

**Memorandum**  
**Department of Water Management**



**To:** Lisa Henty, Budget and Management Services  
**From:** Martha Zeigler, Department of Water Management  
**Date:** January 14, 2014  
**RE:** Estimated Utility Life Cycle Costs – Chapel Creek

The Department of Water Management sets rates and fees to recover operational costs and to provide current and future infrastructure necessary to supply water and wastewater for the City and surrounding service area. Any revenues not expended on operations and maintenance are accumulated to provide funding, including debt service, required to repair, rehabilitate, replace, and/or expand capacity of infrastructure.

Below is a table of annual expected revenues estimated from the start and until the project is fully built out with an allocation of revenue between operational and capital expenditures. To estimate revenues during the build-out period, the assumption was made that construction would be relatively even throughout the year, with some units billed the entire year and some only being started. To avoid overly complicating the model with immaterial increments, the assumption was made that all customers would be billed for the entire FY 16-17 when construction completed.

The operational expenditures may be considered short term operating. The long-term or life-cycle expenditures for this and any other project may be reasonably determined by contributions to capital improvement projects from both rates and one-time capital facility fees which cover maintenance and replacement of not only the pipe in the ground contributed by the developer, but also include all the other connecting infrastructure as well as the treatment plants that provide water and sewer treatment services. Any changes in short and long-term life cycle costs will be managed by adjusting rates and facility fees based on actual performance data.

**INSIDE CITY:**

<b>FY 14-15</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	17	\$ 3,568	\$ 5,175	\$ 8,743
Annual O & M Expenditures	17	\$ 2,283	\$ 3,312	\$ 5,595
Transfer to CIP Fund	17	\$ 1,284	\$ 1,863	\$ 3,147
<b>One-Time Capital Facility Fees</b>				
	34	\$ 54,774	\$ 32,878	\$ 87,652

<b>FY 15-16</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	51	\$ 10,704	\$ 15,526	\$ 26,230
Annual O & M Expenditures	51	\$ 6,850	\$ 9,936	\$ 16,786
Transfer to CIP Fund	51	\$ 3,854	\$ 5,590	\$ 9,444
<b>One-Time Capital Facility Fees</b>				
	34	\$ 54,774	\$ 32,878	\$ 87,652



**CITY OF DURHAM**

<b>FY 16-17</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	102	\$ 21,408	\$ 31,053	\$ 52,461
Annual O & M				
Expenditures	102	\$ 13,701	\$ 19,874	\$ 33,575
Transfer to CIP Fund	102	\$ 7,707	\$ 11,179	\$ 18,886
<b>One-Time Capital</b>				
Facility Fees	34	\$ 54,774	\$ 32,878	\$ 87,652

**OUTSIDE CITY:**

<b>FY 14-15</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	17	\$ 7,136	\$ 10,350	\$ 17,486
Annual O & M	17			
Expenditures		\$ 2,283	\$ 3,312	\$ 5,595
Transfer to CIP Fund	17	\$ 4,853	\$ 7,038	\$ 11,891
<b>One-Time Capital</b>				
Facility Fees	34	\$ 54,774	\$ 32,878	\$ 87,652

<b>FY 15-16</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	51	\$ 21,408	\$ 31,053	\$ 52,461
Annual O & M				
Expenditures	51	\$ 6,850	\$ 9,937	\$ 16,787
Transfer to CIP Fund	51	\$ 14,558	\$ 21,116	\$ 35,674
<b>One-Time Capital</b>				
Facility Fees	34	\$ 54,774	\$ 32,878	\$ 87,652

<b>FY 16-17</b>	<b>Units</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Annual Revenues	102	\$ 42,816	\$ 62,106	\$ 104,922
Annual O & M				
Expenditures	102	\$ 13,701	\$ 19,874	\$ 33,575
Transfer to CIP Fund	102	\$ 29,115	\$ 42,232	\$ 71,347
<b>One-Time Capital</b>				
Facility Fees	34	\$ 54,774	\$ 32,878	\$ 87,652