

WWTP PERFORMANCE SUMMARY

The following table (Table IV-7) summarizes the number of times each parameter has exceeded the NPDES Permit limit from July, 1996 through June, 1998.

Table IV-7. Summary of WWTP Performance Regarding NPDES Permit Compliance.			
Parameter	# of Violations (Time of Occurrence)		
	Daily	Weekly Avg.	Monthly Avg.
Flow	NA	NA	4 (12/96 - 3/97)
BOD (mg/L)	NA	0	0
BOD (lbs/day)	NA	1 (1/1/97)	1 (1/97)
BOD Removal (%)	NA	NA	0
TSS (mg/L)	NA	0	0
TSS (lbs/day)	NA	0	0
TSS Removal (%)	NA	NA	0
pH	0	NA	NA
Fecal Coliforms (#/100 mL)	NA	0	0

The four flow violations occurred during high groundwater conditions that occurred from December, 1996 through March, 1997. Past flow records prior to these high groundwater level conditions show no other occurrences of permit violations. The BOD discharged (lbs/day) violated NPDES Permit limits one time on a weekly average, and one time on a monthly average. These BOD discharge violations may be attributed to the high volume of flow measured during the flow violations, and a corresponding BOD concentration in the effluent that may have not yet been diluted by the high influent flows.

BIOSOLIDS (SLUDGE) TREATMENT AND DISPOSAL

The Woodland Wastewater Treatment Plant uses aerobic digestion to treat their sludge. The sludge from the secondary clarifier is returned to the headworks with a 75 gpm Moyno sludge pump. The secondary sludge then mixes with the influent raw sewage and settles, along with the raw sewage, in the primary clarifier. The combined primary clarifier and "secondary clarifier" sludge is subsequently wasted to the aerobic digester with a 75 gpm Moyno sludge pump. The digester is equipped 2 Sutro-Belt 25 HP blowers which provides course air

diffusion to the digester 24 hours a day. A 250 gpm “trash” pump is used to pump digested sludge into a tank truck for hauling.

The plant was originally constructed with sludge drying beds. However, due to odor control problems, sludge from the digester has been pumped directly into a tank truck for direct disposal. This mode of sludge disposal has been used for about 2 ½ years, and the sludge beds have been paved over since that time. Final disposal of digested sludge is to a tree farm approved for sludge disposal, and to a lagoon for agricultural application.

A summary of data on sludge characteristics in the digester, the amount of sludge pumped to the digester, and the amount of sludge disposed is presented in Table IV-8 (values are given as monthly averages). As shown in Table IV-8, the existing digester only provides 30.7% of VSS. EPA's 503 Regulations requires a minimum of 38% VSS reduction for acceptable levels of vector attraction.

Table IV-8. Biosolids Data Summary Wasted from Digester.				
Month	Sludge Wasted (gpd)	% Total Solids (by wt.)	VSS:TSS Ratio	VSS Reduction (%)
Jul-97	6690	1.39	0.755	15.1%
Aug-97	4471	1.22	0.731	26.9%
Sep-97	7307	1.13	0.739	18.7%
Oct-97	7168	1.17	0.725	28.2%
Nov-97	5400	1.19	0.746	23.8%
Dec-97	6000	1.07	0.746	35.1%
Jan-98	5419	1.09	0.772	18.0%
Feb-98	5271	1.18	0.726	39.1%
Mar-98	7471	1.00	0.750	31.4%
Apr-98	5760	1.16	0.746	32.9%
May-98	4703	1.43	0.708	42.4%
Jun-98	4227	1.44	0.658	57.2%
Average	5824	1.21	0.734	30.7%

SEWER SYSTEM OPERATION AND MAINTENANCE COSTS

The 1998 sewer system operation and maintenance costs appropriated by the City are summarized below on Table IV-9. The cost includes approximately \$25,400 in debt services for the 1993 WWTP upgrade. In 2001, an additional \$41,833 per year will be needed to begin paying on the sewer system expansion into the industrial park. The City is established a ULID and System Development Charges (SDC) to insure the cost is paid by the industrial park users. The customer rate structure, presented in Resolution No. 401, is provided in Appendix G.

Table IV-9. 1998 Sewer Operation & Maintenance Budget.	
Item	Cost
Salaries & Wages (S & W)	\$132,110
Personal Benefits Based On Percent of S&W	\$44,917
Office Supplies	\$4,000
Operating Supplies (general)	\$5,000
Operating Supplies (WWTP)	\$21,800
Telephone & Postage	\$1,500
Fuel Consumed	\$4,500
Professional Services (Legal & Engineering)	\$10,000
Intergovernmental Services	\$2,000
Communications	\$9,000
Travel	\$1,500
Insurance	\$7,500
Utilities	\$25,000
Repairs & Maintenance (general)	\$85,000
Repairs & Maintenance (WWTP)	\$87,000
Miscellaneous	\$1,500
Rents/Lease (City Shop)	\$701
Tax on Sewers	\$9,479
Existing Debt Service (PWTF Loan)	\$25,424
Existing Debt Service (CERB Loan)	\$0
	Total Expenditures \$477,931

SEWER USE CODE AND SERVICE AREA POLICIES

Sewer use and service area policies are provided in City of Woodland Municipal Code Title 13 Water and Sewage, 1998. All regulations for the use for the sewer system are contained in the code. The sewer use codes that apply to all users are found in the following chapters:

- Chapter 13.08. Sewer Service Rates and Regulations.
- Chapter 13.10. Sewer Works Design Criteria.
- Chapter 13.12. Sewer Construction and Use.
- Chapter 13.16. Utility Service Outside the City Limits.
- Chapter 13.20. Extension of Water and Sewer Lines.
- Chapter 13.24. Sewer and Water System Development Charges.

Resolution No. 401 sets the sewer service rates, assessment and inspection charges effective February 16, 1998. City of Woodland Policy No. 98-01 provides an implementation guideline on allocation of sewer capacity as a result of DOE's issuance of Administrative Order DE 98 WQ-S122 (amended April 7, 1998). The Administrative Order limits the authority of the City to authorize new sewer extension, connections and waste load increases from industrial or commercial sources until such time as new capacity has been created. A copy of these policies are included in Appendix G.

The service area policy is dictated by the City's Urban Growth Area (UGA) as defined in the City's Comprehensive Plan. The City has agreements with both Clark County and Cowlitz County to provide urban services for new development within designated urban growth areas within the respective Counties. The combined areas embody the City of Woodland's UGA. Central sewer and water, stormwater facilities, utilities, telecommunications lines, and local roads are to be extended for development, within the UGA, according to City standards.