(\$)	.110E+05	.970E+04	.110E+05
LAND COST(\$)	.456E+04	.401E+04	.456E+04
CAPITAL COST(\$)	.126E+06	.111E+06	.126E+06
AMORTIZED(\$/YR)	.762E+04	.670E+04	.762E+04
LABOR(MAN-HR/YR)	.165E+01	.165E+01	.165E+01
LABOR COST(\$/YR)	.124E+00	.109E+00	.124E+00
SUPPLY COST(\$/YR)	.321E+03	.282E+03	.321E+03
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.321E+03	.282E+03	.321E+03
AVE ANNUAL(\$/YR)	.794E+04	.698E+04	.802E+04

LAND COST OVERRIDE USED .456E+04  
 PERCENT DEPRECIATED 0.

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1978 WORTH OF	1980 PLANT COST	106729.		
1978 WORTH OF	2020 PLANT SALVAGE	1640.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		3703.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			5936.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		112727.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			8010.	

1978 WORTH OF	1990 PLANT COST	56194.		
1978 WORTH OF	2020 PLANT SALVAGE	3281.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		1804.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			1917.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		56634.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			4024.	

1978 WORTH OF	2000 PLANT COST	29587.		
1978 WORTH OF	2020 PLANT SALVAGE	4921.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		804.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			854.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		26324.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			1870.	

1978 WORTH OF	2010 PLANT COST	15578.		
1978 WORTH OF	2020 PLANT SALVAGE	6562.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		277.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			295.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		9588.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			681.	

Baldwin Creek Reservoir to Gordola WTP  
(concluded)

FORCE MAIN 25  
BEAR CREEK TO UPPER SAN LORENZO W/T PLA

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .150E+02 INCHES  
 PIPE LENGTH .225E+05 FEET  
 MAXIMUM DESIGN FLOW .500E+01 MGD  
 HIGH DAY DESIGN FLOW .500E+01 MGD  
 AVERAGE DESIGN FLOW .500E+01 MGD  
 MINIMUM DESIGN FLOW .500E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .630E+01 FPS  
 VELOCITY AT AVERAGE FLOW .630E+01 FPS  
 VELOCITY AT MINIMUM FLOW .630E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .460E+03 FEET  
 FINAL ELEVATION .247E+03 FEET  
 INITIAL PRESSURE HEAD 0. FEET  
 FINAL PRESSURE HEAD -.160E+01 FEET  
 VELOCITY HEAD .617E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .193E-01 FEET  
 REYNOLDS NUMBER .727E+06  
 FRICTION HEAD LOSS .215E+03 FEET  
 MINOR HEAD LOSSES 0. FEET  
 TOTAL HEAD LOSSES .215E+03 FEET  
 ADDITIONAL HEAD REQUIRED .160E+01 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .289E+02 PERCENT  
 NEW RESIDENTIAL AREA .670E+01 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .578E+02 PERCENT  
 DENSE ESTABLISHED RESIDENTIAL AREA .660E+01 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.554E+06	.488E+06	.554E+06
OVERHEAD(\$)	.554E+05	.488E+05	.554E+05
LAND COST(\$)	.770E+05	.677E+05	.770E+05
CAPITAL COST(\$)	.687E+06	.604E+06	.687E+06
AMORTIZED(\$/YR)	.385E+05	.337E+05	.385E+05
LABOR(MAN-HR/YR)	.760E+01	.760E+01	.760E+01
LABOR COST(\$/YR)	.570E+00	.502E+00	.570E+00
SUPPLY COST(\$/YR)	.181E+04	.159E+04	.181E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.181E+04	.159E+04	.181E+04
AVE ANNUAL(\$/YR)	.401E+05	.353E+05	.456E+05

LAND COST OVERRIDE USED .257E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF 1980 PLANT COST	536376.		
1978 WORTH OF 2020 PLANT SALVAGE	8244.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		62483.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			22139.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		612754.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	43538.		

1978 WORTH OF 1990 PLANT COST	282409.		
1978 WORTH OF 2020 PLANT SALVAGE	16488.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		30435.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			10784.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		307140.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	21823.		

1978 WORTH OF 2000 PLANT COST	148692.		
1978 WORTH OF 2020 PLANT SALVAGE	24732.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		13562.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			4805.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		142327.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	10113.		

1978 WORTH OF 2010 PLANT COST	78288.		
1978 WORTH OF 2020 PLANT SALVAGE	32976.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		4678.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			1657.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		51648.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	3670.		

Bear Creek Reservoir to Upper San Lorenzo WTP  
(concluded)

**FORCE MAIN 26  
CORNCOB TO PAJARO**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.450E+02	INCHES
PIPE LENGTH	.110E+05	FEET
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.200E+02	MGD
AVERAGE DESIGN FLOW	.200E+02	MGD
MINIMUM DESIGN FLOW	.200E+02	MGD
VELOCITY AT MAXIMUM FLOW	.280E+01	FPS
VELOCITY AT AVERAGE FLOW	.280E+01	FPS
VELOCITY AT MINIMUM FLOW	.280E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.290E+02	FEET
FINAL ELEVATION	.150E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.126E+03	FEET
VELOCITY HEAD	.122E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.149E-01	FEET
REYNOLDS NUMBER	.970E+06	
FRICTION HEAD LOSS	.533E+01	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.533E+01	FEET
ADDITIONAL HEAD REQUIRED	.126E+03	FEET
THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW		

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS	% INFLATION
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980	w/0.
CONSTRUCTION(\$)	.106E+07	.931E+06	.106E+07	
OVERHEAD(\$)	.106E+06	.931E+05	.106E+06	
LAND COST(\$)	.180E+05	.158E+05	.180E+05	
CAPITAL COST(\$)	.118E+07	.104E+07	.118E+07	
AMORTIZED(\$/YR)	.731E+05	.643E+05	.731E+05	
LABOR(MAN-HR/YR)	.323E+00	.323E+00	.323E+00	
LABOR COST(\$/YR)	.242E+01	.213E+01	.242E+01	
SUPPLY COST(\$/YR)	.223E+04	.196E+04	.223E+04	
POWER(\$/YR)	0.	0.	0.	
TOTAL O&M(\$/YR)	.223E+04	.196E+04	.223E+04	
AVE ANNUAL(\$/YR)	.754E+05	.663E+05	.857E+05	

LAND COST OVERRIDE USED .180E+05  
 PERCENT DEPRECIATED 0.

Pajaro River Diversion to Corncob Canyon Reservoir  
(continued)

1978 WORTH OF 1980 PLANT COST	1024648.		
1978 WORTH OF 2020 PLANT SALVAGE	15749.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		14626.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			27366.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	1050891.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 74669.			

1978 WORTH OF 1990 PLANT COST	539491.		
1978 WORTH OF 2020 PLANT SALVAGE	31497.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		7124.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			13330.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	528446.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 37548.			

1978 WORTH OF 2000 PLANT COST	284049.		
1978 WORTH OF 2020 PLANT SALVAGE	47246.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		3174.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			5940.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	245918.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 17473.			

1978 WORTH OF 2010 PLANT COST	149556.		
1978 WORTH OF 2020 PLANT SALVAGE	62995.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		1095.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			2049.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	89705.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 6374.			

Pajaro River Diversion to Corncob Canyon Reservoir  
(concluded)

FORCE MAIN 27  
BEAR CREEK TO FELTON PUMPING STATION

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.150E+02	INCHES
PIPE LENGTH	.540E+05	FEET
MAXIMUM DESIGN FLOW	.500E+01	MGD
HIGH DAY DESIGN FLOW	.500E+01	MGD
AVERAGE DESIGN FLOW	.500E+01	MGD
MINIMUM DESIGN FLOW	.500E+01	MGD
VELOCITY AT MAXIMUM FLOW	.630E+01	FPS
VELOCITY AT AVERAGE FLOW	.630E+01	FPS
VELOCITY AT MINIMUM FLOW	.630E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.460E+03	FEET
FINAL ELEVATION	.370E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.425E+03	FEET
VELOCITY HEAD	.617E+00	FEET
DESIGN TEMPERATURE	.200E+02	DIG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.193E-01	FEET
REYNOLDS NUMBER	.727E+06	
FRICTION HEAD LOSS	.515E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.515E+03	FEET
ADDITIONAL HEAD REQUIRED	.425E+03	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.195E+02	PERCENT
NEW RESIDENTIAL AREA	.120E+02	PERCENT
SPARSE ESTABLISHED RESIDENTIAL AREA	.296E+02	PERCENT
DENSE ESTABLISHED RESIDENTIAL AREA	.389E+02	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.131E+07	.115E+07	.131E+07
OVERHEAD(\$)	.131E+06	.115E+06	.131E+06
LAND COST(\$)	.616E+05	.541E+05	.616E+05
CAPITAL COST(\$)	.151E+07	.132E+07	.151E+07
AMORTIZED(\$/YR)	.906E+05	.797E+05	.906E+05
LABOR(MAN-HR/YR)	.177E+00	.177E+00	.177E+00
LABOR COST(\$/YR)	.133E+01	.117E+01	.133E+01
SUPPLY COST(\$/YR)	.433E+04	.381E+04	.433E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.434E+04	.381E+04	.434E+04
AVE ANNUAL(\$/YR)	.949E+05	.835E+05	.108E+06

LAND COST OVERRIDE USED .616E+05  
PERCENT DEPRECIATED 0.

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1978 WORTH OF 1980 PLANT COST	1269803.		
1978 WORTH OF 2020 PLANT SALVAGE	19517.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		49987.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			53133.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	1353407.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	96163.		

1978 WORTH OF 1990 PLANT COST	668569.		
1978 WORTH OF 2020 PLANT SALVAGE	39033.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		24348.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			25881.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	679765.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	48299.		

1978 WORTH OF 2000 PLANT COST	352011.		
1978 WORTH OF 2020 PLANT SALVAGE	58550.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		10849.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			11532.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	315843.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	22442.		

1978 WORTH OF 2010 PLANT COST	185338.		
1978 WORTH OF 2020 PLANT SALVAGE	78067.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		3742.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			3978.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	114992.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	8170.		

Bear Creek Reservoir to Felton Pumping Station  
(concluded)

FORCE MAIN 28  
 APTOS RES TO APTOS-SOQUEL W/T PLANT

DESIGN FACTORS  
 NOMINAL PIPE DIAMETER .150E+02 INCHES  
 PIPE LENGTH .125E+05 FEET  
 MAXIMUM DESIGN FLOW .400E+01 MGD  
 HIGH DAY DESIGN FLOW .400E+01 MGD  
 AVERAGE DESIGN FLOW .400E+01 MGD  
 MINIMUM DESIGN FLOW .400E+01 MGD  
 VELOCITY AT MAXIMUM FLOW .504E+01 FPS  
 VELOCITY AT AVERAGE FLOW .504E+01 FPS  
 VELOCITY AT MINIMUM FLOW .504E+01 FPS

ENERGY CONSIDERATIONS  
 INITIAL ELEVATION .370E+03 FEET  
 FINAL ELEVATION .800E+03 FEET  
 INITIAL PRESSURE HEAD 0 FEET  
 FINAL PRESSURE HEAD -.506E+03 FEET  
 VELOCITY HEAD .395E+00 FEET  
 DESIGN TEMPERATURE .200E+02 DEG C  
 KINEMATIC VISCOSITY .108E-04 FEET\*\*2/SEC  
 ROUGHNESS HEIGHT .100E-02 FEET  
 FRICTION FACTOR .193E-01 FEET  
 REYNOLDS NUMBER .582E+06  
 FRICTION HEAD LOSS .763E+02 FEET  
 MINOR HEAD LOSSES 0 FEET  
 TOTAL HEAD LOSSES .763E+02 FEET  
 ADDITIONAL HEAD REQUIRED .506E+03 FEET  
 THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS  
 DEPTH OF PIPE .500E+01 FEET  
 OPEN COUNTRY .800E+02 PERCENT  
 SPARSE ESTABLISHED RESIDENTIAL AREA .160E+02 PERCENT  
 COMMERCIAL AREA .400E+01 PERCENT

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEARS  
 DESIGN LIFE .500E+02 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 EPA SEWER CONSTRUCTION INDEX .305E+03 PERCENT  
 CITY MULTIPLIER .114E+01  
 WAGE O&M .750E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.337E+06	.296E+06	.337E+06
OVERHEAD(\$)	.337E+05	.296E+05	.337E+05
LAND COST(\$)	.143E+05	.125E+05	.143E+05
CAPITAL COST(\$)	.384E+06	.338E+06	.384E+06
AMORTIZED(\$/YR)	.232E+05	.204E+05	.232E+05
LABOR(MAN-HR/YR)	.438E+01	.438E+01	.438E+01
LABOR COST(\$/YR)	.329E+00	.289E+00	.329E+00
SUPPLY COST(\$/YR)	.100E+04	.882E+03	.100E+04
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.100E+04	.883E+03	.100E+04
AVE ANNUAL(\$/YR)	.242E+05	.213E+05	.276E+05

LAND COST OVERRIDE USED .143E+05  
 PERCENT DEPRECIATED 0

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1978 WORTH OF 1980 PLANT COST	325645.		
1978 WORTH OF 2020 PLANT SALVAGE	5005.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		11571.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			12300.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	344511.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 24478.

1978 WORTH OF 1990 PLANT COST	171457.		
1978 WORTH OF 2020 PLANT SALVAGE	10010.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		5636.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			5991.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	173074.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 12297.

1978 WORTH OF 2000 PLANT COST	90274.		
1978 WORTH OF 2020 PLANT SALVAGE	15015.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		2511.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			2670.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	80440.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 5715.

1978 WORTH OF 2010 PLANT COST	47531.		
1978 WORTH OF 2020 PLANT SALVAGE	20020.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		866.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			921.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	29297.		

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 2082.

Aptos Creek Reservoir to Aptos-Soquel WTP

**FORCE MAIN 29  
PAJARO TO PESCADERO**

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.300E+02	INCHES
PIPE LENGTH	.158E+05	FEET
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.200E+02	MGD
AVERAGE DESIGN FLOW	.200E+02	MGD
MINIMUM DESIGN FLOW	.200E+02	MGD
VELOCITY AT MAXIMUM FLOW	.630E+01	FPS
VELOCITY AT AVERAGE FLOW	.630E+01	FPS
VELOCITY AT MINIMUM FLOW	.630E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.270E+03	FEET
FINAL ELEVATION	.160E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.460E+02	FEET
VELOCITY HEAD	.617E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.164E-01	FEET
REYNOLDS NUMBER	.145E+07	
FRICTION HEAD LOSS	.640E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.640E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			w/o. % INFLATION
CONSTRUCTION(\$)	.911E+06	.801E+06	.911E+06
OVERHEAD(\$)	.911E+05	.801E+05	.911E+05
LAND COST(\$)	.180E+05	.158E+05	.180E+05
CAPITAL COST(\$)	.102E+07	.897E+06	.102E+07
AMORTIZED(\$/YR)	.629E+05	.553E+05	.629E+05
LABOR(MAN-HR/YR)	.208E+00	.208E+00	.208E+00
LABOR COST(\$/YR)	.156E+01	.137E+01	.156E+01
SUPPLY COST(\$/YR)	.224E+04	.197E+04	.224E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.224E+04	.197E+04	.224E+04
AVE ANNUAL(\$/YR)	.651E+05	.573E+05	.740E+05

LAND COST OVERRIDE USED .180E+05  
 PERCENT DEPRECIATED 0.

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1978 WORTH OF	1980 PLANT COST	881248.		
1978 WORTH OF	2020 PLANT SALVAGE	13545.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		14626.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			27492.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		909821.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		64645.		

1978 WORTH OF	1990 PLANT COST	463989.		
1978 WORTH OF	2020 PLANT SALVAGE	27089.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		7124.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			13391.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		457415.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		32501.		

1978 WORTH OF	2000 PLANT COST	244297.		
1978 WORTH OF	2020 PLANT SALVAGE	40634.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		3174.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			5967.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		212804.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		15120.		

1978 WORTH OF	2010 PLANT COST	128625.		
1978 WORTH OF	2020 PLANT SALVAGE	54178.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		1095.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			2058.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		77600.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		5514.		

Pajaro River to Pescadero Creek Reservoir  
(concluded)

FORCE MAIN 31  
 ???

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.450E+02	INCHES
PIPE LENGTH	.360E+05	FEET
MAXIMUM DESIGN FLOW	.200E+02	MGD
HIGH DAY DESIGN FLOW	.200E+02	MGD
AVERAGE DESIGN FLOW	.200E+02	MGD
MINIMUM DESIGN FLOW	.200E+02	MGD
VELOCITY AT MAXIMUM FLOW	.280E+01	FPS
VELOCITY AT AVERAGE FLOW	.280E+01	FPS
VELOCITY AT MINIMUM FLOW	.280E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.450E+02	FEET
FINAL ELEVATION	.100E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.724E+02	FEET
VELOCITY HEAD	.122E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.149E-01	FEET
REYNOLDS NUMBER	.970E+06	
FRICTION HEAD LOSS	.174E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.174E+02	FEET
ADDITIONAL HEAD REQUIRED	.724E+02	FEET
THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW		

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.347E+07	.305E+07	.347E+07
OVERHEAD(\$)	.347E+06	.305E+06	.347E+06
LAND COST(\$)	.410E+05	.361E+05	.410E+05
CAPITAL COST(\$)	.385E+07	.339E+07	.385E+07
AMORTIZED(\$/YR)	.239E+06	.210E+06	.239E+06
LABOR(MAN-HR/YR)	.105E+01	.105E+01	.105E+01
LABOR COST(\$/YR)	.785E+01	.691E+01	.785E+01
SUPPLY COST(\$/YR)	.730E+04	.642E+04	.730E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.731E+04	.643E+04	.731E+04
AVE ANNUAL(\$/YR)	.247E+06	.217E+06	.280E+06

LAND COST OVERRIDE USED .410E+05  
 PERCENT DEPRECIATED 0.  
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1978 WORTH OF	1980 PLANT COST	3353394.	
1978 WORTH OF	2020 PLANT SALVAGE	51541.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	33324.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		89560.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	3424737.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 243337.

1978 WORTH OF	1990 PLANT COST	1765607.	
1978 WORTH OF	2020 PLANT SALVAGE	103082.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	16232.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		43625.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1722382.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 122380.

1978 WORTH OF	2000 PLANT COST	929616.	
1978 WORTH OF	2020 PLANT SALVAGE	154623.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	7233.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		19439.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	801665.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 56961.

1978 WORTH OF	2010 PLANT COST	489456.	
1978 WORTH OF	2020 PLANT SALVAGE	206164.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	2495.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		6705.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	292491.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 20782.

North Coast Pipeline when Waddell Creek and Scott Creek Reservoirs Built  
 (portion from Scott Creek to Gordola WTP)  
 (conaluded)

**FORCE MAIN 31**  
 ???

**DESIGN FACTORS**

NOMINAL PIPE DIAMETER	.300E+02	INCHES
PIPE LENGTH	.360E+05	FEET
MAXIMUM DESIGN FLOW	.100E+02	MGD
HIGH DAY DESIGN FLOW	.100E+02	MGD
AVERAGE DESIGN FLOW	.100E+02	MGD
MINIMUM DESIGN FLOW	.100E+02	MGD
VELOCITY AT MAXIMUM FLOW	.315E+01	FPS
VELOCITY AT AVERAGE FLOW	.315E+01	FPS
VELOCITY AT MINIMUM FLOW	.315E+01	FPS

**ENERGY CONSIDERATIONS**

INITIAL ELEVATION	.450E+02	FEET
FINAL ELEVATION	.100E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.914E+02	FEET
VELOCITY HEAD	.154E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.164E-01	FEET
REYNOLDS NUMBER	.727E+06	
FRICTION HEAD LOSS	.364E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.364E+02	FEET
ADDITIONAL HEAD REQUIRED	.914E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

**CONSTRUCTION FACTORS**

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

**ECONOMIC FACTORS**

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE U&M	.750E+01	

**COST SUMMARY**

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980	% INFLATION
CONSTRUCTION(\$)	.207E+07	.182E+07	.207E+07	
OVERHEAD(\$)	.207E+06	.182E+06	.207E+06	
LAND COST(\$)	.410E+05	.361E+05	.410E+05	
CAPITAL COST(\$)	.252E+07	.204E+07	.232E+07	
AMORTIZED(\$/YR)	.143E+06	.126E+06	.143E+06	
LABOR(MAN-HR/YR)	.467E+00	.467E+00	.467E+00	
LABOR COST(\$/YR)	.350E+01	.308E+01	.350E+01	
SUPPLY COST(\$/YR)	.509E+04	.448E+04	.509E+04	
POWER(\$/YR)	0.	0.	0.	
TOTAL O&M(\$/YR)	.510E+04	.448E+04	.510E+04	
AVE ANNUAL(\$/YR)	.148E+06	.130E+06	.168E+06	

LAND COST OVERRIDE USED .410E+05  
 PERCENT DEPRECIATED 0.  
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North Coast Pipeline when only Waddell Creek or Scott Creek Reservoir Built  
 (portion from Scott Creek to Gordola WTP)  
 (continued).

1978 WORTH OF 1980 PLANT COST	2002837.	
1978 WORTH OF 2020 PLANT SALVAGE	30783.	
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS	33324.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS		62481.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	2067859.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	146927.	

1978 WORTH OF 1990 PLANT COST	1054521.	
1978 WORTH OF 2020 PLANT SALVAGE	61566.	
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS	16232.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS		30434.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	1039621.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	73868.	

1978 WORTH OF 2000 PLANT COST	555220.	
1978 WORTH OF 2020 PLANT SALVAGE	92350.	
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS	7233.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS		13561.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	483664.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	34366.	

1978 WORTH OF 2010 PLANT COST	292331.	
1978 WORTH OF 2020 PLANT SALVAGE	123133.	
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS	2495.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS		4677.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	176370.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	12532.	

North Coast Pipeline when only Waddell Creek or Scott Creek Reservoir Built  
 (portion from Scott Creek to Gordola WTP)  
 (concluded)

APPENDIX G: DESIGN AND COST PARAMETERS FOR MONTEREY COUNTY

1. This appendix contains design and cost estimates for the facilities required for Monterey County. Each facility has two pages of information: the first consists of the design parameters and cost summary; the second consists of a breakdown of the costs according to individual components of the facilities. These values were used in preparing Table 2 in the text.

2. The Arroya Seco Reservoir (MA)\* facilities are shown first, followed by the Carmel River Reservoir (MB), Castroville Irrigation Project (MC), East Side Project (MD), Carmel Valley Wells (MP), and Reservoir Tunnel Project (MG).

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\* MA = Monterey A, etc.

Arroyo Seco Dam (MA)

RESERVOIR NO. 20  
 TITLE ARROYO SECO DAM (MA)  
 EARTH FILLED AREA .217E+03 ACRES  
 INITIAL POOL ELEVATION .555E+03 FEET  
 MAXIMUM POOL HEIGHT .555E+03 FEET  
 MINIMUM POOL HEIGHT .460E+03 FEET  
 RELEASE 0. MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .063E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.158E+08	.139E+08	.158E+08
OVERHEAD(\$)	.158E+07	.139E+07	.158E+07
CAPITAL COST(\$)	.174E+08	.153E+08	.174E+08
AMORTIZED(\$/YR)	.120E+07	.106E+07	.120E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.479E+05	.421E+05	.479E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.479E+05	.421E+05	.479E+05
AVE ANNUAL(\$/YR)	.125E+07	.110E+07	.142E+07

PERCENT DEPRECIATED 0.

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Arroyo Seco Dam (MA)

1978 WORTH OF 1980 PLANT COST 15287332.  
1978 WORTH OF 2020 PLANT SALVAGE 234963.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 587089.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 15639458.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1111229.

1978 WORTH OF 1990 PLANT COST 8048988.  
1978 WORTH OF 2020 PLANT SALVAGE 469927.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 285970.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 7865031.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 558833.

1978 WORTH OF 2000 PLANT COST 4237902.  
1978 WORTH OF 2020 PLANT SALVAGE 704890.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 127426.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 3660438.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 260085.

1978 WORTH OF 2010 PLANT COST 2231313.  
1978 WORTH OF 2020 PLANT SALVAGE 939853.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 43951.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 1335411.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 94885.

Carmel River Reservoir (MB)

RESERVOIR NO. 21  
 TITLE CARMEL RIVER DAM (MB)  
 CONCRETE FILLED AREA .401E+03 ACRES  
 INITIAL POOL ELEVATION .843E+03 FEET  
 MAXIMUM POOL HEIGHT .843E+03 FEET  
 MINIMUM POOL HEIGHT .600E+03 FEET  
 RELEASE 0. MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980 YEAR 50 YEARS  
 DESIGN LIFE 50 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 ENR CONSTRUCTION INDEX .268E+04  
 CITY MULTIPLIER .114E+01

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.963E+08	.847E+08	.963E+08
OVERHEAD(\$)	.963E+07	.847E+07	.963E+07
CAPITAL COST(\$)	.106E+09	.932E+08	.106E+09
AMORTIZED(\$/YR)	.731E+07	.643E+07	.731E+07
LABOR(MAN-HR/YR)	0.	0.	0.
LABOR COST(\$/YR)	0.	0.	0.
SUPPLY COST(\$/YR)	.851E+05	.749E+05	.851E+05
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.851E+05	.749E+05	.851E+05
AVE ANNUAL(\$/YR)	.740E+07	.651E+07	.841E+07

PERCENT DEPRECIATED 0.  
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Carmel River Reservoir (MB)

1978 WORTH OF 1980 PLANT COST 93175318.  
1978 WORTH OF 2020 PLANT SALVAGE 1432087.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 1043034.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 92786265.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 6592732.

1978 WORTH OF 1990 PLANT COST 49058073.  
1978 WORTH OF 2020 PLANT SALVAGE 2864173.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 508059.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 46701959.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 3318309.

1978 WORTH OF 2000 PLANT COST 25829744.  
1978 WORTH OF 2020 PLANT SALVAGE 4296260.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 226388.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 21759872.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1546102.

1978 WORTH OF 2010 PLANT COST 13599713.  
1978 WORTH OF 2020 PLANT SALVAGE 5728347.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 78084.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 7949450.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 564831.

Castroville Diversion to Pumping Station (MC)

OPEN CHANNEL 7  
CASTROVILLE DIVERSION TO PUMP STATION

TRAPEZOIDAL CHANNEL  
EARTH LINED CHANNEL  
ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
LENGTH OF SIDES .222E+01 FEET  
WIDTH OF CHANNEL AT WATER SURFACE .714E+01 FEET  
WIDTH OF CHANNEL BOTTOM .400E+01 FEET  
CHANNEL CONVEYANCE .319E+00  
MAXIMUM FLOW .400E+02 MGD  
FLOW DURING HIGH PERIOD .400E+02 MGD  
AVERAGE FLOW .400E+02 MGD  
MINIMUM FLOW .400E+02 MGD  
SLOPE .600E-02 FT/FT  
LENGTH .250E+04 FEET  
NORMAL DEPTH AT PEAK FLOW .157E+01 FEET  
VELOCITY AT PEAK FLOW .457E+01 FPS  
VELOCITY AT AVERAGE FLOW .457E+01 FPS  
INITIAL ELEVATION .230E+03 FEET  
FINAL ELEVATION .215E+03 FEET  
TOTAL HEAD INITIAL .232E+03 FEET  
TOTAL HEAD FINAL .217E+03 FEET  
WETTED PERIMETER .845E+01 FEET  
FREEBOARD 0 FEET  
TOTAL CHANNEL PERIMETER .845E+01 FEET  
EARTH MOVED .147E+04 CU YD  
SPECIFIC ENERGY .190E+01 FEET  
FROUDE NUMBER AT PEAK FLOW .642E+00  
MANNINGS N .250E-01  
DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS  
EXCAVATION IN ROCK 0 PERCENT  
WIDTH OF RIGHT OF WAY 0 FEET  
LAND REQUIRED 0 ACRES

ECONOMIC FACTORS  
EPA SEWER CONSTRUCTION INDEX .305E+03  
O&M WAGEDOM RATE .750E+01 DOLLARS/HOUR  
INTEREST RATE .663E+01 PERCENT  
CITY MULTIPLIER .114E+01  
DESIGN LIFE 50 YEARS  
YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			w/o % INFLATION
CONSTRUCTION(\$)	.176E+04	.155E+04	.176E+04
OVERHEAD(\$)	.176E+03	.155E+03	.176E+03
LAND COST(\$)	.345E+04	.303E+04	.345E+04
CAPITAL COST(\$)	.539E+04	.474E+04	.539E+04
AMORTIZED(\$/YR)	.372E+03	.327E+03	.372E+03
LABOR(MAN-HR/YR)	.136E+02	.136E+02	.136E+02
LABOR COST(\$/YR)	.102E+03	.894E+02	.102E+03
SUPPLY COST(\$/YR)	.628E+03	.552E+03	.628E+03
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.750E+03	.642E+03	.730E+03
AVE ANNUAL(\$/YR)	.110E+04	.969E+03	.125E+04

LAND COST OVERRIDE USED .345E+04  
PERCENT DEPRECIATED 0

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Castroville Diversion to Pumping Station (MC)

1978 WORTH OF	1980 PLANT COST	1703.		
1978 WORTH OF	2020 PLANT SALVAGE	26.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		2801.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS		12347.	7869.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS			
AVERAGE ANNUAL COST FROM	1978 TO 2020 IS	877.		

1978 WORTH OF	1990 PLANT COST	897.		
1978 WORTH OF	2020 PLANT SALVAGE	52.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		1365.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS		6042.	3833.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS			

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 429.

1978 WORTH OF	2000 PLANT COST	472.		
1978 WORTH OF	2020 PLANT SALVAGE	79.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		608.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS		2709.	1708.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS			

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 193.

1978 WORTH OF	2010 PLANT COST	249.		
1978 WORTH OF	2020 PLANT SALVAGE	105.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		210.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS		943.	589.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS			

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 67.

Castroville Pumping Station (MC)

PUMPING STATION 11

CASTROVILLE PUMPING STATION (MC)

PUMP HEAD	.930E+02	FEET
PUMP POWER	.109E+04	HORSEPOWER
ELECTRICAL USAGE	.267E+07	KWHR/YEAR
MAXIMUM DESIGN FLOW	.400E+02	MGD
HIGH DAY DESIGN FLOW	.250E+02	MGD
AVERAGE DESIGN FLOW	.150E+02	MGD
MINIMUM DESIGN FLOW	.100E+02	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	.500E+02	FEET
FINAL ELEVATION	.400E+01	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.139E+03	FEET
INITIAL TOTAL HEAD	.500E+02	FEET
FINAL TOTAL HEAD	.143E+03	FEET

ECONOMIC FACTORS

CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGEOM	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E+01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O % INFLATION
CONSTRUCTION(\$)	.135E+07	.119E+07	.135E+07
OVERHEAD(\$)	.135E+06	.119E+06	.135E+06
CAPITAL COST(\$)	.149E+07	.131E+07	.149E+07
AMORTIZED(\$/YR)	.137E+06	.120E+06	.137E+06
LABOR(MAN-HR/YR)	.181E+04	.181E+04	.181E+04
LABOR COST(\$/YR)	.136E+05	.119E+05	.136E+05
SUPPLY COST(\$/YR)	.306E+04	.269E+04	.306E+04
POWER(\$/YR)	.133E+06	.117E+06	.133E+06
TOTAL O&M(\$/YR)	.150E+06	.132E+06	.150E+06
AVE ANNUAL(\$/YR)	.287E+06	.252E+06	.326E+06

PERCENT DEPRECIATED 0.

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Castroville Pumping Station (MC)

1978 WORTH OF	1980 PLANT COST	1306196.	
1978 WORTH OF	2000 PLANT COST	362099.	
1978 WORTH OF	2020 PLANT COST	100380.	
1978 WORTH OF	2020 PLANT SALVAGE	100380.	
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS	0.	1838485
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	3506780.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		249167.	

1978 WORTH OF	1990 PLANT COST	687730.	
1978 WORTH OF	2010 PLANT COST	190650.	
1978 WORTH OF	2020 PLANT SALVAGE	50190.	
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS	0.	895521
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	1723712.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		122475.	

1978 WORTH OF	2000 PLANT COST	362099.	
1978 WORTH OF	2020 PLANT COST	100380.	
1978 WORTH OF	2020 PLANT SALVAGE	100380.	
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS	0.	399038
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	761158.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		54081.	

1978 WORTH OF	2010 PLANT COST	190650.	
1978 WORTH OF	2020 PLANT SALVAGE	50190.	
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS	0.	137633
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	278094.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		19759.	

Castroville Pumping Station to Reduced Pipeline (MC)

FORCE MAIN 36  
CASTROVILLE PUMP TO REDUCED PIPE LINE (

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.600E+02	INCHES
PIPE LENGTH	.680E+05	FEET
MAXIMUM DESIGN FLOW	.400E+02	MGD
HIGH DAY DESIGN FLOW	.400E+02	MGD
AVERAGE DESIGN FLOW	.400E+02	MGD
MINIMUM DESIGN FLOW	.400E+02	MGD
VELOCITY AT MAXIMUM FLOW	.315E+01	FPS
VELOCITY AT AVERAGE FLOW	.315E+01	FPS
VELOCITY AT MINIMUM FLOW	.315E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.500E+02	FEET
FINAL ELEVATION	.150E+02	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.574E+01	FEET
VELOCITY HEAD	.154E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.140E-01	FEET
REYNOLDS NUMBER	.145E+07	FEET
FRICTION HEAD LOSS	.293E+02	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.293E+02	FEET
THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW		

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.663E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS	% INFLATION
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980	W/O
CONSTRUCTION(\$)	.979E+07	.861E+07	.979E+07	
OVERHEAD(\$)	.979E+06	.861E+06	.979E+06	
LAND COST(\$)	.775E+05	.682E+05	.775E+05	
CAPITAL COST(\$)	.108E+08	.954E+07	.108E+08	
AMORTIZED(\$/YR)	.676E+06	.594E+06	.676E+06	
LABOR(MAN-HR/YR)	.351E+01	.351E+01	.351E+01	
LABOR COST(\$/YR)	.263E+02	.231E+02	.263E+02	
SUPPLY COST(\$/YR)	.180E+05	.158E+05	.180E+05	
POWER(\$/YR)	0.	0.	0.	
TOTAL O&M(\$/YR)	.180E+05	.158E+05	.180E+05	
AVE ANNUAL(\$/YR)	.694E+06	.610E+06	.789E+06	

LAND COST OVERRIDE USED .775E+05  
PERCENT DEPRECIATED 0.

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Castroville Pumping Station to Reduced Pipeline (MC)

1978 WORTH OF 1980 PLANT COST 9467545.  
1978 WORTH OF 2020 PLANT SALVAGE 145514.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 62946.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 220359.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9605336.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 682487.

1978 WORTH OF 1990 PLANT COST 4984791.  
1978 WORTH OF 2020 PLANT SALVAGE 291029.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 30661.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 107337.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4831760.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 343310.

1978 WORTH OF 2000 PLANT COST 2624561.  
1978 WORTH OF 2020 PLANT SALVAGE 436543.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 13662.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 47828.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2249508.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 159834.

1978 WORTH OF 2010 PLANT COST 1381867.  
1978 WORTH OF 2020 PLANT SALVAGE 582057.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 4712.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 16497.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 821018.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 58336.

Reduced Pipeline to Castroville (MC)

FORCE MAIN 37  
REDUCED PIPE LINE TO CASTROVILLE (MC)

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.360E+02	INCHES
PIPE LENGTH	.175E+05	FEET
MAXIMUM DESIGN FLOW	.400E+02	MGD
HIGH DAY DESIGN FLOW	.400E+02	MGD
AVERAGE DESIGN FLOW	.400E+02	MGD
MINIMUM DESIGN FLOW	.400E+02	MGD
VELOCITY AT MAXIMUM FLOW	.875E+01	FPS
VELOCITY AT AVERAGE FLOW	.875E+01	FPS
VELOCITY AT MINIMUM FLOW	.875E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.150E+02	FEET
FINAL ELEVATION	.400E+01	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	-.982E+02	FEET
VELOCITY HEAD	.119E-01	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.157E-01	FEET
REYNOLDS NUMBER	.242E+07	FEET
FRICTION HEAD LOSS	.109E+03	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.109E+03	FEET
ADDITIONAL HEAD REQUIRED	.982E+02	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.063E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			*% INFLATION
CONSTRUCTION(\$)	.126E+07	.111E+07	.126E+07
OVERHEAD(\$)	.126E+06	.111E+06	.126E+06
LAND COST(\$)	.200E+05	.176E+05	.200E+05
CAPITAL COST(\$)	.141E+07	.124E+07	.141E+07
AMORTIZED(\$/YR)	.671E+05	.766E+05	.671E+05
LABOR(MAN-HR/YR)	.329E+00	.329E+00	.329E+00
LABOR COST(\$/YR)	.247E+01	.217E+01	.247E+01
SUPPLY COST(\$/YR)	.291E+04	.256E+04	.291E+04
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.291E+04	.256E+04	.291E+04
AVE ANNUAL(\$/YR)	.900E+05	.792E+05	.102E+06

LAND COST OVERRIDE USED .200E+05  
PERCENT DEPRECIATED 0.

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Reduced Pipeline to Castroville (MC)

1978 WORTH OF 1980 PLANT COST 1220733.  
 1978 WORTH OF 2020 PLANT SALVAGE 18762.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 16233.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 35710.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 1253913.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 89094.

1978 WORTH OF 1990 PLANT COST 642732.  
 1978 WORTH OF 2020 PLANT SALVAGE 37525.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 7907.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 17394.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 630509.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 44799.

1978 WORTH OF 2000 PLANT COST 338407.  
 1978 WORTH OF 2020 PLANT SALVAGE 56287.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 3523.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 7751.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 293394.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 20846.

1978 WORTH OF 2010 PLANT COST 178176.  
 1978 WORTH OF 2020 PLANT SALVAGE 75050.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 1215.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 2673.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 107015.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 7604.

Castroville Wellfield (MC)

WELLFIELD 5  
 TITLE CASTROVILLE WELLS  
 DESIGN FACTORS  
 NUMBER OF WELLS IN FIELD .900E+01  
 DEPTH OF DRILLING .500E+03 FEET  
 DEPTH TO GROUNDWATER .180E+03 FEET  
 DRAWDOWN DURING PUMPING 0 FEET  
 HEAD REQUIRED FOR PUMPING .180E+03 FEET  
 ANNUAL POWER REQUIREMENT .860E+05 KWHR  
 CAPACITY OF PUMPING EQUIPMENT .135E+03 HORSEPOWER  
 MAXIMUM FLOW .430E+01 MGD  
 AVERAGE FLOW .220E+01 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980  
 DESIGN LIFE 25 YEARS  
 INTEREST RATE .063E+01 PERCENT  
 POWER COST .500E-01 \$/KWHR  
 ENR-CC INDEX .268E+04  
 AVERAGE WAGE .750E+01 \$/HR  
 CITY MULTIPLIER .114E+01  
 COST TO DRILL ONE WELL .360E+05 \$  
 COST FOR PUMPING EQUIPMENT .348E+05 \$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o. % INFLATION
CONSTRUCTION(\$)	.778E+06	.684E+06	.778E+06
OVERHEAD(\$)	.778E+05	.684E+05	.778E+05
CAPITAL COST(\$)	.855E+06	.752E+06	.855E+06
AMORTIZED(\$/YR)	.709E+05	.624E+05	.709E+05
LABOR(MAN-HR/YR)	.180E+04	.180E+04	.180E+04
LABOR COST(\$/YR)	.135E+05	.119E+05	.135E+05
SUPPLY COST(\$/YR)	.156E+05	.137E+05	.156E+05
POWER(\$/YR)	.387E+05	.340E+05	.387E+05
TOTAL O&M(\$/YR)	.678E+05	.596E+05	.678E+05
AVE ANNUAL(\$/YR)	.139E+06	.122E+06	.158E+06

PERCENT DEPRECIATED 0.

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Castroville Wellfield (MC)

1978 WORTH OF 1980 PLANT COST 752756.  
 1978 WORTH OF 2005 PLANT COST 151418.  
 1978 WORTH OF 2020 PLANT SALVAGE 23139.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 830995.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 1712030.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 121645.

1978 WORTH OF 1990 PLANT COST 396336.  
 1978 WORTH OF 2015 PLANT COST 79724.  
 1978 WORTH OF 2020 PLANT SALVAGE 46279.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 404776.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 834557.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 59298.

1978 WORTH OF 2000 PLANT COST 208676.  
 1978 WORTH OF 2020 PLANT SALVAGE 11570.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 180365.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 377472.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 26820.

1978 WORTH OF 2010 PLANT COST 109871.  
 1978 WORTH OF 2020 PLANT SALVAGE 34709.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 62210.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 137372.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 9761.

Diversion from Salinas River to East Side Pumping Station (MD)

OPEN CHANNEL 2  
DIVERSION TO EAST SIDE (MD)

TRAPEZOIDAL CHANNEL  
 CONCRETE CHANNEL  
 ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
 LENGTH OF SIDES .131E+01 FEET  
 WIDTH OF CHANNEL AT WATER SURFACE .586E+01 FEET  
 WIDTH OF CHANNEL BOTTOM .400E+01 FEET  
 CHANNEL CONVEYANCE .127E+00  
 MAXIMUM FLOW .430E+02 MGD  
 FLOW DURING HIGH PERIOD .430E+02 MGD  
 AVERAGE FLOW .430E+02 MGD  
 MINIMUM FLOW .430E+02 MGD  
 SLOPE .100E-01 FT/FT  
 LENGTH .500E+02 FEET  
 NORMAL DEPTH AT PEAK FLOW .928E+00 FEET  
 VELOCITY AT PEAK FLOW .940E+01 FPS  
 VELOCITY AT AVERAGE FLOW .940E+01 FPS  
 INITIAL ELEVATION .361E+03 FEET  
 FINAL ELEVATION .361E+03 FEET  
 TOTAL HEAD INITIAL .363E+03 FEET  
 TOTAL HEAD FINAL .363E+03 FEET  
 WETTED PERIMETER .663E+01 FEET  
 FREEBOARD 0. FEET  
 TOTAL CHANNEL PERIMETER .663E+01 FEET  
 EARTH MOVED .193E+02 CU YD  
 SPECIFIC ENERGY .230E+01 FEET  
 FROUDE NUMBER AT PEAK FLOW .172E+01  
 MANNINGS N .120E-01  
 DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS  
 EXCAVATION IN ROCK 0. PERCENT  
 WIDTH OF RIGHT OF WAY 0. FEET  
 LAND REQUIRED 0. ACRES

ECONOMIC FACTORS  
 EPA SEWER CONSTRUCTION INDEX .305E+03  
 O&M WAGEUM RATE .750E+01 DOLLARS/HOUR  
 INTEREST RATE .663E+01 PERCENT  
 CITY MULTIPLIER .114E+01  
 DESIGN LIFE 50 YEARS  
 YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.322E+03	.284E+03	.322E+03
OVERHEAD(\$)	.322E+02	.284E+02	.322E+02
LAND COST(\$)	.690E+02	.607E+02	.690E+02
CAPITAL COST(\$)	.424E+03	.373E+03	.424E+03
AMORTIZED(\$/YR)	.293E+02	.257E+02	.293E+02
LABOR(MAN-HR/YR)	.236E+00	.236E+00	.236E+00
LABOR COST(\$/YR)	.177E+01	.156E+01	.177E+01
SUPPLY COST(\$/YR)	.112E+02	.983E+01	.112E+02
POWER(\$/YR)	0.	0.	0.
TOTAL O&M(\$/YR)	.129E+02	.114E+02	.129E+02
AVE ANNUAL(\$/YR)	.422E+02	.371E+02	.480E+02

LAND COST OVERRIDE USED .690E+02  
 PERCENT DEPRECIATED 0.

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Diversion from Salinas River to East Side Pumping Station (MD)

1978 WORTH OF 1980 PLANT COST	312.		
1978 WORTH OF 2020 PLANT SALVAGE	5.		
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS		56.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS			158.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS		521.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	37.		

1978 WORTH OF 1990 PLANT COST	164.		
1978 WORTH OF 2020 PLANT SALVAGE	10.		
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS		27.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS			77.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS		259.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	18.		

1978 WORTH OF 2000 PLANT COST	86.		
1978 WORTH OF 2020 PLANT SALVAGE	14.		
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS		12.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS			34.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS		118.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	8.		

1978 WORTH OF 2010 PLANT COST	45.		
1978 WORTH OF 2020 PLANT SALVAGE	19.		
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS		4.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS			12.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS		42.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	3.		

East Side Canal, Part 1 (MD)

OPEN CHANNEL 3  
EAST SIDE CANAL (MD) CONC-1

TRAPEZOIDAL CHANNEL  
CONCRETE CHANNEL  
ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
LENGTH OF SIDES .573E+01 FEET  
WIDTH OF CHANNEL AT WATER SURFACE .181E+02 FEET  
WIDTH OF CHANNEL BOTTOM .100E+02 FEET  
CHANNEL CONVEYANCE .338E+00  
MAXIMUM FLOW .260E+03 MGD  
FLOW DURING HIGH PERIOD .260E+03 MGD  
AVERAGE FLOW .260E+03 MGD  
MINIMUM FLOW .260E+03 MGD  
SLOPE .389E-03 FT/FT  
LENGTH .515E+05 FEET  
NORMAL DEPTH AT PEAK FLOW .405E+01 FEET  
VELOCITY AT PEAK FLOW .457E+01 FPS  
VELOCITY AT AVERAGE FLOW .457E+01 FPS  
INITIAL ELEVATION .360E+03 FEET  
FINAL ELEVATION .340E+03 FEET  
TOTAL HEAD INITIAL .364E+03 FEET  
TOTAL HEAD FINAL .344E+03 FEET  
WETTED PERIMETER .215E+02 FEET  
FREEBOARD 0 FEET  
TOTAL CHANNEL PERIMETER .215E+02 FEET  
EARTH MOVED .143E+06 CU YD  
SPECIFIC ENERGY .437E+01 FEET  
FROUDE NUMBER AT PEAK FLOW .400E+00  
MANNINGS N .120E-01  
DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS  
EXCAVATION IN ROCK 0 PERCENT  
WIDTH OF RIGHT OF WAY 0 FEET  
LAND REQUIRED 0 ACRES

ECONOMIC FACTORS  
EPA SEWER CONSTRUCTION INDEX .305E+03  
O&M WAGEOM RATE .750E+01 DOLLARS/HOUR  
INTEREST RATE .663E+01 PERCENT  
CITY MULTIPLIER .114E+01  
DESIGN LIFE 50 YEARS  
YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			W/O. % INFLATION
CONSTRUCTION(\$)	.178E+07	.157E+07	.178E+07
OVERHEAD(\$)	.178E+06	.157E+06	.178E+06
LAND COST(\$)	.711E+05	.625E+05	.711E+05
CAPITAL COST(\$)	.203E+07	.179E+07	.203E+07
AMORTIZED(\$/YR)	.140E+06	.123E+06	.140E+06
LABOR(MAN-HR/YR)	.476E+03	.476E+03	.476E+03
LABOR COST(\$/YR)	.357E+04	.314E+04	.357E+04
SUPPLY COST(\$/YR)	.231E+05	.203E+05	.231E+05
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.267E+05	.235E+05	.267E+05
AVE ANNUAL(\$/YR)	.167E+06	.147E+06	.190E+06

LAND COST OVERRIDE USED .711E+05  
PERCENT DEPRECIATED 0.

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East Side Canal, Part 1 (MD)

1978 WORTH OF 1980 PLANT COST 1722244.  
1978 WORTH OF 2020 PLANT SALVAGE 26471.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 57733.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 327250.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 2080756.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 147844.

1978 WORTH OF 1990 PLANT COST 906785.  
1978 WORTH OF 2020 PLANT SALVAGE 52941.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 28122.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 159403.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 1041368.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 73992.

1978 WORTH OF 2000 PLANT COST 477435.  
1978 WORTH OF 2020 PLANT SALVAGE 79412.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 12531.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 71029.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 481583.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 34218.

1978 WORTH OF 2010 PLANT COST 251376.  
1978 WORTH OF 2020 PLANT SALVAGE 105882.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 4322.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 24499.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 174314.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 12386.

East Side Canal, Part 2 (MD)

OPEN CHANNEL 4  
EAST SIDE CANAL(MD) CONC=2

TRAPEZOIDAL CHANNEL  
CONCRETE CHANNEL  
ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
LENGTH OF SIDES .538E+01 FEET  
WIDTH OF CHANNEL AT WATER SURFACE .148E+02 FEET  
WIDTH OF CHANNEL BOTTOM .100E+02 FEET  
CHANNEL CONVEYANCE .153E+00  
MAXIMUM FLOW .162E+03 MGD  
FLOW DURING HIGH PERIOD .162E+03 MGD  
AVERAGE FLOW .162E+03 MGD  
MINIMUM FLOW .162E+03 MGD  
SLOPE .971E-03 FT/FT  
LENGTH .515E+05 FEET  
NORMAL DEPTH AT PEAK FLOW .239E+01 FEET  
VELOCITY AT PEAK FLOW .547E+01 FPS  
VELOCITY AT AVERAGE FLOW .547E+01 FPS  
INITIAL ELEVATION .250E+03 FEET  
FINAL ELEVATION .200E+03 FEET  
TOTAL HEAD INITIAL .253E+03 FEET  
TOTAL HEAD FINAL .203E+03 FEET  
WETTED PERIMETER .168E+02 FEET  
FREEBOARD 0 FEET  
TOTAL CHANNEL PERIMETER .168E+02 FEET  
EARTH MOVED .847E+05 CU YD  
SPECIFIC ENERGY .286E+01 FEET  
FROUDE NUMBER AT PEAK FLOW .623E+00  
MANNINGS N .120E-01  
DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS  
EXCAVATION IN ROCK 0 PERCENT  
WIDTH OF RIGHT OF WAY 0 FEET  
LAND REQUIRED 0 ACRES

ECONOMIC FACTORS  
EPA SEWER CONSTRUCTION INDEX .305E+03  
O&M WAGEOM RATE .750E+01 DOLLARS/HOUR  
INTEREST RATE .663E+01 PERCENT  
CITY MULTIPLIER .114E+01  
DESIGN LIFE 50 YEARS  
YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.105E+07	.921E+06	.105E+07
OVERHEAD(\$)	.105E+06	.921E+05	.105E+06
LAND COST(\$)	.711E+05	.625E+05	.711E+05
CAPITAL COST(\$)	.122E+07	.108E+07	.122E+07
AMORTIZED(\$/YR)	.845E+05	.743E+05	.845E+05
LABOR(MAN-HR/YR)	.413E+03	.413E+03	.413E+03
LABOR COST(\$/YR)	.510E+04	.273E+04	.510E+04
SUPPLY COST(\$/YR)	.195E+05	.171E+05	.195E+05
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.226E+05	.198E+05	.226E+05
AVE ANNUAL(\$/YR)	.107E+06	.941E+05	.122E+06

LAND COST OVERRIDE USED .711E+05  
PERCENT DEPRECIATED 0

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East Side Canal, Part 2 (MD)

1978 WORTH OF	1980 PLANT COST	134490.		
1978 WORTH OF	2020 PLANT SALVAGE	2067.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		47339.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			273321.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		453084.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			32193.	

1978 WORTH OF	1990 PLANT COST	70811.		
1978 WORTH OF	2020 PLANT SALVAGE	4134.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		23059.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			133134.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		222870.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 15836.

1978 WORTH OF	2000 PLANT COST	37283.		
1978 WORTH OF	2020 PLANT SALVAGE	6201.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		10275.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			59324.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		100680.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 7154.

1978 WORTH OF	2010 PLANT COST	19630.		
1978 WORTH OF	2020 PLANT SALVAGE	8268.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		3544.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			20461.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		35367.	

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 2513.

East Side Canal, Part 3 (MD)

OPEN CHANNEL 5  
EAST SIDE CANAL (MD) EARTH-1

TRAPEZOIDAL CHANNEL  
EARTH LINED CHANNEL  
ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
LENGTH OF SIDES .501E+01 FEET  
WIDTH OF CHANNEL AT WATER SURFACE .191E+02 FEET  
WIDTH OF CHANNEL BOTTOM .120E+02 FEET  
CHANNEL CONVEYANCE .195E+00  
MAXIMUM FLOW .129E+03 MGD  
FLOW DURING HIGH PERIOD .129E+03 MGD  
AVERAGE FLOW .129E+03 MGD  
MINIMUM FLOW .129E+03 MGD  
SLOPE .473E-03 FT/FT  
LENGTH .422E+05 FEET  
NORMAL DEPTH AT PEAK FLOW .354E+01 FEET  
VELOCITY AT PEAK FLOW .234E+01 FPS  
VELOCITY AT AVERAGE FLOW .234E+01 FPS  
INITIAL ELEVATION .200E+03 FEET  
FINAL ELEVATION .180E+03 FEET  
TOTAL HEAD INITIAL .204E+03 FEET  
TOTAL HEAD FINAL .184E+03 FEET  
WETTED PERIMETER .220E+02 FEET  
FREEBOARD 0 FEET  
TOTAL CHANNEL PERIMETER .220E+02 FEET  
EARTH MOVED .116E+06 CU YD  
SPECIFIC ENERGY .363E+01 FEET  
FROUDE NUMBER AT PEAK FLOW .219E+00  
MANNINGS N .250E-01  
DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS  
EXCAVATION IN ROCK 0 PERCENT  
WIDTH OF RIGHT OF WAY 0 FEET  
LAND REQUIRED 0 ACRES

ECONOMIC FACTORS  
EPA SEWER CONSTRUCTION INDEX .305E+03  
O&M WAGEOM RATE .750E+01 DOLLARS/HOUR  
INTEREST RATE .663E+01 PERCENT  
CITY MULTIPLIER .114E+01  
DESIGN LIFE 50 YEARS  
YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS	COST IN 1978 DOLLARS	COST IN 1980 DOLLARS	
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980	W/O. % INFLATION
CONSTRUCTION(\$)	.139E+06	.122E+06	.139E+06	
OVERHEAD(\$)	.139E+05	.122E+05	.139E+05	
LAND COST(\$)	.583E+05	.512E+05	.583E+05	
CAPITAL COST(\$)	.211E+06	.186E+06	.211E+06	
AMORTIZED(\$/YR)	.146E+05	.128E+05	.146E+05	
LABOR(MAN-HR/YR)	.396E+03	.396E+03	.396E+03	
LABOR COST(\$/YR)	.297E+04	.261E+04	.297E+04	
SUPPLY COST(\$/YR)	.193E+05	.170E+05	.193E+05	
POWER(\$/YR)	0	0	0	
TOTAL O&M(\$/YR)	.223E+05	.196E+05	.223E+05	
AVE ANNUAL(\$/YR)	.369E+05	.324E+05	.419E+05	

LAND COST OVERRIDE USED .583E+05  
PERCENT DEPRECIATED 0

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East Side Canal, Part 3 (MD)

1978 WORTH OF	1980 PLANT COST	134490.		
1978 WORTH OF	2020 PLANT SALVAGE	2067.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		47339.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			240229.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		419991.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			29842.	

1978 WORTH OF	1990 PLANT COST	70811.		
1978 WORTH OF	2020 PLANT SALVAGE	4134.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		23059.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			117015.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		206750.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			14690.	

1978 WORTH OF	2000 PLANT COST	37283.		
1978 WORTH OF	2020 PLANT SALVAGE	6201.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		10275.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			52141.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		93497.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			6643.	

1978 WORTH OF	2010 PLANT COST	19630.		
1978 WORTH OF	2020 PLANT SALVAGE	8268.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		3544.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			17984.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		32890.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS			2337.	

East Side Canal, Part 4 (MD)

OPEN CHANNEL 6  
EAST SIDE CANAL (MD) EARTH=2

TRAPEZOIDAL CHANNEL

EARTH LINED CHANNEL

ANGLE SIDE MAKES W/HORIZONTAL .450E+02 DEGREES  
 LENGTH OF SIDES .500E+01 FEET  
 WIDTH OF CHANNEL AT WATER SURFACE .101E+02 FEET  
 WIDTH OF CHANNEL BOTTOM .300E+01 FEET  
 CHANNEL CONVEYANCE .277E+01  
 MAXIMUM FLOW .320E+02 MGD  
 FLOW DURING HIGH PERIOD .320E+02 MGD  
 AVERAGE FLOW .320E+02 MGD  
 MINIMUM FLOW .320E+02 MGD  
 SLOPE .237E-03 FT/FT  
 LENGTH .422E+05 FEET  
 NORMAL DEPTH AT PEAK FLOW .354E+01 FEET  
 VELOCITY AT PEAK FLOW .138E+01 FPS  
 VELOCITY AT AVERAGE FLOW .138E+01 FPS  
 INITIAL ELEVATION .180E+03 FEET  
 FINAL ELEVATION .170E+03 FEET  
 TOTAL HEAD INITIAL .184E+03 FEET  
 TOTAL HEAD FINAL .174E+03 FEET  
 WETTED PERIMETER .130E+02 FEET  
 FREEBOARD 0 FEET  
 TOTAL CHANNEL PERIMETER .130E+02 FEET  
 EARTH MOVED .519E+05 CU YD  
 SPECIFIC ENERGY .357E+01 FEET  
 FROUDE NUMBER AT PEAK FLOW .130E+00  
 MANNINGS N .250E-01  
 DESIGNS ASSUME STEADY, UNIFORM FLOW

CONSTRUCTION FACTORS

EXCAVATION IN ROCK 0 PERCENT  
 WIDTH OF RIGHT OF WAY 0 FEET  
 LAND REQUIRED 0 ACRES

ECONOMIC FACTORS

EPA SEWER CONSTRUCTION INDEX .305E+03  
 O&M WAGEOM RATE .750E+01 DOLLARS/HOUR  
 INTEREST RATE .663E+01 PERCENT  
 CITY MULTIPLIER .114E+01  
 DESIGN LIFE 50 YEARS  
 YEAR BUILT 1980 YEAR

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O % INFLATION
CONSTRUCTION(\$)	.621E+05	.546E+05	.621E+05
OVERHEAD(\$)	.621E+04	.546E+04	.621E+04
LAND COST(\$)	.583E+05	.512E+05	.583E+05
CAPITAL COST(\$)	.127E+06	.111E+06	.127E+06
AMORTIZED(\$/YR)	.874E+04	.769E+04	.874E+04
LABOR(MAN-HR/YR)	.293E+03	.293E+03	.293E+03
LABOR COST(\$/YR)	.220E+04	.193E+04	.220E+04
SUPPLY COST(\$/YR)	.135E+05	.119E+05	.135E+05
POWER(\$/YR)	0	0	0
TOTAL O&M(\$/YR)	.157E+05	.138E+05	.157E+05
AVE ANNUAL(\$/YR)	.245E+05	.215E+05	.278E+05

LAND COST OVERRIDE USED .583E+05

PERCENT DEPRECIATED 0

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East Side Canal, Part 4 (MD)

1978 WORTH OF 1980 PLANT COST 60085.  
 1978 WORTH OF 2020 PLANT SALVAGE 823.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 47339.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 192428.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 298929.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 21240.

1978 WORTH OF 1990 PLANT COST 31636.  
 1978 WORTH OF 2020 PLANT SALVAGE 1847.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 23059.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 93731.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 146579.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 10415.

1978 WORTH OF 2000 PLANT COST 16657.  
 1978 WORTH OF 2020 PLANT SALVAGE 2770.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 10275.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 41766.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 65927.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 4684.

1978 WORTH OF 2010 PLANT COST 8770.  
 1978 WORTH OF 2020 PLANT SALVAGE 3694.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 3544.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 14406.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 23025.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1636.

East Side Wellfield (MD)

WELLFIELD 4

TITLE EAST SIDE WELLS (MD)

DESIGN FACTORS

NUMBER OF WELLS IN FIELD	.450E+02	
DEPTH OF DRILLING	.500E+03	FEET
DEPTH TO GROUNDWATER	.180E+03	FEET
DRAWDOWN DURING PUMPING	.500E+01	FEET
HEAD REQUIRED FOR PUMPING	.185E+03	FEET
ANNUAL POWER REQUIREMENT	.108E+07	KWHR
CAPACITY OF PUMPING EQUIPMENT	.126E+04	HORSEPOWER
MAXIMUM FLOW	.390E+02	MGD
AVERAGE FLOW	.270E+02	MGD

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	
DESIGN LIFE	20	YEARS
INTEREST RATE	.663E+01	PERCENT
POWER COST	.500E+01	\$/KWHR
ENR-CC INDEX	.268E+04	
AVERAGE WAGE	.750E+01	\$/HR
CITY MULTIPLIER	.114E+01	
COST TO DRILL ONE WELL	.360E+05	\$
COST FOR PUMPING EQUIPMENT	.960E+05	\$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.726E+07	.638E+07	.726E+07
OVERHEAD(\$)	.726E+06	.638E+06	.726E+06
CAPITAL COST(\$)	.798E+07	.702E+07	.798E+07
AMORTIZED(\$/YR)	.732E+06	.644E+06	.732E+06
LABOR(MAN-HR/YR)	.900E+04	.900E+04	.900E+04
LABOR COST(\$/YR)	.675E+05	.594E+05	.675E+05
SUPPLY COST(\$/YR)	.145E+06	.128E+06	.145E+06
POWER(\$/YR)	.244E+07	.215E+07	.244E+07
TOTAL O&M(\$/YR)	.265E+07	.233E+07	.265E+07
AVE ANNUAL(\$/YR)	.339E+07	.298E+07	.385E+07

PERCENT DEPRECIATED 0.

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East Side Wellfield (MD)

1978 WORTH OF 1980 PLANT COST 7024432.  
 1978 WORTH OF 2000 PLANT COST 1947289.  
 1978 WORTH OF 2020 PLANT COST 539821.  
 1978 WORTH OF 2020 PLANT SALVAGE 539821.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 52479897.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 41451618.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 2945257.

1978 WORTH OF 1990 PLANT COST 3698459.  
 1978 WORTH OF 2010 PLANT COST 1025274.  
 1978 WORTH OF 2020 PLANT SALVAGE 269910.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 15820878.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 20274701.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1440576.

1978 WORTH OF 2000 PLANT COST 1947289.  
 1978 WORTH OF 2020 PLANT COST 539821.  
 1978 WORTH OF 2020 PLANT SALVAGE 539821.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 7049678.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 8996968.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 639260.

1978 WORTH OF 2010 PLANT COST 1025274.  
 1978 WORTH OF 2020 PLANT SALVAGE 269910.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 2431522.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 3186886.  
 AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 226437.

From East Side Pumping Station to Canal (MD)

FORCE MAIN 34  
EAST SIDE FROM PUMP TO CANAL (MD)

DESIGN FACTORS	
NOMINAL PIPE DIAMETER	.840E+02 INCHES
PIPE LENGTH	.100E+04 FEET
MAXIMUM DESIGN FLOW	.260E+03 MGD
HIGH DAY DESIGN FLOW	.260E+03 MGD
AVERAGE DESIGN FLOW	.260E+03 MGD
MINIMUM DESIGN FLOW	.260E+03 MGD
VELOCITY AT MAXIMUM FLOW	.105E+02 FPS
VELOCITY AT AVERAGE FLOW	.105E+02 FPS
VELOCITY AT MINIMUM FLOW	.105E+02 FPS

ENERGY CONSIDERATIONS	
INITIAL ELEVATION	.180E+03 FEET
FINAL ELEVATION	.360E+03 FEET
INITIAL PRESSURE HEAD	0. FEET
FINAL PRESSURE HEAD	-.183E+03 FEET
VELOCITY HEAD	.170E+01 FEET
DESIGN TEMPERATURE	.200E+02 DEG C
KINEMATIC VISCOSITY	.108E-04 FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02 FEET
FRICTION FACTOR	.129E-01 FEET
REYNOLDS NUMBER	.675E+07 FEET
FRICTION HEAD LOSS	.313E+01 FEET
MINOR HEAD LOSSES	0. FEET
TOTAL HEAD LOSSES	.313E+01 FEET
ADDITIONAL HEAD REQUIRED	.183E+03 FEET
THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW	

CONSTRUCTION FACTORS	
DEPTH OF PIPE	.500E+01 FEET
OPEN COUNTRY	.100E+03 PERCENT

ECONOMIC FACTORS	
YEAR CONSTRUCTED	1980 YEARS
DESIGN LIFE	.500E+02 YEARS
INTEREST RATE	.065E+01 PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03 PERCENT
CITY MULTIPLIER	.114E+01
WAGE O&M	.750E+01

	COST SUMMARY		COST IN 1980 DOLLARS BUILT IN 1980	% INFLATION */0.
	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980		
CONSTRUCTION(\$)	.239E+06	.210E+06	.239E+06	
OVERHEAD(\$)	.239E+05	.210E+05	.239E+05	
LAND COST(\$)	.114E+04	.100E+04	.114E+04	
CAPITAL COST(\$)	.263E+06	.232E+06	.263E+06	
AMORTIZED(\$/YR)	.165E+05	.145E+05	.165E+05	
LABOR(MAN-HR/YR)	.106E+00	.106E+00	.106E+00	
LABOR COST(\$/YR)	.791E+00	.696E+00	.791E+00	
SUPPLY COST(\$/YR)	.362E+03	.318E+03	.362E+03	
POWER(\$/YR)	0.	0.	0.	
TOTAL O&M(\$/YR)	.363E+03	.319E+03	.363E+03	
AVE ANNUAL(\$/YR)	.168E+05	.148E+05	.191E+05	

LAND COST OVERRIDE USED	.114E+04
PERCENT DEPRECIATED	0.

From East Side Pumping Station to Canal (MD)

1978 WORTH OF	1980 PLANT COST	230766.		
1978 WORTH OF	2020 PLANT SALVAGE	3547.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		926.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			4447.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS	232592.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		16526.		

1978 WORTH OF	1990 PLANT COST	121502.		
1978 WORTH OF	2020 PLANT SALVAGE	7094.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		451.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			2166.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS	117025.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		8315.		

1978 WORTH OF	2000 PLANT COST	63972.		
1978 WORTH OF	2020 PLANT SALVAGE	10641.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		201.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			965.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS	54498.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		3872.		

1978 WORTH OF	2010 PLANT COST	33682.		
1978 WORTH OF	2020 PLANT SALVAGE	14187.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		69.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			333.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS	19897.		
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		1414.		

East Side Pumping Station (MD)

PUMPING STATION 10

EAST SIDE PUMP STATION (MD)

PUMP HEAD	.183E+03	FEET
PUMP POWER	.139E+05	HORSEPOWER
ELECTRICAL USAGE	.350E+08	KWHR/YEAR
MAXIMUM DESIGN FLOW	.260E+03	MGD
HIGH DAY DESIGN FLOW	.150E+03	MGD
AVERAGE DESIGN FLOW	.100E+03	MGD
MINIMUM DESIGN FLOW	.500E+02	MGD
OVERALL EFFICIENCY	.600E+02	PERCENT
INITIAL ELEVATION	.180E+03	FEET
FINAL ELEVATION	.360E+03	FEET
INITIAL PRESSURE HEAD	0	FEET
FINAL PRESSURE HEAD	.300E+01	FEET
INITIAL TOTAL HEAD	.180E+03	FEET
FINAL TOTAL HEAD	.363E+03	FEET
ECONOMIC FACTORS		
CITY MULTIPLIER	.114E+01	
DESIGN LIFE	20	YEARS
INTEREST RATE	.063E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	
AVERAGE O&M WAGE/O	.750E+01	DOLLARS/HOUR
COST OF ELECTRICITY	.500E-01	DOLLARS/KWHR

COST SUMMARY

	COST IN 1978	COST IN 1978	COST IN 1980
	DOLLARS	DOLLARS	DOLLARS
	BUILT IN 1978	BUILT IN 1980	BUILT IN 1980
			W/O. % INFLATION
CONSTRUCTION(\$)	.353E+07	.311E+07	.353E+07
OVERHEAD(\$)	.353E+06	.311E+06	.353E+06
CAPITAL COST(\$)	.389E+07	.342E+07	.389E+07
AMORTIZED(\$/YR)	.356E+06	.313E+06	.356E+06
LABOR(MAN-HR/YR)	.548E+04	.548E+04	.548E+04
LABOR COST(\$/YR)	.411E+05	.361E+05	.411E+05
SUPPLY COST(\$/YR)	.175E+05	.154E+05	.175E+05
POWER(\$/YR)	.175E+07	.154E+07	.175E+07
TOTAL O&M(\$/YR)	.181E+07	.159E+07	.181E+07
AVE ANNUAL(\$/YR)	.216E+07	.190E+07	.246E+07

PERCENT DEPRECIATED 0.

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East Side Pumping Station (MD)

1978 WORTH OF 1980 PLANT COST 3415461.  
1978 WORTH OF 2000 PLANT COST 946822.  
1978 WORTH OF 2020 PLANT COST 262475.  
1978 WORTH OF 2020 PLANT SALVAGE 262475.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 22184382.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 26546665.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 1886217.

1978 WORTH OF 1990 PLANT COST 1798287.  
1978 WORTH OF 2010 PLANT COST 498515.  
1978 WORTH OF 2020 PLANT SALVAGE 131237.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 10805958.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 12971522.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 921664.

1978 WORTH OF 2000 PLANT COST 946822.  
1978 WORTH OF 2020 PLANT COST 262475.  
1978 WORTH OF 2020 PLANT SALVAGE 262475.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 4815063.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 5761886.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 409399.

1978 WORTH OF 2010 PLANT COST 498515.  
1978 WORTH OF 2020 PLANT SALVAGE 131237.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 1660776.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 2028053.  
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 144099.

East Side Siphons (MD)

FORCE MAIN 35  
EAST SIDE SIPHONS (MD)

DESIGN FACTORS

NOMINAL PIPE DIAMETER	.600E+02	INCHES
PIPE LENGTH	.355E+04	FEET
MAXIMUM DESIGN FLOW	.100E+03	MGD
HIGH DAY DESIGN FLOW	.100E+03	MGD
AVERAGE DESIGN FLOW	.100E+03	MGD
MINIMUM DESIGN FLOW	.100E+03	MGD
VELOCITY AT MAXIMUM FLOW	.788E+01	FPS
VELOCITY AT AVERAGE FLOW	.788E+01	FPS
VELOCITY AT MINIMUM FLOW	.788E+01	FPS

ENERGY CONSIDERATIONS

INITIAL ELEVATION	.120E+03	FEET
FINAL ELEVATION	.110E+03	FEET
INITIAL PRESSURE HEAD	0.	FEET
FINAL PRESSURE HEAD	.456E+00	FEET
VELOCITY HEAD	.964E+00	FEET
DESIGN TEMPERATURE	.200E+02	DEG C
KINEMATIC VISCOSITY	.108E-04	FEET**2/SEC
ROUGHNESS HEIGHT	.100E-02	FEET
FRICTION FACTOR	.139E-01	FEET
REYNOLDS NUMBER	.364E+07	FEET
FRICTION HEAD LOSS	.954E+01	FEET
MINOR HEAD LOSSES	0.	FEET
TOTAL HEAD LOSSES	.954E+01	FEET

THE HEAD LOSSES ABOVE WERE CALCULATED AT MAX FLOW

CONSTRUCTION FACTORS

DEPTH OF PIPE	.500E+01	FEET
OPEN COUNTRY	.100E+03	PERCENT

ECONOMIC FACTORS

YEAR CONSTRUCTED	1980	YEARS
DESIGN LIFE	.500E+02	YEARS
INTEREST RATE	.063E+01	PERCENT
EPA SEWER CONSTRUCTION INDEX	.305E+03	PERCENT
CITY MULTIPLIER	.114E+01	
WAGE O&M	.750E+01	

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980	% INFLATION
CONSTRUCTION(\$)	.511E+06	.449E+06	.511E+06	
OVERHEAD(\$)	.511E+05	.449E+05	.511E+05	
LAND COST(\$)	.405E+04	.356E+04	.405E+04	
CAPITAL COST(\$)	.566E+06	.498E+06	.566E+06	
AMORTIZED(\$/YR)	.353E+05	.310E+05	.353E+05	
LABOR(MAN-HR/YR)	.187E+00	.187E+00	.187E+00	
LABOR COST(\$/YR)	.140E+01	.123E+01	.140E+01	
SUPPLY COST(\$/YR)	.937E+03	.824E+03	.937E+03	
POWER(\$/YR)	0.	0.	0.	
TOTAL O&M(\$/YR)	.939E+03	.826E+03	.939E+03	
AVE ANNUAL(\$/YR)	.362E+05	.318E+05	.412E+05	

LAND COST OVERRIDE USED .405E+04  
PERCENT DEPRECIATED 0.

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East Side Siphons (MD)

1978 WORTH OF	1980 PLANT COST	494262.		
1978 WORTH OF	2000 PLANT COST	137018.		
1978 WORTH OF	2020 PLANT COST	37984.		
1978 WORTH OF	2020 PLANT SALVAGE	37984.		
1978 WORTH OF	LAND USE FROM 1980 TO 2020 IS		3286.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1980 TO 2020 IS			11504.
1978 WORTH OF	ALL COSTS FROM 1980 TO 2020 IS		646070.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		45905.		

1978 WORTH OF	1990 PLANT COST	260235.		
1978 WORTH OF	2010 PLANT COST	72142.		
1978 WORTH OF	2020 PLANT SALVAGE	18992.		
1978 WORTH OF	LAND USE FROM 1990 TO 2020 IS		1601.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 1990 TO 2020 IS			5604.
1978 WORTH OF	ALL COSTS FROM 1990 TO 2020 IS		320590.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		22779.		

1978 WORTH OF	2000 PLANT COST	137018.		
1978 WORTH OF	2020 PLANT COST	37984.		
1978 WORTH OF	2020 PLANT SALVAGE	37984.		
1978 WORTH OF	LAND USE FROM 2000 TO 2020 IS		713.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2000 TO 2020 IS			2497.
1978 WORTH OF	ALL COSTS FROM 2000 TO 2020 IS		140228.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		9964.		

1978 WORTH OF	2010 PLANT COST	72142.		
1978 WORTH OF	2020 PLANT SALVAGE	18992.		
1978 WORTH OF	LAND USE FROM 2010 TO 2020 IS		246.	
1978 WORTH OF	ANNUAL OPERATING COST FROM 2010 TO 2020 IS			861.
1978 WORTH OF	ALL COSTS FROM 2010 TO 2020 IS		54257.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS		3855.		

Carmel Wellfield (MF) 180

WELLFIELD 6  
 TITLE CARMEL WELLS (MF) 180  
 DESIGN FACTORS  
 NUMBER OF WELLS IN FIELD .200E+02  
 DEPTH OF DRILLING .180E+03 FEET  
 DEPTH TO GROUNDWATER .180E+03 FEET  
 DRAWDOWN DURING PUMPING 0 FEET  
 HEAD REQUIRED FOR PUMPING .180E+03 FEET  
 ANNUAL POWER REQUIREMENT .453E+06 KWHR  
 CAPACITY OF PUMPING EQUIPMENT .629E+03 HORSEPOWER  
 MAXIMUM FLOW .200E+02 MGD  
 AVERAGE FLOW .116E+02 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980  
 DESIGN LIFE 25 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 POWER COST .500E-01 \$/KWHR  
 ENR-CC INDEX .268E+04  
 AVERAGE WAGE .750E+01 \$/HR  
 CITY MULTIPLIER .114E+01  
 COST TO DRILL ONE WELL .246E+05 \$  
 COST FOR PUMPING EQUIPMENT .697E+05 \$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/0. % INFLATION
CONSTRUCTION(\$)	.230E+07	.203E+07	.230E+07
OVERHEAD(\$)	.230E+06	.203E+06	.230E+06
CAPITAL COST(\$)	.254E+07	.223E+07	.254E+07
AMORTIZED(\$/YR)	.210E+06	.185E+06	.210E+06
LABOR(MAN-HR/YR)	.400E+04	.400E+04	.400E+04
LABOR COST(\$/YR)	.300E+05	.264E+05	.300E+05
SUPPLY COST(\$/YR)	.461E+05	.405E+05	.461E+05
POWER(\$/YR)	.453E+06	.399E+06	.453E+06
TOTAL O&M(\$/YR)	.530E+06	.466E+06	.530E+06
AVE ANNUAL(\$/YR)	.740E+06	.651E+06	.841E+06

PERCENT DEPRECIATED 0.

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Carmel Wellfield (MF) 180

1978 WORTH OF 1980 PLANT COST 2225371.  
1978 WORTH OF 2005 PLANT COST 447637.  
1978 WORTH OF 2020 PLANT SALVAGE 68407.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 6495979.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9100581.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 646622.

1978 WORTH OF 1990 PLANT COST 1171688.  
1978 WORTH OF 2015 PLANT COST 235687.  
1978 WORTH OF 2020 PLANT SALVAGE 136814.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 3164176.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4434737.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 515101.

1978 WORTH OF 2000 PLANT COST 616910.  
1978 WORTH OF 2020 PLANT SALVAGE 34204.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 1409936.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 1992642.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 141583.

1978 WORTH OF 2010 PLANT COST 324811.  
1978 WORTH OF 2020 PLANT SALVAGE 102611.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 486304.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 708505.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 50341.

Carmel Wellfield (MF) 400

WELLFIELD 7  
 TITLE CARMEL WELLS (MF) 400  
 DESIGN FACTORS  
 NUMBER OF WELLS IN FIELD .200E+02  
 DEPTH OF DRILLING .400E+03 FEET  
 DEPTH TO GROUNDWATER .180E+03 FEET  
 DRAWDOWN DURING PUMPING 0. FEET  
 HEAD REQUIRED FOR PUMPING .180E+03 FEET  
 ANNUAL POWER REQUIREMENT .453E+06 KWHR  
 CAPACITY OF PUMPING EQUIPMENT .629E+03 HORSEPOWER  
 MAXIMUM FLOW .200E+02 MGD  
 AVERAGE FLOW .116E+02 MGD

ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980  
 DESIGN LIFE 25 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 POWER COST .500E-01 \$/KWHR  
 ENR-CC INDEX .268E+04  
 AVERAGE WAGE .750E+01 \$/HR  
 CITY MULTIPLIER .114E+01  
 COST TO DRILL ONE WELL .331E+05 \$  
 COST FOR PUMPING EQUIPMENT .697E+05 \$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 W/O % INFLATION
CONSTRUCTION(\$)	.251E+07	.221E+07	.251E+07
OVERHEAD(\$)	.251E+06	.221E+06	.251E+06
CAPITAL COST(\$)	.276E+07	.243E+07	.276E+07
AMORTIZED(\$/YR)	.229E+06	.202E+06	.229E+06
LABOR(MAN-HR/YR)	.400E+04	.400E+04	.400E+04
LABOR COST(\$/YR)	.300E+05	.264E+05	.300E+05
SUPPLY COST(\$/YR)	.503E+05	.442E+05	.503E+05
POWER(\$/YR)	.453E+06	.399E+06	.453E+06
TOTAL O&M(\$/YR)	.534E+06	.469E+06	.534E+06
AVE ANNUAL(\$/YR)	.763E+06	.671E+06	.867E+06

PERCENT DEPRECIATED 0.

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Carmel Wellfield (MF) 400

1978 WORTH OF 1980 PLANT COST 2428557.  
1978 WORTH OF 2005 PLANT COST 488509.  
1978 WORTH OF 2020 PLANT SALVAGE 74653.  
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 6545006.  
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9387418.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 667003.

1978 WORTH OF 1990 PLANT COST 1278668.  
1978 WORTH OF 2015 PLANT COST 257207.  
1978 WORTH OF 2020 PLANT SALVAGE 149306.  
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 3188056.  
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4574625.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 325040.

1978 WORTH OF 2000 PLANT COST 673236.  
1978 WORTH OF 2020 PLANT SALVAGE 37326.  
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 1420577.  
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2056487.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 146119.

1978 WORTH OF 2010 PLANT COST 354468.  
1978 WORTH OF 2020 PLANT SALVAGE 111979.  
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 489975.  
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 732463.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 52044.

Carmel Wellfield (MF) 900

WELLFIELD 8  
 TITLE CARMEL WELLS (MF) 900  
 DESIGN FACTORS  
 NUMBER OF WELLS IN FIELD .200E+02  
 DEPTH OF DRILLING .900E+03 FEET  
 DEPTH TO GROUNDWATER .180E+03 FEET  
 DRAWDOWN DURING PUMPING 0. FEET  
 HEAD REQUIRED FOR PUMPING .180E+03 FEET  
 ANNUAL POWER REQUIREMENT .453E+06 KWHR  
 CAPACITY OF PUMPING EQUIPMENT .629E+03 HORSEPOWER  
 MAXIMUM FLOW .200E+02 MGD  
 AVERAGE FLOW .116E+02 MGD  
 ECONOMIC FACTORS  
 YEAR CONSTRUCTED 1980  
 DESIGN LIFE 25 YEARS  
 INTEREST RATE .663E+01 PERCENT  
 POWER COST .500E+01 \$/KWHR  
 ENR-CC INDEX .268E+04  
 AVERAGE WAGE .750E+01 \$/HR  
 CITY MULTIPLIER .114E+01  
 COST TO DRILL ONE WELL .448E+05 \$  
 COST FOR PUMPING EQUIPMENT .697E+05 \$

COST SUMMARY

	COST IN 1978 DOLLARS BUILT IN 1978	COST IN 1978 DOLLARS BUILT IN 1980	COST IN 1980 DOLLARS BUILT IN 1980 w/o % INFLATION
CONSTRUCTION(\$)	.280E+07	.246E+07	.280E+07
OVERHEAD(\$)	.280E+06	.246E+06	.280E+06
CAPITAL COST(\$)	.308E+07	.271E+07	.308E+07
AMORTIZED(\$/YR)	.255E+06	.225E+06	.255E+06
LABOR(MAN-HR/YR)	.400E+04	.400E+04	.400E+04
LABOR COST(\$/YR)	.300E+05	.264E+05	.300E+05
SUPPLY COST(\$/YR)	.560E+05	.492E+05	.560E+05
POWER(\$/YR)	.453E+06	.399E+06	.453E+06
TOTAL O&M(\$/YR)	.539E+06	.474E+06	.539E+06
AVE ANNUAL(\$/YR)	.795E+06	.699E+06	.904E+06

PERCENT DEPRECIATED 0.  
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Carmel Wellfield (MF) 900

1978 WORTH OF 1980 PLANT COST 2709147.  
 1978 WORTH OF 2005 PLANT COST 544950.  
 1978 WORTH OF 2020 PLANT SALVAGE 83278.  
 1978 WORTH OF LAND USE FROM 1980 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS 6606288.  
 1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS 9777108.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 694692.

1978 WORTH OF 1990 PLANT COST 1426403.  
 1978 WORTH OF 2015 PLANT COST 286924.  
 1978 WORTH OF 2020 PLANT SALVAGE 166556.  
 1978 WORTH OF LAND USE FROM 1990 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS 3217907.  
 1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS 4764677.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 338544.

1978 WORTH OF 2000 PLANT COST 751021.  
 1978 WORTH OF 2020 PLANT SALVAGE 41639.  
 1978 WORTH OF LAND USE FROM 2000 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS 1433878.  
 1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS 2143260.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 152285.

1978 WORTH OF 2010 PLANT COST 395423.  
 1978 WORTH OF 2020 PLANT SALVAGE 124917.  
 1978 WORTH OF LAND USE FROM 2010 TO 2020 IS 0.  
 1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS 494562.  
 1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS 765068.

AVERAGE ANNUAL COST FROM 1978 TO 2020 IS 54360.

Reservoir Tunnel (MG)

NACIMIENTO-SAN ANTONIO TUNNEL

Length	9000 ft
Diameter	10 ft
Engineering News-Record Index	2680
Interest rate	6.625 percent
Design life	50 years
Construction cost	224+08 dollars

Reservoir Tunnel (MG)

NACIMIENTO-SAN ANTONIO TUNNEL

YEAR?1980

1978 WORTH OF 1980 PLANT COST	21673179.	
1978 WORTH OF 2020 PLANT SALVAGE	333113.	
1978 WORTH OF LAND USE FROM 1980 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1980 TO 2020 IS		0.
1978 WORTH OF ALL COSTS FROM 1980 TO 2020 IS	21340067.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	1516273.	

YEAR?1990

1978 WORTH OF 1990 PLANT COST	11411224.	
1978 WORTH OF 2020 PLANT SALVAGE	666225.	
1978 WORTH OF LAND USE FROM 1990 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 1990 TO 2020 IS		0.
1978 WORTH OF ALL COSTS FROM 1990 TO 2020 IS	10744999.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	763463.	

YEAR?2000

1978 WORTH OF 2000 PLANT COST	6008165.	
1978 WORTH OF 2020 PLANT SALVAGE	999338.	
1978 WORTH OF LAND USE FROM 2000 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2000 TO 2020 IS		0.
1978 WORTH OF ALL COSTS FROM 2000 TO 2020 IS	5008827.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	355892.	

YEAR?2010

1978 WORTH OF 2010 PLANT COST	3163381.	
1978 WORTH OF 2020 PLANT SALVAGE	1332450.	
1978 WORTH OF LAND USE FROM 2010 TO 2020 IS	0.	
1978 WORTH OF ANNUAL OPERATING COST FROM 2010 TO 2020 IS		0.
1978 WORTH OF ALL COSTS FROM 2010 TO 2020 IS	1830930.	
AVERAGE ANNUAL COST FROM 1978 TO 2020 IS	130093.	