APPENDIX F

CAPACITY OF EXISTING WWTP TREATMENT UNITS
### Design Data for the City of Woodland Existing Wastewater Treatment Plant

   4,380

2. Sewage Quantity  
   Design Flow  
   Minimum Flow  
   Maximum Flow  
   0.48 MGD  
   0.24 MGD  
   1.20 MGD

3. Design Loading  
   BOD  
   Suspended Solids  
   800 LB/DAY  
   880 LB/DAY

4. Design Efficiency  
   BOD  
   Suspended Solids  
   85-90%  
   85-90%

5. HYCOR  
   Number  
   Capacity  
   1  
   2.5 MGD

6. Grit Removal  
   Number  
   Type  
   Volume  
   Air Required  
   1  
   Aerated Grit Chamber  
   700 CF  
   26-35 SCFM

7. Degritting Equipment  
   Number  
   Type  
   Capacity  
   Estimated Quantity, Average  
   1  
   Cyclone and Classifier  
   200 GPM  
   1.83 CF/DAY

8. Primary Clarifier  
   Number  
   Diameter  
   Side Water Depth  
   Overflow Rate  
   Average  
   Peak  
   Weir Loading  
   Average  
   Peak  
   BOD Removal  
   1  
   28 FT  
   8.6 FT  
   780 GPD/SF  
   1,950 GPD/SF  
   5,460 GPD/LF  
   13,645 GPD/LF  
   33%

9. Submerged Biological Contactor  
   Number  
   Length Each Unit  
   Stages per Unit  
   Stage 1 Media Surface Area  
   Stage 2 & 3 Media Surface Area  
   Total Media Surface Area  
   1  
   25.33 FT  
   3  
   148,500 SF  
   68,600 SF  
   285,700 SF
10. Rotating Biological Contactor Units
   Number 2
   Length Each Unit 20 FT
   Stages per Unit 3
   Stage 1 Media Surface Area per Unit 32,500 SF
   Stage 2 & 3 Media Surface Area per Unit 16,250 SF
   Total Media Surface Area per Unit 65,000 SF

11. SBC and RBC Maximum BOD Loading (Running in Series)
   Total First Stage Media Surface Area 148,500 SF
   Total Media Surface Area of all Stages 415,700 SF
   Total BOD
      First Stage 743 LB/DAY
      Overall 831 LB/DAY
   Soluble BOD
      First Stage 371 LB/DAY
      Overall 457 LB/DAY

12. Secondary Clarifier
   Number 1
   Diameter 32 FT
   Side Water Depth 12 FT
   Overflow Rate
      Average 600 GPD/SF
      Peak 1,492 GPD/SF
   Weir Loading
      Average 4,752 GPD/LF
      Peak 11,881 GPD/LF

13. Disinfection Facilities
   a. Contact Basin
      Volume 2,480 CF
      Detention Time @ Design Flow 60 MIN
      Detention Time @ Maximum Flow 24 MIN
   b. Chlorinators
      Number 2
      Feed Capacity of Each, Maximum 50 LB/DAY
      Feed Capacity of Each, Minimum 2.5 LB/DAY
      Control Flow Proportional

14. Secondary Sludge
    Number of Pumps/Capacity 1/75 GPM
    Estimated Quantity @ Design Flow (Dry Rate) 500 LB/DAY
    Estimated Solids Concentration 2%
    Estimated Quantity (Wet Rate) 3,000 GPD

15 Primary Sludge
    Estimated Quantity @ Design Flow (Dry Rate) 530 LB/DAY
    Estimated Volatile Content 70%
16. Thickened Sludge
   Number Pumps/Capacity 1/75 GPM
   Estimated Solids Concentration 4%
   Estimated Quantity to Digester (Wet Rate) 3,000 GPD
   Volatile solids to Digester (Dry Rate) 740 LB/DAY

17. Sludge Digester
   Type Aerobic
   Number 1
   Diameter 26 FT
   Maximum Side Water Depth 17.5 FT
   Volume 10,000 CF
   Hydraulic Detention Time 25 DAY
   Solids Loading 0.074 LB VS/DAY/CF
   Air Required 385 SCFM
   Air Rate 38.5 SCFM/1,000 CF

18. Air Blowers
   Aerobic Digester Blowers
      Number 2
      Capacity of Each @ 8 psi 420 SCFM
   SBC Blowers
      Number 2
      Capacity of Each @ 8 psi 290 SCFM

19. Sludge Disposal
   Hauling
      Capacity Tank Truck 3,400 GAL
      Ultimate Disposal land

20. Effluent Pumps
   Number 2
   Capacity of Each, Present 650 GPM
   Capacity of Each, Future 950 GPM

21. Outfall Line
   Diameter 16 IN with 10 IN Reducer
   Length 940 FT

22. Receiving Water
   River Lewis
   Class A (excellent)
   Minimum Flow 789 CFS