

## Water Utility Service

The differences in the determinations of the utility construction costs applicable to the DOC (NECC) and the City of Bowling Green are illustrated in a table prepared by the DOC, Office of Administration. The Office of Administration related applicable charges strictly to items in the contract with the City and did not find justification for the additional items claimed by the City in its invoice.

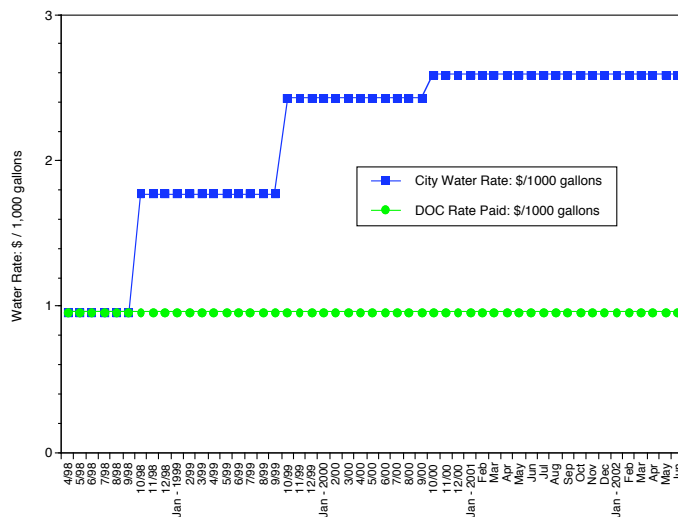
From this accounting, it appears that the DOC believed that the amount initially appropriated by the State fully covered the costs of upgrading the utilities to provide basic water and wastewater service to the NECC. No correspondence or documentation from the City of Bowling Green was found to support the inclusion of the additional items.

Contract Section	Description	DOC, Off. Admin.	Bowling Green	Reason for Difference?
11b1 & 12b	Water Upgrades	\$991,492.09	\$1,035,207.22	?
11b2 & 12c	NW Water Tower	\$193,778.54	\$213,228.24	Increased cost due to Mascot logo
11b3 & 12d	Main to NW Tower	\$505,732.96	\$645,664.74	Hydrants added along route
11d & 12f	Wastewater System	\$2,521,849.77	\$2,668,529.48	Extensions for future customers
?	Main WTP to Champ Clark	-	\$161,994.12	?
?	Main Champ Clark to old WTP	-	\$199,607.78	?
?	Raw Pump Station	-	\$161,467.00	?
?	Negotiations	-	\$14,842.61	?

Accordingly, the DOC denied payment of utility invoices which included charges for interest and principal on any portion of the revenue bonds issued by the City. Alternately, the City accumulated those charges based on their estimate of \$1,253,186.84 due from the State. Annually, the City added these charges to the NECC utility rates.

Over three years, the water rates charged by the City increased from \$0.96 to \$2.59/1,000 gallons. The payments for water from the State remained rooted at \$0.97/1,000 gallons, presumably, based on DOC administration's belief that credible justification for the City's rate increases had not been provided.

As of July 2002, the State reluctantly agreed to rates of \$3.57/1,000 gallons for water and \$2.53/1,000 gallons for wastewater although they were "noticeably higher than the rates for similar utilities in the region." "Unwarranted charges" were removed.



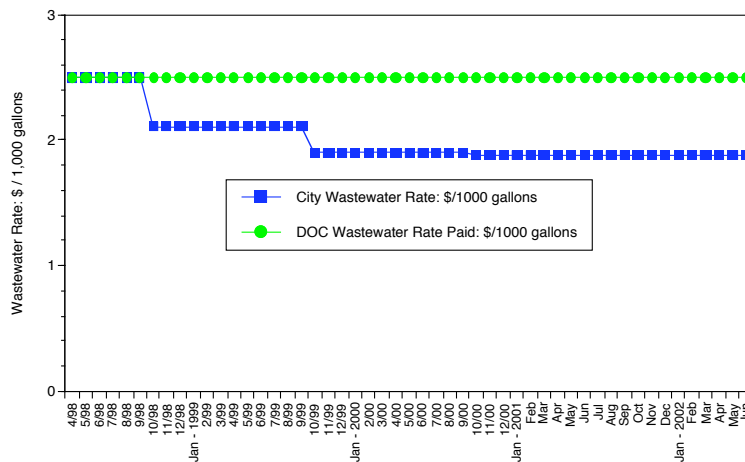
## Wastewater Utility Service

As shown below, the rates charged NECC for wastewater treatment and disposal, initially set at \$2.50/1,000 gallons, appeared to decline stepwise to \$1.88/1,000 gallons over three years. This was primarily because “Debt service charges for (the) wastewater treatment facility (were) adjusted from \$0.66 per one thousand gallons to \$0.00”. (Joseph Smith letter to Dave Wehmeyer, November 1, 1999.).

While about 60% of the utility project costs applied to the construction of new wastewater facilities, the debt service for NECC water and wastewater utilities service was allocated solely to water service. Taken together, there was a net increase in combined water and wastewater rates of \$0.87/1,000 gallons for the year 1999 as the City’s water rate for NECC was adjusted from \$0.96 to \$2.43/1,000 gallons.

Since, by contract, the water charges were based on a minimum usage of 260,000 gallons/day, this would effectively increase the daily cost of water delivered to NECC from \$271 to \$632. (Initial actual use by NECC was 185,000 gallons per day (gpd).)

Based on a 260,000 gpd minimum, the DOC continued to pay at the initially established rate of \$2.50/1,000 gallons for wastewater treatment services as well as the \$0.96/1,000 gallons rate for water.



By July 2001, the City’s projected rates for 2002 had increased to \$2.93/1,000 gallons for water and \$2.16/1,000 gallons for wastewater. The latter was a 17% increase over the previous year in which the debt service on wastewater was reduced to zero. At that time, the City also contended that it was owed a total of \$292,060.60 in arrears for debt service. As of July 2002, DOC and Bowling Green had agreed on a wastewater rate of \$2.53/1,000 gallons.

## City Utilization of SBR Facilities

As of 1998, the City was operating a two-cell aerated lagoon for treatment of wastewater (400,000 gpd capacity) from approximately 3,500 residents (1,389 connections). Alternately, the new 750,000 gpd design capacity sequencing batch reactor (SBR) system, constructed at 100% cost to NECC, was operating at an estimated one-third capacity; possibly one-quarter if actual NECC wastewater production is considered.

Facing a shortage of lagoon treatment capacity as well as increasing adverse effects of ‘inflow and infiltration’ into the wastewater collection system, the City now plans to utilize the SBR facility. In the spring of 2004, the City will replace leaking and broken sewers, repair sewage lift stations, decommission their lagoons, install a new lift station at the lagoon site and construct a force main between the lagoon site and the SBR treatment facility. Incorporation of these additional hydraulic flows from the City could reduce the proportion of the SBR facility utilized by NECC to much less than half.

Considering the substantial change in utilization of the SBR facility, the State may wish to seek changes in the rate NECC is charged for wastewater treatment. Commonly, the proportions of hydraulic and BOD loadings are used to allocate treatment processing costs. Moreover, since roughly 60% of the State's capital contribution was for construction of the wastewater treatment facility, the proportionate costs attributable to debt service or capitalization would be greatly reduced.

#### Calculation of Rates: Independent Accountant's Report

In a report dated, June 9, 2002, David, Lynn & Moots (DLM), P.C., Certified Public Accounts, submitted a report to Bowling Green in which they had calculated the "water and sewer rate for the year ending June 30, 2004 (at) \$9.18 per thousand gallons." In addition to the 'basic' water and sewer rates calculated from the projected costs of operation and maintenance of the two systems, this rate included the State's share of the project "debt service on the Series 1996 revenue bond issue".

Major components of the FY 2003 projected rate were *debt service* and *O&M for water distribution*. The first of these, as indicated, was unresolved. Moreover, the costs of distribution system operation and maintenance might, more appropriately, be allocated on the basis of the actual proportionate amounts of distribution piping and storage.

On June 9, 2003, DLM prepared a similar report for FY 2004. While all costs were projected to increase, projected rates decreased to \$7.82/1,000 gallons because the item for the State's *debt share* had been deleted. However, items for *depreciation* were still included as part of the costs of each of the utility system components. The percent of total costs attributed to depreciation are appended to the following tables of DLM rate calculations.

Projected Expense for FY 2003-2004	Est. Cost, \$	% Deprec.	Rate: \$/1,000 gallons
Projected Sequence Batch Reactor Expenses:	307,900	29.7	3.24
Projected Operating and Maintenance Costs for Lake	31,427	80.7	0.13
Pumping and Purification	412,760	10.2	1.73
Water Distribution	365,624	55.5	1.54
			3.40
Capital Component (Debt Service)			2.54
Total Annual Water and Sewer Rate			<u>9.18</u>

Projected Expense for FY 2004-2005	Est. Cost, \$		Rate: \$/1,000 gallons
Projected Sequence Batch Reactor Expenses:	361,431	29.7	3.81
Projected Operating and Maintenance Costs for Lake	32,999	80.7	0.16
Pumping and Purification	433,399	10.2	2.04
Water Distribution	383,906	55.5	1.81
			4.01
Capital Component (Debt Service)	-		-
Total Annual Water and Sewer Rate			<u>7.82</u>