

## **Attachment C-7**

### **Annual Budget Targets and Adjustment Methods**

*As Amended -- May 20, 2002*

The WWP intends to perform the services that it directly controls for a fixed cost (as adjusted for inflation) for the term of this Pilot Program. Costs that are beyond the control of the WWP shall be subject to an annual adjustment. Table C-7.1 contains the WWP's annual budget targets. The WWP's annual budget targets in the table are based upon Year 2000 budget conditions and an assumed inflation rate of 3 percent. The annual budget targets are then adjusted for estimated business plan savings, assumptions for operating costs of new facilities (Table C-7.2), and productivity investment costs. Table C-7.3 lists the assumptions and conditions that will form the basis for annual adjustments to the WWP's annual budget targets. Factors beyond the WWP's control that may result in adjustments to the estimated cost are:

- Influent quantity (represented by RCEs)
- Septage quantity treated
- High strength industrial waste quantity treated
- Chemical unit prices
- Electricity unit prices
- Inflation
- Changes in contracts for which services are purchased
- Changes in fiscal policy
- Changes to what is considered "inside the fence" of the WWP
- Load adjustments as indicated by certain non-rate revenues
- Uncontrollable circumstances or changes in the WWP scope of services

The level of treatment activity as often expressed in terms of load, can affect the amount of non-rate revenue and the budget targets. Load adjustments occur where cost recovery is used to bill customers and changes in revenues reflect the increased or decreased costs to the WWP. For example, the WWP operates a co-generation facility that produces electricity from digester gas and then sells the electricity to the local utility. The revenues are used to reduce the rates. Other similar revenue generating activities include the sale of biogas revenues.

The costs associated with the generation of these additional revenues are included in the WWP's annual budget targets. To assure that these revenues are maximized, and that operational cost savings are not achieved to the detriment of revenues, an annual adjustment will be made to WWP's annual budget targets to reflect changes in these revenues as compared to the level of revenues in the base year. This adjustment provides the incentive to the WWP to increase operating costs if the increase can be justified by the increased

revenues. Conversely, if the WWP reduces its operating costs to the detriment of revenues the WWP will not recognize a benefit because the adjustment will reduce the adjusted annual budget targets.

During the term of this Pilot Program the WWP will perform its services at a cost that does not exceed the adjusted annual budget targets as determined in accordance with this attachment. Once annual performance and financial data is available to the WWP such data shall be used to calculate the adjusted annual guaranteed cost for the previous year in accordance with the following formula:

### **Adjusted Annual Budget Target Formula**

Adjusted Annual Budget Target = Year<sub>20XX</sub> Annual Budget Target for the Wastewater Program (per Table C-7.1) plus each of the following adjustment factors;

- 1) Inflation adjustment to correct assumed budget target annual inflation of 3% per year to actual. Electrical Power, Chlorine, Bisulfite and Polymer are excluded from the calculation as they are adjusted for price escalation separately in section 2);

$$\begin{aligned}
 & \text{a) } (((\text{Year}_{20XX} \text{ Annual Budget Target per Table C-7.1} - \text{CYIF} * (\text{Sum of} \\
 & \text{Year}_{2000} \$ \text{ for Electrical Power, Chlorine, Bisulfite and Polymer})) * (\text{CCOLA} - \\
 & \text{CYIF})) * (\text{Labor Factor})) + \\
 & (((\text{Year}_{20XX} \text{ Annual Budget Target per Table C-7.1} - \text{CYIF} * (\text{Sum of Year}_{2000} \$ \\
 & \text{for Electrical Power, Chlorine, Bisulfite and Polymer})) * (\text{CPI}_{20XX}/\text{CPI}_{2000} - \\
 & \text{CYIF})) * (\text{Non Labor Factor}))
 \end{aligned}$$

Where:

Sum of Year<sub>2000</sub> \$ for Electrical Power, Chlorine, Bisulfite and Polymer = \$9,880,920

CYIF = the Cumulative Current Year Inflation Factor estimated at 3 percent per year (per Table C-7.4)

CCOLA = the Cumulative Cost of Living Adjustment Factor (per Table C-7.4)

CPI = CPI-U US City Average

$\text{CPI}_{20XX}/\text{CPI}_{2000} = \text{CCPI}$

CCPI = the Cumulative Consumer Price Index Factor (per Table C-7.4)

Labor Factor = 0.53

Non Labor Factor = 0.47

2) Unit price adjustments for Electrical Power, Chlorine, Bisulfite and Polymer;

a) Backout inflation adjustments built into Table C-7.1 for Electrical Power and Chemicals = ( - (CYIF - 1) \* (Sum of Year<sub>2000</sub> \$ for Power, Chlorine, Bisulfite and Polymer))

b) Power cost adjustment = (Year<sub>2000</sub> Power \$) \* (Unit Power Cost<sub>20xx</sub> / Unit Power Cost<sub>2000</sub> - 1)

c) Chlorine cost adjustment = (Year<sub>2000</sub> Chlorine \$) \* (Unit Chlorine Cost<sub>20xx</sub> / Unit Chlorine Cost<sub>2000</sub> - 1)

d) Bisulfite cost adjustment = (Year<sub>2000</sub> Bisulfite \$) \* (Unit Bisulfite Cost<sub>20xx</sub> / Unit Bisulfite Cost<sub>2000</sub> - 1)

e) Dewatering Polymer cost adjustment = (Year<sub>2000</sub> Dewatering Polymer \$) \* (Unit Dewatering Polymer Cost<sub>20xx</sub> / Unit Dewatering Polymer Cost<sub>2000</sub> - 1)

f) Thickening Polymer cost adjustment = (Year<sub>2000</sub> Thickening Polymer \$) \* (Unit Thickening Polymer Cost<sub>20xx</sub> / Unit Thickening Polymer Cost<sub>2000</sub> - 1)

3) Load adjustments for Electrical Power, Chlorine, Bisulfite, Polymer and Biosolids based upon change in Residential Customer Equivalents (RCE's) served;

a) Power load adjustment = (Year<sub>2000</sub> Power \$ / Unit Power Cost<sub>2000</sub>) \* (RCE<sub>20xx</sub> / RCE<sub>2000</sub> - 1) \* (Unit Power Cost<sub>20xx</sub>) \* (Marginal Power Demand Factor)

Where: Marginal Power Demand Factor =

South Plant = 0.46

West point = 0.27

East Offsite = 1.0

West Offsite = 1.0

The Marginal Power Demand Factor reduces the power load adjustment by the percentage of plant power demand which is unaffected by changes in plant loading.

b) Chlorine load adjustment = (Year<sub>2000</sub> Chlorine \$ / Unit Chlorine Cost<sub>2000</sub>) \* (RCE<sub>20xx</sub> / RCE<sub>2000</sub> - 1) \* (Unit Year<sub>20xx</sub> Chlorine Cost<sub>20xx</sub>)

c) Bisulfite load adjustment = (Year<sub>2000</sub> Bisulfite \$ / Unit Bisulfite Cost<sub>2000</sub>) \* (RCE<sub>20xx</sub> / RCE<sub>2000</sub> - 1) \* (Unit Bisulfite Cost<sub>20xx</sub>)

d) Dewatering Polymer load adjustment = (Year<sub>2000</sub> Dewatering Polymer \$ / Unit Dewatering Polymer Cost<sub>2000</sub>) \* (RCE<sub>20xx</sub> / RCE<sub>2000</sub> - 1) \* (Unit Dewatering Polymer Cost<sub>20xx</sub>)

e) Thickening Polymer load adjustment =  $(\text{Year}_{2000} \text{ Thickening Polymer } \$ / \text{Unit Thickening Polymer Cost}_{2000}) * (\text{RCE}_{20xx} / \text{RCE}_{2000} - 1) * (\text{Unit Thickening Polymer Cost}_{20xx})$

f) Variable Biosolids Management Costs load adjustment =  $(\text{Year}_{2000} \text{ Variable Biosolids Management } \$ / \text{Unit Variable Biosolids Management Costs}_{2000}) * (\text{RCE}_{20xx} / \text{RCE}_{2000} - 1) * (\text{Unit Variable Biosolids Management Costs}_{20xx})$

4) Load adjustment =  $\text{Year}_{20xx} \text{ Revenue } \$ - \text{Year}_{2000} \text{ Revenue } \$$   
 (note: this load adjustment will need more detail, per changes in spreadsheet)

5) Odor Control adjustment =  $\text{Year}_{20xx} \text{ Odor Control } \$ - \text{Year}_{2000} \text{ Odor Control } \$$

Note: These equations are to be repeated for each category (eg. West Point Power, South Plant Power, West Offsite Power, East Offsite Power, etc.) as shown in Table C-7.3.

**Table C-7.1**  
**WWP Annual Budget Targets\***  
 (expressed in millions of dollars)

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>Budget Target</b>	60.76	61.64	60.62	60.05	60.31
<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
62.19	64.48	66.23	68.08	70.04	72.08

\*This estimate is for the WWP as defined in the Pilot Program Plan. It includes an assumed 3 percent annual inflation factor, estimates of operating costs for future facilities outlined in Table C-7.4 and odor chemical control costs. The actual figure for annual targets will be based on adjustments realized each year.

**Table C-7.2**  
**Assumptions for Additional Operating Costs of New Facilities\***  
**2001 - 2009**

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Estimated Increased O &amp; M cost</b>	\$68,740	\$557,950	\$706,280	\$779,020	\$1,439,488
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
	\$1,482,670	\$1,527,150	\$1,572,970	\$1,620,160	Not estimated

\*These estimates include an increase for inflation of 3 percent and are based new facilities planned in the RWSP. Periodic review of actual labor costs may be needed to serve new facilities as they are brought into production.

**Table C-7.3**  
**Assumptions and Conditions for Annual Adjustments to the Annual Budget Targets**

Year 2000 RCE's	697,750
Year 2000 High Strength Surcharge Revenue	\$1,682,058
Yeqr 2000 Septage Revenue	\$1,560,523
Year 2000 Industrial Waste Fee Revenue (monitoring & permitting)	\$1,449,114
Year 2000 Cogeneration Revenue \$	\$238,015
Year 2000 Methane Revenue \$	\$331,032
Year 2000 Variable Biosolids Management \$	\$4,229,034
Year 2000 Biosolids haul/application rate	\$22.84/ton haul cost, 9.32/ton application rate
Year 2000 West Chlorine Unit Cost \$/ton budget assumptions	\$442.58 plus 8.4% tax.
Year 2000 West Chlorine Adopted Budget \$	\$322,393
Year 2000 West Bisulfite Unit Cost \$/ton	\$1.09224 per gallon, includes sales & hazardous materials tax
Year 2000 West Bisulfite Adopted Budget \$	\$247,769
Year 2000 South Chlorine Unit Cost \$	\$375.15/ton
Year 2000 South Chlorine Adopted Budget \$	\$202,580
Year 2000 West Dewatering Polymer Unit Cost \$/lb active	\$0.491/lb. of neat polymer, plus tax 8.6%. approx. 31% active. (new contract 1/1/01)
Year 2000 West Dewatering Polymer Adopted Budget \$	\$1,369,693
Year 2000 South Dewatering Polymer Unit Cost \$/lb active	\$1.35/lb active, plus tax 8.6%
Year 2000 South Dewatering Polymer Adopted	\$425,500

Budget \$	
Year 2000 West Thickening Polymer Unit Cost \$/lb active	Assumed \$1.49 per pound, active, plus 8.6% tax until 9/22/00. Contract can then be allowed to expire or extended. Assumed an extension at a 5% increase.
Year 2000 West Thickening Polymer Adopted Budget \$	\$274,699
Year 2000 South Thickening Polymer Unit Cost \$/lb active	\$1.35/lb active, plus tax 8.6%
Year 2000 South Thickening Polymer Adopted Budget \$	\$167,942
Year 2000 Adopted Labor Budget \$	West Operations, adopted budget labor & benefits = \$5,501,018 South Operations, adopted budget labor & benefits = \$6,531,791 Maintenance, adopted labor and benefits = \$8,380,337 Environmental Lab, adopted labor & benefits = \$4,847,609 Industrial Waste, adopted labor & benefits = \$1,282,556 Remaining WWP, adopted labor & budget = \$6,981,510
Year 2000 Odor Control Chemical Adopted Budget \$	West Point & West Offsite: \$323,511 (\$331,814 actual) East Operations: \$179,000
Year 2000 Total O & M Adopted Budget \$	West Point Operating = \$12,486,407 South Operations = \$13,238,379 (does not include the \$8 million 12/00 energy supplemental) Maintenance = \$13,113,845
Year 2000 West Plant Power Rate \$/kwh	Assumed \$0.035
Year 2000 West Plant Power Adopted Budget \$	\$2,045,737
Year 2000 South Plant Power Rate \$/kwh	Assumed \$0.040
Year 2000 South Plant Power Adopted Budget \$	\$2,847,812 (does not include the \$8 million 12/00 energy supplemental)
Year 2000 West offsite Power Rate \$/kwh	\$0.042
Year 2000 West offsite Power Adopted Budget \$	\$854,592
Year 2000 South Offsite Power Rate \$/kwh	\$0.0643
Year 2000 South Offsite Power Adopted Budget \$	Pump crew: \$1,100,977 Alki: \$21,226

**Table C-7.4**  
**Cumulative Current Year Inflation Factor (CYIF)**  
**Cumulative Consumer Price Index Factor (CCPI)**  
**Cumulative Cost of Living Adjustment Factor (COLLA)**  
**Table based on 3% increase per year except where actual values are known**

	2000	2001	2002	2003	2004
<b>CYIF</b>	1.0	1.03	1.0609	1.0927	1.1255
2005	2006	2007	2008	2009	2010
1.1593	1.1941	1.2299	1.2668	1.3048	1.3439
	2000	2001	2002	2003	2004
<b>CCPI</b>	1.0	1.0285*	1.0594	1.0911	1.1239
2005	2006	2007	2008	2009	2010
1.1576	1.1923	1.2281	1.2649	1.3029	1.3420
	2000	2001	2002	2003	2004
<b>COLLA</b>	1.0	1.0311*	1.0550*	1.0867	1.1193
2005	2006	2007	2008	2009	2010
1.1528	1.1874	1.2230	1.2597	1.2975	1.3364

**\*Actual**